Appendix S

DRAFT SEIS COMMENTS AND RESPONSES

S1. Summary of Comments

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Appendix S

S1. Summary of Comments

Interstate BRIDGE Replacement Program



Summary of Comments

Draft SEIS Comment Period

March 2026

Final Summary of Comments

Draft SEIS Comment Period

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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
ADA	Americans with Disabilities Act
ASL	American Sign Language
Btu	British thermal units
CAG	Community Advisory Group
CBAG	Community Benefits Advisory Group
CBO	Community Based Organization
CEL	Community Engagement Liasion
CIA	Contributing Impervious Area
CRC	Columbia River Crossing
C-TRAN	Clark County Public Transportation Benefit Area
E.O.	Executive Order
EPA	U.S. Environmental Protection Agency
ESG	Executive Steering Group
FHWA	Federal Highway Administration
FLP	Federal Lands to Parks
FTA	Federal Transit Administration
I-205	Interstate 205
I-5	Interstate 5
IBR	Interstate Bridge Replacement
Metro	Oregon Metro
mmBtu	Million British thermal units
Modified LPA	Modified Locally Preferred Alternative
LRT	Light-rail transit

Acronym/Abbreviation	Definition
NEPA	National Environmental Policy Act
NPS	National Park Service
QR	Quick Response
RTC	Southwest washington Regional Transportation Council
SEIS	Supplemental Environmental Impact Statement
SOV	Single-occupancy vehicle
TDM	Transportation demand management
TriMet	Tri-County Metropolitan Transportation District
VMT	Vehicle miles traveled

1. INTRODUCTION

The Interstate Bridge Replacement (IBR) Program is a bridge, transit, and highway improvement project developed to address safety and mobility on a 5-mile section of the Interstate 5 (I-5) corridor between Portland, Oregon, and Vancouver, Washington. The IBR Program is the renewal of the previously suspended Columbia River Crossing (CRC) project and addresses the same purpose and needs identified in the 2011 CRC Final Environmental Impact Statement.

The IBR Program coordinated with the following federal and nonfederal agencies to prepare a Draft Supplemental Environmental Impact Statement (SEIS):

- Federal
  - Federal Highway Administration (FHWA)
  - Federal Transit Administration (FTA)
- Nonfederal
  - Oregon Department of Transportation (ODOT)
  - Washington State Department of Transportation (WSDOT)
  - Tri-County Transportation District (TriMet)
  - Clark County Public Transportation Benefit Area (C-TRAN)
  - Oregon Metro (Metro)
  - Southwest Washington Regional Transportation Council (RTC)

The Draft SEIS evaluates the No-Build Alternative and the Modified Locally Preferred Alternative (LPA) with design options. The Draft SEIS was published on September 20, 2024, which initiated a 60-day public comment period that ended November 18, 2024.

This document summarizes the engagement and outreach that the IBR Program conducted to solicit comments during the Draft SEIS comment period. It also provides an overview of the comments received by public agencies and the public.

All comments received during the public comment period will receive a response. Both the comments and their corresponding responses are included in the Final SEIS.

1.1 Roles and Responsibilities

The following information describes the roles and responsibilities of parties involved in the Final SEIS and the National Environmental Policy Act (NEPA) process, and that may be involved in and responsible for progressing the IBR Program after the NEPA process. See Appendix A of the Final SEIS for more detail regarding the roles and responsibilities of the parties involved in the Final SEIS.

1.1.1 Responsible Parties

The IBR Program team works extensively with regulatory agencies and local jurisdictions, which are organized into the following designated agency groups: lead agencies, cooperating agencies, and participating agencies.

Lead Agencies: Carry out the federal action and are responsible for complying with NEPA requirements. Federal agencies, together with state agencies, local agencies, and/or tribes, may act as joint lead agencies. Lead agencies prepare the environmental documentation for the project and oversee the NEPA process. The IBR Program lead agencies are:

- FHWA
- FTA
- ODOT
- WSDOT
- TriMet
- C-TRAN
- Metro
- RTC

Cooperating Agencies: Federal agencies, other than lead agencies, that have jurisdiction by law (with permitting or land transfer authority) or special expertise with respect to an environmental impact involved in the proposed project or project alternative. A state or local agency of similar qualifications may also become a cooperating agency by agreement with the lead agencies, as may a Native American tribe when the effects are on lands of tribal interest. Lead agencies specially request cooperating agencies to participate during a project's environmental evaluation process. All cooperating agencies are also considered participating agencies. The IBR Program cooperating agencies include:

- National Oceanic and Atmospheric Administration, National Marine Fisheries Service
- National Park Service (NPS)
- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Environmental Protection Agency (EPA)
- Washington State Department of Archaeology and Historic Preservation

Participating Agencies: Agencies and federally recognized tribes with a specific interest in the project. Nongovernmental organizations and private entities cannot serve as participating agencies. Pursuant to 23 U.S. Code § 139, participating agencies are responsible for identifying, as early as practicable, issues of concern regarding the IBR Program's potential environmental, social, or economic impacts that could substantially delay or prevent an agency from granting a permit or other needed approval.

- **Participating Agencies**:
  - Federal Aviation Administration
  - U.S. Fish and Wildlife Services
  - U.S. General Services Administration
  - City of Portland
  - City of Vancouver
  - City of Gresham
  - Oregon Department of Environmental Quality
  - Oregon Department of Fish and Wildlife
  - Oregon Department of Land Conservation and Development
  - Oregon Department of State Lands
  - Oregon State Historic Preservation Office
  - Port of Portland
  - Port of Vancouver USA
  - Washington State Department of Ecology
  - Washington State Department of Fish and Wildlife
  - Washington State Department of Natural Resources
  - Urban Flood Safety and Water Quality District
- **Participating Tribes**:
  - Confederated Tribes of Grand Ronde Community of Oregon
  - Confederated Tribes of the Colville Reservation
  - Confederated Tribes of the Umatilla Indian Reservation
  - Confederated Tribes of Warm Springs Reservation of Oregon
  - Cowlitz Indian Tribe
  - Nez Perce Tribe
  - Confederated Tribes of Siletz Indians of Oregon
  - Spokane Tribe of the Spokane Reservation Indians (Spokane Tribe of Indians)
  - Confederated Tribes and Bands of the Yakama Nation
  - Nisqually Indian Tribe

2. DRAFT SEIS ENGAGEMENT SUMMARY

This section summarizes notification and public engagement activities associated with the IBR Program's Draft SEIS. The public engagement before and during the Draft SEIS public comment period aimed to inform the community of the Draft SEIS's release and the many ways to provide public comment.

2.1 Purpose of Engagement

The IBR Program conducted a communications and public engagement effort during the Draft SEIS comment period to ensure compliance with the NEPA requirements and state guidelines and to address the concerns of the community. This engagement aimed to gather valuable public input on the potential community and environmental impacts outlined in the Draft SEIS. The comments collected during this period will help ensure that the IBR Program identified the potential effects of the Modified LPA and mitigation measures to address adverse effects and inform decision-makers and the public.

2.2 Methods to Collect Draft SEIS Comments

The IBR Program provided the following public comment submission options to accommodate various communication preferences, language needs, and those with limited access to the internet or technology. For all submission options, comments were accepted in a commenter's native language.

- **IBR Program online comment form:** The form asked commenters to provide general information, including name, organization, address, and contact details, and contained an open-ended comment box. The comment form was only active during the 60-day public comment period. Commenters could access the form via a link on the Program's website and a dedicated landing page where the Draft SEIS resources were located. Additionally, a pop-up banner on the front page of the IBR website greeted website visitors, inviting them to visit the Draft SEIS landing page and public comment form. The online comment form was available in 11 languages: English, Spanish, Russian, Traditional Chinese, Vietnamese, Somali, Simplified Chinese, Ukrainian, Tagalog, Arabic, and Korean.
- **IBR Draft SEIS—dedicated email:** Commenters who preferred to send an email or attach documents could contact the Program directly at a dedicated inbox, draftseis@interstatebridge.org. This email address was specifically created to receive Draft SEIS comments and was active only during the comment period. To be accepted, audio/visual submissions needed to be transcribed, and attachments to emails needed to either provide comments on the Draft SEIS or be referenced within the main body of the email to clarify how that attachment was intended to be interpreted. The dedicated email for public comment was listed on the Program website and included in notification materials.
- **IBR general email:** Comments received through the IBR Program general email address (info@interstatebridge.org) pertaining to the Draft SEIS were considered Draft SEIS comments during the comment period.

- **Mail:** The IBR Program welcomed written comments via mail: Interstate Bridge Replacement Program, Attn: Draft SEIS Public Comment, 500 Broadway, Suite 200, Vancouver, Washington 98660.
- **Drop off in person:** The IBR Program welcomed written comments via drop off at the IBR Program office: 500 Broadway, Suite 200, Vancouver, Washington 98660.
- **Paper comment form:** A paper comment form was provided at the in-person public hearings and open houses for individuals who preferred to provide handwritten comments. Paper comment forms could be returned to staff at in-person events or submitted via mail. The paper form was available in English, Spanish, Russian, Vietnamese, Ukrainian, Somali, Traditional Chinese, Simplified Chinese, and Tagalog. Community Engagement Liaisons (CELs) also used paper comment forms in their work to encourage underserved community members to submit public comments (see Section 2.4.2.1). In addition to the languages already listed, paper forms were also available in Korean and Arabic for use in small group discussions organized by the CELs.
- **In-person public hearings and open houses:** The IBR Program hosted two public hearings/open houses: one in Vancouver, Washington, on October 15, and one in Portland, Oregon, on October 17, 2024 (see Section 2.4.1.4). The community had an opportunity to learn about the proposed investments and ask questions. Commenters were invited to give verbal comments to a court reporter.
- **Virtual public hearings:** The IBR Program hosted two virtual public hearings to collect comments on the Draft SEIS on October 26 and October 30, 2024 (see Section 2.4.1.5) Commenters were invited to give verbal comments to a court reporter who transcribed comments live during the hearing.
- **Voicemail:** As an alternative to online or written options, commenters could provide verbal comments by calling the Draft SEIS voicemail line at: (866) 427-7347. Audio instructions to use the voicemail were provided in English, Spanish, Russian, Vietnamese, Ukrainian, Somali, Traditional Chinese, Simplified Chinese, and Tagalog. Partway through the comment period, options to respond in Korean and Arabic were added (see Section 2.4.2.3).

2.3 Informational Tools and Tactics

The IBR Program team developed informational materials and distributed notifications during the public comment period. These tools and tactics provided information about the IBR Program, the Draft SEIS, and how to provide comments. Copies of informational tools are available in Appendix B.

2.3.1 Informational Materials

2.3.1.1 IBR Program Website and Dedicated Draft SEIS Landing Page

A dedicated Draft SEIS web page linked to materials, including the Draft SEIS, the executive summary (translated in English, Spanish, Russian, Traditional Chinese, Vietnamese, Somali, Simplified Chinese, Ukrainian, Tagalog, Arabic, and Korean), fact sheets (see Section 2.3.1.3), technical reports, appendices, and instructions for submitting public comments. The online Draft SEIS included a search

function to help readers locate specific information. During the Draft SEIS comment period, a pop-up banner directed visitors to access the Draft SEIS landing page and public comment form.

During the comment period, the IBR Program website received 75,550 overall views and the dedicated Draft SEIS website received 33,118 views.

2.3.1.2 Printed Draft SEIS Document and Executive Summaries

Printed copies of the Draft SEIS were available for review at the IBR Program office in downtown Vancouver, as well as in Vancouver city hall, the Vancouver Community Library, the Charles Jordan Community Center in North Portland, and the Portland Building. Additionally, printed copies of the executive summary[1] were available for review at these locations in 11 languages: English, Spanish, Russian, Traditional Chinese, Vietnamese, Somali, Simplified Chinese, Ukrainian, Tagalog, Arabic, and Korean.

2.3.1.3 Draft SEIS Fact Sheet

A fact sheet[2] was developed as a reader-friendly resource and included a summary of the Draft SEIS, what is being studied, how to navigate the document, and how to submit public comments (IBR 2024b). The fact sheet was posted online and printed for in-person events. Content from the fact sheet was also translated into Spanish, Russian, Traditional Chinese, Vietnamese, Somali, Simplified Chinese, Ukrainian, Tagalog, Arabic, and Korean.

2.3.1.4 Outreach Toolkits

The IBR Program team developed an outreach toolkit as a resource for agencies and organizations to share information about the Program and the public comment opportunity. This toolkit included body email text, a cover letter with links to the Program website and resources, and PDFs of fact sheets, comment forms, and flyers in multiple languages. Leading up to and during the public comment period, emails with these toolkits were sent to agency partners and community-based organizations (CBOs) (see Section 2.4.2.2).

2.3.1.5 Informational Videos

The IBR Program produced a total of 10 informational videos, including three Draft SEIS videos that explained: 1. What an SEIS is, 2. How people can review and comment, and 3. What the Program is evaluating. The IBR Program also produced seven short Draft SEIS–related videos to post on social media. Collectively, these videos received 20,182 views during the comment period on social media and YouTube.

[1] Draft SEIS Executive Summary: https://www.interstatebridge.org/media/zpypj4xw/summary.pdf (IBR 2024a)
[2] Draft SEIS Fact Sheet: https://www.interstatebridge.org/media/mxff1hl4/seis_factsheet_09-08-24_remediated.pdf (IBR 2024b)

2.3.2 Notifications

The EPA published a Notice of Availability in the Federal Register on September 20, 2024, compliant with NEPA requirements. In addition to the Notice of Availability, the IBR Program shared information about the Draft SEIS and comment period through a variety of mediums, as described in Table 1.

Table 1. Draft SEIS Comment Period Notifications at a Glance

Tactic	Reach
Program Mailers	2 mailers 91,000 addresses
Email Notifications	6 E-blasts 14,854 opens
Billboard	September 30 to November 18, 2024
Social media - organic	155 posts 4,146 engagements
Social media - paid	4 paid ad campaigns 17,481 engagements
Digital and Print Advertisements	20 ads, 8 radio stations, C-TRAN buses and TriMet stops 3,213,000+ people reached
Earned media (unpaid mentions in third-party media outlets)	148 stories 2,000,000+ people reached

2.3.2.1 Program Mailers

The IBR Program team developed two mailers for digital and in-person distribution. Flyers and postcards contained information about the IBR Program, Draft SEIS, Section 106, and the public comment period. The mailer included a Quick Response (QR) code that could be scanned to access the IBR Program website and further information. The postcard and flyer were sent to 91,000 addresses in the 97211, 97212, 97217, 97227, 98660, and 98661 zip codes.

Mailers were distributed on September 13, 2024 (in English with in-language notices to visit the IBR Program website for more information), and November 4, 2024 (in English, Spanish, Russian, Traditional Chinese, Somali, Simplified Chinese, Ukrainian, Tagalog, and Chuukese).

2.3.2.2 Email Notifications

The IBR Program distributed six email notifications ahead of and during the public comment period to 7,143 newsletter subscribers. There were 14,854 opens across the six Draft SEIS–specific emails (see Table 2).

Table 2. Draft SEIS Email Notifications

Date Distributed	Topics
August 13[3]	August Newsletter: Pre-Draft SEIS public briefing
September 9[4]	September Newsletter: Draft SEIS comment period and in-person open houses
September 20[5]	Draft SEIS release announcement and comment period open
October 9[6]	Public hearing announcement
October 11[7]	October Newsletter: In-person open houses and Section 106 Comment Period
October 18[8]	Section 106 Online Open House and comment period announcement

A separate Section 106 comment period was held October 19 to November 18 and often co-advertised with the Draft SEIS comment period.

2.3.2.3 Billboard

The IBR Program posted a billboard along I-5 from September 30 to November 18, 2024, notifying community members of the Draft SEIS comment period. The billboard, shown in Figure 1, was on Hayden Island on the west side of I-5, visible to motorists driving northbound on I-5.

[3] August Newsletter: https://mailchi.mp/interstatebridge/ibraugustnewsletter2024 (IBR 2024c)
[4] September Newsletter: https://mailchi.mp/interstatebridge/septembernewsletter2024 (IBR 2024d)
[5] Draft SEIS Announcement: https://www.interstatebridge.org/resources/program-news/ibr-program-seeks-public-comment-on-draft-supplemental-environmental-impact-statement/ (IBR 2024e)
[6] Public Hearing Announcement: https://www.interstatebridge.org/resources/program-news/interstate-bridge-replacement-program-holds-public-hearings-on-effects-of-future-i-5-span-over-columbia-river/ (IBR 2024f)
[7] October Newsletter: https://mailchi.mp/interstatebridge/octobernewsletter2024 (IBR 2024g)
[8] Section 106 Online Open House and Comment Period Announcement: https://mailchi.mp/interstatebridge/ibrvirtualbriefings-17712399 (IBR 2024h)

Figure 1. Interstate 5 Billboard Advertisting the Draft SEIS Comment Period



2.3.2.4 Social Media

The IBR Program team posted on social media leading up to and throughout the Draft SEIS comment period. Content was posted in nine languages.

The IBR Program posted 169 total organic (free, nonpaid) posts between September 20 and November 18, 2024, across five platforms (LinkedIn, Facebook, Instagram, X [Twitter], and TikTok). These posts received 67,386 impressions (number of times content was displayed), 15,877 video views, and 4,437 engagements (number of times users interact with content). See Table 3 for more details.

Table 3. Organic Social Media

Platform	Total Posts	Engagements	Impressions	Video Views
LinkedIn	29	2,465	20,635	3,657
Facebook	31	787	10,523	2,618
Instagram	19	308	9,268	5,472
X (Twitter)	85	810	22,830	N/A
TikTok	5	67	4,130	4,130
TOTAL	**169**	**4,437**	**67,386**	**15,877**

The IBR Program also placed four paid advertising campaigns on social media, reaching 312,077 people with nearly 500,000 impressions. Paid advertisements received 17,481 engagements, including 8,267 link clicks. More details are included in Table 4.

Table 4. Paid Social Media

Platform	Run Dates	Reach	Engagements	Link Clicks
Facebook/Instagram	November 12–17	190,002	5,267	4,814
Facebook/Instagram	October 10–18	67,832	1,658	1,624
Facebook/Instagram (Video)	October 12–19	16,921	9,115	646
Facebook	October 10–17	37,322	1,441	1,183
TOTAL		**312,077**	**17,481**	**8,267**

2.3.2.5 Digital and Print Advertisements

Before and during the public comment period, the IBR Program team placed 19 print and digital advertisements, eight radio station spots (commercials), and ads on C-TRAN buses and at TriMet stops. The IBR Program also placed five translated ads. Collectively, IBR Program advertisements received over 3,213,000 hits. Details concerning digital and print advertisements are included in Table 5.

Table 5. Digital and Print Advertisements

Outlet	Placement	Run Dates
Portland Business Journal	Print and digital	9/20
The Oregonian	Print and digital	Between 9/20 and 9/29
Vancouver Business Journal	Digital	9/23
The Reflector	Print	9/23 and 9/30
Viet NNN *Published in Vietnamese*	Print	9/23 and 9/30
The Skanner	Print and digital	9/25
Portland Observer	Print and digital	9/25 and 10/9
Latino De Hoy *Published in Spanish*	Print	9/25 and 10/2
Street Roots	Print	9/25 and 10/2
Portland Chinese Times *Published in Traditional Chinese*	Print	9/27 and 10/4

Outlet	Placement	Run Dates
The Columbian	Print and digital	9/28, 9/30 and 10/8
Asian Reporter	Print	10/7
C-TRAN	Bus inserts	9/20 through comment period
Intersection (TriMet)	Bus shelters and benches	9/30 through comment period
El Rey Radio *Published in Spanish*	Audio	40 spots
KBMS Radio	Audio	12 spots
KXRW Radio	Audio	Multiple spots throughout comment period
Slavic Family Radio *Published in Ukrainian and Russian*	Audio	5 spots
Portland-Area Radio Ads	Audio	Multiple spots throughout comment period
98.7 The Bull	Audio	Multiple spots throughout comment period
Live 95.5	Audio	Multiple spots throughout comment period
101.9 Kink FM	Audio	Multiple spots throughout comment period
FM News 101 KXL	Audio	Multiple spots throughout comment period

2.3.2.6 Earned Media

The IBR Program tracked earned media, defined as unpaid mentions by third-party media outlets, during the Draft SEIS comment period. These media stories were an important part of the comprehensive effort to inform the community about the public comment opportunity. To help generate earned media stories, the IBR Program issued a news release and held a press conference for local media outlets on September 20 to announce the publication of the Draft SEIS and promote the public comment period.

Between September 18 and November 19, 2024, the IBR Program team documented 148 news stories, op-eds, and reader letters published in local, regional, and national media outlets, including an op-ed piece published in *Portland Tribune* authored by Oregon Department of Transportation Director Kris

Strickler. Local outlets generated most of the coverage during this two-month public comment period, with the Vancouver publication *The Columbian* alone tallying 19 articles, op-eds, and reader letters. Portland-area print and broadcast media provided the remainder of the coverage, with nine articles published based on the public comment period press release and at least 23 others stemming from the September 20 IBR press conference held at the IBR Program office in Vancouver. Property Owner Coordination

The IBR Program distributed direct notifications to property owners whose properties were identified in the Draft SEIS as potentially subject to direct impacts (full, partial, or temporary acquisitions).

2.3.2.7 Property Owner Letters

The IBR Program mailed letters to property owners to inform them of the upcoming Draft SEIS comment period, how comments would be collected and responded to, and what to expect in terms of communications about potential impacts to their property. A total of 289 mailers were distributed to homes and businesses: 174 in Clark County and 115 in Multnomah County. Letters were first mailed on September 16, 2024, in English, and were redistributed on October 5, 2024, in English, Spanish, Russian, Traditional Chinese, Vietnamese, Somali, Simplified Chinese, Ukrainian, Tagalog, and Chuukese.

2.3.2.8 Canvassing

In addition to property owner letters that were mailed in September and October, the IBR Program team canvassed a subset of properties identified in the Draft SEIS as potentially subject to direct impacts (full, partial, or temporary acquisitions) if the property owners lived at the property address. A total of 73 households and businesses (53 in Washington and 20 in Oregon) met this criteria and were canvassed. Canvassing took place in early November 2024. The IBR Program team delivered printed copies of letters that were mailed in advance of the Draft SEIS comment period in September. Letters were translated into English, Spanish, Russian, Traditional Chinese, Vietnamese, Somali, Simplified Chinese, Ukrainian, Tagalog, Chuukese, as well as two additional languages, Arabic and Korean.

2.4 Engagement Activities

The IBR Program team conducted a variety of outreach activities to engage the public and underserved communities (see Section 2.4.2). This outreach was designed to meet people where they are, provide information about the IBR Program and Draft SEIS document, and collect public comments.

2.4.1 Public Engagement

A high-level summary of public engagement before and during the Draft SEIS comment period is provided in Table 6, followed by more detailed descriptions of activities in subsequent subsections.

Table 6. Public Engagement at a Glance

Activity	Engagement
Tabling	8 events 491 interactions
Pre-Draft SEIS virtual public briefing and Q&A	2 events 83 live attendees
Draft SEIS virtual public briefing and Q&A	2 events 90 live attendees
In-person public hearings/open houses	2 events 168 attendees
Virtual public hearings	2 events 55 live attendees
Advisory Group meetings	10 meetings
Office hours	8 events (48 timeslots) 9 participants
Briefings and presentations	53 presentations 550+ attendees

2.4.1.1 Tabling Events

The IBR Program team staffed information tables at 14 community events in 2024. In early 2024, the IBR Program team shared preliminary information about the upcoming Draft SEIS release. During the summer and fall of 2024, the IBR Program team notified community members about the Draft SEIS and comment period, described in Table 7.

At these eight events, staff distributed a variety of materials, including the Draft SEIS postcard mailers and Draft SEIS factsheet, as well as the *Bridge to the Future* and *Why Now?* factsheets that provide background information about the IBR Program. These resources provided clear, accessible information about the IBR Program's progress, the Modified LPA, and Program goals. Staff also encouraged attendees to participate in the public comment period and attend in-person and virtual public hearings, answered questions related to the IBR Program, and addressed concerns.

In addition to distributing informational materials, the tabling events allowed IBR Program staff to interact directly with community members, addressing a range of questions about construction timelines, workforce opportunities, and where to find information on the environmental impact of the Modified LPA. At some events, bilingual support was available to ensure that all attendees could engage with the materials and have their questions answered. The events provided an important

opportunity for the IBR Program team to connect with the public and encourage participation during the Draft SEIS comment period.

Table 7. Draft SEIS Tabling Events

Date	Event	Location	Total engagements
August 15	Downtown Vancouver Waterfront Concert Series *Spanish speaking staff present*	Vancouver, WA	167
August 15	Portland Summer Concert Series - Yankl Falk's Carpathian-Pacific Express	Portland, OR	16
August 21	Kenton Farmers Market	Portland, OR	39
August 24	Portland Summer Concert Series: Celebrating Black Arts & Culture	Portland, OR	16
September 14	Vietnamese Community of Clark County Moon Festival *Vietnamese speaking staff present*	Vancouver, WA	35
October 5	St. Johns Farmers Market	Portland, OR	79
October 19	Vancouver Ballet Folklórico Dia de los Muertos *Spanish speaking staff present*	Vancouver, WA	111
October 26	Downtown Vancouver Farmers Market *Spanish speaking staff present*	Vancouver, WA	28

2.4.1.2 Pre-Draft SEIS Public Briefing and Q&A Session

To ensure the community was prepared for the upcoming public comment period, the IBR Program team hosted two virtual public briefing webinars before the publication of the Draft SEIS: Tuesday, August 20, 2024, 6 p.m. to 7:30 p.m.[9] and Saturday, August 24, 2024, 12 p.m. to 1:30 p.m.[10] The webinars were scheduled so attendees could participate either on the weekend or a weekday evening. The same content was shared at each webinar. Recordings were posted online.

Webinars were each scheduled for 1 hour and 30 minutes, with 1 hour dedicated to presenting information about the IBR Program, including the proposed Modified LPA being studied in the Draft

[9] Pre-Draft SEIS Virtual Community Briefing - August 20, 2024: https://www.youtube.com/watch?v=76M-zd0I5kE (IBR 2024i)
[10] Pre-Draft SEIS Virtual Community Briefing - August 24, 2024: https://youtu.be/sKrLjy7CsyU (IBR 2024j)

SEIS. The additional 30 minutes was dedicated to a moderated question and answer period. American Sign Language (ASL) interpretation and live closed captioning were provided for both events.

There were 44 total virtual attendees at the August 20 webinar, including seven IBR Program staff and three interpreters, as well as 24 concurrent YouTube viewers; 19 questions were received and answered. The recording had been viewed 186 times on YouTube as of December 2024.

There were 26 virtual attendees at the August 24 webinar, including six IBR Program staff and three interpreters, as well as five concurrent YouTube viewers; 14 questions were received and answered. The recording had been viewed 118 times on YouTube as of December 2024.

2.4.1.3 Draft SEIS Public Briefing and Q&A Session

After the Draft SEIS public comment period started, the IBR Program team hosted two virtual public briefing webinars: Tuesday, October 1, 2024, 5:30 p.m. to 7 p.m.[11] and Wednesday, October 9, 2024, 5:30 p.m. to 7 p.m.[12] The webinars were scheduled so participants could attend during the evening on separate weeks and weeknights and the same content was shared at each webinar. Recordings were posted online.

Webinars were each scheduled for 1 hour and 30 minutes, with 1 hour dedicated to presenting the Modified LPA studied in the Draft SEIS and information about the findings of the analysis. The additional 30 minutes was dedicated to a moderated question and answer period. ASL interpretation and live closed captioning were provided for both events.

There were 36 total virtual attendees at the October 1 webinar, including nine IBR Program staff, three interpreters, and eight concurrent YouTube viewers; 17 questions were received and answered. The recording had been viewed 154 times on YouTube as of December 2024.

There were 40 total virtual attendees at the October 9 webinar, including nine IBR Program staff, three interpreters, and seven concurrent YouTube viewers; 12 questions were received and answered. The recording has been viewed 79 times on YouTube as of December 2024.

2.4.1.4 In-Person Public Hearings/Open Houses

The IBR Program hosted two in-person public hearings and open house events in October 2024 to engage the community on the Draft SEIS. These events allowed attendees to ask questions and provide public comments on paper or to a court reporter. The open houses featured various stations staffed by IBR Program staff and subject matter experts aligned with key aspects of the Draft SEIS. Participants could also view three-dimensional river crossing visualizations and access hard copies of the Draft SEIS document and executive summary. Both venues included large display boards, fact sheets, and video presentations, alongside dedicated stations for verbal and written public comments.

[11] Draft SEIS Virtual Public Briefing - October 1, 2024: https://www.youtube.com/watch?v=LTH8g32T1kE&t=6s (IBR 2024k)
[12] Draft SEIS Virtual Public Briefing - October 9, 2024: https://www.youtube.com/watch?v=HbRE_2KuUJc (IBR 2024l)

The first event was held on Tuesday, October 15, 2024, from 5:30 p.m. to 8 p.m.[13] at Clark College in Vancouver, Washington. Over 110 people attended. Three court reporters (two virtual and one in person) were available to capture verbal statements. Spanish and ASL interpreters were available to assist attendees. A total of 25 written comments were submitted, and 14 evaluation and demographics surveys were completed (five in person and nine electronic). For more information about evaluation surveys, see Section 2.4.3.

The second event took place on Thursday, October 17, 2024, 5:30 p.m. to 8:00 p.m.[14] at the Portland Expo Center in Portland, Oregon, with 57 attendees. Similar to the Vancouver event, the open house featured informational displays and video presentations, with subject matter experts available to answer questions. Two court reporters (one virtual and one in person) facilitated verbal comments, while attendees also had the opportunity to submit written public comments. Spanish and ASL interpreters were on hand for assistance. A total of 18 written comments were submitted, and 11 evaluation surveys were completed (six in person and five electronic) (see Section 2.4.3).

2.4.1.5 Virtual Public Hearings

The IBR Program hosted two virtual public hearings: Saturday, October 26, 2024, 12:00 p.m. to 2:30 p.m.[15] and Wednesday, October 30, 2024, 6:00 p.m. to 8:30 p.m.[16] The purpose of these events was to allow participants to share verbal public comment about Draft SEIS with IBR Program staff and have it recorded by a court reporter. The IBR Program held the hearings via Zoom and livestreamed them via YouTube Live. Each meeting included ASL interpretation and closed captioning in both English and Spanish. The events were scheduled to allow opportunities to participate during weekends and weekdays.

During the event, presenters provided a brief overview of the Draft SEIS, including what was studied, where the Draft SEIS was located online, and how comments would be collected and responded to. The remainder of the time was reserved for public comment. A court reporter captured testimony and comments were entered into the official public record.

There were 13 virtual attendees at the October 26 hearing and three YouTube Live viewers. The IBR Program received one comment during this event. Participants included representatives from the FHWA and local media outlets TVW Streaming and KPTV.

There were 30 virtual attendees at the October 30 hearing and nine YouTube Live viewers. The IBR Program received 23 comments during this event. Participants included representatives from the FTA, FHWA, and local media outlets TVW Streaming and KPTV. Four evaluation surveys were submitted (see Section 2.4.3).

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[13] In-Person Public Hearing and Open House Oct. 15, 2024: https://www.interstatebridge.org/get-involved-folder/calendar/in-person-public-hearing-and-open-house-oct-15-2024/ (IBR 2024m)
[14] In-Person Public Hearing and Open House Oct. 17, 2024: https://www.interstatebridge.org/get-involved-folder/calendar/in-person-public-hearing-and-open-house-oct-17-2024/ (IBR 2024n)
[15] Draft SEIS Virtual Public Hearing - October 26, 2024: https://www.youtube.com/watch?v=qf_qnRLfXWk (IBR 2024o)
[16] Draft SEIS Virtual Public Hearing - October 30, 2024: https://www.youtube.com/watch?v=txHBCicc3ks (IBR 2024p)

2.4.1.6 Advisory Group Meetings

The IBR Program's advisory groups were involved in preparing for and conducting the Draft SEIS comment period. In July 2024, the IBR Program team shared the Draft SEIS engagement plan with advisory groups to request their input. Members of the advisory groups provided feedback and questions, which were incorporated into the plan. Additionally, the IBR Program team shared information and updates about the Draft SEIS comment period at advisory group meetings ahead of and during the public comment period.[17]

2.4.1.7 Office Hours

The IBR Program offered 48 timeslots over eight office hour events during the public comment period: September 20, September 21, October 3, October 8, October 18, October 19, November 5, and November 7, 2024. Office hour events allowed community members an opportunity to meet with IBR Program team and subject matter experts for approximately 30 minutes to discuss a variety of topics, including the Draft SEIS findings and address questions. Office hours were scheduled for both weekdays and weekends and at various times of day to accommodate a range of schedules. The office hours were promoted throughout the public comment period.

Nine individuals participated in office hour sessions during the comment period. Common discussion topics included procurement and workforce, transit and light-rail, potential impacts to property owners, and traffic concerns. Staff hosting office hours encouraged participants to submit formal public comment on the Draft SEIS through one of the official avenues.

2.4.1.8 Briefings and Presentations

IBR Program staff attended and presented at 53 different meetings and events held by local neighborhood associations, organizations, and agencies throughout the public comment period. These briefings and presentations lasted from a few minutes to over an hour and were offered in person and virtually to over 550 total attendees.

IBR Program staff shared a general Program overview, including the timeline, funding and tolling, Purpose and Need; the Modified LPA studied in the Draft SEIS; the findings of the Draft SEIS's analysis; and how to participate in the public comment period. Additionally, the IBR Program team presented information on other specific topics requested by the meeting organizers, such as contracting opportunities, community engagement efforts, and potential residential and business impacts.

Most presentations included time for questions and answers. Frequent questions concerned bridge and interchange access during construction and construction timelines; light-rail transit (LRT) and bus transit; tolling; bridge designs and river clearance; active transportation; and potential near- and long-term construction impacts. At the end of the presentation, a QR code was available for attendees to scan and take the community engagement evaluation on their mobile device. Additional information such as a copy of the presentation slides, IBR business cards, and Draft SEIS fact sheets and flyers

[17] Meeting materials from the advisory groups meetings are available at: https://interstatebridge.org/get-involved-folder/advisory-groups/joint-advisory-group/.

were shared with participants after the presentations, along with resources to provide public comment.

In addition to these briefings, IBR Program staff presented an overview of the Draft SEIS findings at a Bi-State Legislative Committee meeting in October. The Bi-State Legislative Committee consists of eight legislative members from each state (the Joint Interim Committee on the Interstate 5 Bridge in Oregon and the Joint Oregon-Washington Legislative Action Committee in Washington) that meet to provide joint legislative oversight to the IBR Program. Legislators asked questions on various topics, including auxiliary lanes, river navigation, modeling, and cost estimate/funding.

2.4.2 Additional Engagement

The IBR Program conducted additional engagement efforts to ensure accessibility of Draft SEIS materials.

2.4.2.1 Partnership with Community Engagement Liaisons

The IBR Program partnered with CELs to increase engagement with certain communities during the public comment period. CELs are trusted members of their communities with strong networks and relationships. CELs encouraged community members to engage with the Draft SEIS materials, attend the in-person open house events (see Section 2.4.1.4), and participate in small group discussions (facilitated by the CELs). A total of 46 participants attended the open houses and worked one-on-one with CELs at the events to understand, ask questions, and comment in their preferred language. Additionally, 15 CELs engaged a total of 180 community members in 43 small group discussions during the comment period, described in Appendix B, Public Involvement. At both the open houses and small group discussions, CELs helped approximately 200 community members complete both printed and online engagement surveys (see Section 2.4.3).

Small group discussions were provided in multiple languages. More information regarding the demographics of and engagement in the small group discussions can be found in Appendix B, Public Involvement.

During small group discussions, community members learned about the project, asked questions, and engaged in community conversation about the Program. During and after small group discussions, CELs encouraged participants to submit formal comments through online or paper comment forms; conversations during small group discussions were not considered formal comments as part of the public record. CELs noted the following themes that emerged in small group conversations (listed in no particular order):

- **Appreciation for** improved traffic flow and transit options; multimodal accessibility; safety improvements; and toll discounts under certain thresholds.
- **Questions about** toll payment and discounts; Program components and alternatives; how the old bridge will be used; and when the IBR Program will be completed.

- **Concerns about** cost of tolls, especially for low-income individuals; traffic diversion and impacts during and after construction; displacement of businesses and residents; duration of construction; transit in Washington potentially attracting homeless individuals; safety and usability of the bridge after a large seismic event; and whether comments would actually be read.
- **Misinformation or misunderstanding of project:** single-direction tolling and closing the bridge during construction.

CELs also asked participants to complete evaluation forms at the end of small group discussions (see Section 2.4.3). CELs reported that digital and print forms were both helpful, though some participants had questions about why the evaluation form was being used, expressed concern about sharing identifying information, and found the survey to be cumbersome or inaccessible for folks who are blind or using screen readers.

2.4.2.2 Community-Based Organization Engagement

The IBR Program regularly coordinates with CBOs serving certain communities in Oregon and Washington. At the start of the Draft SEIS comment period, the IBR Program shared the outreach toolkit (see Section 2.3.1.4) with a mailing list of 141 CBOs to spread the word about the Draft SEIS comment period.

IBR Program staff also made direct phone calls to 17 CBOs. Individual email outreach to these CBOs were also sent on September 13 and September 20, 2024.

2.4.2.3 Translation and Accessibility

The IBR Program routinely provided translation, accessibility, and interpretation services to ensure a wide audience was aware of the opportunity to review the Draft SEIS and participate in the public comment period.

LANGUAGE ACCESS FOR WRITTEN MATERIALS

The IBR Program translated vital materials to ensure potential travelers and property owners within the study area were aware of the opportunity to review the Draft SEIS and participate in the public comment period. At the start of the Draft SEIS comment period, the language access plan identified 10 languages based on demographics in the program area: English, Spanish, Russian, Traditional Chinese, Vietnamese, Somali, Simplified Chinese, Ukrainian, Tagalog, and Chuukese. During the Draft SEIS comment period, the IBR Program determined that translation into Simplified Chinese, Ukrainian, Tagalog, and Chuukese were no longer necessary, and added two additional languages for translation, Arabic and Korean, for an updated total of eight languages.

The IBR Program translated the Draft SEIS comment form and Draft SEIS executive summary into 11 languages: English, Spanish, Russian, Traditional Chinese, Vietnamese, Somali, Simplified Chinese, Tagalog, Ukrainian, Arabic, and Korean. However, the IBR Program did not provide Chuukese translation for these materials because it is primarily an oral language, and there were significant time and cost challenges required for translation.

The November 4, 2024, IBR Program mailers and October 5, 2024, property owner letters were delivered in the original 10 languages: English, Spanish, Russian, Traditional Chinese, Vietnamese, Somali, Simplified Chinese, Ukrainian, Tagalog, and Chuukese. The property owner letters were also translated into Korean and Arabic for November canvassing efforts.

The IBR Program website, including the Draft SEIS landing page, included automatic translation into English, Spanish, Russian, Traditional Chinese, Vietnamese, Somali, Simplified Chinese, Tagalog, Ukrainian, and Chuukese until November 4, 2024. After November 4, 2024, the automatic translation languages were changed to the updated eight IBR Program languages: English, Spanish, Russian, Traditional Chinese, Vietnamese, Somali, Arabic, and Korean.

The IBR Program also provides additional language and interpretation support upon request. Informational materials included a phone number, website, and email address for translation requests.

AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE

Draft SEIS materials on the IBR Program website, including the Draft SEIS, executive summaries, fact sheets, appendices, and technical reports, were remediated for ADA compliance and screen-reader accessibility.

However, some appendices and technical reports contained historical graphics and roll maps that were not possible to remediate. To address this issue, the IBR Program included tags, which could be read by screen readers or assistive technology, with instructions on how to obtain information about the visuals. The roll maps were tagged with links to an audio description of the maps. Remediation of the IBR Program area roll maps was available upon request. Other sections were tagged with a note to contact the IBR Program directly at info@interstatebridge.org for accessibility assistance. If assistance was requested, the IBR Program would provide a subject matter expert who could explain the content and graphics.

PUBLIC MEETINGS

ASL interpretation was available at online meetings, including pre-Draft SEIS public briefings, Draft SEIS public briefings, virtual public hearings, and advisory group meetings. Closed captioning was also provided in English for advisory group meetings, public briefings, and public hearings. Participants could change the language of the English closed captioning through Zoom's auto-translate feature, if needed. CELs provided in-language interpretation services in small group discussions and in one-on-one conversations with community members.

Community members could also request interpretation in other languages in advance of a given meeting by calling the phone number specified in the meeting announcement at least 48 hours in advance.

IN-LANGUAGE ADVERTISING

Five translated ads were also run to ensure potential travelers were aware of publication of the Draft SEIS and the opportunity to participate in the public comment period (see Section 2.3.2.5):

- **Vietnamese:** print ad in *Viet NNN*
- **Traditional Chinese:** print ad in the *Portland Chinese Times*
- **Spanish:**
  - print ad in *Latino de Hoy*
  - radio ad on the El Rey station
- **Ukrainian and Russian:** radio ad on Slavic Family Radio

2.4.3 Engagement Evaluation Survey

The IBR Program team developed an engagement evaluation survey, which was shared with participants at the in-person open houses and CEL engagement events. The engagement surveys gathered demographic information as well as feedback from community members about the effectiveness of engagement events and how participants would prefer to be engaged in the future. The engagement survey received a total of 311 engagement and demographic responses, approximately 200 of which resulted from CEL engagement efforts (see Section 2.4.2.1).

Key takeaways include:

- Two-thirds of respondents were attending their first IBR Program event.
- CELs, emails, and word of mouth were the most popular ways people heard about the engagement event they attended.
- Most people felt the events were interesting and relevant; IBR Program staff was welcoming; their comments and questions were addressed; and they would consider attending a future event.
- Seventy-two percent of respondents indicated materials provided them with the information they needed, and 90% indicated that materials were accessible.
- The most popular methods for getting information related to the IBR Program were email, social media, and CELs.

Full responses to the engagement evaluation survey, including demographics, can be found in Appendix A.

3. PUBLIC COMMENT SUMMARY

This section outlines how public comments were received, where public comments were received, who provided public comments, how public comments were sorted by topic in the Draft SEIS (or by another related topic frequently commented on such as tolling), and it summarizes key points from each comment topic.

The IBR Program uses two distinct terms regarding the comment period process:

1. **Submission:** An entire email, web comment form submission, voicemail, oral testimony, or letter of submittal in its entirety provided as a public comment during the public comment period.
2. **Comment:** A specific piece of feedback within a submission sorted by a Draft SEIS topic. A single submission may include multiple comments, each addressing an individual Draft SEIS topic.

This distinction is important for accurately reporting comment period statistics and counts.

3.1 Public Comment Summary Statistics

3.1.1 Number of Submissions by Submission Method

During the 60-day comment period, the IBR Program received over 3,600 submissions. As described above, there were several submission methods: Draft SEIS web comment form, email, general IBR comment form, letter, paper comment form, public hearing testimony, voicemail, and forwarded Section 106 comment form, as shown in Table 8. Submissions that came from the general IBR Program comment form and information email and the Section 106 comment form were originally submitted through those respective channels but were forwarded to the Draft SEIS database because they pertained to the Draft SEIS and would be better addressed through the SEIS process.

Table 8. Number of Public Submissions by Submission Method

Submission Method	Number of Submissions	Percentage of Submissions*
Draft SEIS Web Comment Form	1,627	45%
Draft SEIS Email	1,517	42%
General IBR Comment Form	153	4%
General IBR Info Email	70	2%
Physical Mail	3	0%
Paper Comment Form	144	4%

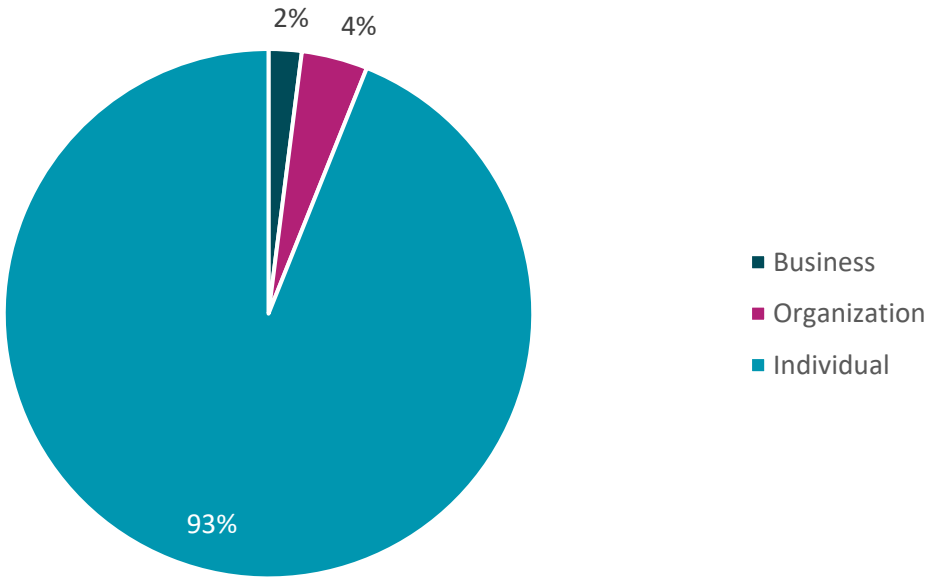
Submission Method	Number of Submissions	Percentage of Submissions*
Public Hearing Testimony	33	1%
Voicemail	25	1%
Forwarded Section 106 Comment Form	44	1%
Other	2	0%
Total	3,618	100%

* Percentages are rounded.

3.1.2 Percent of Submissions by Affiliation

Submissions were categorized by affiliation. Affiliations include federal agency, state agency, regional agency, local agency, federal or state elected official, Tribe, business, organization, and individual. Agency and Tribe submissions are summarized in Section 3 of the document. Business, organization, and individual percentages are shown below in Figure 2.

Figure 2. Percentage of Submissions by Affiliation



3.1.3 Submission Languages

About 30 submissions were submitted in a language other than English. Table 9 shows the number of submissions for each language. During the comment period, CELs collected around 84 paper comment forms through small group discussions and other engagement activities. Some of these forms were filled out by CELs, who provided an English translation on behalf of the original commenter who was using a non-English language. It cannot be determined what language the original comments were in.

Table 9. Number of Submissions by Language

Submission Language	Number of Submissions
Chinese (Simplified)	12
Chinese (Traditional)	3
Russian	5
Spanish	4
Vietnamese	6
Total Non-English	**30**

3.1.4 Frequent Commenters

Ten out of 2,840 individuals submitted 10 to 61 comments during the duration of the comment period. These commenters were outliers during the comment period and may have had an outsized influence on the Draft SEIS topic summaries below in Section 3.3.

3.1.5 Comment Coding Methodology

As part of the comment period response process, IBR Program team members sorted each comment by topic in the Draft SEIS or other related topic frequently commented on, a step called comment coding. The purpose of comment coding is to direct comments to the appropriate subject matter experts to develop a response. The comment codes generally aligned with the Draft SEIS sections and technical reports, and the responder for each code was typically the author of the corresponding Draft SEIS section and/or technical report. Some additional topic codes were created to direct comments to the appropriate responders and reviewers, or to avoid coding comments into multiple topic codes, which would result in counting those comments more than once. For example, topic codes such as Tolling, Design, Labor/Workforce, and Public involvement were created to ensure comments were directed to the appropriate IBR Program team members and the Health topic code was created to capture comments about health concerns. In cases where multiple topic codes could apply to a comment, the guidance was to assign the comment to one topic based on its central focus and which

responder was best able to address the comment. After initial coding, a second, more experienced team of IBR Program staff reviewed the applied topic codes and revised the coding as needed.

IBR Program staff involved in comment coding were provided with topic code definitions, keywords that may appear in a comment under that topic, and examples of comments under that topic. Topic code keywords are provided in the subsection for each topic in Section 3.3. Program staff were encouraged to actively refer to the guidance document while coding comments. Despite best efforts at consistency, comment coding is inherently a subjective process where interpretation of the comment and the topic codes vary by the reader. As such, the number of comments by topic code presented in this document should be treated as illustrative of the general patterns and relative comment volumes rather than absolute accurate counts.

3.1.6 Number of Comments by Draft SEIS Topic

Table 10 provides the number of public comments received for each topic. Comment topics are provided in alphabetical order and the number of comments are rounded to the nearest 5.

Table 10. Number of Public Comments by Topic

Comment Topic	Number of Comments*
Acquisitions	205
Air Quality	90
Alternatives	490
Aviation	20
Climate Change	220
Construction Approach	105
Cultural Resources	170
Cumulative Effects	20
Design	1,245
Economics	75
Ecosystems	90
Electric and Magnetic Fields	0
Energy	10
Equity and Environmental Justice	210

Comment Topic	Number of Comments*
Financial Analysis	265
Geology and Groundwater	20
Hazardous Materials	15
Health	35
Indigenous Community	5
Labor/Workforce	35
Land Use	65
Navigation	190
Neighborhoods	110
Noise and Vibration	135
Parks and Recreation	50
Permitting	5
Preference/Sentiment	1,475
Process	165
Public Involvement	255
Public Services	15
Purpose and Need	85
Section 4(f)	70
Section 6(f) and Federal Lands to Parks	5
SEIS Legal Adequacy	20
Tolling	595
Transportation	2,490
Utilities	15
Visual Quality	120

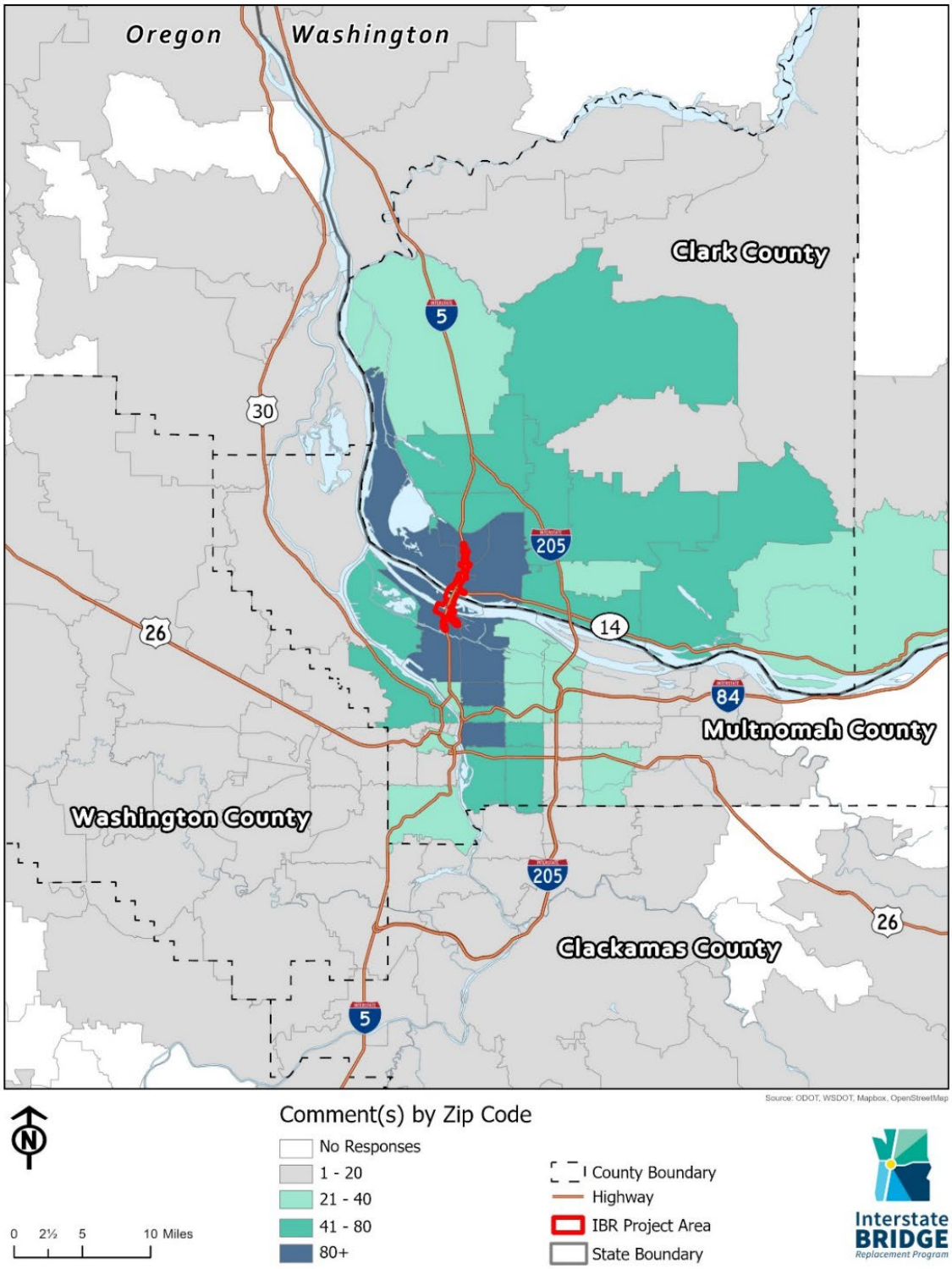
Comment Topic	Number of Comments*
Water Quality and Hydrology	235
Wetlands and Other Waters	15
Other Comments	25

*Numbers are rounded.

3.1.7 Location of Submissions by Zip Code

Zip codes, if provided, were used to determine the geographic location from which a commenter provided a submission. Figure 3 shows the zip codes surrounding the IBR Program area in both Oregon and Washington. The highest density of comments correlates with zip codes surrounding the IBR Program area.

Figure 3. Number of Submissions by Zip Code near the IBR Program Study Area



3.2 Agency and Tribe Letters

The IBR Program received 16 comment letters from public agencies and tribes, including two from cooperating agencies, eight from participating agencies, two from tribes, and four from other public agencies. Comments from these letters are summarized in the bullets below. All comment letters and associated responses are included in Appendix S.3.

3.2.1 Cooperating Agencies

3.2.1.1 Environmental Protection Agency

- Provided mitigation plan recommendations for impacts to underserved communities, specifically plans for outreach and how impacted communities can inform mitigation measures.
- Clarified applicable water quality permits and regulations cited in the Draft SEIS. This comment resulted in changes to Section 3.14 of the Final SEIS and Section 2 of the Water Quality and Hydrology Technical Report.

3.2.1.2 National Park Service

- Identified a preference for the following design options: the westward shift, single-level bridge configuration, and removal of C Street ramp, as well as the girder bridge type.
- Disagreed that the Modified LPA would have a de minimis impact on the Fort Vancouver National Historic Site. Agreed with the Section 4(f) finding of use for the Fort Vancouver National Historic Site and Vancouver National Historic Reserve and noted its objection to design changes that would increase direct effects to these historic properties.
- Provided approaches for resolving adverse effects, such as noise abatement and the restoration of historic landscape elements.
- Requested additional Section 6(f) consultation.
- Noted concern about potential disturbance of U.S. Coast Guard streamgage. This comment resulted in changes to Section 3.14 of the Final SEIS and Section 7 of the Water Quality and Hydrology Technical Report.

3.2.2 Participating Agencies

3.2.2.1 City of Portland

- Noted the importance of equity, developing new connections and new spaces for the neighborhoods through which I-5 passes, and meeting climate and vehicle-miles-traveled (VMT) goals.
- Requested clarification or additional technical analysis for the following areas:
- Noted the IBR Program's climate commitment and its alignment with regional climate goals in the SEIS.

    - Traffic safety on local streets to capture the anticipated traffic changes, particularly at major, high-crash corridor intersections in North and Northeast Portland.
- Noted the impact of different tolling rates and the potential diversion to the Interstate 205 (I-205) bridge and east Portland communities.
    - Refinement of active transportation connections to ensure the improvements connect to Portland's existing networks.
    - Active transportation connection along the LRT bridge between the Expo Center and Hayden Island.
    - Impacts from changes in existing transit service.
- Requested a robust community engagement phase to understand the needs of those traveling to and from Hayden Island and improve the analysis of impacts on environmental justice (EJ) communities.
- Recommended routing freight away from Delta Park and surrounding neighborhoods.
- Recommended developing a public involvement plan to identify the appropriate stakeholder groups and methods of engagement around urban design elements with the design community on both sides of the Columbia River.
- Identified a preference for the one auxiliary lane and single-level fixed-span bridge configuration design options.
- Stated that options that add vehicular capacity are not consistent with bi-state agreements.

3.2.2.2 City of Vancouver

- Noted the importance of public involvement and engagement.
- Requested consistency with the City of Vancouver's Desired Outcomes Resolution (2021), Conditions of Approval for the Modified LPA (2022), and IBR's Commitments for the Modified LPA.
- Suggested specific design elements of the Modified LPA, such as the community connectors and shared-use paths.
- Noted concern about temporary impacts during construction (dust, noise, increased traffic congestion, etc.).
- Requested that the IBR Program continue to coordinate with City staff to identify measures to reduce and avoid construction-related impacts.
- Expressed concern about the equity impacts of the tolling program and stated one of the City's desired outcomes is to implement tolling in a fair manner, including creating mitigation programs.
- Supported the centered I-5 with C Street ramps, single-level fixed-span bridge configuration, and one auxiliary lane design options.

- Requested coordination with the IBR Program to define the number of park-and-ride spaces as soon as possible.

3.2.2.3 Oregon Department of Land Conversation and Development

- Noted concern about temporary and long-term impacts on salmonids, primarily from avian and pinniped predation.
- Recommended design and structural details to the shaft caps that could reduce shading and the perching and nesting of predators.
- Requested additional analysis of potential for predation during construction and recommended designing temporary work platforms to address the potential for predation.

3.2.2.4 Port of Portland

- Supported the Modified LPA with a fixed-span bridge configuration.
- Requested further analysis of traffic operations at the Marine Drive interchange and consideration of design changes that meet AM and PM peak hour performance, including movement of over-dimensional freight via truck.
- Confirmed truck maneuverability south of Hayden Island on I-5, such as the roundabouts at Marine Drive.
- Provided more detail on traffic volumes diverting to I-205 to avoid tolls and discussed traffic volume growth associated with forecasted growth in Portland travelers.
- Supported coordination with the U.S. Army Corps of Engineers on Columbia River traffic closures during construction and consideration of seasonal fluctuations in river levels and busy periods associated with harvests that are shipped downriver.

3.2.2.5 Port of Vancouver USA

- Requested consideration of additional design, technology, or other means to reduce congestion on I-5 and travel time if the one auxiliary lane design option is selected.
- Supported the Modified LPA with either the double-deck or single-level, fixed-span bridge configuration, limiting park-and-ride facilities, maintaining C Street ramps, and centered I-5.
- Requested that the final design retains adequate safety shoulders and accommodates high, wide, and heavy freight, particularly at the Mill Plain interchange and at toll gantries.
- Supported efforts to minimize impacts to the freight community, including disruptions to river navigation during construction.
- Requested reducing impacts and providing mitigation to the Terminal 1 Master-Planned Development, including Pier 7 and associated river cruise activity.
- Requested maintaining public access to Terminal 1 and the surrounding waterfront areas.
- Requested maximizing workforce development.

3.2.2.6 Washington State Department of Ecology

- Suggested corrections to the Water Quality and Hydrology Technical Report, specifically the Wetland/Waters Removal-Fill permits section.
- Requested updates to the information on the requirement for clean fill and nearby toxic cleanup sites.

3.2.2.7 Washington Department of Fish and Wildlife

- Noted behavior of different species of fish in the Lower Columbia River and recommended monitoring effects during construction.
- Recommended addressing potential temporary construction impacts to commercial fishers.

3.2.2.8 Urban Flood Safety and Water Quality District

- Requested continued coordination to reduce impacts to levees, meet design requirements for alterations to levees, provide access to levees, and ensure federal flood safety standards are met.
- Recommended timing the Portland Metro Levee System project and Flood Safe Columbia River program (also known as "Levee Ready Columbia") modifications when determining the construction schedule to minimize impacts on surrounding communities.
- Requested opportunities to enhance the natural environment, recreation, and nonmotorized travel, particularly the 40-mile-loop trail system.

3.2.3 Tribes

3.2.3.1 Cowlitz Indian Tribe

- Preferred the Modified LPA with the double-deck fixed-span and single auxiliary lane design options.
- Emphasized that sovereign nations are not equivalent to other underserved communities and recommended revising the language regarding the government-to-government consultation process.
- Anticipated the need for additional consultation on Section 4(f), adverse effects to Fort Vancouver and the Cowlitz Trail.
- Requested revisions to the Area of Potential Effect, language clarification regarding currently documented archaeological sites, more detail in Section 3.8, Cultural Resources, and continued consultation on Tribal cultural resources, including those related to potential noise and vibration impacts.
- Provided follow-up discussion regarding the Ecosystems Technical Report, such as ecosystems monitoring, adaptive management, fish migration and foraging, mitigation banks, and invasive species prevention.

3.2.3.2 Confederated Tribes of Grand Ronde Community of Oregon

- Noted concern regarding the sufficiency of detail included in the Draft SEIS compared to degree of detail in the CRC Environmental Impact Statement.
- Noted concern regarding completeness of the Tribal Consultation Plan and its separation from the draft Programmatic Agreement.
- Provided feedback and discussion on natural resource topics, such as requesting the opportunity to comment on the wetland mitigation plan and sites, review of the species of interest list and table, supporting the use of indigenous plants in replanting, and accessing the compensatory mitigation banking sites.
- Recommended minor clarifications/edits in Section 3.8, Cultural Resources, and requested the inclusion of the Grand Ronde–prepared cultural context statement in the Final SEIS.
- Requested tolling exemption.

3.2.4 Other Public Agencies

3.2.4.1 Clackamas County

- Requested near-term analysis of pre-completion tolling effects on I-205 bridge traffic.
- Questioned the validity of travel-demand forecasts given Oregon's decision not to toll I-205.
- Requested analysis of diversion from I-5 to I-205, including near-term forecast showing traffic patterns during pre-completion tolling or during construction impacts and in the event that FTA funding for LRT is not secured.

3.2.4.2 Clark County

- Recommended the IBR Program reduce costs to minimize the impact to taxpayers, especially because Clark County residents voted to exclude LRT to reduce the cost of the bridge.
- Requested consideration of less expensive bridges without LRT.
- Requested emphasis on bridge and lane capacity and travel time reduction.
- Requested minimization of disruption/displacement of current residents and businesses.
- Requested that the IBR Program hire and buy locally to minimize economic disruptions.
- Suggested beginning the planning for new corridors across the Columbia River to meet predicted travel demand.

3.2.4.3 Port of Camas-Washougal

- Expressed support for a comprehensive multimodal program that reduces accidents and backups and makes Columbia River navigation safer.
- Supported advancing the Modified LPA with design focus on reducing congestion and safe vehicle and freight movement.

- Supported additional focus on climate change and efforts toward workforce development.

3.2.4.4 Washington Department of Health with Oregon Health Authority, Clark County Public Health, Multnomah County Health Department, and Cowlitz Indian Tribe Health and Human Services

- Requested prioritization of sustainability, transparency, communication, and health for the lifetime of the bridge.
- Requested continuing engagement with human health interests, including health departments, Tribal governments, and community members.
- Requested additional information and modeling to better understand potential health impacts.
- Requested that the final design and construction keep health and equity in mind.
- Noted that areas with health-related protections and positive health impacts include transportation and active transportation benefits; improved accessibility for a broader range of users; potential for heat-protection measures; sources of employment; improved access to recreation and greenspaces; improved water quality; and improved safety.
- Noted that areas of potential health impacts include:
    - Air quality effects on health due to increased traffic (under the No-Build Alternative and the Modified LPA).
    - The potential inequity in transportation benefits that could aggravate existing disparities, such as tolling and the disproportionate impacts that could restrict access to essential services including health care.
    - Reduced access to certain sites or facilities, especially during construction, and especially for those without cars; noise increases (under the No-Build Alternative and the Modified LPA).
    - Displacements.
- Noted areas of uncertainty due to lack of detailed information about the following:
    - Net effects of climate change on health, considering construction and long-term operations.
    - Underserved communities may have disproportionate impacts.
    - Localized air quality.
    - Localized road safety.
    - Fugitive dust.
    - Water quality during construction, especially if contaminated sediments in the river are present.

3.3 Public Comment Summary

This section identified common themes from each of the different comment topics. IBR Program team members read and coded approximately 9,110 individual comments made during the 60-day comment period. The comment topics are presented in alphabetical order, with the exception of Other Comments, which are at the end. Each comment was assigned to one topic, with "Preference/Sentiment" being the only exception; comments could be coded to Preference/Sentiment and one additional topic. Key comments are defined as comments that appeared most frequently within a topic code (i.e., one of the four most-received comments, depending on the number of comments within the topic code) or had potential to result in changes or edits to the Final SEIS.

3.3.1 Acquisitions

Approximately 205 comments concern acquisitions. Comments coded as Acquisitions relate to short and long-term property, and property rights, effects of the Modified LPA including displacements, easements, and acquisitions. Comments are coded to Acquisitions if they contain keywords such as acquisition of land or property, easement, temporary construction easements, or eminent domain.

Key comments included:

- Noted negative impacts, compensation, and mitigation for potential displacement and revenue loss for the floating home community near the Program area.
- Requested clarification about impacts to or mitigation for specific properties.
- Requested details about temporary impacts.
- Requested clarity on the differences between the terms "short-term acquisition," "long-term acquisition," and "partial acquisition."
- Noted the displacement of communities due to rising housing costs as an impact of acquisitions and demolition of homes and businesses.

3.3.2 Air Quality

Approximately 90 comments concern air quality. Comments coded as Air Quality relate to the long-term and temporary effects of the No-Build Alternative and the Modified LPA for air pollutants. Comments are coded to Air Quality if they contain keywords such as air quality, air pollution, Mobile Source Air Toxics (MSAT), air pollutants, or sensitive receptors.

Key comments included:

- Stated that additional lanes could cause more people to choose driving as a transportation option, negatively impacting air quality.
- Requested more research and analysis about air quality in the Draft SEIS.
- Requested thorough monitoring of air quality throughout the IBR Program area, and preferred that the air quality to be the same or better after construction of the Modified LPA.

- Requested that vegetation be used for mitigation of air pollutant impacts to nearby residences, parks, and other facilities.
- Made statements about the accuracy of the air quality analysis and the traffic analysis.

3.3.3 Alternatives

Approximately 490 comments concern alternatives. Comments coded as Alternatives relate to the design or components of the Modified LPA, including previously dismissed alternatives, such as a third bridge, tunnel, or high-speed rail.

Key comments included:

- Supported the construction of a third (or more) bridge over the Columbia River, in addition to retrofitting the existing I-5 bridge.
- Supported the construction of a tunnel.
- Supported the double-deck fixed-span bridge configuration.
- Opposed a movable span bridge configuration.

3.3.4 Aviation

Approximately 20 comments concern aviation. Comments coded as Aviation relate to existing aircraft navigation conditions and the associated beneficial and adverse effects of the Modified LPA and the No-Build Alternative. Comments are coded to Aviation if they contain keywords such as Pearson Airfield, Portland Airport (PDX), airspace, aircraft, or flight path.

Key comments included:

- Supported relocating Pearson Airfield to enable a less constrained bridge design.
- Requested additional clarification on mitigation measures regarding Pearson Airfield.

3.3.5 Climate Change

Approximately 220 comments concern climate change. Comments coded as Climate Change relate to the potential long-term climate impacts and mitigation measures for unavoidable effects. Comments are coded as Climate Change if they contain keywords such as climate change, sea-level rise, global warming, increasing temperatures, greenhouse gas emissions, sustainability, climate change mitigation/adaptation, extreme weather events, material/lifecycle emissions.

On January 20, 2025, President Trump signed Executive Order (E.O.) 14148 – Initial Rescissions of Harmful Executive Orders and Actions and E.O. 14154 – Unleashing American Energy. The E.O.s revoked E.O. 13990 – Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021) and E.O. 14008 – Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations – Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender. On February 25, 2025, the Council on

Environmental Quality (CEQ) published an Interim Final Rule removing the CEQ's National Environmental Policy Act (NEPA) implementing regulations, effective April 11, 2025 (90 Fed. Reg. 10610). As a result of these actions, FHWA and FTA will not include greenhouse gas emissions and climate change analyses in the federal environmental review process. Any purported greenhouse gas emissions and climate change impacts, including comments related to GHG emissions and climate change impacts, will not be considered in the federal decision. Accordingly, no greenhouse gas emissions or climate change analyses are included in this Final SEIS.

3.3.6 Construction Approach

Approximately 105 comments concern the construction approach. Comments coded as Construction Approach relate to timeline, materials, labor, etc. Comments are coded to Construction Approach if they contain keywords such as construction, contractors, materials, hiring, or apprenticeships.

Key comments included:

- Requested that construction begin as soon as possible, given rising construction costs.
- Supported building workforce housing.
- Made statements about the current construction process and mitigation plans and how they will impact traffic during the construction process.
- Stated concern about the construction impacts on Hayden Island residents and businesses.

3.3.7 Cultural Resources

Approximately 170 comments concern cultural resources. Comments coded as Cultural Resources refer to sites, buildings, structures, objects, and districts with historic, religious, or cultural significance. Comments on the Draft SEIS were coded to Cultural Resources if they contained keywords such as archaeological resources, historic built environment, Section 106, National Register of Historic Places, human remains, or Fort Vancouver.

The IBR Program conducted a public comment period for cultural resources consultation, as required under Section 106 of the National Historic Preservation Act. This public comment period began on October 18, 2024, and ended on November 18, 2024, and requested input on the Determinations of Eligibility and Findings of Effect documents. While this comment period occurred concurrently with the Draft SEIS public comment period, the Section 106 public comment period was separate. While 50 public comments were submitted during the Section 106 public comment period, only one comment pertained to a cultural resources topic. That comment requested consideration of a resource located outside the IBR Program's Area of Potential Effects. For the remaining 49 comments, no formal responses were necessary because the comments were unrelated to the Section 106 process or any documentation that was available for public comment at the time, or because the IBR Program received similar comments on the Draft SEIS and more detailed responses were prepared as part of the NEPA public comment response process. Therefore, comments submitted through the Section 106 public comment period are not included in this summary.

Key comments included:

- Requested mitigation for all adverse effects on historic and archaeological resources.
- Requested that the IBR Program not affect specific historic resources.
- Stated that the loss of some historic properties would have significant cultural, social, and community impacts.

3.3.8 Cumulative Effects

Approximately 20 comments concern cumulative effects. Comments coded as cumulative effects relate to the impacts of the Modified LPA when combined with other projects and actions. Comments are coded to this topic if they contain keywords such as other future projects, cumulative effects, and compounding impacts.

Since publication of the DSEIS, on January 20, 2025, President Trump signed Executive Order (EO) 14154 – Unleashing American Energy – which, among other things, required the Council on Environmental Quality (CEQ) to issue guidance on implementing the National Environmental Policy Act (NEPA) and propose rescinding its NEPA regulations at 40 CFR Part 1500 et seq. Subsequently, on February 25, 2025, the Council on Environmental Quality (CEQ) published an Interim Final Rule removing the CEQ's National Environmental Policy Act (NEPA) implementing regulations, effective April 11, 2025 (90 Fed. Reg. 10610). Subsequently, on February 25, 2025, CEQ published an Interim Final Rule (IFR) removing the CEQ NEPA implementing regulations, effective April 11, 2025 (90 Fed. Reg. 10610). The US DOT NEPA implementing regulations at 23 CFR Part 771, Environmental Impact and Related Procedures, were modified to remove cross-references to the defunct CEQ regulations through an IFR that became effective immediately upon its publication in the Federal Register on July 3, 2025.

On February 19, 2025, CEQ issued a memorandum, Implementation of the National Environmental Policy Act, which acknowledged that the amendments to NEPA in the Fiscal Responsibility Act of 2023, known as the Building United States Infrastructure Through Limited Delays and Efficient Reviews (BUILDER) Act of 2023, directed that EISs must analyze and disclose the "reasonably foreseeable environmental effects of the proposed agency action." CEQ encouraged Federal agencies to "analyze the reasonably foreseeable effects of the proposed action consistent with section 102 of NEPA, which does not employ the term 'cumulative effects;' […and the agencies should consider] 'reasonably foreseeable' effects, regardless of whether or not those effects might be characterized as 'cumulative.'"

Further, since the publication of the Draft SEIS, the U.S. Supreme Court issued its decision in Seven County Infrastructure Coalition v. Eagle County, Colorado, which held the focus of NEPA is the project at hand, not other separate projects. 605 U.S. 168 (May 29, 2025). It also reinforced the "reasonably foreseeable" effects standard for measuring effects in NEPA, which was incorporated into the US DOT's NEPA implementing regulations at 23 CFR Part 771.

Accordingly, relying upon the NEPA requirements, as revised by the BUILDER Act of 2023, and 23 CFR Part 771, effective July 3, 2025, the Final SEIS analyzes reasonably foreseeable effects that result from

the proposed action.[18] The IBR Program considers reasonably foreseeable effects to have a rational link to the IBR Program in terms of geographic and temporal proximity and must be sufficiently likely to occur. Reasonably foreseeable effects do not include effects that are speculative in nature or causally attenuated[19] from the IBR Program. The Final SEIS does not carry forward the former cumulative effects chapter of the Draft SEIS, Section 3.23.

3.3.9 Design

Approximately 1,245 comments concern design. Comments coded as Design relate to the design of the Modified LPA, including roadway and transit alignment, bridge and interchange configuration, and seismic resilience.

Key comments included:

- Requested that the multiuse path be accessible to transit facilities by being on the same side of the bridge as the transit facilities. Commenters requested that the IBR Program prioritize seamless integration between nonmotorized travel modes and access points to the bridge to enhance safety.
- Questioned the seismic resilience of the proposed designs. Commenters requested designs that can withstand a Cascadia-level event in addition to extreme weather events.
- Stated concerns about the elevation grade of the multiuse path and transit station and the safety and accessibility for pedestrians and wheelchair users. Preferred a reduced grade or a well-maintained elevator to be available as a reliable option.
- Requested prioritizing the aesthetic beauty and distinctiveness of the design.

3.3.10 Economics

Approximately 75 comments concern economics. Comments coded as Economics relate to economic growth or effects on the economy and employment. Comments are coded to Economics if they contain keywords such as business displacements, relocation assistance, property tax revenues, toll rates, economic impact, economic benefit, regional economy, local businesses, or small businesses.

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[18] The Final SEIS does not categorize the reasonably foreseeable effects of the proposed action based upon types of effects. As a result of the changes discussed in this chapter, FHWA, FTA and the IBR Program reviewed the documentation supporting the NEPA analysis to determine whether the effects that had previously been characterized as direct, indirect, and cumulative were reasonably foreseeable. The appendices supporting the Final SEIS, which contain the terms "direct" and "indirect" were included in this review. The appendices contain these terms because the terms were required under the CEQ regulations in effect at the time the appendices were prepared. Although the terms "direct" and "indirect" have not been removed from the appendices, FHWA, FTA and the IBR Program reviewed the effects characterized (or categorized) as indirect in the appendices to determine whether such effects are reasonably foreseeable. Also included in this review was the former cumulative effects section. To the extent any effects in the former cumulative effects section were determined to be reasonably foreseeable, they are included in the Final SEIS along with the discussion of other reasonably foreseeable effects.

[19] [3] "Causally attenuated" in this context means effects that are remote in time or place, or are the result of a lengthy causal chain (meaning intervening variables such as other actions may contribute or cause an effect), thereby making it difficult to establish a sufficiently close connection between the proposed action and a particular environmental impact. Generally, an outcome or effect is causally attenuated if it cannot be directly attributed to one particular action, but rather may result from another action or series of actions.

Key comments included:

- Stated that the IBR Program would have negative economic impacts on the region due to the large financial obligation from both Oregon and Washington.
- Stated concerns about how the IBR Program may negatively impact local economies and property values, especially in Hayden Island and Downtown Vancouver.
- Stated how businesses along the Columbia River would be negatively impacted by a bridge height limiting the passage of larger vessels.
- Requested that the IBR Program prioritize mitigation of economic impacts and act early to provide consistent support to affected residents and businesses.

3.3.11 Ecosystems

Approximately 90 comments concern ecosystems. Comments coded as Ecosystems relate to fish, wildlife, and vegetation species, and their habitats. Comments are coded to Ecosystems if they contain keywords such as ecosystem, endangered species, organisms, aquatic resources, terrestrial resources, botanical resources, animals, plants, or wildlife.

Key comments included:

- Stated concern about the IBR Program's impact on fish and wildlife, and recommended that impacts be appropriately offset.
- Requested avoiding and minimizing impacts to fish and wildlife species and their habitats, including specific types of avoidance and minimization measures, design commitments, or construction measures.
- Suggested mitigation measures such as, but not limited to, erosion control measures to prevent sediment runoff, scheduling construction activities around sensitive periods (such as peak migratory periods for salmon and other aquatic species and migratory birds), and implementing native landscaping.

3.3.12 Electric and Magnetic Fields

There were no comments concerning electric and magnetic fields.

3.3.13 Energy

Approximately 10 comments concern energy. Comments coded as Energy relate to emissions and energy consumption from construction and maintenance associated with the No-Build Alternative or the Modified LPA or from traffic operations. Comments are as Energy if they contain keywords such as VMT or energy consumption.

Key comments included:

- Requested clarification about the difference between British thermal units (Btu) and million British thermal units (mmBtu).

- Requested design that allows the new bridge to generate energy. Such a design could include kinetic plates that cars drive on or small wind turbines.
- Stated that environmental benefits like LRT are negated if the grid relies on fossil fuels for energy production.

3.3.14 Equity and Environmental Justice

Approximately 210 comments concern equity or environmental justice (EJ) and relate to the effects of the Modified LPA on certain communities. Comments are coded as Equity and Environmental Justice if they contain keywords such as equity, environmental justice, distribution of benefits and burdens, IBR priority communities, BIPOC, ethnic/racial minorities, low-income households, disproportionate impacts, and fairness.

On January 20, 2025, President Trump signed Executive Order (E.O.) 14148 --Initial Rescissions of Harmful Executive Orders and Actions and E.O. 14154 – Unleashing American Energy. The E.O.s revoked E.O. 14096 – Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed E.O. 14173 – Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This E.O. revoked E.O. 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). On February 25, 2025, the Council on Environmental Quality (CEQ) published an Interim Final Rule removing the CEQ's National Environmental Policy Act (NEPA) implementing regulations, effective April 11, 2025 (90 Fed. Reg. 10610). As a result of these actions, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's Joint NEPA regulations (23 CFR part 771) and the agencies Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (12/17/2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts, including comments on environmental justice or equity, will not be considered in the federal decision. Social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

3.3.15 Financial Analysis

Approximately 265 comments concern the IBR Program's financial analysis. Comments coded as Financial Analysis refer to the costs, revenue options, funding mechanisms, and financial plan for the Modified LPA. Comments are coded to Financial Analysis if they contain keywords such as finance, budget, cost of the Modified LPA, capital revenue options, operations and maintenance costs, funding options, state funding, federal funding, or tolls as a revenue source.

Key comments included:

- Preferred reducing toll rates for commuters, freight, and commerce, and eliminating the toll after the construction bond is met.
- Opposed to the costs associated with expanding the freeway and preferred to see a simplified design that does not expand the freeway and has a lower overall cost.
- Frustrated about the increasing costs of the Modified LPA.

3.3.16 Geology and Groundwater

Approximately 20 comments concern geology and groundwater. Comments coded as Geology and Groundwater relate to long-term and temporary effects of geologic hazards, as well as geologic and hydrogeologic conditions from the No-Build Alternative and construction and operation of the Modified LPA. Comments are coded to Geology and Groundwater if they contain keywords such as geologic resources, geologic hazards, groundwater resources, hydrogeology, or soils.

Key comments included:

- Stated that the dense boulders under the Columbia River could lead to constructability concerns, cost overruns, and possible project cancellation.
- Made statements about ground liquefaction during a major earthquake.

3.3.17 Hazardous Materials

Approximately 15 comments concern hazardous materials. Comments coded as Hazardous Materials relate to the potential temporary and long-term effects related to hazardous materials, including spills and chemical releases. Comments are coded to Hazardous Materials if they contain keywords such as spills or releases of hazardous materials.

Key comments included:

- Questioned how hazardous materials in the river will be mitigated.
- Made statements regarding the potential for temporary and long-term impacts of hazardous materials, including construction-related releases and potential spills, especially for those living and working nearby.

3.3.18 Health

Approximately 35 comments concern health. Comments coded as Health relate to the present and long-term health effects to humans of the Modified LPA, such as changes in air quality, noise levels, and access to active transportation options for physical activity, in addition to comments regarding the Health Impact Assessment. Comments are coded to Health if they contain keywords such as health, health risk, air quality, noise and vibration, physical activity, or pollution.

Key comments included:

- Stated that the potential increase in traffic volumes would increase air and noise pollution, and negatively impact public health in nearby communities.
- Requested that the Draft SEIS analysis be redone due to inaccurate modeling, resulting in an inaccurate health impacts assessment.
- Requested that the IBR Program conduct a Health Impact Assessment.

3.3.19 Indigenous Community

Approximately five public comments concern tribes. These are not comments from sovereign tribal nations. Comments coded as Indigenous Community relate to tribes, Native American, Indian, and Indigenous populations and communities. Comments are coded to Indigenous Community if they contain keywords such as tribe, tribal, native American, Indian, indigenous, or traditional.

Key comments included:

- Requested that the IBR Program hire Native American consultants.
- Requested that the IBR Program consider Indigenous tribe opinions and consider a historical name for the bridge.

3.3.20 Labor/Workforce

Approximately 35 comments concern labor and the workforce. Comments coded as Labor/Workforce relate to construction contracts and the companies to which they are awarded. Comments are coded to Labor/Workforce if they contain keywords such as labor pool, workforce development, apprenticeships, hiring, or contractors.

Key comments included:

- Stated that a project labor agreement or a community benefits agreement would be the only way to mitigate risk and uplift communities around the IBR Program.
- Stated that project labor agreements would not be beneficial to the IBR Program and would hurt the community.

3.3.21 Land Use

Approximately 65 comments concern land use. Comments coded as Land Use relate to transportation and land use planning. Comments are coded to Land Use if they contain keywords such as: land use, zoning, transportation, industrial, commercial, residential, land use plans, comprehensive plans, direct land use impacts, sprawl, or development patterns.

Key comments included:

- Stated that the IBR Program would affect more surrounding land uses beyond those analyzed in the Draft SEIS, and suggested properties to add to the analysis.

- Stated that the IBR Program would affect surrounding land uses and increase sprawl, particularly in Vancouver and Clark County.

3.3.22 Navigation

Approximately 190 comments concern navigation. Comments coded as Navigation relate to navigation conditions (e.g., vertical and horizontal clearance), vessel operations, and river channels on the Columbia River. Comments are coded to Navigation if they contain keywords such as river navigation, navigation channels, navigation clearance, marine traffic, vessels, barges, ships, ship simulations, commercial/recreational river users, marine use, river freight, navigation safety, Upper Vancouver Turning Basin, bridge height, or bridge clearance.

Key comments included:

- Made statements about the fixed-span bridge design meeting U.S. Coast Guard height requirements.
- Stated that proposed bridge designs would not allow for larger ships to pass under the bridge, potentially impacting marine commerce upriver.
- Suggested that the bridge be designed high enough to allow for all maritime traffic to pass under without a lift span needed to raise the bridge.

3.3.23 Neighborhoods

Approximately 110 comments concern neighborhoods. Comments coded as Neighborhoods concern access to social services and community resources, as well as other effects on the neighborhood. Comments are coded to Neighborhoods if they contain keywords such as neighborhood, access, community destinations, school, church, community center, senior center, grocery shopping, or hospital.

Key comments included:

- Stated concern about a decrease in the quality of life and property values in nearby neighborhoods.
- Made statements about traffic impacts, such as diversion and reduced parking, in nearby neighborhoods.
- Made statements about residential displacements and the impact on community cohesion.
- Stated that people living near the bridge feel that their access to community resources would be negatively impacted by tolls.

3.3.24 Noise and Vibration

Approximately 135 comments concern noise and vibration. Comments coded as Noise and Vibration relate to existing, long-term, and temporary noise and vibration levels as well as mitigation measures. Comments are coded to Noise and Vibration if they contain keywords such as noise levels, vibration, noise walls, sound walls, or traffic noise levels.

Key comments included:

- Stated that construction noise and post-construction traffic noise in the neighborhoods surrounding the IBR Program would impact property value and quality of life.
- Requested new noise walls or expansion of existing noise walls in neighborhoods near the IBR Program area.
- Stated concern about noise impacts on pedestrians and cyclists using the multiuse paths.

3.3.25 Parks and Recreation

Approximately 50 comments concern parks and recreation. Comments coded as Parks and Recreation relate to individual parks or impacts to recreation facilities, park use, trails, or greenspaces. Comments are coded to Parks and Recreation if they contain keywords such as parks and recreation resources, school outdoor facilities, interpretive or community centers, trails, open spaces, sports fields, or playgrounds.

Key comments included:

- Requested that the Modified LPA to be better connected to nearby trails and waterfront areas.
- Requested additional parks and trees in the surrounding area, as well as requested that the IBR Program not damage existing parks.
- Requested that access to parks not be changed.
- Requested additional study on the proposed 40-Mile Loop trail system.

3.3.26 Permitting

Approximately five comments concern permitting. Comments coded as Permitting relate to permits required for construction or operation of the Modified LPA. Comments are coded to Permitting if they mention permits.

Key comments included:

- Questioned whether the proposed bridge configuration would receive approval from the U.S. Coast Guard, particularly due to the height clearance and potential impacts on maritime navigation.
- Opposed to approval of a bridge configuration that would include a lift span.

3.3.27 Preference/Sentiment

Approximately 1,475 comments provide a preference or sentiment. Comments coded as Preference/Sentiment express a preference without a supported reason. These comments were coded individually or coded with another topic code. This means that comments coded as Preference/Sentiment can be double counted as part of this analysis. Approximately 100 of Preference/Sentiment comments had no opinion or included no content. Key themes include support

or preferences on components of the Modified LPA and design options, funding concerns, and environmental impacts.

Key comments included:

- Supported building a new bridge.
- Opposed building a new bridge.
- Opposed any sort of freeway widening, including auxiliary lanes.
- Supported prioritizing active transportation.
- Supported LRT.
- Opposed to LRT.

3.3.28 Process

Approximately 165 comments concern process. Comments coded as Process relate to the IBR Program schedule or timeline of events regarding planning, environmental review, public involvement, implementation, and oversight of IBR Program activities. Comments are coded to Process if they contain keywords such as program process, schedule, timing, comment period, planning, environmental review, implementation, transparency, oversight.

Key comments included:

- Made statements about the lack of detail provided by the IBR Program regarding specific construction impacts and mitigation measures.
- Stated that the IBR Program is setting a flawed precedent for future projects by ignoring the concept of induced demand.
- Made statements about the ability of the joint lead agencies and participating agencies to lead the IBR Program through completion.
- Frustrated over length of comment period.

3.3.29 Public Involvement

Approximately 255 comments concern public involvement. Comments coded as Public Involvement relate to public participation events, opportunities, or updates. Comments are coded to Public Involvement if they contain keywords such as public involvement/outreach, community engagement, volunteering, participation, comment period, public hearings, open house, or votes/voting.

Key comments included:

- Requested information on public engagement opportunities for upcoming IBR Program decision points to include design elements.
- Requested details on how public input has influenced decisions and investments.
- Made statements about construction and property impacts and questions about how the public would be notified of construction activities.

- Requested the opportunity to vote on Modified LPA elements, including tolling and LRT.
- Requested increased accessibility to read and understand the Draft SEIS, and requested public comment period extension.

3.3.30 Public Services

Approximately 15 comments concern public services. Comments coded as Public Services relate to schools, emergency response services, government offices, and hospitals. Comments are coded to Public Services if they contain keywords such as public services, schools, emergency response services, government offices, hospitals, police department, or fire department.

Key comments included:

- Requested that the IBR Program consult fire departments on the bridge design.
- Stated concern about inadequate emergency vehicle access.
- Made statements about Hayden Island residents' access to hospitals, grocery stores, and emergency services.

3.3.31 Purpose and Need

Approximately 85 comments concern the IBR Program's Purpose and Need. Comments coded as Purpose and Need relate to the IBR Program's Purpose and Need and broader goals. Comments are coded to Purpose and Need if they contain keywords such as purpose and need, goal, or objective.

Key comments included:

- Requested that the Purpose and Need of the IBR Program be less car-centric and instead focus on accessible active transportation infrastructure and public transit.
- Made statements about whether the alternatives analyzed would meet the Purpose and Need.
- Opposed to the current Purpose and Need.

3.3.32 Section 4(f)

Approximately 70 comments concern Section 4(f). Comments coded as Section 4(f) relate to the U.S. Department of Transportation Act of 1966, which requires avoidance of significant publicly owned parks and recreation lands, wildlife refuges, and historic sites unless no feasible or prudent alternative exists, the use is *de minimis,* or another exception applies. Comments are coded to Section 4(f) if they explicitly use the term "4(f)" to discuss the 4(f) chapter and/or its analysis. Comments that did not specifically include the term "4(f)" are coded under their respective and resource- specific topics, such as Cultural Resources, Parks and Recreation, or Ecosystems.

Key comments included:

- Acknowledgment from officials with jurisdictions of ongoing coordination of Section 4(f) resources near East Delta Park, Old Apple Tree Park, and Marshall Park.
- Made statements about effects on the Providence Academy.

- Suggested that Section 4(f) apply to the Captain George Vancouver Monument Plaza.
- Made statements about impacts on the Vancouver National Historic Reserve.

3.3.33 Section 6(f) and Federal Lands to Parks

Approximately five comments concern Section 6(f) and Federal Lands to Parks properties. Comments are coded to this topic if they use the term "6(f)" or "Federal Lands to Parks (FLP)" to discuss the 6(f) chapter and its analysis.

Key comments included:

- Acknowledgment of ongoing coordination of Section 6(f) and FLP resources with jurisdictional partners.
- Suggested that Section 6(f) apply to resources that were not funded by the Land and Water Conservation Fund Act of 1965 and are therefore not protected by Section 6(f) of that act.

3.3.34 SEIS Legal Adequacy

Approximately 20 comments concern the legal adequacy of the Draft SEIS. Comments coded as SEIS Legal Adequacy relate to the legal adequacy of the Draft SEIS document.

Key comments included:

- Stated that the Draft SEIS failed to adequately address property rights, environmental impacts, and compliance with NEPA.

3.3.35 Tolling

Approximately 595 comments concern tolling. Comments coded as Tolling relate to tolling of the I-5 bridge and other toll systems that connect to the IBR Program area. Comments are coded to Tolling if they contain keywords such as tolling, tolls, toll rates, or congestion pricing.

Key comments included:

- Opposed any tolls.
- Supported tolls.
- Supported for fair tolls.
- Made statements about the impact of tolls on Hayden Island residents.

3.3.36 Transportation

There are approximately 2,490 comments on transportation. Comments coded as Transportation relate to how the Modified LPA would affect surface transportation, such as travel patterns and mobility for cars, trucks/freight, transit and transit riders, pedestrians, and bicyclists. Comments are coded to Transportation if they contain keywords such as I-5 operations, highway capacity, freight

mobility, public transit, active transportation, bicycle, pedestrian, single-occupancy vehicles (SOVs), transportation demand management (TDM), or multimodal transportation.

Key comments included:

- Made statements about prioritizing additional personal vehicle capacity over safe and effective multimodal transportation options.
- Requested right-sizing the bridge component. Some commentors stated that the bridge should be fixed for seismic reasons, transit should be added, and active transportation facilities should be improved without extending the Modified LPA beyond the Interstate Bridge or widening the bridge to address congestion issues.
- Supported adding more lanes to deal with current and forecast congestion.
- Made statements about the design being short-sighted and not meeting the 100-year transportation needs.
- Requested that the IBR Program address freeway congestion and bottlenecks. Some commenters stated that the Modified LPA does not address the correct bottlenecks, which will worsen downstream bottlenecks.
- Made statements about freight design and how the IBR Program will support freight needs versus improvements for other modes of transportation.
- Opposed LRT to Vancouver being included as part of the Modified LPA due to the added project cost, perceived potential for increased crime in the City of Vancouver, and the sense that residents of Vancouver rejected bringing LRT to Vancouver in past advisory ballot measures.
- Supported adding high-capacity transit, including LRT, to Vancouver to provide options to travel across the river, although some commenters stated that LRT is the wrong mode and bus rapid transit is more flexible.
- Made statements over forecasted traffic modeling assumptions used in the analysis of the Draft SEIS to justify the Program. Comments stated that the modeling is inaccurate and outdated, which inflates the cost and size of the Modified LPA.
- Stated that more lanes and the bridge expansion could create induced demand, which would inevitably worsen traffic and environmental conditions in the area after completion. Comments stated that induced demand is being ignored in the analysis of the Draft SEIS.
- Emphasized the importance of including safe and convenient active transportation facilities as part of the Modified LPA. Comments included concern about the lack of connectivity of the multiuse path between public transit and active transportation facilities in the proposed design and stressed the importance of separating active transportation and freight traffic. Comments also recommended well-lit and patrolled active transportation facilities to ensure the safety of commuters.
- Requested that the IBR Program limit the number of nearby park and rides.

3.3.37 Utilities

Approximately 15 comments concern utilities. Comments coded as Utilities relate to electricity, water, sewer, natural gas, telephone, data, fiber optics, and other communications services that can be temporarily disrupted by construction activities. Comments are coded to Utilities if they contain keywords such as utility, electricity, water, sewer, natural gas, telephone, data, fiber optic, or communications services.

Key comments included:

- Made statements about the potential disruptions to critical utilities, such as water, sewer, electricity, and internet, for residents and businesses during construction.
- Made statements about impacts to utility facilities in Vancouver, including sanitary sewer pumps and stormwater facilities.

3.3.38 Visual Quality

Approximately 120 comments concern visual quality. Comments coded as Visual Quality relate to changes to the visual character and how those changes would affect visual quality. Comments are coded to Visual Quality if they contain keywords such as visual character, visual quality, visual effect, viewers, key viewpoints, aesthetics, architecture, structural shadows, materials, design.

Key comments included:

- Requested that the bridge be a “beautiful” and “iconic” structure when viewed from surrounding areas.
- Requested that the bridge design be minimalist, similar to the Glenn Jackson I-205 bridge.
- Suggested that sound walls, retaining walls, bridge aesthetics, and other Program elements incorporate design treatments that consider their visual impact on neighboring viewers.

3.3.39 Water Quality and Hydrology

Approximately 235 comments concern water quality and hydrology. Comments coded as Water Quality and Hydrology relate to water quality characteristics (e.g., temperature and oxygen levels, clarity, and whether it contains pollutants) or the hydrologic flow of water (its volume, where it drains, and how quickly the flow rate changes in a storm). Comments are coded to Water Quality and Hydrology if they contain keywords such as stormwater runoff, Contributing Impervious Area (CIA), stormwater infiltration, stormwater treatment, floodplain.

Key comments included:

- Made statements about the changes to water currents and flow of debris due to erosion, and the impact on floating homes.
- Questioned the IBR Program’s approach to stormwater management and remediation.

- Recommended removing references to Section 401 in the Water Quality and Hydrology Draft SEIS section in relation to the National Pollutant Discharge Elimination System permit program for accuracy. Suggested to changing references to Section 402.
- Made statements about construction and water quality, specifically regarding pollutants entering the groundwater supply.

3.3.40 Wetlands and Other Waters

Approximately 15 comments concern wetlands and other waters. Comments coded as Wetlands and Other Waters relate to wetlands and other waters and the impacts on fish, wildlife, environmental quality, and surrounding human communities. Comments are coded to Wetlands and Other Waters if they contain keywords such as wetlands, Clean Water Act, environmental quality, or wetland rating.

Key comments included:

- Made statements about potential wetland impacts and insufficient information on mitigation ratios.
- Made statements about the changed operational conditions and potential for high-river flows to disrupt infrastructure downstream.
- Made statements regarding potential Columbia River impacts during construction.

3.3.41 Other Comments

Approximately 25 comments were categorized as other comments. These comments are either beyond the scope of the IBR Program or do relate to the IBR Program but are not relevant to the NEPA analysis or Draft SEIS. Comments that expressed an opinion on elements of the Modified LPA are coded as Preference/Sentiment (see Section 3.3.27).

Key comments included:

- Suggested that money should be spent on maintaining roads and existing transit systems in Washington and Oregon rather than put into the IBR Program.
- Suggested other improvements in the region that are beyond the scope of the IBR Program, such as to I-205 and the Glenn Jackson Bridge.

Appendix A

ENGAGEMENT EVALUATION SURVEY RESULTS

The IBR Program team developed an engagement evaluation survey, which was shared with participants at the in-person open houses and CEL engagement events. The engagement survey received a total of 311 engagement and demographic responses, approximately 200 of which resulted from CEL engagement efforts.

Table A-1 documents responses to questions about the effectiveness of engagement events and how participants would prefer to be engaged in the future.

Table A-2 documents the responses to the survey question asking about participant's zip codes. The IBR Program received 197 responses to this question from a total of 59 zip codes, including 37 Oregon zip codes and 22 Washington zip codes.

Table A-3 documents responses to the demographic questions in the survey.

Table A-1. Engagement Survey Responses

Question	Response	Percentage of Responses	Number of Responses
1. Was this your first time attending an IBR engagement event?	Yes	66%	201
	No	34%	103
2. How did you hear about the event?	CELs	27%	84
	IBR email	22%	67
	Email from an organization	22%	67
	Directly from a friend, neighbor, or family member	20%	61
	News story	19%	59
	Community event	11%	33
	Other social media	9%	27
	IBR newsletter	8%	26
	IBR website	5%	17
	IBR social media	5%	17
	Strongly disagree	9%	27

Question	Response	Percentage of Responses	Number of Responses
3a. Information shared during the event felt interesting or relevant	Disagree	9%	28
	Neither agree or disagree	13%	39
	Agree	21%	62
	Strongly Agree	47%	140
3b. IBR staff was welcoming	Strongly disagree	8%	23
	Disagree	7%	20
	Neither agree or disagree	16%	44
	Agree	14%	41
	Strongly Agree	55%	153
3c. My comments/questions were adequately addressed	Strongly disagree	21%	58
	Disagree	7%	19
	Neither agree or disagree	14%	40
	Agree	15%	41
	Strongly Agree	43%	121
3d. I would consider participating in a future IBR event	Strongly disagree	7%	21
	Disagree	5%	14
	Neither agree or disagree	10%	30
	Agree	19%	57
	Strongly Agree	59%	174
4. Overall, how satisfied are you with your experience engaging with the IBR Program?	Strongly dissatisfied	14%	42
	Dissatisfied	10%	29
	Neither satisfied nor dissatisfied	17%	50
	Satisfied	17%	50
	Strongly satisfied	43%	129

Question	Response	Percentage of Responses	Number of Responses
5. Did the materials provide you with the information you needed?	Yes	72%	214
	No	28%	82
6. Were the materials accessible?	Yes	90%	257
	No	10%	29
7. How do you prefer to get information related to the IBR Program?	Social media	43%	34
	Newsletter or emails directly from the Program	35%	28
	Email from an organization	34%	27
	CELs	32%	25
	Directly from a friend, neighbor or family member	15%	12
	News story	11%	9

Table A-2. Engagement Survey Zip Codes

Number of Responses per Zip Code	Zip Codes
19	97217
10	97030, 98683
9	97236
8	98607, 98665, 98682, 98684
7	98663
6	98661, 98686
5	97015, 97229, 98660
4	97006, 97211, 98664
3	97086, 97123, 97212, 97220, 97233, 98604, 98685

Number of Responses per Zip Code	Zip Codes
2	97024, 97068, 97080, 97124, 97133, 97202, 97203, 97209, 97216, 97224, 97230, 97266, 98642, 98662, 98671
1	97003, 97007, 97023, 97053, 97089, 97113, 97201, 97206, 97214, 97221, 97225, 97239, 97306, 98502, 98600, 98606, 98626, 98632, 98674, 99208

Table A-3. Engagement Survey Demographics

Question	Response	Percentage of Responses	Number of Responses
What is your gender identity (how do you define yourself)?	Male	47%	93
	Female	48%	95
	Prefer not to answer	4%	8
	Gender not listed here	1%	2
Do you have a disability that limits one or more major life activities, whether temporary, permanent, mitigated, or unmitigated?	Yes	10%	22
	No	84%	177
	Prefer not to answer	5%	11
General Ethnic identification categories (click as many as apply)	Asian	44%	93
	Caucasian	40%	85
	American Indian/Alaska Native	2%	5
	Native Hawaiian/Pacific Islander	1%	3
	Black or African American	1%	2
	Prefer not to disclose	9%	19
	Other	4%	8
Country of Birth	USA	50%	113
	China	10%	22
	Philippines	9%	21

Question	Response	Percentage of Responses	Number of Responses
	England	1%	3
	Canada	1%	2
	Germany	0.5%	1
	Prefer not to disclose	1%	3
	Other	27%	60
What is your marital status?	Single	22%	46
	Married	61%	129
	In a domestic partnership	5%	10
	Divorced	4%	8
	Widowed	3%	7
	Prefer not to disclose	5%	11
Language spoken at home (click as many as apply)	English	81%	184
	Traditional Chinese	14%	32
	Simplified Chinese	11%	25
	Tagalog	7%	16
	Vietnamese	5%	11
	Spanish	2%	4
	Russian	1%	2
	Chuukese	1%	2
	Ukrainian	0.5%	1
	Prefer not to disclose	2%	4
	Other	6%	14
Age	Under 18	0.5%	1
	18-24	1%	3

Question	Response	Percentage of Responses	Number of Responses
	25-34	9%	21
	35-44	15%	33
	45-54	19%	42
	55-64	17%	38
	65-79	29%	66
	80+	7%	16
	Prefer not to disclose	3%	6
Do you identify with any of the following religions (select all that apply)?	Christianity	33%	73
	No religion	24%	52
	Buddhism	8%	18
	Judaism	3%	7
	Inter/non-denominational	3%	7
	Native American	2%	5
	Islam	1%	2
	Hinduism	0.5%	1
	Prefer not to disclose	15%	34
	Other	19%	41
What is the highest degree or level of education you have completed?	Less than high school	4%	7
	High school graduate	11%	22
	Completed some college	10%	19
	Associate's degree	9%	18
	Bachelor's degree	32%	63
	Master's degree	11%	22
	Graduate or professional degree	9%	18

Question	Response	Percentage of Responses	Number of Responses
	PhD/MD – doctorate degree	7%	14
	Prefer not to disclose	9%	17
What is your approximate average household income?	Less than $25,000	5%	11
	$25,000-$49,000	15%	33
	$50,000-$74,999	15%	33
	$75,000-$99,000	10%	22
	$100,000-$124,999	13%	29
	$125,000-$149,999	5%	11
	$150,000-$174,999	5%	12
	$175,000-$199,999	1%	3
	$200,000 and up	4%	9
	Prefer not to disclose	27%	59
How many people, including yourself, live in your household?	1	20%	46
	2	40%	90
	3	10%	23
	4	12%	27
	5	5%	12
	6	2%	5
	7	1%	3
	8 or more	1%	2
	Prefer not to disclose	8%	17
How do you typically travel? (select all that apply)	Vehicle	89%	204
	Walk	21%	49
	Transit	14%	31

Question	Response	Percentage of Responses	Number of Responses
	Bike	13%	29
	E-bike/e-scooter	8%	18
	Prefer not to disclose	1%	2
	Other	6%	13

Appendix B

DRAFT SEIS NOTIFICATION AND INFORMATIONAL MATERIALS

This appendix contains copies of informational materials and notifications used ahead of and during the Draft SEIS comment period. Translated copies of materials were available, as described in Section 2.4.2.3.

Contents:

- Draft SEIS Executive Summary
- Draft SEIS Fact Sheet
- Why Now? Fact Sheet
- Bridge to the Future Fact Sheet
- Outreach Toolkit
- September 18 Program Mailer
- November 4 Program Mailer
- Property Owner Letters

Appendix S

S2. Responses to Comments on the Draft SEIS

APPENDIX S2. RESPONSES TO COMMENTS ON THE DRAFT SEIS

Responses to comments on the Draft Supplemental Environmental Impact Statement (SEIS) are provided by the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Oregon Department of Transportation (ODOT), and Washington State Department of Transportation (WSDOT). When responses to comments refer to the "IBR Program," the term refers to dedicated ODOT and WSDOT staff.

The proposed action is referred to as the "Modified Locally Preferred Alternative" or "Modified LPA." The Modified LPA includes five sets of design options that are defined in Chapter 2 of the Draft and Final SEIS: (1) the number of auxiliary lanes; (2) the bridge configuration; (3) the presence of the C Street ramps; (4) the I-5 alignment in downtown Vancouver; and (5) the park and rides. References to the "Modified LPA" include all five sets of design options. Specific design options are only mentioned if they are distinguishable from one another in each specific context they are referenced.

DOCUMENT NAVIGATION

Comments received on the Draft SEIS are organized in the following appendices by agencies and tribes (found in Appendix S3) and individuals and organizations (found in Appendix S4). The index tables in Appendices S3 and S4 are sorted alphabetically by the submitter's last name and/or affiliation. Viewers can click on rows in the "Submitter Name and/or Affiliation" column to jump to the corresponding page in the document. Each submission has been assigned a submission number. Within each submission, each comment is identified with a comment number in the left-hand margin. Responses to each comment follow each submission and are identified by the submission number and corresponding comment number.

RELATIONSHIP WITH THE WASHINGTON STATE ENVIRONMENTAL POLICY ACT

To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider the effects of greenhouse gas (GHG) emissions, climate change, environmental justice, energy use of forecasted vehicle fleets, or cumulative impacts as part of the state environmental review, any such analysis is provided in the IBR Program's SEPA Addendum, which will be available on the IBR Program's website. Because the SEPA Addendum was developed by WSDOT and ODOT solely for the purpose of complying with State law, FHWA and FTA were not involved in the development of the SEPA Addendum. FHWA and FTA are not expressing agreement or concurrence through this reference to the SEPA Addendum and did not consider the document in the Final SEIS. This includes responding to comments related to GHG emissions, climate change, environmental justice, forecasted vehicle fleet energy use under state assumptions, or cumulative impacts. FHWA and FTA are not expressing agreement or concurrence through this reference to the SEPA Addendum.

TYPES OF RESPONSES TO COMMENTS

FHWA and FTA, in coordination with WSDOT and ODOT, prepared standard responses and individual responses to comments received during the public comment period for the Draft SEIS. Standard responses address subject areas for which multiple comments were received. Individual responses address all other comments on issues that fall outside the standard responses. Individual responses are intended to complement information provided in the standard responses by responding directly to specific topics or questions in the comment that are not addressed by the standard responses. This Final SEIS incorporates revisions made to the Draft SEIS based on these standard and individual responses.

STANDARD RESPONSE CATEGORIES

Standard responses were developed for the following subject areas:

- Acquisitions
- Air Quality
- Alternatives
- Aviation
- Construction Approach
- Design
- Ecosystems
- Financial Analysis
- Process
- Public Involvement
- Purpose and Need
- Tolling
- Transportation

STANDARD RESPONSES

A. Acquisitions

1. Impacts to Floating Homes

Impacts to floating homes in North Portland Harbor changed between the Draft SEIS and the Final SEIS as a result of design refinements to the Modified LPA. The Draft SEIS had stated that 35 floating homes in North Portland Harbor would be permanently acquired. Based on the current design, this number has changed to up to 47 floating homes. This includes 20 floating homes at the Jantzen Beach Moorage, Inc. (JBMI) west of Interstate 5 (I-5), 19 floating homes at the Jantzen Bay Marina east of I-5, and 8 floating homes located west of I-5 on the south side of North Portland Harbor.

At JBMI, the floating homes on the three easternmost slips (Slips A, B, and C) would be displaced, along with one floating home on Slip D. The eastern access to the moorage, off N Jantzen Avenue near N Center Avenue, would be rebuilt approximately 300 feet farther west to align with adjacent road improvements; no closures to the ramps or associated gates accessing homes are anticipated. At the Jantzen Bay Marina, the displaced floating homes would be those on the westernmost slip adjacent to I-5. The floating homes on the south side of North Portland Harbor are on two slips, one immediately west of I-5 and one extending farther to the west; all of the homes on both of these slips would be displaced.

Floating homes would be either acquired at fair market value or moved to a new location, in accordance with federal requirements described in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act). Eligible displaced residents would be provided with relocation assistance and benefits to obtain replacement housing. For more information, see Acquisitions Standard Response A.2: Purchase and Compensation Process. Given the unique nature of the floating homes and the moorage community, the low vacancy rates for floating homes in North Portland Harbor, and the complications associated with moving these homes, the IBR Program will work closely with the community to plan for potential impacts.

At this time, the IBR Program does not anticipate temporarily displacing other floating homes for construction purposes. Residents of floating homes in JBMI that are not displaced would have access to both the parking lot and their homes throughout the construction of the bridges and associated road improvements. During construction, there would be temporary impacts to the upland portion of the moorage parcel, including temporary impacts to the parking lot and relocation of the east access off N Center Avenue.

2. Purchase and Compensation Process

The IBR Program is doing everything feasible to avoid and minimize potential impacts to property, including making reasonable efforts to avoid acquiring property rights when it is not necessary for the delivery of the Modified LPA. However, there may be certain situations in which the IBR Program would need to acquire property rights owned by private individuals and businesses. The IBR Program contacted potentially impacted property owners by mail before and during the Draft SEIS public comment period to ensure owners had the opportunity to review the Modified LPA and potential impacts, and to provide public comment. Section 3.3, Property Acquisitions and Displacements, in the Final SEIS identifies, describes, and evaluates short-term and long-term effects on property and property rights for the Modified LPA. It also describes measures to help avoid, minimize, or mitigate adverse effects. The information presented in Section 3.3 is based on the analysis in the Acquisitions Technical Report, which provides information about each proposed property acquisition and displacement.

As described in Section 3.3 of the Final SEIS and Section 7 of the Acquisitions Technical Report, where impacts are unavoidable, property owners would receive just compensation for the estimated value of land and improvements acquired and for other impacts that result in a measurable loss of value to the remaining property. Impacted parties may also be eligible for relocation entitlements under the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA), as amended, in the form of relocation advisory assistance and payment for eligible expenses.

Following the publication of the Amended Record of Decision, property owners would be notified of impacts on their property, and acquisition negotiations would begin. Because the delivery of the Modified LPA is expected to be sequenced, formal discussions around property acquisitions would also be sequenced in conjunction with construction timelines of different Program elements. If it is determined that all or a portion of a property is necessary for the proposed Modified LPA, property owners would be contacted well in advance of any construction activity, in accordance with federal requirements described in the URA. The acquiring agency (TriMet, Oregon Department of Transportation, or Washington State Department of Transportation) would appraise property rights needed for construction of the Modified LPA. The appraiser would contact each property owner directly and give them an opportunity to accompany the appraiser during the appraisal inspection. In addition, a relocation agent would contact and interview any occupant(s) or

business owner(s) who would be displaced by the required property acquisition to determine the individual needs of each displaced person.

Once the appraisal and the relocation study are complete, the agent would provide the property owner with a written offer for purchase of the property. If the owner or a tenant were to be displaced from the property, they would also receive a summary of the relocation benefits available. The displaced occupants would not have to move from the property for at least 90 days from the date of the Notice of Eligibility for relocation benefits or 30 days after payment for the property, whichever is later, and would be given sufficient time to consider the offer. During this time, the relocation agent would work with the displaced occupant(s) or business owner(s) to provide relocation assistance (for example, help to find a replacement home or business site).

The timing of the acquisition process is still being developed, but the IBR Program will be in touch with property owners as soon as possible after the Amended Record of Decision is issued (currently anticipated in 2026). The IBR Program will keep the public updated so that property owners and businesses can plan ahead. While the IBR Program team has directly contacted potentially impacted property owners identified in the Final SEIS, if impacted property owners have questions about the process and would like to speak to a team member directly, they can call 833-427-7691 (833-IBR-ROW1) or email ibr-row@interstatebridge.org. For more information on the URA and how it is implemented, please visit https://highways.dot.gov/fed-aid-essentials/videos/right-way/uniform-act-acquisition-and-negotiation (FHWA n.d.[a]).

B. Air Quality

3. Air Pollution

As described in Section 3.10, Air Quality, of the Draft and Final SEIS, the U.S. Environmental Protection Agency's MOVES model predicts future 2045 air pollutant emissions with the Modified LPA would be less than the 2045 No-Build Alternative for all pollutants. These air pollutant emission estimates are based on a combination of vehicle miles traveled in the air quality study area and the speeds at which those vehicles travel. Travel demand modeling showed that vehicle miles traveled with the Modified LPA would be less than the 2045 No-Build Alternative, which is described in more detail in Section 3.1, Transportation, of the Draft and Final SEIS. The Modified LPA (including all design options considered) would relieve congestion by extending light-rail transit service and improvements to Interstate 5, including seven interchanges. In addition, the Modified LPA with a fixed-span bridge configuration design option would eliminate emissions from vehicle idling during bridge openings, which would further decrease air pollutant emissions compared to the No-Build Alternative. As described in Section 3.10.3 of the Draft and Final SEIS, the magnitude and duration of potential localized changes in air pollutant concentrations cannot be reliably quantified.

With or without the Modified LPA, the results of the air quality modeling analysis, which was evaluated at the regional level, demonstrate that emissions of nine priority mobile source air toxic pollutants (including diesel particulate matter) would be significantly reduced compared to current emissions, even with an increase in traffic volumes. This decrease over time is a result of emission regulations, fuel economy regulations, and improvements in vehicle technology that are phased over time as older vehicles are replaced by newer model year vehicles.

C. Alternatives

4. Previously Dismissed Alternatives

As described in Chapter 2, Description of Alternatives, of the Draft and Final SEIS, the IBR Program is a continuation of the Columbia River Crossing (CRC) project that was active from 2005 to 2014. Substantial technical analysis was completed to support the development of the CRC project. The screening process was detailed in Section 2.5, Development of the Modified LPA, of the Draft SEIS. During the initial screening effort for the CRC project's National Environmental Policy Act (NEPA) alternatives analysis, the CRC team conducted a two-step screening process that narrowed the number of alternatives to be evaluated in the CRC Draft Environmental Impact Statement (EIS). Step A evaluated 23 river crossing and 14 transit components using a pass/fail test designed to eliminate components beyond the scope of the project or could not address the project's Purpose and Need. The six identified needs are growing travel demand and congestion, impaired freight movement, limited public transportation, safety and vulnerability to incidents, substandard bicycle and pedestrian facilities, and seismic vulnerability. For more detail on these needs, see Chapter 1, Purpose and Need, of the Draft and Final SEIS. Results of screening criteria, including why certain components were eliminated from further consideration, are detailed in Appendix C of the CRC Draft EIS (2008) and are summarized as follows:

- Fourteen of the 23 river crossing components, including a high-level replacement bridge, replacement tunnel, supplemental tunnel, supplemental (or third) bridge, and new corridor crossings.
- Eight of the 14 transit components: high-speed rail, ferry service, monorail system, magnetic levitation railway, commuter rail in the BNSF trackage, heavy rail, personal rapid transit, and people mover/automated guideway transit.

During Step B, components were scored on the project's Vision and Values (see Chapter 1 of the Draft SEIS for more information on the Purpose and Need and Vision and Values). No components were removed from consideration based on Step B screening, so this had no effect on the development of the Modified LPA nor on any of its proposed design options. During the CRC project, the joint lead agencies, with the help and recommendation of the CRC Task Force, developed a vision for how to address the Purpose and Need and the values they would follow in doing so, which resulted in a Vision and Values statement. Because the Vision and Values Statement included elements that are no longer consistent with Federal requirements, the Vision and Values Statement is not included in this Federal NEPA document. Any values that are not consistent with current Federal requirements were not considered in this Final SEIS and will not be considered in the Amended Record of Decision. To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider the Vision and Values statement, those details and analysis are provided in the SEPA Addendum, which will be available on the IBR Program's website at www.interstatebridge.org. The remaining options were then shared with local jurisdictions and combined into 12 multimodal alternatives. These 12 alternatives received extensive public and agency input and analysis. In November 2006, based on this input and analysis, CRC project staff recommended advancing a range of alternatives to the CRC Draft EIS that included two high-capacity transit modes and a replacement mid-level fixed-span bridge. The CRC staff recommendation stated "a replacement bridge would accommodate all types of travel over the Columbia River, including vehicles, freight, public transit, bicycles, and pedestrians. The bridge would be high enough to avoid the need for a lift span [under the then-effective Coast Guard requirements]. It also would be designed to avoid impacts to the airspace of Pearson Air Park [sic]."

The 2008 CRC Draft EIS evaluated a No-Build Alternative and four build alternatives: a replacement bridge with light-rail transit (LRT), a replacement bridge with bus rapid transit (BRT), a supplemental bridge with LRT, and a supplemental bridge with BRT. The reasonable range of alternatives evaluated in the CRC Draft EIS included design components (i.e., river crossing type and transit mode) that had passed the Purpose and Need screening process (Step A and Step B), and had been bundled with additional improvements for freight, active transportation, highway traffic, and transportation system management and transportation demand management.

The 2011 CRC Final EIS (Appendix T to the Final SEIS) identified a Locally Preferred Alternative (LPA). The CRC project completed its NEPA compliance with the identification of a Selected Alternative in a Record of Decision (ROD) in 2011 (CRC 2011) and was revised by two NEPA re-evaluations that were completed in 2012 and 2013. The CRC Selected Alternative identified in the 2011 ROD, as revised by the 2012 and 2013 re-evaluations, is referred to in this Final Supplemental Environmental Impact Statement (SEIS) as the "CRC LPA." In 2014, the CRC project was suspended because it did not secure adequate state funding to advance to construction.

The CRC project was never constructed, and the overall problems—the needs for the project—that the CRC project sought to address still existed and remained unresolved. Some detailed characteristics of those problems had evolved and, in some cases, worsened over time (see Chapter 1, Purpose and Need). The alternatives analysis from the CRC EIS is unchanged. The CRC LPA was identified as the starting point for IBR Program.

While the main components (i.e., a pair of replacement bridges across the Columbia River, extension of light-rail into Vancouver, improvements to seven interchanges, active transportation improvements, and variable-rate tolling) have not changed since the CRC LPA, some details of these components have been revised because of changed conditions.

In 2021, the IBR Program revisited several previously studied solutions at the request of individuals and stakeholders who urged the Program to review solutions such as a tunnel, a third crossing/supplemental bridge, high-speed rail, or other concepts as potential alternatives to a replacement bridge. The IBR Program determined that, while many of these ideas may have merit as solutions for other projects or transportation considerations, they do not provide solutions to all the transportation problems specific to the current Interstate Bridge and the surrounding Interstate 5 (I-5) corridor. Therefore, these alternatives still fail to meet the IBR Program Purpose and Need and Vision and Values, as they did for the CRC project. The three most commonly mentioned alternatives were a tunnel, a third crossing/supplemental bridge, and high-speed rail. The primary reasons for dismissal are summarized below (these are also summarized in Section 2.5 of the Draft SEIS). For more information, please refer to the series of memos on solutions that do not meet the Purpose and Need on the IBR Program's website for more information (links provided below).

The following subsections provide more detail on three of the previously dismissed alternatives that were most commonly mentioned by commenters: tunnel, third bridge/supplemental bridge, and high-speed rail.

a. Tunnel

Both replacement and supplemental tunnel options were evaluated as part of the alternatives screening process during the CRC EIS phase and were ruled out due to their inability to address all six identified transportation problems and other considerations including significant cost and archeological and environmental impacts. The tunnel options were not advanced for the following reasons:

- **Traffic:** With a replacement tunnel, the increased vehicular capacity would be located underground and would require an elaborate frontage road network to serve State Route 14, Vancouver City Center, and Hayden Island resulting in substantial out of direction travel for drivers. A tunnel would surface south and north of much of the project area, thereby not serving most of the access needs of traffic using this section of I-5. With a supplemental tunnel, because the existing Interstate Bridge would still be needed to carry non-tunnel traffic (approximately 55 percent), continued safety issues would remain related to the existing bridge lift spans, alignments, vertical profiles, and shoulder widths. In the areas where the tunnel surfaces and the realigned I-5 alignments tie back in, significant traffic turbulence would be anticipated.
- **Transit:** With a replacement tunnel, the tunnel alignment results in significant out-of-direction travel for transit to serve I-5 transit markets. It would require an elaborate frontage road system to link I-5 activity centers.
- **Freight:** With a replacement tunnel, the tunnel alignment results in significant out-of-direction travel for freight to serve I-5 freight activity centers. It would require an elaborate frontage road system to link I-5 activity centers. With a supplemental tunnel, most of the existing interchanges would not have access to the supplemental tunnel, which would benefit through freight trips but restrict access to the new capacity provided by the tunnel. As bridge openings would continue and be limited to off-peak hours, this would disproportionately impact freight movements, which tend to occur outside the peak periods.
- **Bike/Pedestrian:** With a supplemental tunnel, the tunnel alignment creates significant out-of-direction travel for bike/pedestrian users to reach I-5 activity centers.
- **Safety:** With a supplemental tunnel, and without a complete reconstruction of the existing Interstate Bridge to accommodate approximately 55 percent of traffic, significant and continued safety and operational concerns would remain. These include seismic vulnerability, inadequate shoulder and bike/pedestrian path widths, substandard vertical and horizontal alignments, and the remaining lift span still in place. If reconstruction of the bridge would be envisioned to correct these deficiencies, then it would be impractical to also build a parallel tunnel for cost reasons.
- **Cost:** A supplemental tunnel would be likely to cost significantly more than any bridge component and could be in the range of twice that of a major bridge crossing. In addition, there would also be significant costs associated with rebuilding significant parts of I-5 in the portal areas so that the tunnel could resurface, and annual operations and maintenance costs for a tunnel of this length (5,700 feet) would exceed $2 million (as estimated in 2006), which would be significantly more than for a major bridge crossing.
- **Environmental Impacts:** Other river crossing options would avoid some of the more severe environmental impacts associated with the supplemental tunnel construction. Development of tunnel designs revealed unique and potentially severe impacts to aquatic habitat, archaeological, and other historic resources, in addition to commercial property impacts adjacent to the portal areas on Hayden Island and downtown Vancouver.

The IBR Program also prepared a new analysis of an immersed tube tunnel, which was not evaluated during the CRC EIS phase. The minimum tunnel depth needed to accommodate shipping needs in the Columbia River combined with grade and safety considerations would create a situation where the "entrances/exits" of a tunnel would have to bypass much of downtown Vancouver and parts of North Portland, resulting in transportation challenges for the residents and businesses in these areas. Additionally, cost estimates for a tunnel are estimated to be approximately two times higher than cost estimates for a replacement bridge and approaches.

Please see the memo on the tunnel alternative for more information. The memo titled "Screening and Evaluation of a Tunnel River Crossing " is available at https://www.interstatebridge.org/media/gjbj55wz/memo-tunnel_remediated.pdf (IBR 2021a).

b. Third Bridge/Supplemental Bridge

Adding a third bridge to the Portland-Vancouver region will continue to be a valuable discussion within the region but, by itself, a third or supplemental bridge would not solve the specific problems associated with the current Interstate Bridge and I-5 corridor and would therefore not meet the Purpose and Need statement (see Chapter 1 of the Draft and Final SEIS). Multiple concepts of a supplemental bridge and five alternative corridors were evaluated during the CRC project as part of the alternatives screening process. Alternatives that replace the existing bridge performed better on nearly all the Project values than alternatives that supplement or reuse the existing bridge, including transit, traffic, navigation, community resources, natural resources, and seismic safety. The third bridge was not advanced for the following reasons:

- **Traffic:** The existing interstate bridge safety issues would remain, thus not meeting the Program's need related to traffic safety. Traffic on the existing bridge would continue to be affected by frequent bridge lifts.
- **Transit:** The bridge lifts on the existing Interstate Bridge would have substantial operational disadvantages for both LRT and BRT, interrupting service and reliability.
- **Active transportation:** The life cycle cost of using one or both of the existing bridge spans for bicycles and pedestrians would likely be substantially higher than the cost of accommodating bikes and pedestrians on a new highway and transit bridge.
- **Land use:** Adverse land use and right-of-way impacts would be greater for supplemental options.
- **Natural resources:** Impacts to natural resources are greater for supplemental versus replacement alternatives (for example, additional piers in the river), especially from a long-term perspective.
- **Marine navigation:** The supplemental options would result in nearly three times as many piers in the water (compared to the replacement options). This would result in impacts to river navigation as well as fish and wildlife habitat.
- **Seismic:** All of the supplemental options would also require major seismic upgrades to the Interstate Bridge. To seismically retrofit the existing bridge would result in additional impacts to the environment, may not be sufficient to reliably ensure that the bridge could safely handle an earthquake, and would be prohibitively expensive.

Please see the memo on a third/supplemental bridge for more information. The memo, titled "Screening and Evaluation of Third and Supplemental Bridge options," is available at https://www.interstatebridge.org/media/tv5cg1rq/memo-thirdbridge_remediated.pdf (IBR 2021b).

c. High-Speed Rail

In the future, high-speed rail has the potential to connect major cities on the West Coast. However, high-speed rail as a transit component to the Interstate Bridge was dismissed during the screening process because it neither increased vehicular capacity nor decreased vehicular demand, and it did not improve transit performance in the Interstate Bridge corridor. With an operating speed of more than 175 miles per hour, a high-speed rail line would be most compatible with long distance inter-city and inter-state travel, with at most one stop in each metropolitan area. This high speed could not be reached between Vancouver and Portland. Having only one transit station in the metro area would serve transit trips arriving from or destined to locations outside the region and thus would not attract the ridership necessary to notably reduce vehicular demand in the immediate Project area or the larger Portland-Vancouver metropolitan area.

Please see the full memo on high-speed rail for more information. The memo, titled "Screening and Evaluation of High-Speed Rail," is available at https://www.interstatebridge.org/media/crbldny3/memo-hsr_remediated.pdf (IBR 2021c).

5. Seismic Retrofitting the Existing Bridge

Addressing the seismic vulnerability of the existing Interstate Bridge is one of the six transportation needs identified in the Program's Purpose and Need statement (see Chapter 1, Purpose and Need, of the Draft SEIS). The existing Interstate Bridge was designed before modern seismic design codes were established. The bridge's foundations are likely to be displaced during a strong earthquake, resulting in the collapse of the bridge spans into the Columbia River. In addition, the existing movable-span lift towers would be overstressed due to the inertia of the concrete counterweights and would likely collapse onto the bridge, causing the adjacent spans to fail. This collapse potential is due to the fact that hundreds of timber bridge support piles sit within loose sand that can liquefy during an earthquake, causing loss of support.

All new and retrofitted federally funded highway bridges are required to be designed to the current edition of the American Association of State Highway and Transportation Officials Standard Specifications for Load-and-Resistance Factor Bridge Design. In addition, state Departments of Transportation may adopt local practices to address potential geologic hazards in the region (i.e., the Cascadia Subduction Zone) and may also prescribe elevated levels of seismic performance, as is the case for the Interstate Bridge.

As described in Chapter 2, Description of Alternatives, of the Draft and Final SEIS, the IBR Program is a continuation of the Columbia River Crossing (CRC) project that was active from 2005 to 2014. Numerous technical analyses were completed to support the development of the CRC project, including evaluation of seismic hazards and safety. In August 2006, the CRC project convened an "Expert Seismic Panel" of structural engineering and geotechnical engineering experts to discuss the seismic vulnerabilities and retrofit strategies of the existing Interstate Bridge. Based on the age and design of the bridge, the soils in which the bridge piers are located, and the seismic vulnerability of this region, the panel considered the existing bridges to be highly vulnerable to significant damage and/or collapse from a seismic event. Geotechnical data reports were prepared in 2013 to support the selection of a preferred alternative in the CRC Final Environmental Impact Statement, which included field exploration borings, as well as in-situ and laboratory testing data for the Columbia River crossing and Hayden Island. Findings supported the selection of a replacement bridge as the preferred alternative.

Technical studies conducted in 1995 (ODOT), 2006 (CRC) and 2008 (CRC) evaluated design, cost, environmental and cultural considerations associated with seismic retrofits for bridges in Oregon, including the Interstate Bridge and the I-5 bridge over North Portland Harbor. Conclusions from these studies identified that seismic retrofits would be expensive, would likely be ineffective after one major seismic event, and would incur additional impacts on the environment. Retrofits would substantially increase the in-water footprint due to the need to reinforce each of the existing piers with a concrete encasement as well as the construction of supplemental foundations, both of which would be necessary to meet current seismic standards. Pier encasements would also reduce the space between piers for marine traffic, effectively narrowing the existing horizontal navigation clearance. A seismic upgrade would also likely require nearly completely rebuilding the existing Interstate Bridge lift structure.

In addition, seismic retrofits may not be sufficient to reliably ensure that the bridge could handle a 1,000-year earthquake (with little to no damage) so that it could be open to traffic within three days of the event, which a replacement bridge meeting current seismic standards would be designed to perform. The timber piles that support the existing Interstate Bridge simply lack the strength, depth, and ductility to withstand these soil movements while supporting the piers and spans. In either earthquake scenario, the bridge would collapse into the Columbia River.

The alternatives screening process determined that alternatives that replace the existing bridges perform better than alternatives that supplement and reuse the existing bridges. Replacement options perform better for transit, traffic, navigation, community resources, natural resources, and seismic safety. The only key advantage of the reuse options is that they would have less impact on the historic bridge. For details, please refer to the November 21, 2006, memorandum "Considerations for Replacing Versus Reusing the Existing Interstate 5 Bridges" (https://www.wsdot.wa.gov/accountability/ssb5806/docs/6_Project_Development/Alternative_Development/ReplacingVsReuseExistingBridges.pdf) (CRC 2006).

In addition, retrofitting the existing bridge, when compared to a replacement bridge, would not meet several of the Community Values (see Chapter 1 of the Draft SEIS), including stewardship of natural resources and cost effectiveness, because retrofitting would expand the existing in-water footprint and cost substantially more than a replacement bridge.

D. Aviation

6. Pearson Field Modifications

Modifying or relocating Pearson Field is beyond the IBR Program's Purpose and Need. Pearson Field is a general aviation airport, which is defined by the Federal Aviation Administration as a public-use airport that does not have scheduled service or has fewer than 2,500 annual passenger boardings. The June 2013 *Pearson Field Airport Master Plan* indicates that there are no plans for future expansion of the facilities or for larger or different types of aircraft to use the airport (Mead & Hunt 2013).

Maintaining Pearson Field as an active airfield is necessary for number of reasons:

- It is a historic resource and receives protection under the National Historic Preservation Act.

- It performs multiple functions for commercial, educational, and recreational aviation and provides emergency response facilities in the event of natural or other disasters.
- In its Adopted Comprehensive Plan, Vancouver City Council states that it would like to maintain Pearson Field operations and intends to "protect the viability of Pearson Field" in Policy PFS 20 Airports.

Additionally, maintaining Pearson Field as an operational airport is one of several factors that could be affected by the height of the new Columbia River bridges. Other factors include maintaining river navigation, bridge type, and physical constraints imposed by the location and alignment of the bridge.

E. Construction Approach

7. Construction Traffic

The approach to constructing the proposed Modified LPA considers the need to maintain traffic flows. Section 2.3, Modified LPA Construction, of the Draft and Final SEIS describes potential construction activities and duration, as well as basic sequencing. The new Columbia River bridges would be constructed prior to the demolition of the existing bridges. The intent is to maintain three through lanes of traffic in each direction of Interstate 5 (I-5) during peak hours, accommodating personal vehicles, freight, and buses. Off-peak and weekend closures may be required during construction.

Regardless, there would be potential construction impacts on transportation, as described in Section 3.1, Transportation, of the Draft and Final SEIS. All modes of travel on the I-5 mainline and interchanges within the primary study area would be affected by changes associated with construction (e.g., temporary detours, lane closures, reduced shoulder and lane widths, reduced speeds). The public would receive notification about restrictions, intermittent closures, and detours for highway, local roadway, transit, and active transportation users.

Travelers can check for traffic impacts from construction on Washington highways using the Washington State Department of Transportation's system (https://wsdot.com/travel/real-time/) and on Oregon highways using the Oregon Department of Transportation's notification system (https://www.tripcheck.com/) (ODOT n.d.; WSDOT n.d.[a]) The IBR Program also encourages travelers to sign up for the IBR Program newsletter to receive IBR Program updates and be notified of upcoming work: https://www.interstatebridge.org/contact (IBR 2025a).

As described in the Transportation Technical Report, a Workzone Transportation Management Plan will be developed during subsequent design and construction phases to develop the strategy for managing work zone impacts from the Modified LPA. This plan would include detailed design drawings that establish all physical and operating characteristics for staging, access, lane or shoulder closures and transitions, hauling, traffic management (including general-purpose traffic, transit, bicycle, and pedestrian traffic), detours, lane modifications, and other construction zones or activities. The plan would incorporate guidance from the Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices; the FHWA, Oregon Department of Transportation, and Washington State Department of Transportation Management Plan strategies from each agency's respective design manual; and the guidance and requirements of local partners.

F. Design

8. Access to Light-Rail Transit Stations

As described in Chapter 2, Description of Alternatives, of the Draft and Final SEIS, the Modified LPA would reconstruct the existing Expo Center MAX Station and extend the MAX Yellow Line to Vancouver, including new light-rail transit (LRT) stations at Hayden Island, downtown Vancouver (Waterfront Station), and near Evergreen Boulevard (Evergreen Station). Station access and Americans with Disabilities Act (ADA) requirements would be advanced and refined as the design progresses for each of the LRT station areas proposed by the Program. Each of the LRT station areas are unique, and therefore, station access may differ depending on site conditions. The IBR Program will refine and improve access as the design advances and will continue to develop design solutions that accommodate all modes of access to the LRT stations. The IBR Program will continue to coordinate with the Cities of Portland and Vancouver, TriMet, and C-TRAN regarding access to the stations from pedestrian and bicycle facilities, and other details such as architectural features and amenities.

As noted in Section 2.2.4 of the Draft and Final SEIS, street access to the elevated Waterfront Station would be primarily by elevator as the station would be situated approximately 90 feet above existing ground level. A stairwell(s) would be provided for emergency egress. The number of elevators and stairwells provided would be based on the ultimate platform configuration, station location relative to the BNSF trackway, projected ridership, and fire and life safety requirements. In addition, the alignment of the shared-use path in Vancouver was revised for the Final SEIS based on input from the City of Vancouver and the community. The revised shared-use path is shown in Section 2.2, Components of the Modified LPA, of the Final SEIS and Appendix C, Conceptual Design Drawings, to the Final SEIS. The proposed shared-use path now ties into street level at the intersection of 3rd Street and the new Main Street extension, providing improved access to the transit station as well as the Vancouver waterfront.

As previously noted, the IBR Program will continue to coordinate with the cities and transportation agencies to improve and refine station access, architectural features, and other amenities.

9. Active Transportation/Freight

As described in Section 2.2, Components of the Modified LPA, the of Draft and Final SEIS, active transportation improvements are a main component of the Modified LPA. These improvements would include a system of shared-use paths, bikeways, and sidewalks within the primary study area. Where practical, the proposed Modified LPA incorporates alternative corridors that bypass congested areas such as ramps and interchanges.

For example, a shared-use path along the proposed extension of Expo Road would provide a continuous route that bypasses the Marine Drive Interchange. Where separate corridors for active transportation use are impractical, active transportation facilities are designed in accordance with state and local agency standards for safety. A continuous facility along the north/east side of Martin Luther King (MLK) Jr. Boulevard would require people walking, rolling, and biking westbound to cross an on-ramp with traffic (including freight traffic) that merges onto MLK Boulevard. Instead, under the Modified LPA, active transportation users would be routed to the controlled intersection of Vancouver Way with the new on-ramp. The active transportation crossing of the on-ramp at the controlled intersection would be safer than a crossing at any other place across a ramp due to lower speeds and improved sight distance for all travelers.

The IBR Program will continue to work with local agencies as needed to develop safe crossings during the final design process.

10. Areas Under Elevated Structures

As design progresses, the IBR Program will continue identifying ways to create safe and inviting environments for users of all modes, including design of roads and active transportation facilities under elevated structures. The IBR Program will also continue to coordinate with agency partners and the public through the design and construction phases.

Use of areas under structures

Areas under Interstate 5 and connecting ramps would be part of the highway right of way. Unless it is included as a Program commitment or Program mitigation, use of highway right of way is subject to approval by the Washington State Department of Transportation (WSDOT) or the Oregon Department of Transportation (ODOT). Proposals for non-highway uses must demonstrate that such uses are in the public interest and would not interfere with the safe and secure operations and maintenance of the highway facility, and require FHWA approval. Examples of prohibited uses include the storage of flammable or explosive material and structures, buildings, or facilities constructed of combustible materials that may be fire hazards.

As part of the IBR Program's mitigation identified in the Final SEIS, ODOT and WSDOT would develop guidance for architectural elements in the primary study area in consultation with local agencies, tribes, and the community. This guidance would help create spaces that are safe, active, and visually appealing. Key strategies may include minimizing structural bulk where feasible, incorporating natural light, and reflecting the unique character of the surrounding area.

Encampments under structures

Safety and maintenance plans for the Columbia River bridges would follow the approaches ODOT and WSDOT take today as they relate to unsheltered homeless communities. As transportation agencies, ODOT and WSDOT are tasked with ensuring the mobility and safety of the traveling public. While the WSDOT and ODOT are in the position of addressing some of the more visible consequences of houseless encampments, they do not have the resources, expertise, or statutory authority to resolve underlying causes of homelessness. Addressing broader community issues, such as camping on state right of way, requires a comprehensive approach that includes mental health professionals, social service providers, and local governments, with additional support from law enforcement. WSDOT and ODOT maintenance teams continue to prioritize their daily work to support the safety of the traveling public while addressing individuals camping in state right of way, as resources allow.

11. Bridge Design and Visual Impacts

Images comparing existing conditions to the Modified LPA are available in Section 3.9, Visual Quality, of the Draft and Final SEIS. The IBR Program's River Crossing Visualizations webpage (https://www.interstatebridge.org/Visualizations) has images and videos available to help the community visualize a replacement bridge and nearby elements (IBR 2025b). These images and videos show each of the bridge configuration design options analyzed in the Draft and Final SEIS from different viewpoints close to the proposed structure or while traveling on the shared-use paths in these areas. The images also include one

example bridge type for each of the bridge configuration options: extradosed bridge for single-level, truss bridge for double-level and girder bridge for a movable span. The IBR website also provides the IBR Program Area Map and Active Transportation Map under the "IBR Recommended Modified LPA" section of the Documents + Information webpage: https://www.interstatebridge.org/library (IBR 2025c). Please note these particular images do not represent the complete range of bridge types being considered in the Draft and Final SEIS.

The bridge configuration design option and type selection will be based on a multitude of factors that include regulatory and environmental constraints, constructability considerations, and cost considerations. As part of the design process, the IBR Program will create architectural design standards program-wide that may include materials, lighting, planting, the form of piers and columns, signage, and cultural interpretation. The IBR Program will continue to engage with the public throughout the design and construction phases of the program.

12. Shared-Use Path Connections

The proposed shared-use path and other active transportation improvements are described in Section 2.2, Components of the Modified LPA, of the Draft and Final SEIS, and further details are provided in Section 3.1, Transportation, and Appendix C, Conceptual Design Drawings, in the Draft and Final SEIS. The shared-use path ramp configurations throughout the primary study area would meet or exceed the standards of the Americans with Disabilities Act (ADA) while minimizing the impacts to existing land uses/resources in the vicinity. The new Columbia River bridges would be higher than the existing bridge to balance impacts to the river users and the traveling public during and after the bridge construction. In order to meet U.S. Coast Guard navigation requirements for marine vessels on the river, the height of the new bridges would need to be higher than the existing bridge, increasing the vertical distance shared-use path users travel between the bridges and street/path networks on both sides of the river.

The Modified LPA would add and/or improve the existing active transportation network within the primary study area to provide safe and accessible connections. In many locations, the specific facility type for these connections will be determined during the future design process. Regardless of type, these facilities will be designed in accordance with applicable state and local standards, including dimensions and clearance from obstructions. The design team is considering the traffic safety, comfort, and personal security aspects of the shared-use path design, including the sense of enclosure or isolation, proximity to other bridge users, and "eyes on the path."

The active transportation improvements described in the Draft and Final SEIS provide north–south and east–west connections throughout the primary study area and connect to existing facilities outside of the primary study area. All Modified LPA design options for the Columbia River bridges include a shared-use path, generally 24 feet wide, which would be designed to meet ADA standards. In accordance with ADA requirements, the grades of the ramps would not exceed 5%. As the design progresses, the IBR Program will continue to evaluate options for improving these ramp connections, such as providing rest areas and separation between bicycles and pedestrians and for improving the connection between the shared-use path and transit, as well as for improving the ramp connections to the street system below. The IBR Program will continue to coordinate with the Cities of Portland and Vancouver regarding the active transportation facilities and connections in their respective jurisdictions.

In Portland, there are walking, rolling, and biking connections in and around the bridgehead and to the local active transportation street network within the primary study area, including, but not limited to, connections to Expo Road, Union Court, and Martin Luther King Jr. Boulevard. These connections allow for better access to other major active transportation city corridors such as Denver-Interstate Avenues and Vancouver-Williams Avenues. The proposed Modified LPA design on Hayden Island would provide a continuous, elevated shared-use path for active transportation users who are traveling beyond Hayden Island into North Portland. This design would eliminate the need to traverse an undercrossing or navigate a highway interchange and provide a direct path between Vancouver and North Portland without street crossings. In North Portland, the Modified LPA would provide active transportation access to the arterial bridge via a network of shared-use paths. The circuitous path network that winds through the interchange today would be replaced entirely with new simplified path connections offering more direct, clearer navigation for path users. West of Interstate 5 (I-5), the shared-use path would travel west to an at-grade crossing of the light-rail tracks and connect to the existing Marine Drive Trail (part of the 40-Mile Loop) along North Portland Harbor. This path would also provide a connection under Marine Drive to the Expo Center light-rail station. Protected walking and biking facilities would be added to Victory Boulevard to facilitate low-stress crossing to the existing City active transportation facilities on Expo Road and Whitaker Road.

In Vancouver, the new shared-use path on the bridge would connect to the Vancouver Waterfront area. The alignment of the shared-use path in Vancouver was revised for the Final SEIS based on input from the City of Vancouver and the community. The proposed shared-use path now ties to the street level at the intersection of 3rd Street and the new Main Street extension, providing improved access to the transit station and the Vancouver Waterfront. The revised alignment would help to expose sight lines along the Vancouver Waterfront. The Modified LPA design includes a new shared-use path between McLoughlin Boulevard and K Street north of Fourth Plain Boulevard to improve active transportation connectivity on the east side of I-5.

G. Ecosystems

13. Ecosystems Mitigation

As described in Section 3.16.6 of the Draft and Final SEIS, the proposed Modified LPA will be designed to avoid, minimize, rectify, and reduce impacts to sensitive ecosystem resources to the extent practicable. It is anticipated that the Modified LPA would result in some unavoidable impacts that will require mitigation. Compensatory mitigation plans would be prepared for unavoidable impacts to regulated resources (wetlands, waters, and sensitive species and habitats) to demonstrate that the Modified LPA will result in "no net loss" of function of these resources.

The compensatory mitigation plan would include activities to comply with the regulations of the agencies with jurisdiction. The regulations establish the following mitigation options:

- **Mitigation banks:** A mitigation bank is a third-party sponsor that has constructed a mitigation site and gained approval to sell mitigation "credits." Permittees can purchase these credits to satisfy their project's compensatory mitigation requirements. There are several approved mitigation banks in Washington and Oregon that provide wetland and wetland buffer credits and fish and wildlife habitat credits, and there are other banks that are currently in the review and approval process. Mitigation ratios are established in the mitigation bank instrument, which is the regulatory document that guides bank operations. The IBR Program may elect to purchase compensatory mitigation credits from one or more

approved mitigation banks, if an approved bank has the appropriate type and quantity of credits available at the time said credits are required.

- **Permittee-responsible mitigation (PRM):** PRM consists of a mitigation project or projects that are developed and implemented by the permittee. In this scenario, permittees (or their legal designees) retain full responsibility to implement, manage, and maintain the compensatory mitigation site until performance criteria have been satisfied. If the IBR Program elects to conduct PRM, a third party could be contracted with to implement or manage a given PRM project. PRM may be conducted concurrently with a project to compensate for its impact or may occur in advance of a project. Advanced PRM is typically considered to provide a greater level of function compared to PRM constructed concurrently with a project, given the additional time the site has to develop, which increases the likelihood of success.
- **In-lieu fees and/or payment-in-lieu mitigation program:** Both Oregon and Washington have programs in place to accept payments in lieu of mitigation, under certain specific circumstances. The state then uses these payments to fund, design, and manage a variety of restoration and mitigation projects. These are typically seen as a last resort option. The IBR Program will not use the in-lieu fees option, as there are no in-lieu fee programs in the Washington Program area, and in-lieu fees would not satisfy the U.S. Army Corps of Engineer's (USACE) mitigation requirements.

For each construction contract on the IBR Program, compensatory mitigation plans will be developed as part of the permit process. Each compensatory mitigation plan will identify the amount, type, and specific locations of proposed mitigation and conservation actions; specific impact avoidance and minimization measures to be implemented; and the goals, objectives, and performance standards for measuring success. Implementation of the compensatory mitigation plan will be a permit condition from the agency with jurisdiction (i.e., USACE Section 10/404 permit, the Oregon Department of Environmental Quality and Washington State Department of Ecology Section 401 certifications, the Oregon Department of State Lands Removal-Fill permit, Washington Department of Fish and Wildlife Hydraulic Project Approval, City of Vancouver Shorelines and Critical Areas permits, and City of Portland Environmental Reviews).

The IBR Program has committed to identifying opportunities to provide ecosystem conservation benefits in addition to the permit requirements. These voluntary conservation actions could include measures to address recommendations established under Section 7(a)(1) of the Endangered Species Act or identified through coordination with interested parties; project-specific performance commitments and/or design criteria that provide a conservation benefit (such as stormwater treatment); or opportunistic on- or off-site restoration or habitat enhancement activities (such as pile removals or plantings). These voluntary conservation actions may also be provided through the purchase of additional bank credits, PRM mitigation, or in-lieu fee payments, as deemed appropriate.

H. Financial Analysis

14. Financial Plan

The most recent IBR Program cost estimate in 2026 reflects the investments analyzed in the Final SEIS. The current cost estimate accounts for market conditions, along with potential risks and cost saving opportunities, and includes costs associated with constructing the replacement bridges and other Program investments in the 2028–2045 timeframe. The estimated cost for the IBR Program ranges from $13.5 billion to $15.2 billion with a likely cost of $14.4 billion. The estimate increased from 2022 due to

numerous factors such as: A national increase in construction costs for escalating materials, labor, and equipment prices; impacts of an extended construction schedule based on construction sequencing needs; cost and schedule risks; and updated pricing and materials quantities based on more detailed design. More detail on factors that contributed to the updated estimate are included on the website. The 2026 Cost Estimate Validation Process report breaks down Program costs by construction package and is available on the Cost Estimate webpage: https://www.interstatebridge.org/costestimate (IBR 2025n).

The IBR Program currently has committed funding from a diverse range of sources, including federal funds, tolling, and state contributions. The Cost Estimate webpage identifies committed, anticipated, and prospective funding sources that will be used for construction. The first construction packages are anticipated to be the new Columbia River bridges and approaches. Subsequent construction packages would be sequenced throughout the Program area. Construction of other components of the Modified LPA would be sequenced during and after the construction of the new Columbia River bridges begins. An updated Financial Plan is in progress and will be published in 2026. The Financial Plan will continue to evolve as the IBR Program cost estimates are periodically updated throughout the design and construction phases. The most recent 2023 Financial Plan is available at https://www.interstatebridge.org/media/e4gmctwf/2023_ibr_financial_plan_revb_20230331_remediated-2.pdf (IBR 2023a).

A separate Level 2 toll traffic and revenue study was completed in November 2023, and is available at https://www.interstatebridge.org/media/sh2lube2/ibr_level-2_tr_report_final_remediated.pdf (2023b). An upcoming Level 3 toll traffic and revenue study is planned to support the rate-setting work of the Washington State and Oregon Transportation Commissions. For more information, please visit the IBR Program's Cost Estimate webpage: https://www.interstatebridge.org/EconomicBenefits (IBR 2025d).

I. Process

15. Comment Period Extension

Title 23 Code of Federal Regulations Part 771.123(k) requires a 45- to 60-day public comment period for Draft Environmental Impact Statements (EIS). The federal National Environmental Policy Act (NEPA) co-lead agencies, the Federal Highway Administration and Federal Transit Administration, in coordination with the IBR Program, set a 60-day public comment period for the Draft SEIS, which is the maximum comment period duration. The federal co-lead agencies did not extend the comment period, which ended on November 18, 2024. The closeout of the public comment period was an important step in continuing Program work toward the Final SEIS, such as recommending design options, identifying mitigations, and defining the final footprint of the proposed Modified LPA. These were all needed to complete the Final SEIS. A NEPA Amended Record of Decision is anticipated in 2026 following the schedule jointly identified between the IBR Program and federal co-leads. Any milestone delay could push future Program milestones and the start of construction under the Modified LPA.

The IBR Program continues past efforts of the Columbia River Crossing (CRC) project through a supplemental environmental document that builds on the 2008 Draft EIS, 2011 Final EIS, and 2011 Record of Decision. The Modified LPA under analysis in the Draft SEIS similarly builds on the solution identified during the CRC project and includes modifications made to address changes in the physical environment, community priorities, and regulations. Previous environmental documents also included opportunities for public comment.

To ensure the community had adequate time to understand and comment on the Draft SEIS, the IBR Program implemented multiple strategies and communications tactics to reach the Portland-Vancouver metropolitan area leading up to and during the public comment period. This included emails, newsletter content, social media, website banners, tabling, scheduled IBR office hours, and briefings. Notifications and advertising during the public comment period included a postcard, property owner letters, press releases, a press conference, transit advertising, newspaper and radio ads, and a billboard along Interstate 5 in the primary study area. The IBR Program also hosted multiple briefings and events to provide opportunities for the public to understand what was being studied, learn how to comment, and ask questions. The IBR Program worked with partner agencies, community-based organizations, and other interested parties to extend outreach to their constituencies and members.

The IBR Program provided multiple tools to assist with finding information and understanding the document. The document was available in different locations and formats, had a search function to quickly find keywords, was reviewed and made clearer and easier to read, and has been translated to enhance usability for all audiences. The IBR Program went to multiple organizations, agencies, and neighborhoods to provide information and respond to questions, and had technical experts available to respond to questions during office hours appointments with the public. This combined outreach helped ensure the community was aware of the comment period and had multiple resources and options in reviewing and understanding the technical information in the document.

Given the efforts to extend outreach and assist with access and understanding, as well as a comment period that exceeded minimum federal requirements, the comment period for the Draft SEIS was not extended. Although the comment period has ended, the Program will continue ongoing efforts to engage with the community to ensure IBR Program investments continue to reflect the needs of the region. The IBR Program looks forward to continuing to engage with the public, answer questions, and increase awareness while attending community events, presenting to organizations, and during office hours appointments.

J. Public Involvement

16. Draft SEIS Accessibility

The Draft SEIS is a complex and comprehensive document and a federal requirement under the National Environmental Policy Act. To ensure broader public access and understanding, the IBR Program also published a summary of the Draft SEIS on the IBR Program website that shared the key findings from the Draft SEIS and technical reports. Additionally, the IBR Program published high-level descriptions of some of the transportation, community, and environmental findings of the Draft SEIS on its website. There are also video recordings available for the two virtual public briefings that shared information about the Draft SEIS, including the Modified LPA design options and their potential benefits and impacts. The IBR Program also held in-person open houses and public hearings so the community could directly ask questions to the technical experts who were familiar with each chapter of the document.

To bring awareness of the opportunity to provide public comment on the Draft SEIS, the IBR Program implemented multiple strategies and communications tactics to reach the Portland-Vancouver metropolitan area leading up to and during the public comment period. The IBR Program provided multiple tools to assist with finding information and understanding the document. The document was made available in different locations and formats, had a search function to quickly find keywords, was reviewed and made clearer and

easier to read, and was translated to enhance usability for all audiences. The IBR Program coordinated with multiple organizations, agencies, and neighborhood groups to provide information and respond to questions and had technical experts available to respond to questions during office hours appointments with the public. This extensive outreach helped ensure the community was aware of the comment period and had several resources for reviewing and understanding the technical information in the document.

IBR Program materials were provided in English and vital documents are translated into the languages identified in the Program's Language Access Plan, which was created to support the federal requirements set forth in Title VI of the Civil Rights Act of 1964. The Draft SEIS summary was translated into the following languages:

- Arabic
- Chinese (Traditional)
- Korean
- Russian
- Somali
- Spanish
- Vietnamese

The primary study area's demographics influenced the additional languages for translation of the Draft SEIS summary, including Chinese (simplified) and Tagalog. Appendix B, Public Involvement, of the Draft and Final SEIS documents the public engagement undertaken as part of the IBR Program.

17. Hayden Island Engagement

The IBR Program has attended and presented at numerous in-person and virtual meetings and events with residents and business owners on Hayden Island and will continue to do so. The goal of the IBR Program is to find common ground and identify a regionally supported solution that balances the needs and priorities of the communities on both sides of the Columbia River. The IBR Program established steering and advisory groups that ensure ongoing engagement with a broad range of representatives and constituencies. These groups discussed a number of priorities throughout the Program development and design process as elements of the Modified LPA were identified. The Modified LPA comprises the foundational elements and options that the local partners agreed should move forward for further evaluation (see Attachment F to Appendix D of the Final SEIS). The Modified LPA's different elements have been informed by extensive outreach, engagement, community input, and data.

In conducting this outreach, the IBR Program heard a range of opinions regarding priorities for investments on Hayden Island. During this engagement process, the IBR Program team heard an interest in prioritizing the option for the Hayden Island interchange with the smallest footprint. The IBR Program also received requests to consider freight needs in addition to active transportation safety and access. The community shared that they wanted the IBR Program to prioritize congestion relief on Interstate 5 (I-5) near Hayden Island, safe intersections and road improvements, and convenient access to services, shopping, and restaurants. Washington residents preferred direct access to Hayden Island while Oregon residents preferred island access via an arterial bridge.

Combining technical considerations and feedback from the community, the proposed Modified LPA would include an expanded interchange at Marine Drive combined with a partial Hayden Island interchange. Traffic on I-5 coming from the north would be able to access Hayden Island through direct ramps at Jantzen Drive. Traffic on I-5 accessing Hayden Island to/from the south would use an upgraded interchange at Marine Drive and an arterial bridge connection between Marine Drive and Hayden Island. Local streets would also be reconnected under I-5. The partial interchange on Hayden Island recognizes the desire to balance vehicle and freight access with a preference expressed by the community to minimize the footprint over Hayden Island. It also improves access for active transportation users, including those accessing transit by walking or biking, by reducing the number of pedestrian roadway crossings.

Additionally, during the Draft SEIS public comment period and at public outreach events, the IBR Program received numerous inquiries from Hayden Island property owners, including owners of floating homes and houses. The IBR Program followed up with these property owners to discuss whether they were impacted, what type of impact could be expected, and information about the right-of-way process.

18. Incorporating Public Input

Ongoing, broad, and robust community engagement is critical to identifying a solution that balances differing regional perspectives and best serves the complex needs of the variety of users. The IBR Program's engagement efforts provide ongoing opportunities for meaningful communication with bridge users, community organizations, residents on both sides of the river, businesses, neighborhood associations, and those residing within the 5-mile primary study area.

The IBR Program conducted various community surveys and polls from 2020 through 2022. Community opinion polling took place in 2020 and 2022. The IBR Program conducted two community surveys in 2021 to confirm the IBR Program's Purpose and Need, gather input on the design options, and provide the opportunity for the public to weigh in on the priorities that informed elements of the Modified LPA. For more information visit the Community Engagement section of the IBR Program's resources page: www.InterstateBridge.org/library (IBR 2025c).

The IBR Program offers numerous ways for the public to engage with the IBR Program and has convened multiple advisory groups as part of its inclusive approach to community engagement, ensuring that outcomes reflect community needs, issues, and concerns. IBR Program advisory groups were established to ensure ongoing engagement with a broad range of representatives with varied priorities throughout the development and design process. IBR advisory group meetings are streamed online and open to the public. Read more about the IBR Program's advisory groups here: https://www.interstatebridge.org/advisory-groups (IBR 2025e).

The IBR Program encourages community members to attend IBR Program advisory group meetings, provide public comment, and sign up for the IBR Program newsletter to stay up to date about opportunities to provide feedback. Meeting dates, times, materials, and participation information are posted on the IBR Program Meetings and Events calendar at https://www.interstatebridge.org/calendar (IBR 2025f).

Extensive public involvement efforts were undertaken as part of the Columbia River Crossing (CRC) Environmental Impact Statement (EIS) process from publication of the Notice of Intent to prepare an EIS in September 2005 through publication of the Final EIS in 2011. The IBR Program public involvement efforts

build on the work done during CRC by incorporating the feedback, best practices, and lessons learned from past work with new tools and opportunities. Appendix B of the Draft and Final SEIS documents the public involvement conducted for the IBR Program and includes the IBR Program's goals for public involvement, a description of the primary audiences identified for outreach, and the tools used to communicate with these interested parties.

As design work progresses, the IBR Program will continue to offer opportunities for community members to provide input. These opportunities may include safety improvements, architecture, elements of Interstate 5, active transportation investments, and transit elements. Future opportunities to weigh in will occur through IBR Program advisory group meetings, engagement with partner agencies, and neighborhood association meetings. The Program encourages the public to visit the advisory group webpage to learn more about meeting times and opportunities to provide written or verbal public comment: https://www.interstatebridge.org/advisory-groups (IBR 2025e). The Program newsletter also updates subscribers about opportunities to provide feedback: https://www.interstatebridge.org/contact (IBR 2025a).

19. Past Voting – Light-Rail Transit

The IBR Program is a partnership between two Program sponsors, the Oregon Department of Transportation (ODOT) and the Washington State Department of Transportation (WSDOT), and eight regional partner agencies. Authority to pursue IBR Program investments like light-rail stems from the statutory authority of each state Department of Transportation and does not require a vote from the public.

The National Environmental Policy Act (NEPA) process does not require voting as a form of public involvement. At the direction of the Clark County Commission, residents of Clark County were asked to vote on light-rail transit (LRT) in 2012 and 2013, as described below. Such votes served to inform the Clark County Commission but were not the basis for decisions concerning the Modified LPA and design options for the IBR Program, which serve as the basis for the analysis in the Draft and Final SEIS.

Regional support for LRT and express bus service between Portland and Vancouver in the IBR Program's Modified LPA was provided by regional partner agencies, including the Cities of Portland and Vancouver, the Ports of Portland and Vancouver, TriMet, C-TRAN, Oregon Metro, and the Southwest Washington Regional Transportation Council (RTC), acting as representative governments. Local elected officials and board members of these same regional partner agencies, acting on behalf of those they represent, endorsed or approved the Columbia River Crossing (CRC) LPA in 2008 as part of the 37-member CRC Task Force. Changes to the CRC LPA were coordinated with and agreed upon by the regional partner agencies based on changed conditions since the CRC LPA.

Extensive public engagement as part of the NEPA process for the CRC project was undertaken from publication of the Notice of Intent to prepare an EIS in September 2005 through publication of the Final EIS in 2011. Public engagement as part of the IBR Program was built on the work done during the CRC project by incorporating feedback, best practices, and lessons learned from that project, plus the addition of new strategies and updated approaches to engagement. Appendix B, Public Involvement, of the Draft and Final SEIS documents the public engagement undertaken as part of the IBR Program. Notable community feedback that was provided during this outreach included a desire for greater connectivity from Clark County into Portland and the regional transit system; reliability and travel time of mode expressed as the most important transit priorities; support for high capacity transit options, with many preferring light-rail or a combined light-rail/bus rapid transit (BRT) option; and strong support among residents in the entire region for the concept of

extending the MAX Yellow Line from Expo Station to Vancouver in a dedicated space across the new Columbia River bridges.

Opportunities to vote on aspects of LRT as part of the CRC project occurred in Clark County in 2012 and 2013. The first vote, in November 2012, involved a local Clark County C-TRAN Proposition (Proposition No. 1 Clark County Transportation Sales Tax Increase). The C-TRAN Proposition asked Clark County residents about a proposed sales tax increase to fund operations for an LRT extension, which was part of the CRC project, and a new C-TRAN BRT line in Clark County, which was not part of the CRC project.

The second vote in November 2013 involved an advisory vote that was placed on the ballot in Clark County (Advisory Vote No. 1 Light Rail Advisory Vote) by the Clark County Commission. An advisory vote in Washington is a nonbinding ballot measure that provides an assessment of current opinions but does not change existing laws or regulations. The advisory vote asked the public whether the Clark County Commissioners should oppose all light-rail projects in Clark County, which would have included the CRC project, unless such projects were supported by a majority of voters in a countywide advisory vote. Because this advisory vote was put on the ballot by the Clark County Commission, the vote only served to inform Clark County Commission-specific votes/actions. The Clark County Commission does not have statutory authority to determine whether to prioritize state funding for light-rail. ODOT and WSDOT do have funding authority; exercise of that authority is within their discretion and not mandated by the outcome of the Clark County advisory vote.

20. Past Voting – Tolling

In both Oregon and Washington, state legislatures are responsible for authorizing tolling on facilities in their state; both legislatures have authorized tolling for the IBR Program to fund the Modified LPA with toll revenue. A variety of funding sources are necessary to ensure sufficient funding to undertake the IBR Program—including tolling, federal funding, and state funding from Oregon and Washington.

Although there is no existing statutory requirement to seek public input on the decision of whether to implement a toll, the Clark County Commission sought input from residents of the county through a nonbinding advisory vote on the Columbia River Crossing (CRC) project. This advisory vote, which was placed on the ballot by the Clark County Commission in 2013, sought county residents' input as to whether the Commission should support a toll-free Interstate Bridge replacement (Advisory Vote No. 4 Interstate-5 Toll-Free Bridge Replacement). Because the Clark County Commission does not have statutory authority related to tolling, the 2013 advisory vote provided feedback to the Commission concerning the County's support for a toll-free Interstate Bridge replacement, but it did not require the state legislatures to oppose or eliminate tolling as a funding mechanism for the IBR Program.

Past local votes related to aspects of the CRC project occurred independently of the development of the CRC project and its National Environmental Policy Act (NEPA) process. Although local advisory voting is a mechanism for local and state governmental entities to seek input from citizens, it is outside the scope of the NEPA process and the analysis in this SEIS. To the extent state and local government entities sought input from citizens, the results of such voting might impact such entities, but would not determine the analyses required to comply with NEPA. As described in Section 2.2 Chapter 2 of the Draft and Final SEIS, variable-rate tolling is included in the proposed Modified LPA. The reasonably foreseeable effects of variable-rate tolling

are described in Section 3.1, Transportation, Section 3.4, Land Use and Economic Activity, and Section 3.5, Neighborhoods and Communities, of the Draft and Final SEIS.

Tolls are an integral part of the IBR Program funding strategy, which is coordinated and agreed upon with local agency partners, including cities, ports, and transportation agencies. Toll revenue provides a vital funding source for capital costs, operations, and maintenance for the replacement Columbia River bridges. Statutory authority to implement a toll lies with both the Oregon and Washington state legislatures, but there is no statutory requirement for public input through voting for a toll to be implemented. Both Oregon and Washington legislatures have authorized tolling to fund the IBR Program, alongside state and federal funding sources. Additionally, the proposed Modified LPA includes multimodal improvements that provide options to cross the Columbia River without incurring a toll. These options are bus, light-rail transit, and a shared-use path for people to walk, bike, or roll.

21. Program Outreach Metrics

The IBR Program reaches as many community members as possible through numerous avenues, but it cannot reach everyone. The IBR Program conducted a variety of outreach activities to engage the public and members of all communities. These outreach activities were designed to meet people where they are, provide information about the IBR Program and Draft SEIS document, and collect public comments. The IBR Program held events in advance of publishing the Draft SEIS to educate the community about how to comment. The Program also offered virtual and in-person events after the comment period started to review the contents of the Draft SEIS and to share the ways to provide comments. Some of these events also acted as opportunities for the public to provide in-person or virtual comments. Altogether, these events had nearly 400 attendees.

During the public comment period, notifications to submit comments on the Draft SEIS were shared via direct mailers, advertisements, door hangers, social media graphics and videos, fact sheets, and newsletter emails. The IBR Program website received over 33,000 views, the newsletter was sent to 7,143 subscribers, and the Draft SEIS-related emails reached nearly 15,000 people. The IBR Program reached an estimated 3.2 million people through various advertising efforts. Social media posts along with print and broadcast advertising on a variety of platforms reached over 370,000 people.

To ensure the IBR Program was capturing additional audiences, the IBR Program also contacted community organizations, business organizations, and neighborhood associations on each side of the river. This effort resulted in 53 briefings and presentations for over 500 total attendees. While the IBR Program offered briefings even more broadly, not all organizations or jurisdictions participated.

The IBR Program also conducted specific engagement efforts to connect with a broad range of communities and ensure awareness of Draft SEIS materials. The IBR Program partnered with community engagement liaisons (CELs) to increase engagement with impacted communities during the public comment period. CELs are trusted members of their communities with strong networks and relationships. This work resulted in engagement with over an additional 230 community members during the public comment period.

Engagement efforts resulted in the IBR Program receiving 3,618 public comment submissions on the Draft SEIS.

K. Purpose and Need

22. Purpose and Need Confirmation

As described in the Draft and Final SEIS, the IBR Program is a restart of the previously suspended Columbia River Crossing (CRC) project, which completed the National Environmental Policy Act (NEPA) process with a signed Record of Decision (ROD) in 2011 and two re-evaluations in 2012 and 2013. Numerous studies conducted for the CRC project and past planning studies in this section of Interstate 5 (I-5) identified a variety of transportation mobility and safety problems. For additional details on these studies and their findings, please see Section 1.2 of the CRC Final Environmental Impact Statement (EIS) and Final Section 4(f) Evaluation.

The Purpose and Need statement for the CRC project was developed by the CRC Task Force and the joint lead agencies. Please see Chapter 1 of the CRC Final EIS to learn more about how the Purpose and Need was developed and about agency and public input. As part of the NEPA process, the IBR Program began working with regional and local partner agencies and the public in early 2021 to review the Purpose and Need that was adopted for the CRC project. The IBR Program brought the Purpose and Need to partner agencies and the IBR Program's three advisory groups to discuss the transportation needs identified for the CRC project. These transportation needs were also brought to the public for comment during an online open house, virtual community briefings, and an online survey.

In mid-2021, the IBR Program determined that the six transportation needs identified in the CRC Purpose and Need statement still existed. This was documented in a third NEPA re-evaluation that was prepared in 2021 to evaluate the effect of changes in conditions and regulations since 2013, as well as potential design changes. Thus, the Purpose and Need statement for the IBR Program remains the same as documented in the 2011 Final EIS and 2011 ROD for the CRC project.

The Purpose and Need statement (see Chapter 1, Purpose and Need, of the Draft and Final SEIS) identifies six specific transportation needs to be addressed by the IBR Program: (1) growing travel demand and congestion; (2) impaired freight movement; (3) limited public transportation operation, connectivity, and reliability; (4) safety and vulnerability to incidents; (5) substandard bicycle and pedestrian facilities; and (6) seismic vulnerability. Chapter 1 of the Draft and Final SEIS also detail how community partner outreach and public engagement helped confirm the Purpose and Need statement.

23. Project Definition

As described in Chapter 2, Description of Alternatives, of the Draft and Final SEIS, the IBR Program is a continuation of the previously suspended Columbia River Crossing (CRC) project with the same purpose: to improve I-5 corridor mobility by addressing present and future travel demand and mobility needs in the primary study area, which extends approximately 5 miles from Columbia Boulevard in Portland to State Route 500 in Vancouver. Please refer to Chapter 1, Purpose and Need, of the Draft and Final SEIS for additional information.

As described in Chapter 2 of the Draft and Final SEIS, the proposed Modified LPA includes several transportation improvements throughout the 5-mile corridor, including a pair of replacement bridges across the Columbia River, a 1.9-mile extension of light-rail into Vancouver, integration of local bus transit service

and express bus-on-shoulder service, improvements to seven interchanges, active transportation improvements, and variable-rate tolling.

The CRC project completed its National Environmental Policy Act (NEPA) compliance with the identification of a Selected Alternative in a Record of Decision (ROD) in 2011. The CRC Selected Alternative identified in the 2011 ROD, as revised by the 2012 and 2013 re-evaluations, is referred to as the CRC LPA. While the CRC project successfully completed the NEPA environmental review process when Federal Highway Administration and Federal Transit Administration issued the ROD in 2011, it did not secure adequate state funding to advance to construction and was discontinued in 2014.

In 2019, the CRC project restarted and was renamed the IBR Program. The details of the CRC LPA were reexamined and revised to account for changed conditions, including the physical environment, community priorities, and regulations, that have occurred since 2013. The CRC LPA was updated and modified in close coordination with federal, tribal, state, regional, and local partners to establish the IBR Program's Modified LPA. These modifications are detailed in Section 2.5, Development of the Modified LPA, of the Draft and Final SEIS. The Draft and Final SEIS analyze the Modified LPA with design options and a No-Build Alternative. The No-Build Alternative is required under NEPA and defines future conditions if no improvements are made, serving as a comparative baseline for decision-makers.

L. Tolling

24. Tolling Exemptions and Discounts

The proposed Modified LPA includes a proposal to apply variable-rate tolls on vehicles using the new Columbia River bridges. Tolling authority for the IBR Program comes from Title 23 U.S. Code Section 129, which allows tolling of federal highways in several circumstances, including the "reconstruction or replacement of a bridge or tunnel." Tolling would commence on the existing Interstate Bridge (referred to as "pre-completion tolling") after construction of Modified LPA begin but before the existing Interstate Bridge is removed. Tolling would move to the replacement Columbia River bridges once they are complete. The toll would be collected electronically in both directions. Tolling would help generate revenue to fund construction and facility operations and maintenance, as well as manage demand and improve mobility through the corridor.

Final toll rates could change from what was studied in the Draft and Final SEIS. The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) will jointly set toll rates and policies for the IBR Program, including discounts or exemptions. At the beginning of 2024, the OTC and the WSTC entered into a bi-state tolling agreement to establish a cooperative process for jointly setting IBR toll rates and establishing a bi-state tolling subcommittee to recommend rates and policies to the commissions. In 2024, the bi-state tolling subcommittee recommended four tolling scenarios to be included in the next round of tolling analysis. The OTC and WSTC approved the subcommittee's four scenarios to advance for additional analysis (referred to as a Level 3 Investment Grade Toll Traffic and Revenue Study or Level 3 analysis) to inform future toll rate setting. As soon as analysis of these scenarios occurs, the number of toll scenarios will be reduced and made available for public review and comment. The OTC and WSTC would take formal action after considering the results of the analysis and public input.

The OTC and WSTC would adopt toll rates, including exemptions and discounts, six to nine months before pre-completion tolling begins on the Interstate Bridge. Formal action will be needed by OTC and WSTC in

order to implement rates and policies, including discounts and exemptions. It is anticipated that tolling would begin on the existing Interstate Bridge in 2028, allowing time to hire a contractor, install tolling equipment, and conduct the rate-setting process after issuing an Amended Record of Decision.

Any user who registers for a *Good to Go!* account, which is targeted to and will benefit frequent users, will have a lower rate than those that pay a toll through the mail. At present, the OTC and WSTC have not discussed the possibility of frequent user discounts or local waiver discounts. WSTC has not adopted such discounts on other Washington toll facilities currently in operation.

Multimodal improvements, including expanded transit options and shared-use path improvements, will provide non-tolled travel options across the river for all people.

The bi-state tolling subcommittee holds public meetings that include time for public comment. Members of the public may sign up for meeting updates or find information on how to provide comments related to toll rates and policies at: https://wstc.wa.gov/programs/tolling/i-5-bridge-over-the-columbia-river/ (WSTC 2026).

M. Transportation

25. Downstream Congestion Effects in Portland

On southbound Interstate 5 (I-5), traffic bottlenecks currently occur at three separate locations in and near the primary study area: the Interstate Bridge, the I-5/Interstate 405 (I-405) split in North Portland, and the Rose Quarter area. See Section 3.1, Transportation, of the Draft and Final SEIS for more details on these southbound bottlenecks. The proposed Modified LPA would ease traffic congestion caused by the bottleneck at the Interstate Bridge. The I-5/I-405 split in North Portland and the Rose Quarter area are outside of the primary study area; therefore, the Modified LPA does not address these other two southbound bottlenecks. The I-5 Rose Quarter Improvement Project is an ongoing project that addresses safety and congestion in the Rose Quarter bottleneck area. Details about the I-5 Rose Quarter Improvement Project may be found on the Oregon Department of Transportation's website.

Traffic volume demand south of the primary study area is similar between the No-Build Alternative and the Modified LPA. A common misconception is that the southbound I-5 traffic coming from Clark County across the Interstate Bridge during the AM peak period is headed for downtown Portland or other destinations south of the I-5/I-405 split in North Portland. However, current origin-destination data show that over 50% of the traffic crossing the Interstate Bridge southbound in the AM peak period exits I-5 in the first 2 miles after crossing the river. While less than 50% of the Interstate Bridge hourly traffic volume originating in Washington moves through the other southbound bottlenecks, more traffic volume originating in North Portland passes through the other southbound I-5 bottlenecks.

Several features of the Modified LPA would help reduce traffic congestion near the I-5/I-405 split in North Portland and in the Rose Quarter area, especially relative to the No-Build Alternative. These include the extension of the MAX Yellow Line light-rail transit to Vancouver, express bus enhancements, and variable-rate tolling on the new Columbia River bridges. These new multimodal options give commuters options besides passenger vehicles, and the variable-rate tolls encourage drivers to choose other modes or time of day to travel if possible. This shift would reduce vehicle traffic on I-5 across the river and along the entire corridor, including at the other two southbound bottleneck locations.

26. Financial Planning Forecasts vs. Environmental Analysis Forecasts

There are two different types of traffic volume forecasts that were prepared for use on the IBR Program: Financial Planning Forecasts and Environmental Analysis Forecasts. These forecasts have different purposes. Forecasts for financial planning, such as toll traffic and revenue (T&R) studies, focus on annual traffic and revenue projections in each year. Typically, these forecasts are conservative so as not to overstate possible revenue. Forecasts for environmental analysis are prepared to support the National Environmental Policy Act (NEPA) process and focus on traffic impacts for a typical weekday. Generally, these forecasts are intended to avoid underestimating possible environmental impacts and are used for design needs.

A toll T&R study is used to estimate the potential traffic and revenue of a toll facility. The forecasting process is based on historical trends and anticipated future changes such as changes to future transportation system options (e.g., highways, transit, active transportation network) or toll policies and pricing strategies.

There are three levels of T&R studies, typically performed sequentially and each building upon the previous one to inform the toll rate setting and financial plan decision-making process.

1. **Level 1** is a basic analysis for evaluating high-level feasibility of tolling. This level of analysis was completed during the Columbia River Crossing (CRC) project's planning efforts. The Level 1 analysis for the CRC project was completed by Stantec in 2007.

2. **Level 2** includes a more detailed analysis conducted to test different toll and policy scenarios to determine their relative traffic and revenue outcomes to inform ongoing financial planning. A Level 2 toll T&R study is typically conducted concurrently with the NEPA environmental analysis.

   A Level 2 T&R study was completed for the Interstate Bridge in November 2023 by Stantec with input from the Oregon Transportation Commission (OTC) and Washington State Transportation Commission (WSTC). This study analyzed various toll rate scenarios to understand how each would affect travel demand and revenue. The report is available at https://www.interstatebridge.org/media/sh2lube2/ibr_level-2_tr_report_final_remediated.pdf (IBR 2023b).

   A Level 2 T&R study was also completed for the CRC project in 2013 by CDM Smith. This Level 2 analysis is outdated and has been replaced by the new Level 2 T&R study completed by the IBR Program.

3. A **Level 3** toll T&R study (also referred to as an "investment grade" study) is the most-detailed level of study. In this study, refined toll rates and policies that have been developed to meet project objectives, including financial obligations, are analyzed to help support the decision-making process. The Level 3 forecasts are prepared with sufficient precision and rigor to secure a credit rating and obtain financing for the project. For the IBR Program, it is anticipated that a broader set of more recent observed travel data, including updated origin-destination patterns, will be collected, and a stated preference survey analysis will be conducted as part of the future Level 3 Toll T&R Study. The Level 3 analysis will also include updated assumptions about other regional network characteristics, including pricing on other facilities, and it may include the use of an updated version of the regional travel demand model (RTDM), if an updated version is tested and available when the Level 3 T&R

study starts. The Level 3 forecasts are prepared with sufficient precision and rigor to secure a credit rating and obtain financing and are typically completed about 6 to 8 months before tolling begins.

A Level 3 investment grade study was completed during the CRC project in late 2013 but would be replaced by the one that will be completed for the IBR Program. The CRC project Level 3 study is available at: https://wsdot.wa.gov/accountability/SSB5806/docs/4_Finance/InvestmentGradeAnalysis.pdf (CDM Smith 2013)

The objective of the T&R forecasts is to support financial planning, including the capacity of the toll revenue to support the construction of the replacement bridge. However, there is a degree of uncertainty regarding the actual revenue that will occur as demand trends and toll policies may change as the IBR Program moves towards implementation. As such, T&R studies attempt to minimize the risk of this uncertainty by providing a conservative estimate of the potential funding that could be leveraged from tolling for financial planning purposes, thereby minimizing the chance of overstating revenue. However, these conservative estimates of traffic would result in understating or misrepresenting the potential environmental impacts and design considerations of the IBR Program. As such, these traffic volumes are neither suitable for, nor are they intended to be used for, design or environmental analysis.

For Environmental Analysis Forecasts, please see Transportation Standard Responses M.36: Regional Travel Demand Model and M.38: Traffic Forecasts. These environmental analysis traffic forecasts are developed to account for the demand information derived from the RTDM, using the process described in Transportation Standard Response M.38: Traffic Forecasts. The environmental analysis traffic forecasts are used to predict traffic volumes and traffic impacts for a typical weekday on a particular road network, which inform the environmental analysis in the NEPA document. Because these traffic volume forecasts generally aim to avoid underestimating possible environmental impacts, they are not suitable for use in financial planning. The IBR Program used each type of traffic forecast for its appropriate, industry-accepted purpose.

27. Freeway Congestion

The Draft and Final SEIS addresses congestion both within the primary study area and along the broader Interstate 5 (I-5) corridor. Traffic volumes and congested conditions inside and outside the primary study area influence each other.

Freeway congestion is an excess of vehicles on the roadway at a particular time, resulting in speeds that are slower than free-flow speeds. Congestion is divided into two categories: recurring and nonrecurring. Recurring congestion occurs when the traffic flow rate approaching a location exceeds the traffic flow rate departing the same location. This type of congestion occurs due to operational influences, which include decision points such as on- and off-ramps; merging/diverging segments; weaving segments; lane drops; and traffic signals, and design constraints, such as curves, grades, underpasses, or narrow or nonexistent shoulders. Recurring congestion is routine to the point of being predictable in cause, location, time of day, and duration. Nonrecurring congestion is caused by traffic incidents, work zones, bad weather, and special events.

The Oregon Department of Transportation (ODOT) and Washington State Department of Transportation (WSDOT) measure congestion as speeds below a certain threshold. ODOT and WSDOT have historically

measured congestion as when travel speeds drop below 75% of the posted speed limit (due to constrained conditions. In the CRC analysis, congestion was defined as occurring when travel speeds were below 35 mph. To develop a consistent threshold across the region, ODOT and WSDOT measure congestion at 45 mph as most of the posted speed limits in the greater Portland Metro region are 60 mph (75% of 60 mph is 45 mph). This applies to all freeway locations even if the posted speed limits are lower than 60 mph. This is current ODOT and WSDOT standard practice and is being completed for all projects across the Portland Metro Region. Therefore, the IBR Program measured congestion as speeds below 45 mph and summarized the hours of congestion at bottlenecks.

The Interstate Bridge is a major bottleneck on I-5, although it is not the only one. Section 3.3.4.1 of the Transportation Technical Report acknowledges that multiple bottlenecks exist along the corridor and interact with each other. There are three bottlenecks on southbound I-5 and one bottleneck on northbound I-5. Bottlenecks are not identified by where speeds are lowest, but by where traffic first begins to slow below free-flow speeds. In both directions, congestion originates at the Interstate Bridge and propagates upstream, resulting in stop-and-go traffic until vehicles pass through the bottleneck and speeds recover.

28. Future Proofing Transit

The light-rail transit integrated into the proposed Modified LPA helps to design and plan a transit investment that accommodates growth, evolving travel patterns, and future technologies without requiring substantial reconstruction, referred to as future-proofing transit, in several ways.

- The Portland-Vancouver metropolitan area population is growing rapidly. The Portland area's MAX light-rail helps meet rising transit demand with a scalable system that can expand as the region grows.
- Light-rail encourages denser mixed-use development around stations, which supports long-term urban growth consistent with the land use planning goals in the region. In the Portland-Vancouver area, land use plans seek to minimize urban sprawl and allow residents and visitors opportunities to travel by modes other than single-occupancy vehicles. This would provide another transportation option in a region with a limited freeway network and congestion issues.
- Light-rail integrates well with other forms of sustainable transportation. Regional transportation plans in this region include a commitment to multimodal travel (bus, streetcar, walking, biking, and other forms of active transportation) and light-rail is another piece of that commitment.
- Light-rail operates on dedicated tracks, which allows it to better avoid traffic congestion, thus providing more reliable service. This reduces pressure on other roadways as the population grows. The proposed 1.9 mile extension will connect to 60 miles of existing light-rail operating throughout the Portland metropolitan area, connecting Vancouver to numerous destinations throughout the region.
- Light-rail provides a higher-capacity option than standard buses, carrying more passengers per vehicle and making it well suited for increasing demand in the future. It is important to note, however, that there are limitations to the ability to operate more than two-car train sets due to city block and platform sizes throughout the TriMet system.

- Public transportation and high-capacity transit options, like light-rail support regional efforts to reduce air pollutant emissions. Light-rail and other public transit can help the region move toward its air quality goals by encouraging non-automobile travel.

29. Hayden Island Transportation Effects and Access to Mainland

For travel between mainland Portland and Hayden Island, the proposed Modified LPA would construct a new arterial bridge for local traffic, pedestrians, and bicyclists. Tolling is not proposed on the local arterial bridge.

For travel between Hayden Island and Vancouver, cars and trucks would be tolled, as described in Section 2.2.8 of the Draft and Final SEIS. Tolling on the new bridges over the Columbia River is proposed as a method to help fund the bridge construction and future maintenance as well as to encourage alternative mode choices for trips across the Columbia River.

As described in Section 2.2.2 of the Draft and Final SEIS, vehicles on Hayden Island looking to enter Interstate 5 (I-5) southbound would use the arterial bridge to cross North Portland Harbor, cross under I-5 using the new Expo Road local street extension to the westernmost intersection, cross under Marine Drive, merge with the Marine Drive southbound on-ramp, and merge with I-5 southbound south of Victory Boulevard. Motorists traveling to Portland via Martin Luther King Jr. Boulevard would turn onto the arterial bridge southbound and travel straight through the intersection onto Vancouver Way. At the intersection of Vancouver Way and Marine Drive, motorists would turn right onto Union Court and follow the existing road southeast to the existing on-ramp onto Martin Luther King Jr. Boulevard. Vehicles traveling to Vancouver or points farther north would access I-5 from the island via a new northbound on-ramp and return via a new southbound off-ramp.

Section 4.4.4.4 of the Transportation Technical Report provides a detailed analysis of local traffic operations on Hayden Island with the No-Build Alternative and the Modified LPA. All intersections on the island, including intersections with the new arterial bridge, would operate at acceptable levels of service with the Modified LPA in 2045. One intersection on the Portland mainland (the intersection of Marine Drive, Martin Luther King Jr. Boulevard, and the southbound I-5 ramps) would not meet performance standards under either the No-Build Alternative or the Modified LPA, but its performance would improve under the Modified LPA compared to the No-Build Alternative. Therefore, the proposed Modified LPA is not expected to cause congestion on Hayden Island and the new arterial bridge.

Section 3.6, Public Services and Utilities, of the Draft and Final SEIS evaluates potential traffic effects of the Modified LPA on emergency services. The analysis identified 64 intersections along critical emergency access routes (45 intersections in Vancouver and 19 in Portland) and compared operations at those intersections under the No-Build Alternative and the Modified LPA. Three intersections in Portland would not meet performance standards under the No-Build Alternative; as noted above, only one (the intersection of Marine Drive, Martin Luther King Jr. Boulevard, and the southbound I-5 ramps) would not meet performance standards under the Modified LPA, but it would operate better than under the No-Build Alternative. Full-width shoulders on the new Columbia River bridges could improve response times by allowing emergency providers using I-5 to bypass congestion while crossing the Columbia River or accessing Hayden Island. The addition of one auxiliary lane (the Recommended Design Option) would also reduce congestion and facilitate emergency response by improving traffic flow on I-5 through the primary study area.

30. Highway Capacity

The proposed Modified LPA would include capacity increases across the Columbia River bridges in the form of one or two auxiliary lanes. Auxiliary lanes are ramp-to-ramp connections designed to give drivers the distance needed to speed up or slow down before entering or exiting the roadway, improving safety in the corridor. These lanes are not through lanes and are different from adding an additional lane. These connections reduce localized bottlenecks and optimize traffic flow by giving drivers space to merge, diverge, and weave safely. Benefits of auxiliary lanes include improved travel time, reduced likelihood for crashes, reduced air pollutant emissions due to less congestion, and safety improvements.

Through lane capacity and auxiliary lane capacity differ in their functions on a freeway. Through lane capacity refers to the ability of the main lanes of a freeway to accommodate continuous, uninterrupted traffic flow. These are the primary lanes for drivers traveling from one area to another without stopping or merging. Auxiliary lane capacity refers to the lanes that assist with merging or exiting traffic, such as on-ramps, off-ramps, or lanes designed to help vehicles transition between highways. These lanes help manage traffic flow by allowing vehicles to enter or leave the freeway safely, but they do not contribute directly to the core, continuous travel of through traffic. With the Modified LPA, the auxiliary lanes would address safety and corridor operational concerns. The I-5 corridor's capacity to the north and south of the primary study area remains unchanged at three lanes.

31. Induced Demand

The Modified LPA would have integrated multimodal improvements with transportation management elements to meet the IBR Program's Purpose and Need. These improvements would enhance safety and mobility without increasing regional highway capacity or inducing demand. The Draft SEIS describes the regional vehicle capacity and operational constraints that would remain to the north and south of the primary study area, which would remain fixed at three lanes to the north and south. The Modified LPA's safety and operational improvements to Interstate 5 (I-5) were developed to work in conjunction with high-capacity transit, active transportation facilities, variable rate tolling, transportation demand management (TDM), and transportation systems management (TSM). The non-highway elements of the Modified LPA (transit, active transportation, tolling, TDM, and TSM) would all help minimize and manage the potential for induced demand by providing multimodal choices and management tools to manage highway demand. The region could also use these tools to dynamically adjust over time to manage higher levels of highway demand, should they occur.

While the term "induced demand" was not used in the Draft SEIS, discussions of induced demand were included in Section 6.1 of the Transportation Technical Report, as well as Sections 3.4.2 and 4.4.4 of the Land Use Technical Report. In addition, as noted in Section 3.1, Transportation, of the Draft SEIS, the travel demand forecasts and analysis are based on the use of the Oregon Metro/Southwest Washington Regional Transportation Council regional travel demand model, which dynamically considers changes in demand due to transportation improvements, planned land use, and future population and employment targets throughout the region. Chapter 3 and Appendix A of the Transportation Technical Report provide discussion of the development of validation techniques used to produce model runs for the SEIS for both the No-Build Alternative and the Modified LPA. These model runs demonstrated that vehicle demand would drop in the I-5 corridor compared to the No-Build Alternative because (1) regional vehicle capacity would remain constrained north and south of the primary study area and (2) the Modified LPA also includes variable rate

tolling, light-rail transit, express bus, active transportation facilities, TDM, and TSM. Section 6.1 of the Final SEIS Transportation Technical Report also includes an updated discussion of the potential for induced demand.

The approach of evaluating the potential for induced demand using an established, validated regional travel demand model is reinforced by longstanding federal and state level guidance and by transportation and environmental planning best practices. While there are differences in how induced demand is defined, the Federal Highway Administration's (FHWA) Environmental Review Toolkit provides interim guidance that includes the following definition of induced demand: "the volume of traffic that is drawn to a new or expanded road by providing additional capacity. Induced demand comes from a number of sources, including trips diverted from other routes, discretionary trips that might not have been made without the service improvement, and improved access to employment and other activity location choices." The Oregon Department of Transportation has a similar working definition. These sources note that the potential for induced demand differs by location but is typically greatest when new corridors/accesses are created or when an existing corridor has substantial increases in regional system capacity. That is not the case with the Modified LPA because it does not feature a new connection or a highway capacity increase between major destinations, but instead involves operational and safety improvements in a highway segment that remains capacity-constrained at three through lanes in each direction at its north and south ends. Section 4.3.4 of the Transportation Technical Report provides figures showing the average travel speeds through the corridor for the No-Build Alternative and Modified LPA. These figures show that while travel time improvements are realized as compared to the No-Build Alternative, there are still notable areas of congestion that remain north and south of the primary study area, muting the overall change in travel times for regional trips. Safety and reliability remain key benefits of the improvements with the Modified LPA.

The Draft SEIS and its technical reports assessed potential transportation demand using an established regional travel demand forecasting model, combined with a detailed analysis of operational effects. This analysis has been further updated for the Final SEIS and the Final Transportation Technical Report and adds additional references to variations run using the regional travel demand model to simulate factors that may influence demand in the corridor, particularly tolling. None of the model variations would result in major changes to environmental conditions, including regional transportation, land use, or air pollutant levels.

The proposed Modified LPA in the Draft SEIS featured one or two auxiliary lane options, but both had the same capacity limits at the north and south ends of the primary study area. The IBR Program's Recommended Design Option identified in the Final SEIS is one auxiliary lane. The auxiliary lanes and collector/distributor lanes would be operational and safety improvements between the corridor's closely spaced interchanges, but they would not result in a regional capacity increase. Local and regional vehicle capacity would remain constrained and additional vehicle trips to or from connection points to the primary study area would not be served beyond the levels predicted for the Modified LPA. This is one reason why the Modified LPA would include variable rate tolling, greater provisions for transit, active transportation improvements, TDM, and TSM tools (e.g., ramp metering). There are also additional constraints on demand provided by adopted regional and local land use plans responding to state law, which further reduce the potential for induced demand stemming from unplanned development.

Sections 6.1 through 6.4 of the Land Use Technical Report further address the limited potential for induced growth due to transportation improvements and greater demand for development in areas with improved mobility. The analysis concludes that regional and local land use and transportation plans already anticipate

the demand related to the IBR Program's planned transportation improvements. Sections 3.4.2 and 3.4.3 of the Land Use Technical Report have additional discussions of the existing integrated framework of state and local land use and transportation plans in both Oregon and Washington, the relationship between local land use plans and anticipated future growth patterns, and further details on the areas that would see the most mobility benefits. The Land Use Technical Report also discusses Oregon and Washington statewide growth management laws, which place formal requirements for coordination and concurrency between adopted land use and transportation plans and projects. For both states, there are further statutory and required approval controls at the regional, county, and local jurisdictional levels. These required comprehensive planning and land use approval regulations and controls are specifically designed to protect against spawl or growth beyond the population, employment, and land use plan designations confirmed through official comprehensive planning processes and actions. The underlying state and local laws and regulations also note that their purpose is to protect natural resources, open spaces, and agricultural lands. Uncontrolled growth or sprawl resulting from the IBR Program improvements is therefore not a reasonably foreseeable outcome. Rather, as described in Section 3.4, Land Use and Economic Activity, of the SEIS, the No-Build Alternative would more likely result in adverse land use impacts because it would not provide the infrastructure improvements needed to support anticipated future growth in the primary study area. In particular, areas on Hayden Island and in downtown Vancouver would not have the multimodal improvements that adopted plans assume would be in place to support their stated vision of a future with denser, less car-centered development.

The Draft SEIS's predictions of future vehicle emissions, which are based on the regional traffic forecasts, adequately consider the potential for induced demand for the same reasons described above for transportation. Even under the worst-case scenario described above, the resulting traffic volumes and air pollutant levels would be similar to those of the No-Build Alternative.

32. Light-Rail Extension

Section 2.5.3 and Appendix D of the Draft and Final SEIS detail the evaluation and selection of light-rail transit (LRT) as the high-capacity transit (HCT) mode across the Columbia River. As described in those sections, the IBR Program is a continuation of the Columbia River Crossing (CRC) project that was suspended in 2014. The CRC Draft Environmental Impact Statement (EIS) evaluated two high-capacity transit modes: bus rapid transit (BRT) and LRT. A Selected Alternative was identified in the CRC Final EIS and Record of Decision, which included extension of LRT from the Expo Center MAX Station in Portland to Clark College in Vancouver.

To address changes in existing conditions, regulatory and policy context, and community priorities that have occurred since the CRC project, the IBR Program collaborated with partner agencies (City of Portland, City of Vancouver, Oregon Metro [Metro], Southwest Washington Regional Transportation Council [RTC], TriMet, C-TRAN, Port of Portland, and Port of Vancouver) to develop high-level design options to respond to changes while incorporating current regional values and priorities.

Based on analysis and coordination with partner agencies, the advantages and disadvantages were identified for express bus, BRT, and LRT. The screening included quantitative analysis of anticipated ridership among the options, using the Metro/RTC regional travel demand model. The identification of LRT for the Modified LPA was endorsed by all local partners (see Attachment F to Appendix D of the Final SEIS). The following list summarizes the key findings that helped support this decision:

- The higher vehicle capacity of LRT, compared to BRT, can carry more people across the river.

- Compared to existing conditions and BRT, LRT would improve access to jobs and services for many residents in part due to having a trip that would not involve transfers.
- LRT allows for preservation of the current and future C-TRAN Vine and express bus system while providing convenient connections to new LRT stations.
- LRT offers a more competitive travel time for many locations between Vancouver and Portland compared to BRT alternatives that would require a transfer at the Expo Center MAX Station, which results in more time spent waiting for transit.
- Extension of the MAX Yellow Line from the Expo Center MAX Station into Vancouver best integrates existing transit investment in the region in a manner that maintains both C-TRAN's and TriMet's respective approaches to operations of their transit systems, including LRT, BRT, and local and regional bus services.

33. Light-Rail Terminus

Chapter 2, Description of Alternatives, and Appendix D of the Draft and Final SEIS detail the identification and evaluation of Evergreen Boulevard as the northern terminus for the light-rail extension included in the proposed Modified LPA.

The IBR Program evaluated terminus options for transit alignment and mode that were considered for the Modified LPA based on ridership, impacts, and preservation of —and connections to—existing transit systems. These terminus options included Hayden Island in Portland and Waterfront, Turtle Place, Evergreen/Interstate 5 (I-5), McLoughlin/I-5, and Kiggins Bowl in Vancouver.

As described in Chapter 2, the IBR Program is a continuation of the Columbia River Crossing (CRC) project that was suspended in 2014. Since the CRC LPA, the Clark County Public Transit Benefit Area Authority (C-TRAN) has implemented a bus rapid transit (BRT) system that serves the CRC LPA terminus at Clark College. This new BRT service was one of the contributing reasons for a change in LRT terminus under the Modified LPA. In the Modified LPA, a terminus near Evergreen Boulevard would maximize transfer opportunities to C-TRAN transit service because it would provide direct connections to several local routes as well as existing and planned BRT routes.

Through analysis and coordination with partners, the IBR Program determined that an Evergreen Boulevard terminus would:

- Have fewer potential property impacts compared to other locations.
- Have lower operating and capital costs compared to other locations.
- Avoid property impacts to Clark College as a result of the station, alignment, and park and ride that were included in options that assumed McLoughlin/I-5 as a terminus.
- Avoid impacts to C-TRAN bus network and The Vine service.
- Avoid impacts to the City of Vancouver's vision and downtown development.
- Provide increased transfer options to C-TRAN routes.
- Connect directly to downtown Vancouver jobs, services, and amenities.

- Support transit-oriented development opportunities at Library Square and on nearby city-owned parcels.
- Maximize transfer opportunities because of the planned direct connections to several local routes and existing and planned BRT routes.
- Provide convenient access to Evergreen Boulevard, which connects east over I-5 to the Historic Reserve, and west through downtown to Main Street and Esther Short Park via the planned 9th Street pedestrian route.

34. More Highway Lanes

The proposed Modified LPA is a package of multimodal improvements including highway, freight, public transit, and active transportation that are moving forward together to meet the Purpose and Need for the IBR Program. Instead of a focus on adding freeway capacity, the Modified LPA would provide a multimodal solution that includes improvements for several modes of transportation (vehicles, freight, public transit, and active transportation). The Modified LPA, including all design options, would include three through lanes in each direction along Interstate 5 (I-5), similar to existing conditions, and would connect to existing through lanes at the north and south end of the primary study area. The Modified LPA would also include design options with one or two auxiliary lanes that would better accommodate increased vehicle trips by improving safety and operations across the I-5 Columbia River bridges.

Auxiliary lanes are not through lanes. They are ramp-to-ramp connections designed to give drivers the distance needed to speed up or slow down before entering or exiting the freeway, improving safety in the corridor. These connections reduce localized bottlenecks and optimize traffic flow by giving drivers space to enter and exit the freeway safely. Benefits of auxiliary lanes include improved travel time, reduced likelihood for crashes, and safety improvements.

The IBR Program focused on optimizing existing infrastructure and enhancing multimodal solutions versus just adding more highway lanes which was infeasible. The optimized transportation infrastructure included auxiliary lanes, collector-distributor roadways, braided ramps, high-capacity transit, and active transportation improvements. The Modified LPA multimodal elements would improve travel flow for all modes of transportation versus only expanding the freeway, which would require higher costs, more right-of-way impacts, and could have more environmental and community impacts. The components of the proposed Modified LPA are described in Chapter 2, Description of Alternatives, of the Draft and Final SEIS.

35. Pandemic Travel Effects

One of the more pronounced travel pattern changes since the COVID-19 pandemic is the increase in telecommuting or working from home. American Community Survey one-year census data for 2022 indicate the percentage of people working from home in the Portland metropolitan area was just over 23%, up from 8% before the COVID-19 pandemic. Because employers in the Portland metropolitan area continue to ask employees to return to the office at least part time, the impact of working from home on travel demand and forecasts is still uncertain. Although travel patterns continue to change, traffic volumes are close to pre-pandemic levels for automobile and freight traffic within the primary study area.

The regional travel demand model used for analysis on the IBR Program was developed using data from the Oregon Household Activity Survey, conducted from 2009 to 2011 by the Oregon Department of

Transportation. While the survey title says Oregon, Clark County, Washington households were also included in the survey. The survey was completed before travel behavior changes related to the COVID-19 pandemic, including changes in travel related to working from home. A new household survey, the Oregon Travel Study, sponsored by the Oregon Modeling Statewide Collaborative, was conducted over the past two years for the Portland metropolitan region, including Clark County, that reflects post-COVID-19 travel behavior; the data will be used to develop new models that will be available for Oregon Metro's and Southwest Washington Regional Transportation Council's (RTC) next Regional Transportation Plans in 2028, but is not available in time for use in the IBR Program Final SEIS. Please see the Transportation Technical Report and its appendices for additional discussion of traffic modeling methods and assumptions.

36. Regional Travel Demand Model

Traffic forecasting and regional travel demand models (RTDM) are both components in transportation planning, but they serve different purposes. A RTDM represents how households make travel choices (e.g., origin, destination, mode, route) based on socio-economic factors and the transportation system (e.g., highways, transit, active transportation network) to forecast future travel patterns across a broad geographic area. Traffic forecasting uses the output of these RTDMs to forecast traffic volumes on a given road network for planning and project-specific needs.

Regional Travel Demand Models

RTDMs are used to understand and forecast future travel patterns for a region, informing short- and long-range transportation plans and investment decisions. RTDMs are typically large-scale, covering multiple counties or a metropolitan area, and involve modeling travel choices and behaviors. Through the use of mathematical formulas, RTDMs simulate trip generation, trip distribution, mode choice, and route assignment, accounting for local household information (location, household size, income, age of head of household), employment (locations and job types), land use, the transportation system (e.g., highways, transit, active transportation network), and travel costs. The outputs from the RTDM include a wide range of data about regional travel, including projected vehicle miles traveled, traffic volumes, transit ridership, speeds, and travel times, which can be used for various planning purposes.

Traffic Forecasts

The traffic forecasting process produces estimated traffic conditions, such as volumes during a specific time period(s) on particular roads, for project-level planning, design, and environmental studies. Traffic forecasting involves applying the aggregated outputs from a regional travel demand model to a localized roadway network to forecast future traffic volumes. Outputs include detailed data about traffic volumes on specific roadways, which are used in detailed project analyses and design.

Relationship between RTDM and Traffic Forecasts

The RTDM provides the forecast of how much, where, and by what mode (e.g., car, transit, walking, biking) people will travel on a regional level, while traffic forecasting, taking into account the demand information derived from the RTDM, estimates specific traffic volumes and performance measures on a particular road network.

The process of travel demand modeling uses what is known about the existing world to forecast what conditions will be like in the future. It is not a guess or an estimate, but a projection based upon empirical data and regionally developed assumptions about future conditions within the regional plans. The RTDM is developed, calibrated, maintained, and applied by Oregon Metro and the Southwest Washington Regional Transportation Council (RTC) for the Portland/Vancouver Metropolitan Region. The RTDM is usually referenced by a year-tagged version number (e.g., 2018 RTP RTDM), which indicates the federally required Regional Transportation Plan (RTP) update it was prepared to support. Additionally, internal version naming conventions are used to differentiate updates of the RTDM. The 2018 RTP RTDM is also referred to as the "Kate v2.0" model. Federal law requires RTPs to be updated regularly—at least every 4 years in air quality nonattainment or maintenance areas and at least every 5 years in attainment areas (23 CFR Part 450, Subpart C - Metropolitan Transportation Planning and Programming)—to ensure forecasts remain valid and extend at least 20 years into the future. Specifically, the RTDM updates that are part of the RTP process consider things such as changing economic conditions, regional policies, travel behavior, and project definitions within a region.

ODOT's Analysis Procedure Manual (APM), Chapter 17, requires the RTDM to be used on transportation projects of regional significance that are multimodal (incorporate modes such as transit, walking, and biking), such as the IBR Program. The RTDM is used to determine regional-level forecasts (e.g., trips by different modes such as auto, transit, or active transportation) using a set of assumptions developed at a point in time based on reasonably foreseeable conditions for future-year No-Build and Build Alternatives. The RTDM does not decide which projects should be built; rather, it provides a consistent, data-driven basis for analyzing transportation projects and regional policies to understand their potential impacts.

This 2018 RTP RTDM reflects accepted professional practice, which follows a standard methodology and process consistent with both state and federal guidelines; it provides a sound basis for evaluating project transportation impacts. Please see Appendix H of the Transportation Technical Report for details on the 2018 RTP RTDM model methods, including the model estimation documentation (Attachment A), toll methodology (Attachment B), model validation documentation (Attachment C), and documentation of the development of values of time (Attachment D) used in the RTDM. The model estimation report shows details around the calibration of the model through inclusion of estimated and adjusted parameters to help the model better align with observed data (e.g., total person trips by trip purpose, trip length, mode shares). The validation documentation shows details around how well the model matches the observed data (e.g., traffic counts, transit ridership, vehicle miles traveled). The value-of-time documentation provides details about how value of time is developed and what values are being used in the 2018 RTP RTDM. Results of the RTDM process reflect an estimate based on assumptions at a point in time and are expected to change when the underlying assumptions that are used in the modeling process (e.g., land use, costs, travel behavior, project definitions) change over time. In general, it is not unusual for forecasted growth rates from the RTDM to differ from an observed rate based on short- or medium-term observed traffic count data. RTDMs are developed to reflect long-term regional trends based on forecasted changes in population, employment, and land use. Observed traffic counts over a short- or medium-term period can be influenced by temporary factors such as congestion, economic cycles, or local land use changes.

RTDMs follow a four-step process, incorporating a description of the existing and planned transportation system, survey data, economic analysis, population statistics, land use and development patterns, business development plans, goods transport activity, personal travel patterns, and other factors. These steps include:

1. **Trip Generation**, i.e., how many trips? This step is based on the factors that influence the development of travel in a region, and how much travel occurs by different types of travelers.

2. **Trip Distribution**, i.e., where do they go? This step focuses on the origin and destination of travel, and how much travel will occur between different areas.

3. **Modal Share**, i.e., by what mode do they travel? This step considers how people travel between different locations, including driving alone, carpooling, walking, biking, using different types of transit, working from home, delivering goods and services, or shopping for goods and services. Information on factors that influence why people use different methods of transportation is used to estimate shares of travel for each mode.

4. **Traffic Assignment**, i.e., by what route and when? This step considers how travel is routed and on what day or at what time of day, to develop volumes of travel on different specific roadways, sidewalks, and transit services at different times.

The four-step process produces estimates of travel by different modes, on different roadway segments and transit routes, what types of vehicles are on the roadways, and what times of day they travel. Standard calibration and validation processes using the Federal Highway Administration (FHWA) National Cooperative Highway Research Program guidance are then applied to adjust the theoretical model to observed data to more accurately replicate a snapshot of actual travel patterns as described in Appendix H to the Transportation Technical Report.

The model can then assess potential future conditions such as the transportation system (e.g., highways, transit, active transportation network) and land use or policy changes (e.g., parking costs, tolling) to analyze how changes will affect future transportation system patterns, traffic, and transit ridership. There is inherent variability associated with travel demand forecasting because it is based on a set of assumptions developed at a point in time. However, transportation forecasting based upon travel demand models is not a guess; projections are based upon empirical data and regionally developed assumptions about future conditions within the regional plans.

Travel demand estimates for the IBR Program used the Oregon Metro/RTC 2018 RTP RTDM developed to support the federally-required 2018 RTP (see 23 CFR Part 450, Subpart C - Metropolitan Transportation Planning and Programming). For details on the use of the 2018 RTP, please see Transportation Standard Response M.40: 2018 RTP vs. 2023 RTP. The assumptions made for the Metro/RTC 2018 RTP RTDM used to support the IBR Program analysis (e.g., land use, costs, travel behavior, project definitions) were coordinated with city, county, regional, state, FHWA, and FTA transportation specialists and incorporate historical travel behavior trends specific to this region.

37. Traffic Analysis Base Year

The base-year traffic volumes are used as the starting point for future traffic forecasts. As described in the Transportation Technical Report and its appendices, future traffic forecasts represent a growth from the base year conditions.

At the time the IBR Program started, the available options for representing existing conditions were to use 2019 as the base year, or to use traffic data gathered during the COVID-19 pandemic (2020–2023). The COVID-19 pandemic altered historical travel patterns and trends, traffic volumes, and transit ridership. In the immediate aftermath of the closures and travel restrictions that began in March 2020, traffic volumes and transit ridership dropped substantially below historical levels, then began to increase as health emergency restrictions gradually eased over the following three years. As of March 2023, according to traffic count data from both the Washington State Department of Transportation and Oregon Department of Transportation, traffic volumes were close to pre-pandemic levels for auto and freight traffic within the primary study area. Transit has been slower to recover, with 2023 ridership levels approximately 60% of ridership levels in the fall of 2019 for the four-county region. Routes that provide bi-state service across the Columbia River in the primary study area saw average weekday ridership levels in 2023 that were approximately 48% of what was experienced in the fall of 2019. Four of the six C-TRAN express routes that were in operation in 2019 were removed post-COVID so ridership in the primary study area now operates on only two express routes. But according to both C-TRAN and TriMet, as reported to the National Transit Database (https://www.transit.dot.gov/ntd/transit-agency-profiles/clark-county-public-transportation-benefit-area-authority, https://www.transit.dot.gov/ntd/transit-agency-profiles/tri-county-metropolitan-transportation-district-oregon), transit service levels and ridership have continued to increase since the start of the pandemic in March 2020 (FTA n.d.[a]; FTA n.d.[b]). Fiscal year 2025 is not yet published on the National Transit Database website but C-TRAN reports a 6.3% increase compared to 2024 (https://mail.c-tran.com/about-c-tran/news/news-releases/1868-c-tran-ridership-grows-fourth-consecutive-year) and TriMet reports a 4.6% increase compared to 2024 (https://es.trimet.org/about/pdf/2025/Jun%202025%20MPR.pdf) (C-TRAN 2026a; TriMet 2025). Therefore, the 2019 base year was selected to avoid underestimating IBR Program effects and in consideration of more recently collected traffic data.

38. Traffic Forecasts

Traffic forecasting and regional travel demand models (RTDMs) are both components in transportation planning, but they serve different purposes. A RTDM represents how households make travel choices (e.g., origin, destination, mode, route) based on socio-economic factors such as population, land use and employment, and the transportation system (e.g., highways, transit, active transportation network) to forecast future travel patterns across a broad geographic area. Traffic forecasting uses the output of these RTDMs to forecast traffic volumes on a given road network for planning and project-specific needs.

For a detailed description of RTDMs and Traffic Forecasts and how they interact, please see Transportation Standard Response M.36: Regional Travel Demand Model.

The 2045 traffic forecast volumes for the IBR Program were developed using the Oregon Metro/Southwest Washington Regional Transportation Council (RTC) RTDM outputs, existing traffic volumes, and post-processing methods consistent with ODOT's Analysis Procedures Manual (APM) as well as national guidance from the *National Cooperative Highway Research Program (NCHRP) 765 Analytical Travel Forecasting Approaches for Project-Level Planning and Design*. The Oregon Metro/RTC RTDM is the regionally adopted and maintained Metropolitan Planning Organization (MPO) Model developed to support the federally-required 2018 Regional Transportation Plan (RTP) development process (see 23 CFR Part 450, Subpart C - Metropolitan Transportation Planning and Programming). As part of the RTP development process, Oregon Metro and RTC coordinate the development of regional socio-economic forecasts such as population, land use, and employment with regional partners. These factors are key drivers of traffic growth within the RTDM.

The RTDM is developed, calibrated, maintained, and applied by Oregon Metro/RTC for the Portland/Vancouver Metropolitan Region. ODOT's APM, Chapter 17, requires the RTDM to be used on transportation projects of regional significance that are multimodal (i.e., incorporate modes such as transit, walking, and biking), such as the IBR Program. Details of the Oregon Metro/RTC RTDM are found in Appendix H to the IBR Program Transportation Technical Report, which includes a description of the RTDM, how it is used for the IBR Program, details of the model estimation and calibration (Attachment A), toll methodology (Attachment B), validation report (Attachment C), and value of time assumptions (Attachment D). While the RTDM provides regional daily and peak period output, it is not intended to directly reflect project-level operational details. For this reason, post-processing of model output is a standard national practice in transportation forecasting to ensure the development of defensible project volumes that support project-level decision making. Uncertainty in forecasting is expected as traffic forecast volumes, while based in part on available existing counts, also utilize regionally developed assumptions about future conditions within the regional plans. The traffic forecasts developed for the IBR Program reflect engineering industry standards to support decision-making regarding project-level needs.

Section 4.3.3 (Mainline and Ramp Vehicle Volumes) of the Transportation Technical Report describes the process used in the development of traffic forecasts for the IBR Program. The analysis was conducted using a comprehensive and systematic approach that follows the *NCHRP 765 Analytical Travel Forecasting Approaches for Project-Level Planning and Design*.

Post-processing is a well-established industry standard practice in traffic forecasting that ensures regional travel demand model outputs are appropriately applied to project-level analysis. In general, post-processing involves determining the rate of change between two travel demand models (typically an existing-year model and a future-year model) and then applying that rate of change to existing traffic counts, grounding future volume estimates to actual data. Post-processing is necessary because RTDMs are most accurate at broad scales such as screenlines, which are used in the RTDM to evaluate significant regional volume flows and can be used to measure or compare directional traffic demand, volumes, or movements across corridors. RTDMs are less precise at finer scales like individual roadways, ramps, or intersections. As a result, post-processed volumes, not direct raw RTDM model outputs, are used as inputs into traffic operations models, following industry standard practices, to assess potential impacts to freeways and local roadways.

The post-processing steps used in the IBR Program Draft and Final SEIS are documented in Section 4.3.3 (Mainline and Ramp Vehicle Volumes) of the Transportation Technical Report and were conducted using the industry-standard practices described above. The objective of this process is to enhance the reliability of the analysis. While all future year forecasting involves some degree of uncertainty, the techniques used here reflect accepted professional practice and provide a sound basis for evaluating traffic impacts under each IBR Program alternative.

39. Transit Safety and Security

Transit systems are designed and managed to address security (protection of the stations, buses/trains, and riders from threats and dangers) and safety (avoidance of harm to the people who ride and operate the transit system).

Recently, TriMet has increased their safety and security presence on the transit system to create a safer and more welcoming environment for employees and riders. These include Customer Safety Officers, Safety Response Team members, and security contractors.

In addition, TriMet is installing blue-light security phones at most MAX platforms that connect to the agency's 24/7 security hotline. The blue lights serve two purposes: They signal the location of the phones to people who need to use them in the dark, and they act as a crime deterrent. The phones are also equipped with cameras, giving TriMet's security team more views of the station areas and showing the person calling. The blue-light security phones add to more than 8,000 cameras already on the system and, like those, can be monitored in real time.

Design of the proposed Modified LPA's transit elements would incorporate Crime Prevention Through Environmental Design principles to implement best practices for lighting, closed circuit TV (CCTV), fare zone enforcement and other design standards adopted for both TriMet and C-TRAN. A fire, life safety, and security committee will be assembled to review designs. Compliance will be documented through a safety and security certification program for final design and construction phases.

The IBR Program is using design strategies that have been proven to reduce the potential for crime at transit stations and on light-rail transit and buses. Examples of design strategies include locating stations near residential and commercial buildings; controlling pedestrian access to stations through the strategic placement of entrances and exits, fencing, lighting, and landscaping; lighting stations so that all activity is easily visible; and designing a clear line of sight into and out of the station. The IBR Program has received input from its advisory groups, partner agencies, and the public on the conceptual design of the transit system that would enhance safety and security.

40. 2018 RTP vs. 2023 RTP

Travel demand modeling and traffic analysis presented in the Draft and Final SEIS are based on the most current information and the regionally adopted transportation plan available when the IBR Program initiated the IBR Program SEIS. The 2018 Regional Transportation Plan (RTP) was jointly adopted by Oregon Metro (Metro) in 2018 (2018 Regional Transportation Plan, https://www.oregonmetro.gov/regional-transportation-plan) and by the Southwest Washington Regional Transportation Council (RTC) in 2019 (the 2019 Regional Transportation Plan for Clark County, https://rtc.wa.gov/wp-content/uploads/Reports/rtp/Rtp2019Clark.pdf) (RTC 2019; Metro 2023). Metro and RTC subsequently updated their respective RTPs as part of their five-year update cycle, as required under 23 Code of Federal Regulations 450.324. The 2023 RTP was adopted by Metro in 2023 and RTC in 2024, several years after the IBR Program Draft SEIS analysis was initiated in early 2021. Additional details on the transportation analysis methods including details about the use of the 2018 RTP are presented in the Transportation Technical Report and its appendices.

To use the regional travel demand model (RTDM) supporting the 2023 RTP, additional refinement and coordination would be necessary for it to be ready for use in a facility-specific study such as the IBR Program. This refinement and coordination process is lengthy and can take up to a year and a half for a complex project with numerous partner agencies, like the IBR Program. Therefore, the National Environmental Policy Act lead agencies exercised their discretion and determined, based on their technical expertise, that the 2018 RTP RTDM continued to be the most appropriate base tool for the purposes of comparing the No-Build Alternative to the Modified LPA and design options in the Final SEIS.

Appendix S

S3. Agencies and Tribes Comments and Responses

Agencies and Tribes Index

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Submission 1: Ariel Mendez, City of Bend (November 18, 2024)

Comments

First Name:
Ariel

Last Name:
Mendez

Business or Organization:
City of Bend

Email:
[redacted]

Phone:
[redacted]

City:
[redacted]

US States:
[redacted]

Zip:
[redacted]

Topic Area:
Cumulative Effects

Comment:

1-1 As a city councilor in Oregon's fastest growing city, I appreciate the challenges of managing traffic and growth. I urge you to reconsider the IBR project in light of its cost. What alternative means exist to achieve the same goals? As virtually every city across the country has shown, expanding capacity for motor vehicles does not work in the medium and long run. If Oregon and Washington families were asked to allocate the several hundred dollars per capita that the IBR project represents, they would reject it because it is an obscene cost with so little in return.

1-2 Commit to less traffic in the long run by expanding alternatives to driving. Right size the bridge and address seismic concerns. Address traffic today by exploring equitable congestion pricing options. Don't mortgage our children and grandchildren's future on something they will be paying for long after any supposed benefit to driving has evaporated. This is so costly it affects the entire population of both states, not just one region.

Response to Submission 1: Ariel Mendez, City of Bend (November 18, 2024)

1-1

As described in Chapter 2, Description of Alternatives, of the Draft and Final SEIS, the IBR Program is a continuation of the Columbia River Crossing (CRC) project that was active from 2005 to 2014. The IBR Program is supplementing the CRC project's National Environmental Policy Act process. Substantial technical analyses were completed to support the development of the CRC project, including an extensive alternatives screening process. The screening process is described in Section 2.5, Development of the Modified LPA, of the Draft and Final SEIS. Additional information is also available in documents prepared for the CRC project, available at https://wsdot.wa.gov/accountability/ssb5806/alternative-development.htm (WSDOT 2026). Where appropriate, the IBR Program evaluated and reviewed alternatives that were dismissed as part of the CRC project to determine whether and to what extent they could meet the Purpose and Need statement of the IBR Program (see Chapter 1, Purpose and Need, of the Draft and Final SEIS, as well as Chapter 1 of the CRC Final EIS). The six transportation needs that the IBR Program is addressing are growing travel demand and congestion, impaired freight movement, limited public transportation, safety and vulnerability to incidents, substandard bicycle and pedestrian facilities, and seismic vulnerability.

For more information, see Alternatives Standard Response C.4: Previously Dismissed Alternatives.

1-2

The most recent IBR Program cost estimate prepared in 2026 ranges from $13.5 to $15.2 billion, with a likely estimated cost of $14.4 billion. The 2026 Cost Estimate Validation Process report breaks down Program costs by construction package and is available on the Cost Estimate webpage: https://www.interstatebridge.org/costestimate (IBR 2025n). For more information, see Financial Analysis Standard Response H.14: Financial Plan.

The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) have the authority to set toll rates and policies, including exemptions and discounts. OTC and WSTC would jointly establish toll rates and any applicable policies (e.g., variations based upon time of day) for the IBR Program. The OTC and WSTC would adopt toll rates, including exemptions and discounts, six to nine months before pre-completion tolling begins on the Interstate Bridge. Formal action will be needed by OTC and WSTC in order to implement rates and policies, including discounts and exemptions. It is anticipated that tolling would begin on the existing Interstate Bridge in 2028. For more information, see Tolling Standard Response L.24: Tolling Exemptions and Discounts.

As described in Chapter 2, Description of Alternatives, of the Draft and Final SEIS, the Modified LPA would include a 1.9-mile light-rail transit (LRT) extension of the current MAX Yellow Line from the Expo Center MAX Station in North Portland, where it currently ends, to a terminus near Evergreen Boulevard in Vancouver. New stations would be located at Hayden Island, downtown Vancouver (Waterfront Station), and near Evergreen Boulevard (Evergreen Station). The Modified LPA would also include integration of local bus transit service, including bus rapid transit and express bus routes, in addition to the proposed new LRT service. Wider shoulders on Interstate 5 from Interstate Avenue/Victory Boulevard to SR 500/39th Street would accommodate express bus-on-shoulder service in each direction.

Additionally, the Modified LPA would include a variety of improvements for people who walk, bike, and roll throughout the primary study area, including a system of shared-use paths, bicycle lanes, sidewalks, enhanced wayfinding, and facility improvements to comply with the Americans with Disabilities Act. These are referred to in the Draft and Final SEIS as active transportation improvements.

The Modified LPA will be built to American Association of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design Bridge Design Specifications and AASHTO Seismic Guide Specifications. The proposed Modified LPA would include variable-rate tolling, which would charge higher tolls during peak times to encourage travel during other time periods or via other modes of transportation.

Submission 2: City of Portland (November 21, 2024)

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November 18, 2024

To: Interstate Bridge Replacement Program
draftSEIS@interstatebridge.com
500 Broadway, Suite 200
Vancouver, WA 98660

RE: Interstate Bridge Replacement Program (IBRP) Draft Supplemental Environmental Impact Statement (DSEIS) Public Comment Period

Dear IBRP Administrator Greg Johnson:

2-1 Thank you for the opportunity to participate in the Interstate Bridge Replacement Program (IBRP) Draft Supplemental Environmental Impact Statement (DSEIS) public comment period as a participating agency. The city worked within its many bureaus to involve the technical experts necessary to review the analysis compiled in the DSEIS. Our city is committed to making sure climate, equity, safety, and access remain foremost among the goals and needs of the IBRP. This is essential if we are to create an earthquake-resilient bridge that will serve generations to come, improve the movement of goods and services into our region, and better connect people and communities, including those walking, biking, and taking transit.

2-2 We recognize and appreciate the work of the IBR program to reach this milestone. We also see significant opportunity for increased partnership, collaboration, and accountability. We must work together to ensure actions align with stated goals and outcomes for people experiencing low incomes, suffering impacts of living adjacent to a freeway, or experiencing racial inequities within our transportation system. We must work together to leverage the opportunities of new connections and new spaces that will be created, ensuring they are designed in a way that centers the quality of experience, communities, and neighborhoods through which I-5 passes. And we must work together to develop and confirm a regional approach to climate impact reduction in support of state-wide Greenhouse Gas (GHG) emissions and vehicle miles traveled (VMT) goals. To do this impactful and necessary work, deep partnership will be needed between public and private sectors and with community organizers and community members. We request that the city's partnership with IBRP and associated work program is defined and agreed upon as the program advances.

2-3 Portland City Council adopted the Modified Locally Preferred Alternative (MLPA) in 2022 with a set of Conditions for Approval. Per the adoption of the MLPA, Portland set forth 55 conditions for the program. After review of the DSEIS, the city has identified the need for clarification or additional technical analysis in some areas as we move toward the Final Supplemental Environmental Impact Statement (FSEIS). The topics below highlight general areas of concern and additional asks of IBRP, further elaborated through our detailed comments attached to this letter:

2-4

- **Climate.** IBR's commitment to center climate and align with regional policies around reduction of GHG emissions and VMT that meaningfully contribute to the region's climate targets should be explicitly mentioned in the DSEIS. The climate commitment made as part of the MLPA goes further than the climate change impact analysis within the DSEIS and is a critical element of bi-state collaboration going forward. Metro, City of Portland, City of Vancouver, ODOT, WSDOT, and the IBR program have been working to address these climate commitments and we look forward to continuing that parallel process with greater involvement from all relevant parties in earnest as the project progresses.

2-5

- **Safety on local streets.** Data provided within the DSEIS indicate there are several segments on Portland's High Crash Network that will experience peak-hour vehicle increases of more than 10%, indicating the potential for significant diversion of traffic to local streets and community impacts to vulnerable neighborhoods, resulting in increases in crash risk. Additional traffic analysis and crash data is needed to sufficiently capture the anticipated traffic changes, particularly at major High Crash Corridor intersections in N/NE Portland, including N/NE Martin Luther King Jr. Blvd, Columbia Blvd, Lombard Street, Union Court, Vancouver Way, and N Victory Blvd. These must be further studied to see if daily volumes also significantly increase, indicating a need for safety mitigation.

2-6

- **Tolling.** The MLPA included a commitment to use variable rate tolling for funding, construction, managing congestion, and improving multimodal mobility within the program area. Additional analysis is needed to understand the impact of different rate amounts on demand and potential diversion to the I-205 bridge and East Portland communities. The city expects that changes to toll rates on I-5 would result in meaningful changes to traffic on I-205 and surrounding local streets and this should be analyzed further by the program. This additional analysis and understanding should be used to inform an equitable variable rate tolling approach that supports attractive multimodal transportation options and helps reduce identified traffic impacts in the DSEIS.

2-7

- **Active transportation.** Connections to multi-use trails and active transportation connections in the project area need refinement or further analysis to ensure improvements made by the program connect to Portland's existing all-ages and abilities biking and pedestrian networks. For example, the NE Martin Luther King Blvd/Union Court path should connect to the city's network at the intersection of N Vancouver Ave & Schmeer Road.

2-8 Additionally, noise impacts, air quality impacts, weather impacts, and connections to existing and future facilities should be further analyzed in the FSEIS to inform facility design solutions.

2-9 Finally, the city requests additional analysis be completed that includes an active transportation connection along the light rail transit bridge between Expo Center and Hayden Island, to create better connections between public transportation and those walking, biking, or rolling along the bridge and adjacent paths or destinations.

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2-10

- **Transit optimization**. We support the expanded and improved public transit options studied within the DSEIS that focus on improving access and making walking, biking, and taking transit more attractive choices. As new services are proposed and public transportation modes optimized (bus, express bus, and light rail), consideration of impacts to changes in existing transit service is needed. This includes a need to conduct robust community engagement to understand the needs of those traveling to/from Hayden Island. If current transit service is changed or eliminated within the study area, those changes need to be studied and documented to better understand commute behavior, origin and destination data, and community impacts, particularly to vulnerable communities.

2-11

- **Equity**. Continuing to work toward the commitments adopted as part of the MLPA, further analysis should be conducted to better understand the impacts to vulnerable communities through the Environmental Justice lens in the DSEIS. Analysis on impacts to EJ communities is lacking in the DSEIS, limiting the understanding of potential impacts and the program's ability to adequately develop necessary mitigations that can help protect these communities. As noted within the DEIS, conducting meaningful and robust analysis on Environmental Justice populations is difficult to capture; this barrier underscores the importance of ongoing and intentional community involvement to accurately represent the communities' voices and experiences. Working closely with these communities can also help advance the work of the Community Benefit Agreements Group and the program's Equity Framework.

2-12

- **Delta Park.** The proposed reconfiguration of NE Martin Luther King Blvd access ramps listed in the DSEIS would result in indirect routing of freight to destinations around Delta Park and surrounding neighborhoods. A revised option with improved routing for freight away from the park should be advanced, as well as an evaluation of whether anticipated noise impacts, tree impacts, and traffic impacts would constitute a 4(f) constructive use.

2-13

- **Public spaces.** As the program advances, the city again requests IBRP develop a public involvement plan to identify the appropriate stakeholder groups and methods of engagement around urban design elements with the design community on both sides of the Columbia River. This process and engagement are needed to establish shared understanding around how the principles, goals, and objectives established by the previous Urban Design Advisory Group will be updated and integrated into IBRP, and how both Portland and Vancouver policy goals around promoting healthy lifestyles and creating active, great places will be achieved. This information may be provided in the anticipated Conceptual Design Report, however that has not yet been provided to project partners for review.

2-14

In pursuit of supporting the next phase of the program, we again acknowledge the significance of the regional compromise achieved as part of the MLPA adoption. The endorsed MLPA demonstrates a shared commitment to ensure this program reflects our community's values and stipulates that no more than one auxiliary lane be provided in each direction on I-5 over the Columbia River, and as further reflected in the adopted 2023 Regional Transportation Plan. Any option that proposes additional added vehicular capacity would threaten bi-state agreements and should not be carried forward into a Preferred Alternative.

2-15

Additionally, the bridge configuration options studied have an impact on our ability to meet shared goals. Data provided within the DSEIS indicate the single-level fixed span may provide the greatest benefits with fewer environmental or technical impacts and associated challenges. Should the single-level fixed span configuration be advanced, additional exploration and design process should include, but not be limited to, bridge design type options and urban design opportunities, optimizing ramp geometry and reducing impacts of the bridge's increased vertical grade for all users, innovative design solutions to create safe and comfortable spaces for people walking and biking, and demonstration that the selected bridge configuration option has the least significant detrimental impact to the city's environmental resources.

2-16

Letters from advisory committees, including the Bicycle Advisory Committee (BAC), Pedestrian Advisory Committee (PAC), Portland Freight Committee (PFC), and the Design Commission are attached to this letter. While these comments do not represent city policy, they are representative of shared concerns related to pedestrian and bicycle safety and comfort, traffic analysis, urban design, and greenhouse gases.

2-17

Our ongoing commitment to address climate reduction targets, improve active transportation facilities on and around the bridge, and promote safe travel through the I-5 corridor for all users is reflected in the City's DSEIS comments. We know that there is still a lot of work ahead to make sure that the program addresses the local needs and impacts within the City of Portland, and that there are still many decisions that need to be worked out through the identification of a Preferred Alternative, publication of the FSEIS, and start of the design phase. We expect that extensive ongoing engagement with the IBR program and project committees, as well as with Metro, TriMet, key stakeholders, and the public, will only continue to strengthen the vision we all see for the IBR program. Engagement from all involved will be required to ensure community commitments are upheld and stakeholder voices are heard, while achieving the technical analysis required to move the project forward.

Sincerely,

Michael Jordan
City Administrator
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Cc: Priya Dhanapal, Deputy City Administrator, Public Works
Donnie Oliveira, Deputy City Administrator, Community and Economic Development
Sonia Schmanski, Deputy City Administrator, Vibrant Communities
Millicent Williams, Director Bureau of Transportation
Eric Engstrom, Director Bureau of Planning & Sustainability
Adena Long, Director Portland Parks & Recreation
Dawn Uchiyama, Director Bureau of Environmental Services
Edward Campbell, Acting Director Water Bureau
Art Pearce, Deputy Director, PBOT
Caitlin Reff, Major Projects and Transit Division Manager, PBOT
Brenda Martin, IBR Capital Project Manager, PBOT

Attachments: City of Portland staff, technical DSEIS Comment Log
Letter from City of Portland Bicycle Advisory Committee
Letter from City of Portland Pedestrian Advisory Committee
Letter from Portland Freight Committee
Letter from Portland Design Commission

CITY OF PORTLAND IBR DRAFT SEIS REVIEW COMMENT TRACKING FORM

Deliverable Name:		**Draft SEIS**	
Comments Due:		**11/18/2024**	

City of Portland Subject Matter Expert Reviewer Comments

City of Portland SME review comments on the DSEIS have been organized around topics within the Portland City Council MLPA endorsement Conditions of Approval dated July 13, 2022 (https://www.portland.gov/council/documents/resolution/adopted/37581)

	City of Portland MLPA Conditions of Approval	Comment ID#	Draft SEIS Section	Page #	Figure/ Table	Reviewer Comment
2-18	1. Climate and Environment a) Greehhouse Gas Emissions (target, evaluation, monitoring & mitigation) b) Sustainable Design c) Construction management	1	3.16	13	Figure 3.16-3	Please update Figure 3.16-3 to show Wetlands Q, R, and V. Specifically, Wetland Q, Wetland R, and Wetland V from map Figure 3.15-2 Field-Identified Wetlands and Other Waters - Oregon are missing from map Figure 3.16-3 Habitat Classifications showing Wetland and Riparian Habitats. Please note, acreage calculations for permanent impacts to wetlands (0.58-acres) and wetland buffer (7.39-acres) match between document 3.15 Wetlands and Other Waters and document 3.16 Ecosystems; therefore, the error appears limited to just the map Figure 3.16-3.
2-19		2	3.15	2	Table 3.15-1	Recommend adding an asterisk to Wetland Fill Acreage 0.58-acres in Table 3.15-1 to highlight that acreage may change based on the wetland and other waters delineation report identified as being developed in 2024 within Section 3.15.2 Existing Conditions paragraph 1.
2-20		3	3.8	6		The smelt species found in the project area is Pacific eulachon. Please delete "smelt."
2-21		4	3.16		3.16-2	Upper Columbia River chinook salmon are federally listed as Endangered, not Threatened.
2-22		5	3.16	21		Add "riverbank" to list of habitat types impacted by the project's physical alteration of landscape.
2-23		6	3.16	22		Add juvenile life stage to both sturgeon species listed as impacted benthically.
2-24		7	3.19	2		" Portland's Climate Emergency Workplan (City of Portland 2022) establishes emission reductions targets with benchmarks at 2030 (50% below 1990 levels) and 2050 (reach net zero)." should be changed to, "Portland's Climate Emergency Declaration (City of Portland 2020) establishes emission reductions targets with benchmarks at 2030 (50% below 1990 levels) and 2050 (reach net zero)."
2-25		8	Climate TR			The City made the prior comment on the 2 Aux Lanes draft TR: "*Acknowledging that the climate analysis has focused mostly on GHG, the growing impervious surface footprint/increases in vmt of the Mod-LPA 2-lane option, especially closer to sensitive land uses, may have urban heat island impacts. If there are no resources to investigate this further, it should be at least mentioned as an outcome for consideration.*" IBR's response was: "*Added broad note to text in this report and SEIS section.*" However, the Draft SEIS doesn't seem to include any acknowledgement of potential urban heat island impacts from the Modified LPA or any of the bridge design or aux lane options. This could be added to the "Two Auxiliary Lanes" section on page 5-10 and in Table 5-4. This could also be added to section 8.2 Partnerships to Address Climate Crisis and Table 8-2.
2-26		9	Environment Justice			The chapter needs additional insight to meet Conditions of Approval 1. Climate and environment. There are no specifics on the mitigation strategies to benefit EJ communities, or a measurable plan to monitor the impacts of GHG and VMT. There is also limited information on the reduction targets. There should additionally, note the plan to monitor the GHGs and VMT through 2050. Additional clarity on accountability measures when mitigation targets aren't met or how they would be offset through other funding/support/etc. are not clearly demonstrated in the chapter. The table on page 24 has that for the Environmental Resource: Air Quality, there is no disproportionately high and adverse effects to EJ populations have been identified, and that there is improved air quality as a benefit for all people. There seems to be a need for the metric that supports this claim included in the table or content.
2-27		10	CH. 2			Chapter 2 of the Draft SEIS should also include the climate commitments that the IBR program made to set and report on a long-term target to reduce greenhouse gas emissions during the adoption of the Modified Locally Preferred Alternative. Chapter 2 should contain language that acknowledges that the MLPA climate commitments deal with a broader scope of emissions than is considered in the Draft SEIS, that the climate analysis in the NEPA document is not directly responsive to these commitments, and that these commitments will be addressed outside of the NEPA process
2-28		11	CH. 3			In Chapter 3, the transportation mitigation section should prioritize transit- and tolling-related mitigation before considering additional capacity such as additional auxiliary lanes, per policy MO2.1 of the Oregon Transportation Plan and the 2023 Regional Transportation Plan's Motor Vehicle Policy 5. It should further acknowledge the MLPA commitment to use an adaptive management framework, including tolling, to improve performance relative to the target(s) adopted through
2-29		12	CH. 3 Environmental Justice			The report outlines several strategies aimed at reducing GHG emissions and VMT, particularly through transportation management measures and active transportation improvements. However, it lacks a detailed plan for monitoring and evaluating progress toward these specific targets. To enhance the effectiveness of these strategies, it would be beneficial to establish clear metrics and timelines for evaluation, ensuring that stakeholders can track progress and make necessary adjustments over time. This gap highlights the need for structured framework that can ensure accountability and transparency in achieving these environmental goals. Moreover, while the report indicates a general trend towards reduced VMT and improved air quality, it lacks specific modeled projections for GHG emissions, VMT, VMT per capita, and model splits for years 2035, 2040, and 2050.

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	City of Portland MLPA Conditions of Approval	Comment ID#	Draft SEIS Section	Page #	Figure/ Table	Reviewer Comment
2-30		13	Neighborhoods & Equity 3.5			Recommendations ** 1. Community Engagement: Actively involve community members in decision-making by organizing open meetings and establishing partnerships with local organizations. This approach will help identify and address the community's specific concerns and needs, ensuring that their input shapes the analysis. 2. Diverse Data Sources: Foster a holistic understanding of vulnerabilities by integrating qualitative feedback from community members—such as personal narratives and concerns—with quantitative data derived from scientific studies. This combination will provide a richer, more nuanced perspective on the issues at hand. 3. Intersectional Analysis: Conduct an in-depth examination of how various social factors, including race, income, and other identity markers, intersect to create unique challenges for different groups. This analysis will illuminate the complexities of their experiences and inform targeted interventions. 4. Longitudinal Studies: Implement comprehensive longitudinal studies designed to monitor environmental changes and their long-term impacts. By tracking these developments, researchers can better understand trends and the effectiveness of ongoing efforts to address environmental injustices. 5. Collaboration with Local Organizations: Build strong, collaborative relationships with organizations actively engaged in the communities most affected by environmental issues. These partnerships will provide essential insights and empower community members to take an active role in the EJ analysis and decision-making processes. 6. Regular Updates: Establish a dynamic system for continuous updates to reports and analyses, ensuring they remain relevant and reflective of new data, community feedback, and evolving circumstances. This commitment to regular revisions will help maintain transparency and accountability, fostering trust between researchers and the communities they serve.
2-31		14	Neighborhoods & Equity 3.5			The chapter does an in-depth analysis of equity priority communities, but there is a lack of the specific commitment to toll exemptions specified in Conditions of Approval 2. Equity, Additionally, there are no specifics about measures for meeting outcomes or community benefits. There also could be improvement for showing a summary of the impacts to all the neighborhoods, breaking down the impacts by neighborhood rather than by the technical considerations would help community members better understand the impact to their community rather than the impacts from the overall project. For example, table 3.5-1 could be broken down that way, and then keeps as a summary in the appendix. There seems to be a need of neighborhood based maps to highlight impacts.
2-32		15	Ch. 2 Desc of Alternatives			Chapter 2, Description of Alternatives, contains no meaningful comparison of noise impacts to shared use path users between the bridge configuration options (e.g., single-deck, double-deck, etc.). The public should be able to distinguish the audible differences between the bridge options since they are physically different environments. This comment also applies to the Environmental Justice TR. Section 4.2 of the Equity TR (pages 4-6 thru 4-8) does offer a comparison in bridge options on active transportation user experiences and concludes that "*these differences…could adversely affect equity priority communities more than the general population*," but no mitigation is proposed. See Portland Conditions of Approval #2c and #3e. Noise for AT users should be further evaluated to inform design and potential mitigation needs.
2-33		16	Air Quality TR 4.1.2.2	4-7		City's prior comment on Bridge Options Rev B: "*Table 3.1-Air Quality description for shared use path experience was revised for the single level options compared to the MLPA. But the MLPA does not include any description of the shared use path experience compared to the no-build. Please revise Table 3.1 Air Quality to include shared use path experience comparison of MLPA to no-build and shared use path experience comparison of single level options to MLPA.*" This comment is only partial addressed in the Draft SEIS. There is still no comparison to no build for shared use path users. There is only a general comparison between single and double deck for shared use path users. See Portland Conditions of Approval #2c.
2-34	**2. Equity** **a) Low-income toll exemption** **b) Mitigation** **c) Equity Desired Outcomes** **d) Community Benefit Agreement**	17	Equity TR 4.2; Environmental Justice TR 4.2	4-7		The Equity and Environmental Justice TRs are missing any meaningful comparison of air quality impacts to shared use path users between the bridge types under consideration (e.g., single-deck, double-deck). This section of the Equity TR even concludes with stating equity priority communication could be more affected than the general population, although this is inconsistent with Table 4-2 of the EJ tech report that says "no disproportionately high and adverse effects to EJ populations have been identified." These reports don't include the general comparison from the Air Quality TR. See Portland Conditions of Approval #2c.
2-35		18	Environmental Justice TR 3.20.1.	8	3.20-6	Low income populations were concluded based on regional poverty thresholds. Noting that TriMet and Metro accept the threshold to be 200% of the federal poverty level to reflect regional living costs and standards and that a four-person household was selected as the basis for determining the low-income poverty threshold. Instead of using the regional thresholds to set EJ standards for neighborhoods along the project corridor with substantial disparities, there should be additional study based on Conditions of Approval #2C. There are different levels of impact for different EJ populations along the project area, there also seems to be assessment needed with people living with disabilities. Hayden Island for example has a significant population of people living with disabilities in comparison to the City of Portland. Additionally, there should be additional analysis to identify low-income populations with smaller household sizes as well to identify adverse impacts.
2-36		19	Environmental Justice TR 3.20.		3.20-10	Based on Conditions of Approval 2c. The table does offer meaningful specifics on the relationship between the potential impact to EJ populations and the environmental resource topic. It should be clear where the EJ populations are related to the Environmental Resource topics impacting them, and the identify the groups related to those impacts (minority/low-income, etc.) that would support Conditions of Approval 2B. To identify mitigation for adverse project impacts, that must be proximate to where and in which communities those impacts occur.
2-37		20	Environmental Justice TR 3.20.		3.20-12	To support Conditions of Approval 2b-d. The table should be supplemented by a map showing the location of impacts. A more granular assessment that identifies and quantifies specific health or EJ risks, would clarify the adverse effects, to inform more localized mitigation strategies. The analysis lacks details on potential mitigation related to EJ risks and impacts. There is a lack of neighborhood specific assessment related to high impact areas. IBR could also offer some additional transparency on how EJ areas will be prioritized and how the program will respond to to needs of affected communities.

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2-38		21	Environmental Justice TR 3.20.			The Environmental Justice TR needs additional clarity on impacts to the IBR study area in comparison to the EJ secondary study area. Most of the maps showing in 3.20.2 Affected Environment have both labels on them, yet none of the demographic tables separate the two. Based on Conditions of Approval 2c. Additionally, improvement is needed in there overall summary of EJ outcomes, there should be additional maps showing which EJ areas see specific EJ impacts and the relationship to the demographics of the community. There should also be clarity on the areas with greater burdens. The content about the EJ impacts and conditions are difficult to digest, there seems to be an overwhelming amount of detail related to the methodology of the evaluation/analysis, processes, and regulations. Some additional headings in each section might help the public digest areas of interest.
2-39		22	Environmental Justice TR 3.20.3.	13		The Environmental Justice TR does not adequately support Conditions of Approval 9c. Under the Engagement Activities section there should be details related to the discussion, perception, and how EJ populations have been involved with issues related to EJ. There should also be information related to the degree of involvement of EJ communities.
2-40		23	Environmental Justice TR 3.20.3.			The chapter should include details related to Conditions of Approval 2d Community Benefits Agreement. There is limited information related to the funding or scoping of these agreements or potential goals, to support outcomes for EJ Communities. In addition, there should be some goals clearly defined to address and improve EJ community impacts.
2-41		24	Neighborhoods & Equity 3.5			The mitigation strategies should be specific based on equity priority communities, neighborhood, and construction impacts that are temporary/long-term, there existing strategies are vague. They lack context to areas that would benefit from community benefit agreements, where those benefits are anticipated, the type of commitments that IBR would make. Those details are required to fully meet the condition of approval 2.d. Equity, Community Benefits Agreement.
2-42		25	Equity TR			Section 7 of the Equity TR is still quite vague and non-committal in describing mitigation measures, despite the fact this report concludes there will be long term and temporary impacts to equity priority communities. Of note is the lack of commitment to toll exemptions or variable rate tolls for low-income drivers; instead statements that this will be studied and may be implemented. Although Section 8 does at least acknowledge that these areas are still being analyzed and more details will be known in next steps.
2-43	**3. Active Transportation** **a) Use Local Guidance** **b) Provide Resting Zones** **c) Interchange design** **d) Wayfinding** **e) Limiting Noise** **f) Connections to the Bridge**	26				The city requests study of a secondary/additional shared-use path on the west side of I-5 integrated with the light rail transit bridge between the Hayden Island and Expo Center MAX stations to better meet regional and city connectivity standards and provide a convenient active transportation connection between Hayden Island, the Expo Center, and destinations in North Portland. Walking/rolling/riding from Expo to the eastside path and back to west Hayden Island is considerably longer and out of direction. If TriMet truncates bus line 6 at Expo, then a westside shared-use path to Hayden Island will be important for direct and convenient access to bus line 6 between Expo and west Hayden Island during times when light rail service is less frequent, and transfers are less convenient or missed. Active transportation facilities on both the eastside and westside of I-5 connecting Hayden Island/Tomahawk Island Drive to Expo and Delta Park support project goals of climate and equity by providing equitable and robust active transportation options. IBR's Draft SEIS documents do not incorporate a secondary shared use path.
2-44		27	Ch. 2 Desc of Alternatives			In table 3.1, please revise and explain how the bridge options will comply with ORS 814.410. If IBR does not have to comply with ORS 814.410, please explain reasons why. It is understood that active transportation users are not considered noise-sensitive land uses. However, that does not provide justification for not analyzing highway noise impacts on active transportation users. This comment also applies to the Equity and Environmental Justice TRs.
2-45		28	Environmental Justice TR 4.4.3	4-29 thru 4-31	Table 4-11	The BLTS analysis does not include the existing and proposed shared use paths along I-5 itself, including the existing Interstate Bridge and Portland Harbor bridge crossings or any of the proposed bridges, nor any of the bridge design options. As mentioned in other comments, there is also no meaningful comparison of noise impacts between the bridge design options (single-deck vs double-deck). Such an analysis would be helpful for the City and the public to have a more informed opinion, and in turn give public comments, on preferences for a bridge type (e.g., single vs double-deck).
2-46		29	Transportation TR 7.1.8	7-5		At Marine/MLK/I-5 interchange, no ped crossings of MLK are provided. Resulting increase in crossing gap is an impact that should be mitigated. An alternative design at the interchange that also addresses V/C deficiency could avoid this impact.
2-47		30	Transportation TR 1.1.2	1-13	Fig 1-8	PBOT has concerns with requiring that pedestrians and bicyclists on the east side of MLK cross at Vancouver Way instead of providing a continuous facility along MLK. Vancouver Way has a history of serious injury crashes. Between 2015-2019, Vancouver Way between the northern Reddaway driveway (north of Harney) and Walker Rd experienced (3) serious injury crashes. All (3) were TURN crashes.
2-48		31	Transportation TR 3.8.3.1		Fig 3-44	Figure inaccurately illustrates existing sidewalk facilities on Hayden Island. Many sections of streets within the Jantzen Beach Shopping area have either sidewalk on both sides or at least one side of a street. Please update the figure to accurately illustrate the existing pedestrian network.
2-49		32	Transportation TR 3.8.3.1		Fig 3-47	There does not appear to be an existing MUP on N Jantzen St under the existing I-5 bridge as illustrated. Please update the figure to accurately illustrate the existing active transportation network.
2-50		33	Transportation TR 3.8.4	3-111		"The impedances were derived from Table 3 of the report but adjusted based on project goals, existing behavior change literature, and the IBR team's experience on other projects." Please expand on how they were adjusted and what justifications were used, whether from research (include that research in an appendix), personal experience (elaborate on this personal experience), or project goals (elaborate on these goals).
2-51		34	4.8.2.4	4-53		Active transportation improvements along Expo Rd will affect Victory Blvd by attracting additional active transportation trips traveling to/from destinations east of I-5. As illustrated in Fig 3-44 and 3-48, Victory Blvd does not have a complete ped or bike network. Victory Blvd also has a history of pedestrian crashes. IBR should infill the sidewalk network on Victory Blvd and consider a bike facility connection on Victory Blvd.
2-52		35	Transportation TR 4.9.2.2	4-160		What data supports the conclusion that active transportation safety conditions are improved via the double-deck configuration?

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2-53		36	3.1.2	3.1-3	3.1-1	Identify existing conditions not just by the presence of "Bicycle Facilities" and "Pedestrian Facilities" but by whether existing facilities meet current guidance. Neither the bicycle facilities on MLK Jr. Boulevard nor those on the Interstate Bridge meet any involved agency's guidance. Fine to list that they exist, but acknowledge that they are sub-standard by current guidance. This is especially needed given that the next section describing traffic operations on the bridge discusses design and operational deficiencies with the auto system. See especially Tables 3.1-5 and 3.1-6 about I-5 performance. Comparable mention for the sufficiency of the active transportation facilities seems merited.
2-54		37	3.1.2	3.1-16		Under Active Transportation more fully discuss the sufficiency of the facilities relative to agency guidance. This would be similar to the treatment for intersections discussed with Table 3.1-7 where it was noted that "four intersections in the study area do not meet the applicable agency performance standards". Identify all active transportation facilities in the study area that do not meet agency design guidance. In particular, the bike lanes on MLK meet neither ODOT's nor PBOT's current guidance.
2-55		38	3.11.2	3.11-11		Existing traffic noise levels did not seem to be modeled at the path. FHWA considers trails to be in Activity Category C in regard to noise; abatement measures are triggered in this category at dBA of 67. Cannot determine what to do if not measured / modeled.
		39	3.11.3	3.11-13-14		No consideration of noise impacts on trail on bridge. Isn't trail considered for noise under FHWA guidance?
2-56		40	Environmental Justice			On page 27, the table combines all transportation related Environment Resources together, the impact summary should be tailored specifically on EJ populations. Information in that row should be potentially broken down by transportation mode. The table overall also has several inconsistencies in how it is filled out for example, the Air Quality row comments for Impact Specific to Minority and Low-Income Populations has a full sentence response, while other rows (Noise and Vibration/Visual Resources) put "none" under the Benefit Specific to Minority and Low-Income Population". In addition, there should be a greater connect to how the "benefits" are coordinated with related agency efforts on transit/active transportation network/improvements. Even though disproportionately/adverse impacts are called out, the content does not include if there are any mitigation strategies, or how they measured those outcomes, it does not include any details on opportunities for how EJ community would be integrated in the process. An overview of specific impacts that are neighborhood based would help identify those most burdened.
2-57		41	Neighborhoods & Equity 3.5			The chapter does not support Conditions of Approval 3. Active Transportation, there is not specific call out of the improvements that improve the quality of the existing connections, the information is extremely vague and not specific to any neighborhood context. There also seems to be a lack of the details for different equity considerations for active transportation users, or any major changes like the new interchange designs (Marine Drive/MLK, and the neighborhoods/equity implications. The content on page 22 related to active transportation is centered on the bridge configurations. There should be specific neighborhood/equity details related to noise reduction, rest zones, and connections.
2-58		42	3.1	47		Active Transportation facilities temporarily rerouted during construction need to include accessible wayfinding that is appropriately placed and maintained.
2-59		43	4.2.2.5	4-27		The visual quality analysis of the single-level bridge configurations in Section 4.2.2.5 Design Options is lacking a consideration for walking, bicycling, rolling, and other viewers on the shared use path as was done for the two aux lane option. It is expected that views (among other impacts) will be considerably different for shared use path viewers between double-level and single-level bridge options.
2-60		44	Noise and Vibration TR 4.1.2 and 4.6.2.2			The City's prior comment on Rev B of the Noise and Vibration TR; "*The Hayden Island transit station will be adjacent to MLPA I-5 and will be a noisy environment for transit users waiting on the platform for the train. City will be looking for mitigation for the noise impacts from immediately adjacent I-5 road noise consistent with objectives of the 2009 Hayden Island Plan and in collaboration with City of Portland staff. Please provide information on how transit users will be impacted by road noise and how the noise impacts will be mitigated.*" Section 4.1.2, Modified LPA Traffic Noise, and Section 4.6.2.2, Portland Transit Station Noise, still do not consider noise impacts from highway noise on transit users and no mitigations are proposed. The analysis is limited to noise-sensitive existing land uses near the I-5 infrastructure and light rail stations.
2-61		45	Chapter 3, Section 3.1, sub-section "Transit in 2045"	page 3.1 – 35		Please list the proposed bus line 6 route and terminus change, and any other proposed route change for TriMet or C-TRAN in Chapter 3. They should be stated in the Chapter 3, Section 3.1, sub-section "Transit in 2045," starting on page 3.1 – 35. As it reads now, one could read this and think no bus route changes are proposed. It is otherwise buried in the appendix. It is not referenced in the Chapter 3, the document more people may review IBR Draft SEIS Chapter 3.1 – Transportation It is referenced on Page 1-50 of the September 2024 IBR Draft SEIS Transportation Technical Report and listed in Table 1-3. Proposed TriMet and C-TRAN Bus Route Changes. This is page 70 of the 1121 page report.
2-62	**4. Transit** **a) Future Extension** **b) Funding** **c) Station Location and Design** **d) No Transit Rider Left Behind** **e) System Capacity Analysis and Improvements**	46	Chapter 3, Section 3.1, sub-section "Transit in 2045," And Chapter 7, Section 7.1.7 Transit, on page 7-5	page 3.1 – 35 and page 7-5		The current language on Chapter 3 page 3.1 – 35 appears to imply that there are not route changes to Bus line 6 assumed in the regional model or analyzed. This text: "For the purposes of this analysis, it is assumed the transit networks and service assumptions—except for those that are components of the IBR Program, including new LRT service and more frequent higher capacity express bus service on I-5—are the same for both the No-Build Alternative and Modified LPA." Is that the case? If it was analyzed, please provide more detail about the bus line 6 routing, terminus and frequency are coded into the regional model TNET. If it was not analyzed, how can it be concluded that there is no impact from this change in Chapter 7 Section 7.1.7 Transit, on page 7-5 (also page 408 of the PDF)? Particularly so for people traveling to and from Hayden Island and the MLK corridor. This change would introduce a new transfer between MAX Yellow Line and Bus line 6 to reach the MLK corridor. This likely adds travel time and reduces transit access for EJ communities, including residents of the manufactured homes on Hayden Island. We recommend additional analysis of the proposed TriMet bus line 6 route and terminus change to understand the impact on transit travel times and transit access. We would be happy to discuss what type and level of analysis would be effective and reasonable.
2-63		47	Chapter 3, Section 3.6.1, sub section "Temporary Effects" and Chapter 7, Section 7.2.5 Transit, on page 7-6	page 3.1 – 54 and page 7-6		Transit Operations: To further minimize temporary impacts on transit delay and reliability during construction, include implementing temporary transit priority treatments in the options for mitigation. These could also have TDM benefit during construction by encouraging people to ride transit instead of driving. Temporary transit priority treatments could range from NexGen Transit Signal Priority, to bus queue jumps at ramp terminals, bus on shoulder, peak-hour/pro-time BAT lanes on arterials and local streets, and more.

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2-63		48	Chapter 7, Section 7.2.5 Transit, on page 7-6	page 7-6		Transit Operations: Add reference to the need for some temporary bus stops when bus routes are detoured during construction. Temporary bus stops may require improvements to make them ADA accessible.
2-64		49	Transportation TR 1.1.2.2	1-20		This section is missing discussion about impacts to the bus network.
2-65		50	Transportation TR 3.7.4	3-89	Tbl 3-28	This table does not account for Line 6. Though it does not cross the entire Columbia River, it crosses the southern half.
2-66		51	Transportation TR 4.7.1.3	4-108		Please quantify the impact of truncating Route 6 at the Expo Center, requiring Route 6 riders destined for Jantzen Beach to transfer to the Yellow Line.
2-67	**5. Local Street Connections** **a) New Connections** **b) Interchange Area Management Plan streets**	52	Neighborhoods & Equity 3.5			The chapter does not specify any equity or neighborhood impacts related to Local Street Connections. There should be specific information about new connections on Tomahawk Island Drive and Hayden Island Drive the impact that has for community cohesion. There is really no mention about other new connections in the Marine Drive Interchange area, such as N Pier 99th St, Expo Road, or Vancouver Way. Or mitigation strategies to support equitable design of new connections. There is also a lack of context related to existing conditions related to local streets.
2-68		53	Transportation TR 3.9.1.1	3-119		N Columbia & MLK has a serious crash history and appears to see increased traffic volumes and crashes associated with the Build scenarios. Project should note impact and potential mitigations.
2-69		54	Transportation TR 3.9.1.1	3-119		Safety analysis should look at full project area, not just traffic analysis intersections. For example, two fatal crashes occurring on MLK within the project area are not captured by the analysis. Other Serious crashes are also not captured.
2-70		55	Transportation TR 4.2.3, AppB	4-8, AppB	4-4, AppB	Seven segments on City of Portland High Crash Network see peak-hour increases of more than 10%, indicating potential for significant increase in crash risk. These must be further studied to see if daily volumes also significantly increase, indicating a need for safety mitigation. These segments are Lombard west of Interstate, Columbia east of I-5, Columbia east of 99E/MLK, 99E/MLK (all three screenlines), and Sandy north of Prescott.
2-71		56	Transportation TR 7.1.9	7-5		City of Portland needs additional information regarding potential impacts to roadway segments with significant increases to determine whether safety or other mitigations are needed on those corridors (see comment on section 4.2.3). Based on the peak-hour diversion analysis, it appears that a number of local roadways experience impacts of significant increases in traffic.
2-72		57	EIS 3.1.6	3.1-52		Section notes potential mitigation measures for traffic operations on local streets but not safety impacts. Safety should also be noted.
2-73		58	Transportation TR 1.1	1-4		PBOT has concerns with truck traffic adjacent to Delta Park, crash risk on MLK, and directness of freight routing challenges associated with the MLK on-off concept in the current Modified LPA. PBOT believes there's a workable solution similar to concepts 3 & 4, as previously noted.
2-74		59	Transportation TR 1.1.2.3	1-20		MAX tracks are described as crossing the proposed Expo Road local street extension and the 40-Mile Loop Trail at grade, however, subsequent anticipated delays to these at grade connections is not described later in the report. Provide anticipated delays and queues for these facilities impacted by the at-grade crossings.
2-75		60	Transportation TR 3.6.4.4	3-73	Tbl 3-24	Fig 3-20 appears to indicate that both intersections 69 & 71 will be impacted by freeway congestion in the PM peak period. Please add an "a" footnote as appropriate.
2-76	**6. Local Street Impacts** **a) Traffic Impact Study** **b) Avoiding Impact and Mitigation**	61	Transportation TR 3.8	3-92		PBOT has concerns with IBR's impact to MLK and subsequent need for mitigation via improved active transportation connections. COP disagrees with the exclusion of Union Ct btwn Hayden Meadows Dr and MLK, MLK btwn the proposed active transportation connection north of Union Ct to Vancouver Ave, and Vancouver Ave from MLK to Schmeer Rd, from the travel shed. Between 2013-2022, there were (4) fatality and (4) serious injury crashes on MLK between Union Ct and Vancouver Way. (2) fatality crashes occurred at MLK/Union Ct and (2) occurred at MLK/Vancouver Way Ramp. (1) serious injury crash occurred at MLK/Vancouver Way Ramp and (3) occurred at MLK/Gertz. There were (4) crashes associated with active transportation: (1) pedestrian fatality, (1) bicyclist fatality, (1) pedestrian serious injury, and (1) bicyclist minor injury. Table 4-7 anticipates that 2045 Modified LPA and Options conditions will quadruple active transportation users across the I-5 Columbia River Bridges, subsequently increasing crash risk on MLK. Mitigation could include one of two options: (1)Extend the proposed shared use path on Union Ct to the south via a protected shared use path on the west side of Union Ct to MLK to Gertz to Vancouver Ave, connecting at Schmeer. (2)Provide a shared used path on N Denver Ave to the west through Portland Parks ROW to N Whitaker (shared use path or sidewalk) to Schmeer (infill – some existing shared use path on south side), connecting to Vancouver Ave.
2-77		62	Transportation TR App G		Tbl 3-37	ID 63/ Marine Dr/MLK Blvd and I-5 NB/SB on-/off-ramps: COP crash data btwn 2015-2019 indicates that a Serious Injury crash is missing from this table. This crash occurred on 8/20/2015, was a FIX OBJ crash, and listed causes were RECKLESS, TOO-FAST. Please adjust table to include this crash data.
2-78		63	Transportation TR App G		Tbl 3-37	ID 63/ Marine Dr/MLK Blvd and I-5 NB/SB on-/off-ramps: COP crash data btwn 2015-2019 indicates (2) Pedestrian crashes - one is missing from the table. One crash occurred on 01/30/2016, was a Minor Injury crash, and listed cause was IN RDWY, NT VISBL. Another crash occurred on 11/4/2016, was a Possible Injury crash, and listed cause was NO-YIELD, NT VISBL. Please adjust table to include which of these two crashes is missing.
2-79		64	Transportation TR App G		Tbl 3-37	ID 69/ Victory Blvd and I-5 NB off-ramp/Whitaker Rd: COP crash data btwn 2015-2019 indicates that (1) Pedestrian crash is missing from the table. This crash occurred on 12/12/2019, was a Minor Injury crash, and listed cause was NT VISBL, IN RDWY. Please adjust table to include this crash data.
2-80		65	Transportation TR App G		Tbl 3-37	ID 73/ Columbia Blvd and MLK Blvd: COP crash data btwn 2015-2019 indicates (2) Pedestrian crashes - one is missing from the table. One crash occurred on 02/02/2017, was a Possible Injury crash, and listed cause was NO-YIELD. Another crash occurred on 11/2/2018, was a Minor Injury crash, and listed cause was IMP-OVER, F AVOID. Please adjust table to include which of these two crashes is missing.

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2-81	**7. Freight Movement** **a) Freight Priority** **b) Demand Management**	66	Economics TR 4.3.1.4	4-4		Section 4.3.1.4, Changes in Travel Patterns, states: "*Under the Modified LPA, intersection operations at the I-5 interchange with Marine Drive would be worse compared to the No-Build Alternative for both the AM and PM peak periods. This would indicate a reduction in mobility and access to this freight and employment corridor.*" Readers are then referred to the Transportation TR for more detailed info. Worsened operations at the I-5/Marine Drive intersection would seem to significantly undercut IBR's other statements and conclusions in this report and other reports about IBR benefitting freight mobility (such as page 4-13 "*The project would support this growth by reducing the roadway congestion experienced by freight and other vehicles going to and from the two cities.*"; page 4-14 "*The Modified LPA would benefit the trucking industry by reducing travel times and increasing reliability, which in turn would reduce costs and improve efficiency for truck freight operators.*"; and on page 7-1 "*The Modified LPA would provide positive economic impacts in the study area by reducing congestion on I-5 and facilitating the movement of traffic, particularly freight truck traffic between the Marine Drive corridor and I-5.*"). No mitigations are proposed for the impact of worsened intersection operations at I-5/Marine Drive."
		67	Transportation TR 4.6.4.4	4-95		Page 4-95 states "*Intersection #68 [*Marine Drive/Martin Luther King Jr. Boulevard and I-5 northbound/southbound on-/off-ramps*] would fail to meet the AM and PM peak performance standards under the Modified LPA and would also not operate satisfactorily under the No-Build Alternative. The Modified LPA would introduce a SPUI for the Marine Drive intersection which would combine the previous Marine Drive and Union Court northbound off-ramps into a single off-ramp. A high increase in the number of trips for the southbound off-ramp would also contribute to higher delays.*" Section 7.1.4 says freight mitigation would not be required beyond what is identified in other sections, but the other sections don't definitively state any mitigation will be implemented. However, the report does state this is still being studied and mitigations will be proposed later.
2-82	**8. Highway and Bridge Facility size, height and footprint** **a) One Auxiliary Lane** **b) Minimize Shoulders** **c) No Restriping or Lane Reallocation for Capacity Expansion** **d) Minimize Fixed-span Bridge Height** **e) Study a Lower Bridge** **f) Hayden Island Interchange** **g) Disruptions and Displacements**	68	Transportation TR 4.3.3.1	4-13		EIS Table 3.1-11 and TTR Table 4-5 show I-205 volumes going down with the Build scenario. This is described in the TTR 4.11 and EIS chapter 3.1.3 but is counter-intuitive and warrants more investigation. We need more information including travel demand model outputs to fully understand this finding.
2-83		69	Transportation TR 4.6.4.4	4-32&33		MLK/Marine/I-5 ramp terminals are now 1.07/0.96 (AM/PM) while in last version of TTR they were ICU 0.83/0.76. This appears to be unrealistically high.
2-84		70	Transportation TR 7.1.3	7-2		PBOT disagrees with the project defining operation that is improved from No Build but still exceeds the HDM V/C ratio as an impact. We believe this is an inconsistent use of the term impact under NEPA.
2-85		71	Transportation TR 4.3	4-11 to 4-5		Assumption that Two Auxiliary Lanes do not attract additional traffic does not appear to be plausible and is not sufficiently explained. The use of lower volumes would result in artificially optimistic conclusions for the Two Auxiliary Lane option. If this option is to be advanced then it should have a full analysis as a standalone option with real volumes developed through modeling. Findings for the Two Auxiliary Lane appear to be unrealistically optimistic as a result.
2-86		72	Appendix D & Chapter 2, Design Alternatives			As part of the City of Portland land use process, an application for an Environmental Review must include an alternatives analysis. This analysis is required by the approval criteria and should consider alternative bridge layouts and designs and construction methods and evaluate each alternative on the basis of its impact(s) on City-identified resources and functional values—especially aquatic and terrestrial ecosystems. It must be demonstrated that the selected alternative is the least detrimental to City-identified resources and functional values out of all other significantly different and practicable alternatives. Per Title 33, practicable is defined as "capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose." It appears from the analysis provided that the double-decked fixed-span alternative has the least impacts to City-identified resources, but it is understood this may not be the preferred alternative for other reasons. If this is the case, your Environmental Review application will need to explain why alternatives with less impacts are not practicable and therefore were not chosen as the preferred alternative.
2-87		73	Neighborhoods and Populations TR	6-1		Appreciate that Chapter 6, Indirect Effects, of the Neighborhoods and Populations TR addresses the impacts of I-5 infrastructure itself on Hayden Island neighborhood cohesion. Chapter 6 discusses potential indirect effects of the Modified LPA resulting from land uses, redevelopment projects, and transit oriented development that could happen. However, some of the impacts described from the expansion of I-5 (e.g. increased congestion, noise, air pollution, larger [taller, wider] physical size of I-5) that would negatively impact neighborhood cohesion are direct effects, not indirect. The proposed expansion of I-5 (vertically and horizontally) would have direct effects on the Oregon neighborhoods, especially Hayden Island, both during construction and long-term. Suggest moving this discussion to Chapter 4, Long-Term Benefits and Effects, and 5, Temporary Effects -- which would help balance out the descriptions of aspects of the Modified LPA that would help offset these impacts and benefit the neighborhoods.
2-88		74	Neighborhoods and Populations TR	7-1 thru 7-2		Despite the long-term, temporary, and indirect impacts identified in Chapters 4, 5, and 6, the discussion of Mitigations for Adverse Effects in Chapter 7 provides no tangible or definitive program-specific mitigations. This technical report does a better job of acknowledging the long-term impacts and the temporary (10-15 years) construction impacts than some of the other technical reports--such as Air Quality, Equity, and Environmental Justice--yet no meaningful or substantive program-specific mitigations are offered, especially for long-term effects. Section 7.1.2 says "The Modified LPA is anticipated to have an overall neutral effect on visual quality in study area neighborhoods," which contradicts the long-term and temporary construction impacts identified in Chapters 4, 5, and 6 (e.g., in Section 4.3.3 "Hayden Island would have high-level visual impacts...".
2-89		75	Neighborhoods and Populations TR 2.4.2	2-6 thru 2-7		Section 2.4.2 Local [Relevant Laws and Regulations] should include a reference to the City of Portland's 2035 Comprehensive Plan as amended through May 2023, which contains many goals and policies relevant to neighborhood livability and cohesion. https://efiles.portlandoregon.gov/record/16339697

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2-90	**9. Process and Community Engagement** **a) Conditions of Approval** **b) Portland Future Involvement** **c) Committee Engagement** **d) Public Engagement** **e) Urban Design Advisory Group** **f) Program Accountability**	76	Community Engagement Report			Recommendations for Community Engagement •Enhance Youth Involvement: Develop targeted outreach strategies to engage younger community members. This could include partnerships with schools and youth organizations to ensure their voices are represented in the planning process, addressing the current shortfall in youth participation. •Facilitate In-Depth Design Discussions: Organize focused workshops that allow community members to explore specific design options in depth. This would help address concerns about design details and ensure that participants have the opportunity to discuss and understand the implications of various choices. •Provide Comprehensive Data: Ensure all relevant traffic and environmental data are readily available and presented in an understandable format. This will empower community members to provide informed feedback and address requests for more detailed information. •Language Accessibility: Increase efforts to provide materials in multiple languages and consider hosting bilingual sessions. This will help overcome language barriers and ensure that non-English speakers can fully engage in the process. •Balance Diverse Priorities: Create forums for dialogue between stakeholders from Oregon and Washington to discuss differing priorities regarding environmental impacts and travel times. This could help reconcile these views and foster a more collaborative approach to decision-making. •Structured Feedback Sessions: Implement structured feedback sessions that focus on specific topics or concerns raised by the community. This will allow for more meaningful discussions and ensure that participants feel their input is valued and considered. •Sustained Engagement Efforts: Develop a long-term engagement strategy that includes regular updates and opportunities for community input throughout the project lifecycle. This will help maintain stakeholders' interest and participation over time.
2-91						
2-92						
2-93						
2-94						
2-95						
2-96						
2-97		77	Equity TR; Environmental Justice TR			City Condition of Approval #9f states: "Program Accountability: Implement an accountability tracking tool that will include regular staff reports to the program and the EAG regarding how the Equity Framework (and equity more broadly) has shaped decisions and activities." It would be helpful to mention any accountability tracking tool or effort in the Equity or Environmental Justice technical reports.
2-98		78	Neighborhood and Equity			The chapter lacks depth or details related to process of community engagement tied to equity considerations. The public engagement activities does not provide insight on priority communities involved in the process, the equity considerations for engaging those stakeholders, there is also a lack of clarity related to the types of decisions or collaboration required with community. There is also details needed related to the equity framework or implementation of accountability tracking.
2-99	**10. Urban Design of Infrastructure and landside Improvements** **a) Urban Design Guidelines** **b) Engage the Community** **c) Under-bridge Activation**	79	global	global	global	Please provide detail on how past efforts and work from the Urban Design Advisory Group (CRC) will be updated for IBR and how urban design professionals will be engaged going forward.
2-100		80	Visual Quality TR 4.2.1.3	4-7	Fig. 4-1	Figure 4-1 KVP 2 simulation at Marine Drive Looking Northwest at Pedestrian Trails shows solid fill under I-5 where it should show elevated structure – this needs to be revised. [On page 4-6 under Cultural Environment, the report says "*The new ramp from I-5 to Martin Luther King Jr. Boulevard would be several feet higher than the existing ramp, which would make it more visible from a few locations in Delta Park. A retaining wall would be required in the corner of Delta Park, introducing a new visual feature. Sensitive recreational viewers would be exposed to new retaining walls, but retaining walls and other similar elements are common in the existing visual context.*" Note that the IBR visualizations (see videos at interstatebridge.org/next steps) also show solid fill/structure under the roadways and interchanges at I-5 and Marine Drive. Is the City opposed to fill walls at this location? We may want to edit this comment with a stronger statement of what we want IBR to revise.]
2-101		81	Visual Quality TR 2.2.4	2-6		Appreciate the Hayden Island Plan being included in Table 3-1 as part of the relevant laws and regulations. However, the reference to the Hayden Island Plan is still missing from Section 2.2.4 that lists the local regulatory context for the visual quality analysis.
2-102		82	Visual Quality TR 3.1.3.2	3-6	Figure 3-2	Figure 3-2, the map of Key Viewpoints Used in the Visual Quality Analysis, shows the existing I-5 configuration. It would be helpful to also see a version of this map with the Modified LPA configuration and its design options shown, to get a better sense of where the KVPs are in relation to the future conditions.
2-103		83	Visual Quality TR 4.2.2.3	4-19 thru 4-21	Figures 4-5 and 4-6	Figures 4-5 and 4-6 for KVP 9 and 10 appears to show I-5 on structure with no fill or fill walls between N Hayden Island Drive and N Tomahawk Island Drive. However, other IBR materials such as the online visualizations (see videos at interstatebridge.org/next steps) appear to show solid fill/fill wall structures under I-5 between these same streets on Hayden Island. Which is the correct structure?
2-104		84	Visual Quality TR 7	7-1 thru 7-4		The program-specific mitigations for long-term effects lack specificity. The mitigations also lack clarity as to whether they will incorporate any City conditions of approval of the Modified LPA related to urban design and light rail station design, or Hayden Island Plan preferences for highway or transit station design. "Bridgehead character" is mentioned here, but not anywhere else in this report, and is not explained further. No mitigations are proposed for the adverse impacts to viewers in KVP 1 at East Delta Park. Conducting public design charrettes should be expanded beyond just transit stations and park and rides, and include all physical IBR Program elements to constructed in the built environment.
2-105		85	Neighborhood and Equity			The chapter notes details related to community cohesion but, there area limited details related on how design and aesthetics will effect equity priority communities related to urban design/landside improvements. Details on mitigation strategies that would benefit communities and the anticipated improvements for the project area that are important equity considerations such as under-bridge activation should be included in the chapter.

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2-106		86				Tolling is likely to impose significant financial challenges on low-income households, necessitating targeted mitigation efforts to alleviate these burdens and promote equitable access to transportation. Increased Transportation Costs: Tolling is expected to increase household transportation costs for low-income households significantly. Under the Modified LPA, these households could see their transportation costs rise from 29% to 35% of their total household income, which is a substantial increase. Disproportionate Effects: The tolling program will most adversely affect households at or below the federal poverty level. This demographic is projected to experience a disproportionately high impact compared to the general population, as they already allocate a larger portion of their income to transportation expenses. Comparative Cost Analysis: The analysis indicates that the proportion of income spent on tolls for low-income households will be higher than for median-income households. For instance, while median-income households may see a modest increase in transportation costs (2% to 3%), low-income families will face a more severe financial burden. Overall Impact on Quality of Life: The increased costs associated with tolling could lead to broader implications for low-income households, potentially affecting their mobility, access to jobs, and overall quality of life. The report emphasizes the need for careful consideration of these impacts to ensure equitable transportation solutions. Recommendations: Provide Multiple Payment Options: Offering various payment methods, including electronic toll collection, mobile apps, and cash options, can enhance convenience for communities. This flexibility allows users to choose the payment method that best suits their needs, making the tolling process smoother and more accessible. Invest in Public Transportation Alternatives: To reduce reliance on toll roads, it is essential to invest in and promote public transportation options. Communities benefit from improved transit services that provide reliable alternatives to driving, especially for those who may be financially impacted by tolls. This aligns with the community's desire for integrated transportation solutions.
2-107	**12. Equitably designed variable-priced tolling** **a) Use of Revenue** **b) Pricing Options for Equitable Mobility** **c) Regional Mobility Pricing Project**	87				Additional Recommendations: Implementing Fair and Inclusive Tolling Policies: There is a growing demand among consumers for tolling policies that consider the financial realities faced by different income groups. Advocates suggest the introduction of tiered toll rates that adjust according to income levels, allowing those with lower incomes to pay less while ensuring that higher earners contribute more. In addition, providing discounts to low-income commuters could alleviate some of the financial strain associated with tolls. The Equity Advisory Group strongly underscores the necessity of executing these policies in an equitable manner, as it is crucial to prevent tolling practices from disproportionately impacting vulnerable populations. This approach not only fosters fairness but also promotes access and mobility for all community members. Enhance Communication and Transparency: Clear communication about toll rates is essential. This information should be provided in multiple languages and through culturally relevant channels and include details on payment methods and the reasons behind tolling decisions. It's important for communities to understand how and when tolling will be implemented and how revenues will be used. Being transparent about these matters can help build trust and acceptance among users. Conduct Regular Impact Assessments: Regular assessments of the tolling system's impact on traffic patterns, congestion, and community well-being can help identify areas for improvement. Consumers should be involved in these assessments to ensure their concerns and experiences are considered in future tolling decisions. Create Feedback Channels: Establishing channels for consumer feedback on tolling experiences can help agencies understand public sentiment and make necessary adjustments. This could include public forums and collaboration with community partners to conduct targeted outreach where users can share their thoughts and suggestions regarding tolling policies and practices.
2-108		88				Please reference City of Portland Pricing Options for Equitable Mobility (POEM) Task Force recommendations and ODOT's Equity and Mobility Advisory Committee (EMAC) recommendations for policy and strategy considerations to advance equity and environmental outcomes through pricing.
2-109		89	Neighborhood & Equity			The chapter falls shorts on meeting Portland's conditions of approval and IBR commitments on equity. The content on tolling on page 26 note that there is a burden for low-income travelers. But, there is no detail on anticipated amount of impact. Or mitigation strategies, there should be specifics on pricing options for equitable mobility, goals, and potential off-set strategies. There should also be a note on mobility and climate outcomes, potential exceptions, and the impact of design to achieve the most equitable outcomes. There should also be details related on reducing barriers.
2-110		90	global			All references to City of Portland 2035 Comprehensive Plan should be updated to refer to the "as amended through May 2023" version. https://efiles.portlandoregon.gov/record/16339697
2-111		91	Land Use TR 2.3.7	2-7 thru 2-8	Figure 3-12	The list of comprehensive plan and zoning designations still does not state that it only includes the primary study area. The text refers to Figure 3-12, which shows both the primary and secondary study areas. If the list is supposed to include the secondary study area, then there are many comprehensive plan designations, zones, overlays, plan districts, and other areas missing from the list. Please clarify if the list includes the primary or secondary study area, or both, and update the list as needed.
2-112		92	Land Use TR; Hazardous Materials TR	3-4; 3-2	Figure 3-3; Figure 3-1	This comment applies to the existing land use maps in the Land Use Technical Report on page 3-4 in Figure 3-3 and the Hazardous Materials Technical Report on page 3-2 in Figure 3-1. It appears that the symbols for two or more land uses overlap in some places, creating a color that doesn't appear in the legend. This happens mainly around Hayden Island where water uses are indicated and overlap with vacant land, single-family residential uses, or the river. The overlaps make it difficult to tell which existing land uses are indicated on the map. Please revise to avoid the overlapping colors.
2-113		93	Land Use TR	9-2 thru 9-3		The last text at the bottom of page 9-2 appears to be the end of a paragraph. The beginning text on page 9-3 appears to be either an incomplete sentence or isn't capitalized. As such, it's unclear if any text is missing or this is just a type. Please check and correct.

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2-114		94	Aviation TR; Cumulative Effects TR	global	global	For awareness coordination purposes, the Port of Portland has begun the process of updating the PDX Airport Master Plan. The project is called PDX 2045. The project began in 2023 and will take about 3 years to complete, well within the timespan of the IBR Program. More info at pdx2045.org. Suggest, at minimum, adding a reference to this in the Aviation and Cumulative Effects TRs and summary findings sections of the SEIS.
2-115		95	global			Staff for the Historic Landmarks Commission: The HLC has no comments at this time, and looking forward to the future required Type 4 Land Use Demolition Review for Demolition of the 1917 Bridge [Type 4 Demolition Review is reviewed by the Historic Landmarks Commission and Portland City Council is the approval body].
2-116		96	Chapter 3.07 - Parks and Recreation and Chapter 4 - Section 4(f) Evaluation	general		A Non-Parks Use Permit (NPUP) will be required for all work on PP&R-managed property. The NPUP will specify dates of work and other conditions necessary for park occupancy, including mitigation for any impacts. A Tree Removal Permit issued by PP&R's Urban Forestry division will be required for any trees proposed to be removed. If any work is proposed near trees, Urban Forestry will require tree protection pursuant to City Title 11.
2-117		97	Chapter 3.07 - Parks and Recreation	3.7-14		The proposed impacts at East Delta Park would result in the closure of the existing off-leash dog area (DOLA). Although this DOLA is currently closed for maintenance, the impacts of its closure should be noted in the report. PP&R's level of service for DOLAs is 2 miles. It appears removing this DOLA from service would reduce the number of households adequately served by DOLAs in the City of Portland - this impact to service levels in the City should be noted here.
2-118		98	Chapter 3.11 - Noise and Vibration		Figure 3.11-14	Page 3.11-23 notes that ODOT NAAC impacts are expected at East Delta Park. The figure shows that a noise wall was not considered at this location. Please describe the analysis that was used to determine that mitigation of the projected noise impact to East Delta Park should not be included in the project. Please include an evaluation of whether this proposed noise impact constitutes a 4(f) constructive use in Chapter 4 - Section 4(f) Evaluation. Dozens of PP&R staff report daily to East Delta Park as their primary workplace - please evaluate whether these workers would be negatively affected by the proposed noise impacts.
2-119		99	Chapter 4 - Section 4(f) Evaluation	general		IBR will need to provide precise information about impacts to any PP&R-managed trees – any removals, replacements, or relocations. Of particular concern are the mature Sequoias at the southwestern corner of the park, some of which are in ODOT ROW. PP&R will also need information about how trees proposed for preservation will be protected during construction.
2-120		100	Chapter 4 - Section 4(f) Evaluation		Table 4-3	PP&R would like to know more about the design quality and height of the retaining wall proposed near the northwest corner of Delta Park. This wall is now proposed on PP&R-managed property within Delta Park. Page 4-35 states this area serves no recreational purpose - PP&R does not agree with this assessment, as this area provides a buffer between the features in this area of the park and the freeway. If this is a high wall, which we expect it will be, the wall will impact the park. This wall will be a visual and shadow-creating structure that could be imposing to park users nearby. This area of the park in particular is an area used by indigenous community groups. The Delta Park Powwow and Encampment is held here each June, drawing indigenous community members from all over the Northwest. These park users should be notified and brought into the planning and design process for this wall. Mitigation for the impacts of this proposed wall should be incorporated into the project. Maintenance responsibility for the proposed wall should also be clearly identified through this process - PP&R assumes ODOT will have maintenance responsibility for the wall.
2-121	**OTHER / GENERAL**	101	Chapter 4 - Section 4(f) Evaluation	4-32	Table 4-1 and 4-3	Table 4-1 states that only "recreational" sections of the Marine Drive Trail area protected by Section 4(f). Table 4-3 states that only 122 feet of recreational sections of the trail will be impacted, and the impacts will be temporary. Page 4-32 provides an explanation of the methodology used to determine which sections of the trail are recreational. No drawing or figure is provided. The Marine Drive Trail is part of the 40-mile Loop, a trail focused on providing access to nature and recreation, and is identified in City Title 33 as a Public Recreational Trail. PP&R does not necessarily agree with the language in this report stating that only certain portions of the trail are recreational assets protected by Section 4(f) - please provide a figure or drawing showing the analysis performed to determine which sections of the trail have a primarily recreational purpose to allow PP&R to fully understand how the conclusions in the report were reached.
2-122		102	Chapter 4 - Section 4(f) Evaluation		Table 4-3	PP&R would like to know more about the need for the PP&R-managed property on the northeast side of N Union Court for a multi-use path. Can the project fit the desired improvements within the existing ROW without taking the PP&R-managed land? Will a property appraisal be completed to determine the value of this land and any other PP&R-managed property?
2-123		103	Chapter 4 - Section 4(f) Evaluation	general		PP&R does not support an MLK SB off-ramp that is aligned with the entrance to Delta Park from Union Court. MLK SB off-ramp should be reconsidered with design refinement options also addressing concerns from PBOT, with a preference for the off-ramp to be located or reconfigured further south away from the park entrance on Union Court closer to N. Hayden Meadows Drive in order to avoid impacts to the park. If the ramp remains in the proposed location in alignment with the entrance to Delta Park, the additional noise and traffic generated by the ramp should be considered as a 4(f) impact to the park. If the ramp is relocated closer to N. Hayden Meadows Drive, the increase in traffic along the north end of the park should be evaluated - increased truck traffic adjacent to the park could also result in a 4(f) impact to the park.
2-124		104	general			PP&R was unable to locate information about impacts to private property trees in the report. Impacts to private property trees should be evaluated through this process. In Portland, PP&R's Urban Forestry division regulates removal of private property trees as well as requiring protection during construction per City Title 11. Information about impacts to private property trees will be required to satisfy Urban Forestry permitting requirements.
2-125		105	Noise and Vibration TR			The noise analysis does not consider people standing near or walking / biking / rolling under the I-5 bridges at Hayden Island or Marine Drive interchanges. Highway traffic and light rail vehicles moving overhead will generate noise for people under or near the bridge underpasses. What considerations is the Program making to reduce noise levels for people near or under the bridges? The analysis also excludes future planned land uses that weren't existing or permitted, so potential future residential uses near the highway and light rail were not factored into the noise impacts. For example, commercial mixed use zones that allow residential uses, but don't currently have residential uses, were intentionally excluded from the noise impact analysis. The 2009 Hayden Island Plan anticipates future transit-oriented mixed-use development near the future Hayden Island MAX station, where residential uses don't currently exist, but the noise analysis shows no impacts because there aren't nearby residential uses currently.

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2-126		106	Transportation TR 1.1.3.1	1-39	Tbl 1-2	Consider adding rows to this table discussing the following: - Emergency response access differences - Crash analysis differences - Property acquisition differences - Rough total costs of each option
2-127		107	Appendix B, Public Involvement	14	Advisory Groups	All members are listed from September 2023. It seems like this could and should be updated through release of the FSEIS. PBOT member on Equity Advisory Group has changed, for example.
2-128		108	Appendix B, Public Involvement	2	Primary Audiences	The list of community members in the first point should recognize that those identifications aren't necessarily exclusive of others in the same list. There are people experiencing homelessness who are also living with a disability, as an example. The overlapping identifications make these community members even more vulnerable to the impacts of this project requiring more thoughtful and directed mitigations.
2-129		109	global			As the City previously commented (such as in the Acquisitions, Public Services, and Visual Quality technical reports), it would be very helpful to know where, if at all, the ODOT permit office would be relocated. If it were moved elsewhere on Hayden Island, it would have many direct and indirect impacts to the neighborhood, especially concerning traffic on local street, potential of transit-oriented development, and community cohesion. If the permit office is moved off island or the functions replaced in a non-physical way (such as online or through another office), there would be different impacts or no impact. Page 4-18 of the Visual Quality technical report says "*The existing ODOT permitting facility lies directly adjacent to the I-5 mainline. This facility would be removed and relocated within the new I-5 right of way. Visual impacts associated with the new permit facility would likely be similar to existing conditions….The final location, building, and site design will be determined in future phases but will likely be relocated within ODOT right of way.*" No further detail is given about where within the new I-5 right-of-way the ODOT permit facility would be relocated. Without more information, it is unclear how the conclusion was reached that visual impacts would likely be similar to existing conditions.
2-130		110	Ch. 4 Draft Section 4(f) Evaluation	4-1		The Chapter Contents insert on page 4-1 doesn't match the headings in the main body for the sections listed. In addition to correcting this, consider replacing it with a table of contents with page numbers.
2-131		111	Parks and Recreation Section 3.4.1	3-10		The summary of East Delta Park should mention the trees at the park, along with the list of other amenities.

Portland Bicycle Advisory Committee

Working to Make Bicycling a Part of Daily Life in Portland

1001 SW 5th Avenue, Room 1300
Portland OR 97204

November 13, 2024

To: Millicent Williams, Director, Portland Bureau of Transportation
Priya Dhanapal, City of Portland Deputy City Administrator
Public Works Service Area

Cc: Caitlin Reff, Brenda Martin, Roger Geller; PBOT staff

2-132 Ensuring our lifeline transportation routes are seismically sound to support emergency services and evacuations is of critical importance for ensuring the safety of all Oregonians in the event of a major earthquake. We have greatly appreciated both the Interstate Bridge Replacement Program (IBR) Team and City staff attending Portland Bicycle Advisory Committee (BAC) meetings to present on project milestones, discuss questions and concerns and invite comments, including most recently for publication of the Draft Supplemental Environmental Impact Statement (DSEIS). This is an opportunity to create a landmark connection at the gateway to Oregon that will represent our shared values for centuries to come.

2-133 As detailed within this letter the BAC has several recommendations to address at least some of the many deficiencies identified within the DSEIS.

1. Shift the location of active transportation facilities, particularly on the bridge itself, to be in alignment with the MAX extension. This is to provide additional separation from the many negative externalities of autos and gain the many benefits of having direct station access for people riding bicycles and walking without having to engage in, at times, significant out of direction travel. Ideally this would provide access starting from the Expo Center continuing to the northern terminus.
2-134 2. Add resting and/or observation areas on the shared use path (SUP) to both make the facility easier to use and provide spaces for people to enjoy the unparalleled views that will be available.
2-135 3. Utilize markings within the SUP to separate downhill bicycle users from pedestrians and uphill bicycle users. The speed differential could be significant and having a wide, unmarked space provides plenty of opportunity for conflict.
2-136 4. Develop a mechanism that connects to the street grid with less out of direction travel from the bridge on the Washington side of the river. The current helix ramp is excessively long and will be a significant barrier to access.
2-137 5. Include world class connections to make use of the active transportation facilities being built with this project. Their intentional omission by the arbitrary project area is disappointing and likely hinders the ability for this project to be successful from an active transportation utilization perspective before the first shovel breaks ground.
2-138 6. Perform an actual analysis of the changes in crash types with the LPAs presented so all stakeholders have a better understanding, based on similar changes built conditions, of how crash numbers AND severity will be addressed. Adding the word "safety" to shoulders is not a valid solution.
2-139 7. Utilize a more responsible definition of congestion in traffic analysis that respects current speed limits and safety objectives. A 5 mph slowdown where a 50 mph speed limit exists on a bridge is not sufficient justification for the type of infrastructure expansion being proposed.

2-140 The BAC advises City Council and City bureaus on all bicycling-related matters and thus has a role in bicycle planning, design, and implementation activities, as well as supporting efforts to improve safety and comfort for all people riding bicycles throughout Portland. It is in this capacity that we are writing to you to express our disappointment that the conceptual project design in the DSEIS does not reflect the City's Transportation System Plan goals to improve the livability of Portland by: supporting Vision Zero, limiting traffic congestion, reducing carbon emissions and promoting healthy lifestyles, spending less on vehicles and fuel and creating great places.

2-141 **Mobility**
WSDOT has expanded I-5 and I-405 in the Seattle metropolitan area to a grand degree, yet the region is plagued by congestion by every measure. Our freeway widenings have had similar fates. We continue to spend billions of dollars

CITY OF PORTLAND BUREAU OF TRANSPORTATION

2-141 on highway investments that evidence has shown nationwide to induce demand. Even if this project did solve congestion in the project area, which is staggeringly unlikely, the back-up will only move south where the highway is still constrained. What this will lead to is more billion dollar projects to add auxiliary lanes to the split of I-405 and then the full I-5 Rose Quarter project that is still $1.5 billion short of being funded.

2-142 Further, the definition of congestion at anything 45 mph or lower is dangerous and reckless. The mobility policy adopted in Metro's Regional Transportation Plan uses a measure of speeds of 35 mph for more than four hours. Using a higher measure results in an outcome that is financially irresponsible and sets an untenable precedent. With speed limits that vary between 50 to 60 mph throughout the project area, this definition means a slowdown of 5 mph is worthy of billions of dollars in intervention. Yet at the same time, there are many locations in the project area and Portland where the most vulnerable road users, often from the most marginalized communities, are lacking protected or even any facilities.

There are numerous reasonable and responsible reasons for traffic to slow down including weather, construction/road work, vehicle(s) on the shoulder, and vehicles merging on and off the highway. Small changes in speed for these reasons should not be a reason to claim there is congestion and by doing so it encourages a much more robust and expansive Locally Preferred Alternative that looks more like a construction company fever dream in Texas or Florida rather than a responsible and restrained project that acknowledges that single occupant vehicles should not be further encouraged for reasons including safety, greenhouse gas emissions, microparticle emissions from brakes and tires, lack of affordability for a society dependent upon auto ownership, and insufficient resources for maintaining current transportation facilities.

2-143 **Safety**
This project fails to address the current safety issues within the IBR project area, even though this project provides a significant opportunity to do so. The rigid definition of congestion creates an incentive to design unsafe driving conditions by encouraging "driv[ing] a vehicle on a highway at a speed greater than is reasonable and prudent under the conditions" in violation of RCW 46.61.400 (Washington Basic Rule) and ORS 811.100.

The increased speeds that, while unlikely, are projected by building this project as a result of reduced congestion would result in a higher number and proportion of deadly crashes. By claiming that congestion can happen with as little as a 5 mph drop in speed, this project is supporting the kind of behavior that led to the deaths of over 586 people in Oregon last year (328 of which were on ODOT facilities). Based on ODOT's Crash Data Systems, the second and third leading causes of crashes were roadway departure and speed-related respectively, neither of which will be solved with a freeway that is more than double the current size and engineered for people to travel at unsafe speeds in service to relieving congestion.

IBR staff were not able to provide any breakdown of how the types of crashes would change as a result of any LPA on the table during the BAC presentation. Crashes of all types are bundled together when claiming that this project will result in safer conditions even though serious and fatal crashes are the focus of the City's Vision Zero program and Metro's regional safety goals. IBR staff did not provide any proof or cite any data from other similar roadways to confirm the assertion that serious and fatal crashes will be drastically reduced if the total number of crashes are reduced. The projected increased speeds makes it unlikely this is the case. If the forecasted "congestion relief" fails to materialize then the crashes being prevented are of the low speed variety that more often result in vehicle damage instead of bodily harm and do not merit the expenditure of billions of additional dollars as part of this super-sized project.

2-144 **Climate**
Measuring emissions without any climate related goals communicates the lack of seriousness that the IBR DSEIS places on one of the core project goals. Pollution driven by increased vehicle miles traveled (VMT) expected as a result of the project goes well beyond the stated purpose and need for a replacement bridge that is centering travel by automobiles while merely tolerating every other mode of travel in its design.

This project claims to address climate change by reducing congestion. However, that assertion ignores advances in ICE technology in the last 50 years that have made vehicles more efficient in traffic and at lower speeds. Further, we

2-144 know that maximizing transportation choice is the key to reducing congestion, while widening always has the opposite effect eventually. In fact, the slight increase in overall river crossings with the DSEIS project as compared to the no-build is testament to this fact.

2-145 A higher proportion of vehicles are assumed to be electric rather than internal combustion (ICE), but the analysis fails to account for the increased vehicle tonnage due to batteries, along with the environmental damage and carbon emissions associated with the mining and manufacture of those batteries, and larger dimensions as vehicle sizes and weights continue to grow. A more complete analysis would reveal the marginal benefits of this shift lessen or even negate these anticipated greenhouse gas emissions savings.

2-146 **Bicycle and Pedestrian Infrastructure**
More separated space for people riding bicycles and walking as part of a new bridge design will be a huge improvement over the facilities that exist today. However, many critical elements of the active transportation facility design that contribute to rider experience are lacking - with people walking and bicycling as an afterthought (rather than a focus). This is likely why even with both a new mixed-use facility and light rail extension as part of the bridge we only see a slight decrease in the number of people driving with the project (though also induced demand as highlighted below).

2-147 We remain concerned about the elevation changes in the LPAs. While all of the options are technically ADA compliant, having extended elevation gains still represents a barrier that has not been adequately addressed. There was no identifiable discussion of flat rest or observation areas that could be utilized to break up the elevation gains or otherwise gain respite out of the flow of travel for people walking or biking in the SUP. The elevation gains and losses are also concerning because the downhill portions on bicycles represent opportunities for large speed differentials and with 25' to work with there is a need to provide cues for all users to prevent conflicts. We would recommend the use of signage, paint, and textured materials to safely and consistently guide all users to the proper areas of the SUP they should be utilizing based on how they are traveling. Allowances for shy distance on bicycles will be important to incorporate as well in future design and implementation.

2-148 The helix ramp is of particular concern. First for the increased distance it adds to the trip. Just the bridge and ramp length alone make this a long trip for cyclists, not to mention that most people who use it live or are accessing destinations that are also some distance away. A solution that provides a straight shot for driving and a meandering path for people walking and bicycling around it is not how we encourage people to select the most vulnerable modes toward our climate and congestion goals. Second the safety challenges it poses due to descending bicyclists likely traveling much faster than people biking uphill or walking. As any mountain biker knows, there are limits to the brakes on our vehicles related to hills (similar to freight which we design safeguards for). A heavy hand can send you over the handlebars or, in the wrong weather conditions, skidding. For increased safety of all SUP users, we recommend "[c]o-locating the shared-use path with the proposed Waterfront Station to provide additional elevator access down to Columbia Street/Columbia Way" as is outlined in 4.8.2.1 of the Transportation Technical Report. We also further encourage the IBR Team to identify more productive ways to connect downtown Vancouver facilities with the Interstate Bridge while avoiding seemingly endless loops.

2-149 In prior visits to the BAC, members have voiced concerns about proposed active transportation facilities having similarities to what exists on the Glenn Jackson Bridge (I-205 crossing of the Columbia River). That facility is an SUP that is in between the north and south bound lanes making it extremely uncomfortable, deafeningly loud, and difficult to breathe. The LPAs for the IBR provide a range of options, however they are all similar in that they will be located relatively close (14-24') to vehicles traveling 50+ mph which will result in significant noise and debris from cars and crashes and poor air quality from particulate matter. This again is not how we will encourage people to leave their comfortable cars to travel by bicycle or how we achieve environmental justice for marginalized communities that do not have the choice. We are dismayed that the location of the SUP doesn't take advantage of the planned light rail extension. Co-location, with the SUP to the west of the MAX line, rather than the current east side alignment, would provide a greater degree of separation from the noise, debris, and pollution from cars. Integration of first and last mile mode access with transit would link these systems, making them complementary rather than exclusive to each mode. It would allow for better connectivity and increase options for people using transit to access Hayden Island and Downtown Vancouver.

2-150 Going beyond the bridge itself, the IBR is an expansive project covering roughly five miles of I-5 and numerous on and off ramps and overpasses. The project area seems to have been selected to maximize the amount of construction that could be performed to "solve congestion" for the highway. It leaves bicycle connections unresolved in particular and in the hands of local jurisdictions that are not able to bring commensurate financial resources to the table. This is a mistake. The connection to MLK Jr Blvd is a particular concern worth spotlighting. While the IBR project area will have bicycle facilities that are generally good, they will then connect with infrastructure that ranges from decent to missing. We cannot build bike lanes to nowhere and expect people to use them (and decry when they don't). There aren't many opportunities to bring major federal investments into Portland and there are even less funding opportunities for active transportation projects.This project has a responsibility to complete the network gaps that make it possible for people to walk and bike safely and comfortably between North Portland and downtown Vancouver.

2-151 In Washington, the on and off ramps the project will build are so extensive that it balloons the footprint of I-5 to roughly 14 lanes (based on illustrative videos that the IBR Team has posted to YouTube). That comes with a price tag large enough to build out a significant portion of Portland's entire 2030 Bicycle Master Plan which would result in far more congestion relief, safety improvements, and environmental benefits. In this case, why are we not including broader network investments for people walking and bicycling on the Oregon side? Why is the City of Portland responsible for finishing the network connections? While many of the facilities could be considered world class due to the low bar for that classification and the care given to bicycling and walking within the project area we are aware that only in conjunction with world class connections will this infrastructure be activated. By omitting many of the connections by excluding them from the project area and leaving local jurisdictions holding the bag the IBR project will fail to realize the active transportation usage necessary to make bicycling as attractive as driving.

2-152 **Funding and Priorities**
ODOT's funding outlook is bleak. Without tolling revenues, there is not money to pay for the suite of megaprojects that make up the majority of ODOT's investment portfolio. IBR will focus billions on a single span that will inevitably be used to justify further megaprojects in the span of I-5 between IBR and I-5 Rose Quarter. Yet, this project provides the framework to financially cripple ODOT's ability to:

- address the large backlog of failing bridges throughout the state;
- fill vast remaining active transportation implementation gaps;
- address the many deadly safety issues that exist on state roadways, particularly urban arterials; and
- maintain the roadways it owns (for example, in 2023 ODOT did not have enough money to maintain snow plowing in the passes through the Cascades).

Ironically this project also promotes continued widespread tax evasion by Washington residents who have long used the easy access to the Jantzen Beach shopping center to avoid the ~10% sales taxes of Vancouver and Clark County. The limited direct access from I-5 only to/from Washington adds unnecessary complexity and expense to this project.

2-153 We appreciate that this project will provide much needed safety and comfort improvements compared to the current conditions on the I-5 bridge. We are very grateful to City staff for their continued engagement with us to try and shape this project. We look forward to continuing this engagement as the project moves into design.

However, this major regional project can and should do much more. We are hopeful that the IBR Team is receptive to our advice so that we will see our City and regional visions reflected in the final DSEIS concept.

Thank you for your time, consideration, and all that you do for Portland.

Jim Middaugh, Chairperson
Portland Bicycle Advisory Committee

Joseph Perez, Vice Chairperson
Portland Bicycle Advisory Committee

Portland Pedestrian Advisory Committee:
Comments on Interstate Bridge Replacement (IBR) Project DSEIS

Date: November 18, 2024

To: Millicent Williams, Director, Portland Bureau of Transportation
Priya Dhanapal, City of Portland Deputy City Administrator, Public Works

From: Portland Pedestrian Advisory Committee (PAC)

Re: Comments on Interstate Bridge Replacement (IBR) Project Draft Supplemental Environmental Impact Statement (DSEIS)

2-154 In a joint letter with the Bicycle Advisory Committee (BAC) on the Modified Locally Preferred Alternative (MLPA) in 2022, the Pedestrian Advisory Committee highlighted a series of thematic concerns with the project. These concerns included Transparency; Neighborhood Access and Design; Equity and Climate Justice; Bridge Design; and Performance Metrics.

The PAC would like to re-emphasize the concerns stated in 2022 as many are still relevant and highlight more recent observations found in the DSEIS materials. To remain consistent with the 2022 letter, these are nested under a selection of the previously identified thematic areas. In addition, the PAC would like to underscore the importance of ensuring that pedestrians will be able to conveniently access the bridge. Increasing active transit supports climate goals.

2-155 **Neighborhood Access and Design**
Consideration should be given to improvements for walkers, rollers and riders that are needed on both ends of the bridge. N. Victory Blvd. between the southern terminus of the shared use path and access to Delta Park via N. Whitaker. Improvements to this segment of Victory Blvd. – roughly ¼ mile in length – would help strengthen connections across the significant footprint of the freeway between the shared use path terminus, the existing MAX light rail station and Delta Park. This would be consistent with the "ladder" concept that links parallel north-south paths on both sides of the freeway at regular intervals. Ensuring paths leading to the bridge are at grade will ensure active transit users don't lose elevation that they will have to regain to access the bridge, making travel more difficult.

2-156 **Equity and Climate Justice**
More information is needed on the benefits (or not) of the shared use path's position on the single-level vs. double deck fixed span options that are described in the DSEIS documents. The double-deck fixed span option locates the shared use path beneath the northbound traffic lanes of the freeway, reducing noise levels for blind or low-visibility users who may rely more on auditory signals. However, those equity priority communities more affected by

2-156 discrimination and/or violence may prefer the single-level fixed span option as it offers more visibility to the shared use path from passing vehicles using the traffic lanes.

2-157 **Bridge Design**
To best achieve state, regional and local carbon reduction goals, special attention needs to be given to the walking, rolling or riding experiences on the new shared use path. The main crossing of the Columbia is roughly 3,300 feet long, or over a ½ mile. Pedestrian amenities including seating, interpretive displays, enhanced viewpoints (among others) will help to make the long crossing distances more attractive to an inter-generational community. Access to and from the shared use path on both sides of the river needs to offer both resiliency and redundancy. Consideration needs to be given to the slopes of the grades to achieve the desired height(s) above the shipping channel in the river, and how the access facilities on both sides of the river are integrated within bridge land spaces in ways that feel safe, comfortable and convenient for the targeted 8 – 80-year-old potential user groups.

2-158 The PAC looks forward to continuing to work with IBR and PBOT project staff to develop a bridge project that walkers, roller, and riders from two states and two cities can be proud of. The IBR project represents a high-visibility gateway location to announce the region's commitments to reducing carbon emissions and achieving healthier outcomes for generations to come.

To: Millicent Williams, PBOT Director

From: Portland Freight Committee

Date: 11/7/2024

Re: Interstate Bridge Replacement (IBR) Draft SEIS Comments

2-159 The Interstate Bridge Replacement brings significant benefits to our region, creating modern, seismically resilient, and multimodal bridges that will provide safe and accessible options for those driving, walking, biking, rolling, and taking transit. More than 143,000 vehicles and over $132 million in goods cross the bridges each weekday. The program will create more reliable travel times, improved safety, and improved access to goods and services, while working towards meeting state, regional, and local climate goals of reduction in greenhouse gas emissions and air quality improvements.

As the Chair of Portland's Freight Advisory Committee (PFC), I would like to take this opportunity to summarize the PFC's comments on the Draft Supplemental Environmental Impact Statement (SEIS) for the Interstate Bridge Replacement (IBR) project. The PFC supports the aim of the IBR project to improve mobility along the I-5 corridor and to make the movement of goods across the Portland region more efficient and reliable.

2-160 One remaining concern the PFC has is the need to enhance the separation of key freight routes from Delta Park. This improvement is essential not only for facilitating better freight access but also for safeguarding Delta Park from potential transportation impacts. We believe that addressing these issues will support both our freight operations and Delta Park's natural environment.

2-161 Additionally, we ask that IBR develop, and advance design concepts aimed at improving traffic flow and safety on and off MLK in support of PBOT's requests to date. We would support a concept that provides direct connections to and from MLK to the Vancouver Way and Jubitz area, effectively enhancing access to key freight destinations and the Bridgton Neighborhood.

2-162 In addition, the group Freight Committee requests your help in ensuring that the project works to minimize congestion during and after the project, and that the project thoughtfully analyzes the impact of diversion from tolling.

2-163 As representatives of the Portland freight community, we deeply appreciate PBOT's leadership in developing this plan with the IBR team. We look forward to collaborating further to ensure that the needs of the freight sector are effectively integrated into the planning process.

Thank you for considering our insights as you move forward with this important work.

Sincerely,



Jana Jarvis – Chair Portland Freight Advisory Committee

City of Portland
Design Commission

1900 SW Fourth Ave., Suite 5000
Portland, Oregon 97201
Phone: (503) 823-7300
TTY: 711
www.portland.gov/ppd/design-commission

Date: **October 24, 2024**

To: **Portland Bureau of Transportation (PBOT)**
Caitlin Reff, Manager Major Projects & Transit
503-823-8758. caitlin.reff@portlandoregon.gov
Shawnea Posey, Capitol Project Manager Major Projects & Transit
503-823-5179, shawnea.posey@portlandoregon.gov

From: **Portland Design Commission**

Re: **Portland Design Commission comments for Interstate Bridge Replacement Draft Supplemental Environmental Impact Statement (IBR - DSEIS)**

2-164

Hi Caitlin and Shawnea,

The Design Commission has been briefed by the Interstate Bridge Replacement Team (IBR) on the Draft Supplemental Environmental Impact Statement (DSEIS) by Shilpa Mallem, Design Manager, Interstate Bridge Replacement program at our October 17, 2024, Design Commission hearing.

Please incorporate the following comments into PBOT's IBR DSEIS response.

2-165

- The Portland Design Commission supports the PBOT 9/16/2024 letter to City Council and Interim DCAs, and as discussed in the October 17, 2024 Design Commission Briefing, noted the remaining Conditions of Approval not yet met per the Portland City Council approval of the Modified Locally Preferred Alternative. Specifically, that an Urban Design Advisory Group, focused on urban design elements, has not yet been created.

2-166

- While the IBR Team explained there were two groups created that Design Commissioners "could apply" to be on [Community Advisory Group (CAG), and the Equity Advisory Group (EAG)], the Design Commission disagrees that these groups are the right forum for our engagement with urban design elements. These two community groups were not created as Urban Design Stakeholder groups, rather they were created as affinity groups for the communities at large. A group of design professionals should not be at the table with a group of community members to talk about design if those community members are also not design professionals. An obvious unintended consequence is that community members are not comfortable voicing opinions that contradict those of design professionals. Our participation in such a group would weaken the power of the community's voice and undermines the authenticity of community engagement groups.

Design Commission comments for PBOT on the Interstate Bridge Replacement DSEIS *page 2*

2-167

- Therefore, the Design Commission requests that PBOT continue to bring information back to Design Commission before critical "design decision" stages and before critical design decisions have been made, thereby honoring IBR's stated agreement to **develop a public involvement plan to identify the appropriate stakeholder groups and methods of engagement around urban design elements**.

2-168

- Lastly, as noted in the fall of 2023, Design Commission communicated to IBRP (through City staff) their continued interest in collaborating with the City of Vancouver's design counterparts to provide coordinated design input; we ask that this collaboration also be incorporated into your process.

Thank you for your consideration, the Portland Design Commission

Brian McCarter, Chair | Chandra Robinson, Vice-Chair | Sam Rodriguez, Past-Chair

Joe Swank | Zari Santner | Sara Vaz | Tina Bue

Response to Submission 2: City of Portland (November 21, 2024)

2-1
Thank you for your comment.

2-2
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14154 - Unleashing American Energy and EO 14148 - Initial Rescissions of Harmful Executive Orders and Actions. Together, EO 14154 and EO 14148 revoked EO 13990 - Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021) and EO 14008 - Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations - "Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender." As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, FHWA and FTA will not include greenhouse gas (GHG) emissions and climate change analyses in the federal environmental review process, and any purported GHG emissions or climate change impacts will not be considered in the federal decision. Accordingly, no GHG emissions or climate change analyses are included in this Final SEIS.

FHWA and FTA's responses herein are limited to issues raised in the comment that do not implicate GHG emissions or climate change impacts. To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider and respond to aspects of the comment implicating GHG emissions or climate change, those responses are provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of any federal decision-making.

The air quality analysis demonstrates that for the future year (2045) air pollutant emissions are expected to decrease with the proposed Modified LPA compared to the No-Build Alternative. Based on modeling and analysis, the proposed Modified LPA is expected to improve traffic flow and reduce the number of vehicles crossing the river through increased transit ridership and active transportation trips-all factors that contribute to lower air pollutant emissions. For more information, see Air Quality Standard Response B.3: Air Pollution.

The IBR Program has many avenues of partnership with partner agencies, including regular collaboration with Public Affairs, Design and Policy Managers, and Executive Steering Group members. In addition, the IBR Program has avenues for community participation, including the numerous community benefits and advisory groups, as well as many community-wide outreach events.

The IBR Program will continue to identify ways of creating safe and inviting environments for

users of all modes as the Modified LPA progresses into the design of roads and active transportation facilities.

2-3
Thank you for providing your preferences and priorities via the submitted conditions of approval. Please note that the local conditions communicated as part of local planning efforts do not impact FHWA and FTA's analysis under NEPA.

2-4
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14154 - Unleashing American Energy and EO 14148 - Initial Rescissions of Harmful Executive Orders and Actions. Together, EO 14154 and EO 14148 revoked EO 13990 - Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021) and EO 14008 - Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations - "Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender." As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, FHWA and FTA will not include greenhouse gas (GHG) emissions and climate change analyses in the federal environmental review process, and any purported GHG emissions or climate change impacts will not be considered in the federal decision. Accordingly, no GHG emissions or climate change analyses are included in this Final SEIS.

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2-5
The 2045 traffic forecast volumes were developed using a combination of existing count data, the Oregon Metro/Southwest Washington Regional Transportation Council (RTC) regional travel demand model (RTDM) outputs, and post-processing methods consistent with ODOT's Analysis Procedures Manual (APM) as well as the National Cooperative Highway Research Program (NCHRP) 765 Analytical Travel Forecasting Approaches for Project-Level Planning and Design. Travel demand modeling is used to support planning in Metropolitan Planning Areas, consistent with federal regulation as listed in 23 CFR Part 450, Subpart C (Metropolitan Transportation Planning and Programming). These regulations require the development of regional transportation plans that reflect forecasted demand and trends. Traffic forecasts take the outputs from the RTDM and develop project-specific volumes. Both of these components are used by the industry to develop project-specific traffic forecasts for highway and transit projects. Traffic forecasting uses what is known about the existing world and observed trends to forecast what conditions will be like in the future.

RTDMs are developed to support the regional transportation planning process and, while designed to be quantitative and aligned with planning objectives, they inherently involve uncertainty and variability; therefore, they are intended to support planning rather than provide exact predictions. Traffic forecast volumes are based on available existing counts and assumptions about future conditions that are jointly developed and agreed-upon through a coordinated, multi-agency process led by Oregon Metro and RTC, so some uncertainty in forecasting is expected. The traffic forecasts developed for the IBR Program reflect engineering industry standards to support decision-making regarding project-level needs.

Traffic forecasting and RTDMs are both components in transportation planning, but they serve different purposes. The RTDM represents how households make travel choices (e.g., origin, destination, mode, route) based on socio-economic factors such as population, land use and employment, and the transportation system (e.g., highways, transit, active transportation network) to forecast future travel patterns across a broad geographic area. Traffic forecasting uses the output of these RTDMs to forecast traffic volumes on a given road network for planning and project-specific needs. For more information, see Transportation Standard Response M.38: Traffic Forecasts.

Screenline data were provided in the Final SEIS to show overall traffic volume trends and magnitudes of change, not to reflect detailed traffic analysis to determine mitigation. This use of screenline analysis was documented in the Transportation Methods Report (Appendix A to the Transportation Technical Report [TTR]) and agreed to by all partner agencies. The 10%-volume-increase threshold in the screenline data mentioned in the City of Portland’s comment is not part of the IBR Program’s criteria identified in the methods and assumptions (Appendix A to the TTR) approved by all partner agencies. While the City of Portland typically uses this 10% volume threshold, this is not the standard used by all agencies and was not agreed to be used on the IBR Program by all partner agencies.

As described in Section 4.9.2.2 of the TTR, the safety effects of volume changes at local study intersections were assessed to identify intersections where the total crashes were predicted to change by one or more crashes per year. Overall, the change in the total crashes of all of the local study intersections was negligible, with no total change in total crashes across the network.

Many of the streets identified by the City of Portland in this comment are not within the IBR Program area and would experience smaller volume changes than those within the primary study area. As such, the potential for increased crashes would be even lower.

Detailed traffic and safety analysis was performed for facilities within the primary study area, and any needed mitigation has been reflected in Section 3.1, Transportation, of the Draft and Final SEIS and in the TTR. Mitigation is not based on the level of volume increases but instead on the level of transportation impacts.

2-6

The Modified LPA, under all design options, would include variable-rate tolling on the I-5 Columbia River bridges. Variable-rate tolling was included in the Selected Alternative under the CRC project and was retained for the Modified LPA to address growing travel demand and congestion (see the Purpose and Need statement in Chapter 1, Purpose and Need, of the Draft and Final SEIS). The rates are shown in Section 4.11 of the Transportation Technical Report (TTR). The diversion as a result of the Modified LPA would primarily be in the off-peak direction during the peak periods when toll rates are highest. Additional text has been included in Section 4.11.3 of the TTR, including a reference to a table in the TTR that shows when diversion is happening (directional/time of day). While final toll rates set by the Washington State Transportation Commission (WSTC) and Oregon Transportation Commission (OTC) may ultimately be different from what is assumed in the modeling assumptions for the Modified LPA, the rates used in the National Environmental Policy Act (NEPA) analysis are a reasonable approximation of values that would allow for the revenue generation and congestion management needed for the IBR Program.

Diversion that resulted from the Modified LPA as compared with the No-Build Alternative is documented in the TTR and in Appendix J: Diversion Analysis Report to the TTR. In addition, screenline analysis was completed and included at the screenline level in the TTR and at an individual facility level in Appendix B to the TTR. There would be no meaningful changes to local facilities that would be cause for concern in the areas around I-205 as a result of traffic changes between the No-Build Alternative and the Modified LPA. Additional screening analysis was completed for the SEIS to understand changes that would result from higher variable-rate tolls. This work is documented in Attachment F to Appendix H of the TTR (Travel Demand Modeling Methods Report).

The model run with the highest toll rates in this analysis showed that rather than increasing diversion to I-205, higher tolls would cause more people to not make a trip across the Columbia River or to shift their mode of travel. With less volume overall across the river, including fewer vehicles on I-205 with higher tolls than what was assumed in the Modified LPA, diversion impacts to surrounding streets would also not be seen.

2-7

The Modified LPA and all design options would add to and/or improve the existing active transportation network within the primary study area, as defined in Figure 3-1 of the Transportation Technical Report, to provide safe and accessible connections. The example connection identified by the comment is beyond the limits and scope of the primary study area.

2-8

The air quality impact analysis is based on the emissions of vehicles using the roadways throughout the four-county area. Additional connections to multiuse trails and active transportation connections in the primary study area have the potential to shift trips from single-occupancy vehicles to active modes, which could result in fewer air pollutant emissions, which is presented in the Draft SEIS; however, any decreases in emissions would likely be negligible within the context of the regional transportation system. Localized air quality impacts, such as the pollutant concentrations at individual residences, parks, or active transportation facilities, are not included in the Draft SEIS or Final SEIS, as explained in Section 3.10.3 of the Draft and Final SEIS. Because of uncertainty in future emissions, weather patterns, exposure pathways, and causation of effects, the magnitude and duration of potential localized increases in pollutant concentrations cannot be reliably quantified. Noise impacts and evaluated mitigation measures are described in Section 3.11.3 of the Draft SEIS and Final SEIS. The IBR Program will continue to coordinate with partners throughout the design phase on active transportation connections and user experience.

2-9

The Modified LPA would add to and/or improve the existing active transportation network within the primary study area and would provide safe and accessible connections. The proposed improvements include a shared-use path (SUP) on the new arterial bridge over North Portland Harbor on the east side of I-5 to address this need. This proposed SUP provides north-south connections across the Columbia River and the North Portland Harbor as well as east-west connections to destinations on the east and west side of I-5 in the primary study area.

2-10

TriMet analyzed travel patterns to and from Hayden Island to determine potential impacts to riders from shifting transit access to Hayden Island from bus to LRT. In August 2024, TriMet prepared an analysis (Origin-Destination Analysis: Line 6 – MLK) showing approximately two-thirds of riders with a trip end on Hayden Island would have a transfer introduced when the line is truncated, but for most of these trips the overall travel time would decrease because of future service changes. TriMet distributed their analysis to City of Portland staff in August 2024.Section 4.7 of the TTR and Section 3.1.3 of the Final SEIS have been modified to describe the changes to Line 6. Other transit service that would be changed or eliminated within the primary study area as part of the Modified LPA have been documented in the TTR. In addition to the TriMet Line 6 change, C-TRAN Line 60 would be removed and several C-TRAN local and Vine routes would be slightly re-routed in the downtown Vancouver area to provide connections to the new light-rail stations. The impact of overall transit changes as a result of the modifications is shown on the transit production and attraction maps in the TTR. See Section 4.7.3.2 of the TTR for descriptions of these changes. Final service plans, including bus transit elements, would be confirmed in coordination with TriMet and C-TRAN as the proposed Modified LPA progresses toward construction and operation. Each agency has a process by which service changes are

adopted that includes public outreach and Title VI analysis.

2-11
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

As design progresses, the IBR Program will continue to engage with its advisory committees and the community.

2-12
As a result of the analysis of avoidance alternatives in the Final Section 4(f) evaluation, design of the proposed NE Martin Luther King Blvd access ramp under the Modified LPA (under all design options) has been revised. With the revised design, the proposed access ramp would intersect N Union Court farther from the entrance to East Delta Park and closer to N Hayden Meadows Drive, increasing the distance between ramp traffic and the park, and avoiding all Section 4(f) resources. The Final Section 4(f) Evaluation in Chapter 4 of the Final SEIS has been updated to include an analysis of constructive use at East Delta Park. The result of that analysis was that there is no constructive use of East Delta Park.

2-13
The IBR Program will continue to engage with the public throughout the design and construction phases of the proposed Modified LPA, as needed.

2-14
Your opinion on the design options has been taken into consideration. The IBR Program Recommended Design Options are identified in Chapter 2, Description of Alternatives, of the Final SEIS and Appendix K, Recommended Design Option Report, and are listed below. The selection of design options will occur in the Amended Record of Decision.

Bridge Configuration: Single-level fixed-span

Auxiliary Lanes: One auxiliary lane

C Street Ramps: With C Street ramps

I-5 Alignment: Centered in Downtown Vancouver

Park-and-Ride Options: Provide parking capacity to accommodate 1,270 vehicles dispersed among five park and rides in Vancouver along the light-rail alignment. Near the Waterfront Station, 570 parking spaces would be distributed among three park and rides at (1a) Columbia Way (below I-5), (1b) Columbia Street/State Route 14, and (1c) Columbia Street/Phil Arnold Way. Near the Evergreen Station, 700 parking spaces would be distributed among two park and rides at (2a) Library Square and (2b) Columbia Credit Union.

2-15
As the Modified LPA advances through the design phase, it will assess all design operations and optimizations for safety and accessibility for all modes.

2-16
Thank you for your comment.

Please see responses to the attached letters below.

2-17
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FHWA and FTA's responses herein are limited to issues raised in the comment that do not implicate GHG emissions or climate change impacts. To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider and respond to aspects of the comment implicating GHG emissions or climate change, those responses are provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of any federal decision-making.

The IBR Program remains committed to collaborating with the eight local partner agencies, as well as community members in those jurisdictions, as the Modified LPA progresses.

2-18
Figure 3.16-3 in the Final SEIS has been updated as recommended.

2-19
In Section 3.15 of the Final SEIS, Table 3.15-1 has been updated to include footnote b with the recommended note that the quantity of impacts to wetlands may change based on what is identified with the wetland and other waters delineations.

2-20
The reference to smelt in Section 3.8, Cultural Resources, of the Draft and Final SEIS is based on archaeological data and ethnographic information. The taxonomic and genomic evidence in the archaeological record indicates that there were multiple types of smelt. To clarify, the Final SEIS was updated to “various species of smelt, including eulachon.”

2-21
Table 3.16-2 in the Final SEIS and Table 3-1 in the Ecosystems Technical Report have been updated as recommended.

2-22
The Aquatic Resources subsection in Section 3.16.3 of the Draft SEIS described aquatic habitats below the ordinary high water mark. Impacts to terrestrial riparian habitats associated with the riverbank are addressed in the Terrestrial Resources subsection in Section 3.16.3 of the Draft SEIS.

2-23
The Benthic Habitat Impacts subsection in Section 3.16.3 of the Final SEIS has been updated as recommended. While juvenile green sturgeon are not expected to occur within the Columbia River, adult and juvenile white sturgeon are known to occur. This section has also been updated to clarify that adult, juvenile, and larval Pacific eulachon and lamprey may be affected.

2-24
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2-25
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2-26

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2-27

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2-28

The proposed Modified LPA is a package of multimodal improvements including highway, freight, public transit, and active transportation that are moving forward together to meet the Purpose and Need for the IBR Program. The Modified LPA, including all design options, would include three through lanes in each direction along I-5, similar to existing conditions, and would connect to existing through lanes at the north and south end of the primary study area. The Modified LPA would also include design options with one or two auxiliary lanes that would better accommodate increased vehicle trips by improving safety and operations across the Columbia River bridges. For more information, see Transportation Standard Response M.34: More Highway Lanes.

Section 3.1.6 of the Draft and Final SEIS outlines a range of mitigation measures. There is not a prioritization ranking for mitigation. Any mitigation will be finalized in coordination with the appropriate agencies.

2-29

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The air quality analysis demonstrates that for the future year (2045) air pollutant emissions are expected to decrease with the proposed Modified LPA compared to the No-Build Alternative. Based on modeling and analysis, the proposed Modified LPA is expected to improve traffic flow and reduce the number of vehicles crossing the river through increased transit ridership and active transportation trips-all factors that contribute to lower air pollutant emissions. For more information, see Air Quality Standard Response B.3: Air Pollution.

2-30

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2-31

The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) have the authority to set toll rates and policies, including exemptions and discounts. OTC and WSTC would jointly establish toll rates and any applicable policies (e.g., variations based upon time of day) for the IBR Program. The OTC and WSTC would adopt toll rates, including exemptions and discounts, six to nine months before pre-completion tolling begins on the Interstate Bridge. Formal action will be needed by OTC and

WSTC in order to implement rates and policies, including discounts and exemptions. It is anticipated that tolling would begin on the existing Interstate Bridge in 2028. For more information, see Tolling Standard Response L.24: Tolling Exemptions and Discounts.

Transportation and access improvements for Hayden Island are presented in Section 4.3.3.2 of the Neighborhoods and Communities Technical Report. Transportation and access improvements for the Bridgeton neighborhood are presented in Section 4.3.4.2 of the Neighborhoods and Communities Technical Report. Transportation and access improvements for East Columbia neighborhood are presented in Section 4.3.5.2 of the Neighborhoods and Communities Technical Report. Each of these sections includes detailed neighborhood maps.

2-32

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All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

Chapter 2, Description of Alternatives, of the Draft and Final SEIS describes the physical and operational components that would comprise the Modified LPA and design options. The evaluation of changes in noise levels from the Modified LPA is described in Section 3.11.3 of the Final SEIS, including information regarding noise levels along the shared-use path (SUP) with the bridge configuration design options. Noise mitigation measures are listed in Section 3.11.6 of the Final SEIS. All mitigation measures are outlined in Appendix M of the Final SEIS.

Noise Abatement Criteria are focused on noise-sensitive use locations (typical human outdoor use locations) and are provided in the Noise and Vibration Technical Report (Tables 2-1, 2-6, and 2-8) by Land Use Category. Mitigation in the form of noise barrier evaluations (at a minimum) is required to meet state-specific Feasibility and Reasonableness Criteria, described in Section 7.7 of the Noise and Vibration Technical Report.

Section 3.11, Noise and Vibration, of the Draft and Final SEIS includes a qualitative analysis to compare traffic noise levels between the bridge configuration design options. There would be no expected difference in traffic volumes along I-5 across the bridge configuration design options (see the Transportation Technical Report, Section 4.3.3, Mainline and Ramp Vehicle Volumes); therefore, there would be no difference in noise modeling results between bridge configuration design options.

The primary function of the SUP is an active transportation facility. Therefore, it does not meet the definition of a noise-sensitive use and is not included in the traffic noise analysis. Furthermore, the City of Portland acknowledges that active transportation uses are not considered noise-sensitive land uses. The noise analysis only includes locations that have existing or permitted noise-sensitive uses following requirements set forth in 23 Code of Federal Regulations 772, the FTA Transit Noise and Vibration Impact Assessment Manual, and Washington State Department of Transportation and Oregon Department of Transportation Traffic Noise Policies as referenced in the analysis.

2-33

All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as

barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

The findings of the Bridge Design Options Technical Report were integrated into the SEIS and other technical reports before the Draft SEIS was published.

There is currently a narrow sidewalk located directly adjacent to the through lanes on the Interstate Bridge. With the proposed single-level bridge configuration design options over the Columbia River, the shared-use path (SUP) would be wider than the sidewalk on the existing Interstate Bridge, which would provide more separation and protection for active transportation users. With the double-deck bridge configuration design option, the SUP would be below the freeway, which would further separate active transportation users from vehicular traffic.

2-34

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2-36

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2-37

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Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

2-38

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

2-39

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2-40

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2-41

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply

to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

The Modified LPA is in an early stage of design. The IBR Program will continue to coordinate closely with the Cities to avoid and minimize impacts.

2-42

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) have the authority to set toll rates and policies, including exemptions and discounts. OTC and WSTC would jointly establish toll rates and any applicable policies (e.g., variations based upon time of day) for the IBR Program. The OTC and WSTC would adopt toll rates, including exemptions and discounts, six to nine months before pre-completion tolling begins on the Interstate Bridge. Formal action will be needed by OTC and WSTC in order to implement rates and policies, including discounts and exemptions. It is anticipated that tolling would begin on the existing Interstate Bridge in 2028. For more information, see Tolling Standard Response L.24: Tolling Exemptions and Discounts.

2-43

As described in Draft and Final SEIS, Section 2.2 (Components of the Modified LPA), active transportation improvements investments are part of the IBR Program's Purpose and Need and are a component of the Modified LPA. The Modified LPA would add to and/or improve the existing active transportation network within the primary study area, as defined in Figure 3-1 of the Transportation Technical Report, and provide safe and accessible connections. The proposed improvements include a shared used path (SUP) on the new arterial bridge over North Portland Harbor on the east side of I-5 to address this need. The alignment of the arterial bridge is the result of extensive analysis and coordination with project partners. The Columbia River Crossing (CRC) LPA included a full interchange on Hayden Island and a local arterial bridge between the Portland mainland and Hayden Island to the west of the I-5 mainline. As described in Section 2.5 (Development of the Modified LPA) of the Draft and Final SEIS, the project underwent an early screening and evaluation process to determine if a different design for the Hayden Island interchange could also meet the IBR Program's Purpose and Need statement and achieve other desired outcomes. The evaluation led to the selection of a partial interchange on Hayden Island with an arterial bridge to the east of the I-5 mainline, which better addresses engineering challenges and environmental concerns—such as ensuring adequate sight distance and minimizing floodplain impacts—compared to an arterial bridge on the west side of the I-5 mainline. The screening process for the Hayden Island interchange is detailed in Section 7.1 of Appendix D (Design Option Development, Screening, and Evaluation) to the Draft and Final SEIS. The SUP on the east side of the arterial bridge would provide north-south connections across North Portland Harbor, as well as east-west connections to destinations on the east and west side of I-5 in the primary study area. The Modified LPA would not include two SUP crossings of North Portland Harbor. An additional path on the west side of I-5 would increase environmental impacts and costs. Instead, people walking, riding, and rolling could use the SUP on the arterial bridge and connect to the SUP extension along Expo Road for access between Hayden Island and Expo Center.

2-44

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental

Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

Compliance with state law is provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of federal decision-making.

The findings of the Bridge Design Options Technical Report were integrated into the SEIS and other technical reports before the Draft SEIS was published. There is currently a narrow sidewalk located directly adjacent to the through lanes on the Interstate Bridge. With the proposed single-level bridge configuration design options over the Columbia River, the shared-used path (SUP) would be wider than the sidewalk on the existing bridge, which would provide more separation and protection for active transportation users. With the double-deck bridge configuration design option, the SUP would be below the freeway, which would further separate active transportation users from vehicular traffic.

2-45

Section 3.11, Noise and Vibration, of the Draft and Final SEIS provides the analysis of noise impacts associated with the Modified LPA. This includes an analysis of the bridge configuration design options based on the current, conceptual level of design. The Bike Level of Traffic Stress analysis for existing conditions, No-Build Alternative, and Modified LPA is shown in the Transportation Technical Report.

2-46

The IBR Program evaluated improvements to the interchange design to address the volume-to-capacity (V/C) deficiency in Section 3.1 of the Final SEIS. Because there are no destinations in the middle of the Marine Dr/MLK/I-5 interchange, the Modified LPA does not propose any pedestrian crossings in the middle of the interchange because there is no reason to cross the interchange. Additionally, the Modified LPA would provide alternative routing and ways to access destinations in the IBR Program area.

2-47

As described in Section 2.2, Components of the Modified LPA, of the Draft and Final SEIS, active transportation improvements are a main component of the proposed Modified LPA. These improvements would include a system of shared use paths, bikeways, and sidewalks within the primary study area. Where practical, the proposed Modified LPA would incorporate alternative corridors that bypass congested areas such as ramps and interchanges. For more information, see Design Standard Response F.9: Active Transportation/Freight.

2-48

There are sidewalk facilities on Hayden Island that are not shown in the Transportation Technical Report because they are private pedestrian accessways, and not public rights of way.

2-49

The map has been updated to reflect this correction.

2-50

The impedances were adapted from the SSTI Access Guide and sources listed in the Transportation Technical Report (TTR).

Members of the IBR Program have worked on various projects where impedance modifications per unit of travel time were used for level of traffic stress adjusted routing. Section 3.8.4 of the TTR has been updated to address this comment.

2-51

Active transportation facilities that would accommodate people walking, riding, and rolling are included in the Final SEIS along Victory Blvd from Expo Rd to the northbound I-5 ramp terminus intersection.

2-52

Traffic safety as explained in Section 4.9.2 of the Transportation Technical Report is a function of separation of users and facility width/space. In both the double-deck and single-level bridge configuration design options, physical separation would be provided between active transportation and vehicular traffic. In both configurations, the proposed shared-use path is generally 24 feet wide, compared to the existing narrow path that does not allow for

passing or concurrent bi-directional travel.

2-53
This level of information is covered in detail in Section 3.8 of the Transportation Technical Report (TTR). As stated in the Section 3.1 (Transportation) of the Draft SEIS and Final SEIS, these are overall summary information and more details are covered in the TTR.

2-54
As stated in Section 3.1 (Transportation) of the Draft SEIS and Final SEIS, the discussion provides an overall summary of the detailed information covered in the Transportation Technical Report (TTR). Nearly all existing active transportation facilities south of the bridge do not currently meet the Portland Bureau of Transportation (PBOT)/ODOT standards or guidance. The detailed discussion of active transportation facilities and the sufficiency of such facilities are covered in Section 3.8.3 of the TTR.

2-55
The primary function of the shared-use path (SUP) is as a transportation facility. The SUP would not include rest areas, benches, or areas of common human use; therefore, it does not meet the definition of a noise-sensitive use and is not included in the traffic noise analysis. While the noise and vibration analysis included in Section 3.11, Noise and Vibration, of the Draft and Final SEIS focuses on noise and vibration resulting from roadways, transit facilities, and construction, design considerations include traveling conditions for SUP users, including shielding traffic noise experienced by pedestrians and cyclists.

2-56
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

2-57
Transportation and access improvements for Hayden Island are presented in Section 4.3.3.2 of the Neighborhoods and Communities Technical Report. Transportation and access improvements for the Bridgeton neighborhood are presented in Section 4.3.4.2 of the Neighborhoods and Communities Technical Report. Transportation and access improvements for East Columbia neighborhood are presented in Section 4.3.5.2 of the Neighborhoods and Communities Technical Report.

2-58
Active transportation facilities temporarily rerouted during construction would be an equal or better facility, compared to existing, as required by agency standards and guidelines. The Transportation Technical Report and Section 3.1 of the Final SEIS have been updated to reflect this.

2-59
Section 4.2.2.4 of the Final Visual Quality Technical Report has been updated to include language regarding the shared-use path (SUP) on the single-level fixed-span bridge configuration design option compared with the double-deck fixed-span bridge configuration design option. Small segments of the single-level movable-span bridge configuration design option would impact views for walking, bicycling, rolling, and others due to the lift towers; however, most views would be similar to those with the single-level bridge configuration design option.

2-60
Section 3.11, Noise and Vibration, of the Draft and Final SEIS includes the evaluation of reasonably foreseeable effects resulting from Modified LPA-related highway and transit noise sources and provides mitigation measures to reduce resulting impacts. Noise at transit stations will be analyzed and mitigated if necessary as station design advances.

2-61
Section 3.1 of the Final SEIS has been edited to incorporate additional information on Line 6 as well as C-TRAN route changes consistent with the Transportation Technical Report. This is kept at a high level as the details around this are found in other referenced chapters.

2-62
TriMet analyzed travel patterns to and from Hayden Island to determine potential rider impacts by shifting access to Hayden Island from bus to LRT. The analysis TriMet conducted revealed that approximately two-thirds of riders with a trip end on Hayden Island would have a transfer introduced when TriMet bus Line 6 is truncated, but for most of these trips, the overall travel time for the trip would decrease because of future service changes. TriMet distributed their analysis to City of Portland staff in August 2024. Section 4.7 of the

TTR and Section 3.1.3 of the Final SEIS have been modified to describe the changes to Line 6. Other service that would be changed or eliminated as part of the Modified LPA within the primary study area have been documented in the TTR. In addition to the TriMet Line 6 change, C-TRAN Line 60 would be removed and several C-TRAN local and Vine routes would be slightly re-routed in the downtown Vancouver area to provide connections to the new light-rail stations. The impact of overall transit changes as a result of the modifications is shown on the transit production and attraction maps in the TTR. See Section 4.7.3.2 of the TTR, which includes descriptions of these changes.

2-63
Text edited to acknowledge that other strategies may be available and will be coordinated with the appropriate agencies during construction of the proposed Modified LPA.

2-64
Edits were made to incorporate discussion about changes to the Line 6 in this section.

2-65
This table is intended to capture the bi-state route and travel across the river, so Line 6 is not included. The table title and text have been edited to note that this is capturing bi-state travel.

2-66
TriMet analyzed travel patterns to and from Hayden Island to determine potential rider impacts by shifting access to Hayden Island from bus to LRT. The analysis TriMet conducted revealed that approximately two-thirds of riders with a trip end on Hayden Island would have a transfer introduced when the line is truncated but for most of these trips, the overall travel time for the trip would decrease because of future service changes. TriMet distributed their analysis to City of Portland staff in August 2024. Section 4.7 of the TTR and Section 3.1.1 of the Final SEIS have been modified to describe the changes to Line 6. Other service that would be changed or eliminated as part of the Modified LPA within the primary study area, have been documented in the TTR. The only changes besides the Line 6 truncation were removal of C-TRAN Line 60 as well as reroutes to provide access to station areas for C-TRAN local and Vine routes with the main starting and ending points of the routes very close to what was assumed in the No Build. The impact of overall transit changes as a result of the modifications is shown on the transit production and attraction maps in the TTR. See section 4.7.3.2, which includes descriptions of these changes.

2-67
Reasonably foreseeable effects on neighborhoods related to local street connections are described for each neighborhood in Chapter 4 of the Neighborhoods and Communities Technical Report under the heading “Transportation and Access.” For Hayden Island, as described in Section 4.3.3.2 of the report, neighborhood cohesion would be improved under the Modified LPA by the additional opportunities for residents to connect via a more continuous street system, improved pedestrian and bicycle facilities, and transit connections. The neighborhood profiles in Chapter 3 of the Neighborhoods and Communities Technical Report include an overview discussion of local street systems; additional information on local streets can be found in the Transportation Technical Report. Details of local street connections under the Modified LPA, including any necessary mitigation, will be developed further during the final design process in coordination with the City of Portland and local communities.

2-68
Section 4.9.2.2 of the Transportation Technical Report describes the impact of volume changes at intersections associated with the proposed Modified LPA. The change in potential crashes at this intersection was found to be negligible.

2-69
The safety analysis has been updated to cover the entire IBR Program Area as shown in Appendix A, the Transportation Methods Report, in Figure 1 and described in Section 3.7 of the Transportation Technical Report.

2-70
The 10% volume increase threshold mentioned in this City of Portland comment is not part of the IBR Program’s criteria identified in the methods and assumptions (Appendix A to the TTR) approved by all partner agencies. While the City of Portland typically uses this 10% volume threshold, this is not the standard used by all agencies and was not agreed to be used on the IBR Program by all partner agencies.

Detailed traffic analysis has been done for facilities in the primary study area and any needed mitigation has been reflected in the document. Any mitigation that is warranted has been identified and is not based on volume increases but instead impacts.

The three segments listed are outside of the IBR Program Area and are not included in the safety analysis as described in Section 3.7 of Appendix A, the Transportation Methods Report.

2-71
The 10% volume increase threshold mentioned in the City’s comment is not part of the IBR Program’s criteria identified in the methods and assumptions (Appendix A to the TTR) approved by all partner agencies. While the City of Portland typically uses this 10% volume threshold, this is not the standard used by all agencies and was not agreed to be used on the IBR Program by all partner agencies. Detailed traffic analysis has been done for facilities in the primary study area and any needed mitigation has been reflected in the document. Any mitigation that is warranted has been identified and is not based on volume increases but instead impacts.

2-72
The potential change in crashes of all of the local study intersections was negligible, with no total change in crashes across the network. As covered in Section 7.1.9 of the Transportation Technical Report, no mitigation is necessary for safety.

2-73
The Modified LPA would change traffic patterns near East Delta Park by moving the eastbound MLK loop ramp farther east to Union Court and shifting truck volumes to different locations near the park compared to existing conditions. Shifting the loop ramp would avoid impacts to existing Section 4(f) resources while providing safe connections and sufficient spacing for operations. The removal of the existing off-ramp along the northwest corner of the park would eliminate trucks on that park boundary. Under the Modified LPA design analyzed in the Final SEIS, the number of trucks on Union Court near the park entrance road would increase in the westbound direction by approximately 70 trucks during the morning peak and 60 trucks during the afternoon peak. The number of trucks would decrease in the eastbound direction by approximately 10 trucks during both the morning and afternoon peaks, and redesigning the northbound I-5 slip off ramp from Union Court to Vancouver Way would remove an additional 30 AM peak and 45 PM peak trucks from the Park's northwest frontage.

Total peak hour traffic volumes along Union Court would be below capacity during both peak hours.

2-74
The grade crossings and the resulting delays to vehicle traffic have been added to the Transportation Technical Report.

2-75
The Intersection Operations sections (3.6.4 and 4.6.4) of the Transportation Technical Report describes that study intersections were analyzed without considering impacts of freeway congestion spilling back onto local roadways. This text is included before the tables. The footnote has been removed from the tables as it was inconsistent.

2-76
The Modified LPA would add to and/or improve the existing active transportation network within the primary study area, as defined in Figure 3-1 of the Transportation Technical Report, and would provide safe and accessible connections. The example extension mentioned in this comment is beyond the limits and scope of the primary area. The safety analysis has been updated in Section 3.1, Transportation, of the Final SEIS to cover the entire primary study area, including portions of MLK and Marine Drive that were not analyzed in the Draft SEIS. The revised primary study area is shown in Figure 3-1 of the Transportation Technical Report.

2-77
The crash referenced in this comment does not appear in the IBR Program's crash dataset, which includes crash data requested from ODOT and WSDOT (for I-5 and the local jurisdiction roadway network). As described in Section 3.9 of the Transportation Technical Report (TTR), the IBR Program uses crash data records collected from WSDOT and ODOT for the safety analysis. For more information on the methodology for the transportation analysis, see Appendix A, Transportation Methods Report, to the TTR.

Improvements proposed as part of the Modified LPA to this segment of roadway would address crash patterns similar to the crash referenced in this comment.

2-78
The crashes referenced in this comment do not appear in the IBR Program's crash dataset, which includes crash data requested from ODOT and WSDOT (for I-5 and the local jurisdiction roadway network). As described in Section 3.9 of the Transportation Technical Report (TTR), the IBR Program uses crash data records collected from WSDOT and ODOT for the safety analysis. For more information on the methodology for the transportation analysis, see Appendix A, Transportation Methods Report, to the TTR.

Improvements proposed as part of the Modified LPA would address crash patterns similar to the crashes referenced in this comment.

2-79
The crash referenced in this comment does not appear in the IBR Program's crash dataset, which includes crash data requested from ODOT and WSDOT (for I-5 and the local jurisdiction roadway network). As described in Section 3.9 of the Transportation Technical Report (TTR), the IBR Program uses crash data records collected from WSDOT and ODOT for the safety analysis. For more information on the methodology for the transportation analysis, see Appendix A, Transportation Methods Report, to the TTR.

Improvements proposed as part of the Modified LPA would address crash patterns similar to the crashes referenced in this comment.

2-80
The crash referenced in this comment does not appear in the IBR Program's crash dataset, which includes crash data requested from ODOT and WSDOT (for I-5 and the local jurisdiction roadway network). As described in Section 3.9 of the Transportation Technical Report (TTR), the IBR Program uses crash data records collected from WSDOT and ODOT for the safety analysis. For more information on the methodology for the transportation analysis, see Appendix A, Transportation Methods Report, to the TTR

Improvements proposed as part of the Modified LPA would address crash patterns similar to the crashes referenced in this comment.

2-81
The proposed I-5/Marine Drive interchange geometry has been updated to address the poor operations in the Modified LPA compared to the No-Build Alternative.

2-82
Regional travel demand models (RTDM) are an important tool for analyzing proposed plans, projects and policies in a region. Information from RTDMs is used by decision makers to identify and evaluate different approaches to address transportation issues and to select policies and programs that most align with future regional land use and transportation plans. The RTDM represents travel decisions that are consistent with observed travel trends and patterns. The RTDM attempts to quantify the amount of travel on the transportation system by all modes of transportation. Through studies of data on household travel behavior, mathematical relationships have been developed to predict how many trips people will make, where they will go, which mode of transportation they will use, and which specific route they will take. These decisions are influenced by the available transportation system, the spatial location of households and employment, household socioeconomics, and travel costs.

Traffic forecasting and RTDMs are both tools in transportation planning, but they serve different purposes. A RTDM replicates how households make travel choices (e.g., origin, destination, mode, route) based on socio-economic factors such as population, land use and employment, and the transportation system (e.g., highways, transit, active transportation network) to forecast future travel patterns across a broad geographic area. Traffic forecasting uses the output of these RTDMs to forecast traffic volumes on a given road network for planning and project-specific needs.

For more information, see Transportation Standard Response M.36: Regional Travel Demand Model.

The 2045 traffic forecast volumes were developed using a combination of existing count data, the Oregon Metro/Southwest Washington Regional Transportation Council (RTC) regional travel demand model (RTDM) outputs, and post-processing methods consistent with ODOT's Analysis Procedures Manual (APM) as well as the National Cooperative Highway Research Program (NCHRP) 765 Analytical Travel Forecasting Approaches for Project-Level Planning and Design. Travel demand modeling is used to support planning in Metropolitan Planning Areas, consistent with federal regulation as listed in 23 CFR Part 450, Subpart C (Metropolitan Transportation Planning and Programming). These regulations require the development of regional transportation plans that reflect forecasted demand and trends. Traffic forecasts take the outputs from the RTDM and develop project-specific volumes. Both of these components are used by the industry to develop project-specific traffic forecasts for highway and transit projects. Traffic forecasting uses what is known about the existing world and observed trends to forecast what conditions will be like in the future.

RTDMs are developed to support the regional transportation planning process and, while designed to be quantitative and aligned with planning objectives, they inherently involve uncertainty and variability; therefore, they are intended to support planning rather than provide exact predictions. Traffic forecast volumes are based on available existing counts and assumptions about future conditions that are jointly developed and agreed-upon through a coordinated, multi-agency process led by Oregon Metro and RTC, so some uncertainty in forecasting is expected. The traffic forecasts developed for the IBR Program reflect engineering industry standards to support decision-making regarding project-level needs.

Traffic forecasting and RTDMs are both components in transportation planning, but they serve different purposes. The RTDM represents how households make travel choices (e.g., origin, destination, mode, route) based on socio-economic factors such as population, land use and employment, and the transportation system (e.g., highways, transit, active transportation network) to forecast future travel patterns across a broad geographic area. Traffic forecasting uses the output of these RTDMs to forecast traffic volumes on a given road network for planning and project-specific needs. For more information, see Transportation Standard Response M.38: Traffic Forecasts.

The Modified LPA is a multimodal solution that would include transportation improvements for several modes of transportation (vehicles, freight, public transit, and active transportation). The Modified LPA was developed in close coordination with federal, tribal, regional, and local partners and endorsed by the Washington State Department of Transportation, Oregon Department of Transportation, Oregon Metro, Southwest Washington Regional Transportation Council, TriMet, C-TRAN, City of Portland, City of Vancouver, Port of Portland, and Port of Vancouver in the summer of 2022.

The Purpose and Need statement for the IBR Program is provided in Chapter 1 of the Draft and Final SEIS. A Purpose and Need statement is required for projects complying with the National Environmental Policy Act and defines why a project has been initiated and what problem(s) it seeks to address. The statement serves as the basis for defining how project alternatives will be developed and evaluated. As detailed in Chapter 1, Purpose and Need, the six specific needs to be addressed by the IBR Program are: (1) growing travel demand and congestion; (2) impaired freight movement; (3) limited public transportation operation, connectivity, and reliability; (4) safety and vulnerability to incidents; (5) substandard bicycle and pedestrian facilities; and (6) seismic vulnerability.

To meet the Purpose and Need statement, the Modified LPA would include transportation improvements for several modes of transportation (vehicles, freight, public transit, and active transportation) as well as improving the seismic resiliency of the river crossing. While there are different modal elements of the Modified LPA, they are a package of

improvements that would move forward together to meet the Purpose and Need for the IBR Program.

For more information, see Purpose and Need Standard Response K.23: Project Definition.

Although the forecasted decrease in traffic volumes on I-205 under the Modified LPA may seem to be counterintuitive, it is important to keep in mind that the proposed toll is not the only factor that could impact the volume of traffic across the Columbia River—on both I-5 and I-205. Because the Modified LPA is a multimodal set of improvements that increases transit and highway capacity on the I-5 corridor, the net effect is a reduction in overall vehicle trips across the Columbia River on I-5 and I-205, as compared to the No-Build Alternative. At the same time, the Modified LPA would increase the overall number of people traveling across the river, taking into account movement via transit and active-transportation modes. For additional information on person throughput, see Section 4.3.3.4 of the Transportation Technical Report (TTR).

The RTDM is not calibrated at an individual bridge level. Post-processing of existing-year and future-year raw regional model outputs allows for the analysis to reflect the distribution of trips by bridge and by hour throughout the day, accounting for both capacity and congestion levels on the I-5 and I-205 bridges, as well as the impact of the toll under the Modified LPA.

2-83
Intersection V/C analysis at ODOT intersections has been updated to align with ODOT analysis methods which use critical lane calculations. The previous Transportation Technical Report used ICU. The proposed I-5/Marine Drive interchange geometry was updated to address operations in the Modified LPA compared to the No Build Alternative.

2-84
As summarized in the Transportation Technical Report (TTR) and Appendix A to the TTR, ODOT's Highway Design Manual (HDM) provides the performance standards for the Build Alternative, and the Oregon Highway Plan provides the performance standard for the Existing conditions/No-Build Alternative. The performance standards for Build Alternatives are more stringent than the performance standards for the No-Build Alternative. Therefore, the Build Alternative may still have impacts by not meeting the performance standard provided in the HDM, even if the Build Alternative is an improvement over the No-Build Alternative.

2-85
The potential for induced demand was considered in the development of the Modified LPA, which would include multimodal improvements, tolling, and other tools to manage demand and minimize the potential for induced demand. There would be limited potential for induced growth due to transportation improvements, concluding that regional and local land use and transportation plans and policies already anticipate the demand related to the transportation improvements that are part of the proposed Modified LPA. Oregon and Washington state regulations require coordinated planning between land use decisions and transportation improvements, which provide controls against sprawl. While the term "induced demand" was not used in the Draft SEIS, discussions of induced demand were included in Section 6.1 of the Transportation Technical Report, as well as Sections 3.4.2 and 4.4.4 of the Land Use Technical Report. The Transportation Technical Report includes travel demand model and traffic operations documentation, analysis, and findings clarifying how these analyses predict future conditions, including the potential for induced demand. For more information, see Transportation Standard Response M.31: Induced Demand.

Regional travel demand models (RTDM) are an important tool for analyzing proposed plans, projects and policies in a region. Information from RTDMs is used by decision makers to identify and evaluate different approaches to address transportation issues and to select policies and programs that most align with future regional land use and transportation plans. The RTDM represents travel decisions that are consistent with observed travel trends and patterns. The RTDM attempts to quantify the amount of travel on the transportation system by all modes of transportation. Through studies of data on household travel behavior, mathematical relationships have been developed to predict how many trips people will make, where they will go, which mode of transportation they will use, and which specific route they will take. These decisions are influenced by the available transportation system, the spatial location of households and employment, household socioeconomics, and travel costs.

Traffic forecasting and RTDMs are both tools in transportation planning, but they serve different purposes. A RTDM replicates how households make travel choices (e.g., origin, destination, mode, route) based on socio-economic factors such as population, land use and employment, and the transportation system (e.g., highways, transit, active transportation network) to forecast future travel patterns across a broad geographic area. Traffic forecasting uses the output of these RTDMs to forecast traffic volumes on a given road network for planning and project-specific needs.

For more information, see Transportation Standard Response M.36: Regional Travel Demand Model.

The 2045 traffic forecast volumes were developed using a combination of existing count data, the Oregon Metro/Southwest Washington Regional Transportation Council (RTC) regional travel demand model (RTDM) outputs, and post-processing methods consistent with ODOT's Analysis Procedures Manual (APM) as well as the National Cooperative Highway Research Program (NCHRP) 765 Analytical Travel Forecasting Approaches for

Project-Level Planning and Design. Travel demand modeling is used to support planning in Metropolitan Planning Areas, consistent with federal regulation as listed in 23 CFR Part 450, Subpart C (Metropolitan Transportation Planning and Programming). These regulations require the development of regional transportation plans that reflect forecasted demand and trends. Traffic forecasts take the outputs from the RTDM and develop project-specific volumes. Both of these components are used by the industry to develop project-specific traffic forecasts for highway and transit projects. Traffic forecasting uses what is known about the existing world and observed trends to forecast what conditions will be like in the future.

RTDMs are developed to support the regional transportation planning process and, while designed to be quantitative and aligned with planning objectives, they inherently involve uncertainty and variability; therefore, they are intended to support planning rather than provide exact predictions. Traffic forecast volumes are based on available existing counts and assumptions about future conditions that are jointly developed and agreed-upon through a coordinated, multi-agency process led by Oregon Metro and RTC, so some uncertainty in forecasting is expected. The traffic forecasts developed for the IBR Program reflect engineering industry standards to support decision-making regarding project-level needs.

Traffic forecasting and RTDMs are both components in transportation planning, but they serve different purposes. The RTDM represents how households make travel choices (e.g., origin, destination, mode, route) based on socio-economic factors such as population, land use and employment, and the transportation system (e.g., highways, transit, active transportation network) to forecast future travel patterns across a broad geographic area. Traffic forecasting uses the output of these RTDMs to forecast traffic volumes on a given road network for planning and project-specific needs. For more information, see Transportation Standard Response M.38: Traffic Forecasts.

Travel demand modeling is an essential component of planning for regional infrastructure improvements such as highway and transit projects. The process of travel demand forecasting uses what is known about the existing world to predict what conditions will be like in the future. It is not a guess or an estimate, but a projection based on empirical data and foreseeable circumstances. The transportation modeling used in the Portland metropolitan region is peer-reviewed and validated against observed data. The RTDM used for the IBR Program is jointly developed and maintained by Oregon Metro (Metro) and Southwest Washington Regional Transportation Council.

When run through the RTDM, the analysis found that forecast volumes for the Modified LPA with one or two auxiliary lanes are similar enough to be considered the same. Part of the reason for similar results between these model runs is that auxiliary lanes are ramp-to-ramp connections that do not increase highway capacity but give drivers more distance to speed up or slow down before entering or exiting the roadway, improving safety and operations in the corridor. As such, the capacity changes in the network are lower than they would be if a new through lane was added for multiple miles. This is reflected in the resulting model volumes and as noted above is part of the reason for similar results between the one- and two-auxiliary lane model runs. In addition to the operational aspect of auxiliary lanes, the Modified LPA with one- or two-auxiliary lanes would include multimodal and variable rate pricing that influence travel behavior and moderate future vehicle demand within the corridor. Please see the Transportation Standard Response M.31: Induced Demand for additional information on how the Modified LPA would include multimodal improvements, tolling, and other tools to manage demand and minimize the potential for higher traffic volumes.

2-86
The IBR Program will work with the City of Portland to ensure the City's Environmental Review application meets this requirement. Appendix K of the Final SEIS documents the reasons why the IBR Program has identified certain design options as the IBR Program's Recommended Design Options. Appendix K includes information regarding the differences in impacts among the bridge configuration design options, including impacts to aquatic and terrestrial ecosystems. The preferred alternative will ultimately be identified and described in the Record of Decision, which will follow the Final SEIS.

2-87
Discussion of congestion, noise, and pollution has been added to Chapter 4, Long-Term Benefits and Effects, and Chapter 5, Temporary Effects, of the Neighborhoods and Communities Technical Report as applicable to provide additional information for readers.

2-88
Impacts to neighborhoods will be addressed by mitigation for other environmental elements such as noise, air quality, transportation, and visual quality. A discussion of these mitigation measures, along with references to the applicable sections, has been added to the Neighborhoods and Communities Technical Report and to Section 3.4 of the Final SEIS. The statements noted in the comment regarding visual quality have also been reviewed and revised for consistency. The level of detail in the SEIS analysis is consistent with the intent of the NEPA process, which is to evaluate impacts at a relatively early stage of project development. Further details on any necessary mitigation will be developed further during the final design process in coordination with the City of Portland and local communities.

2-89
Reference to the City of Portland's 2035 Comprehensive Plan has been added to Section 3.5 of the Final SEIS and the Neighborhoods and Communities Technical Report.

2-90
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing

American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

2-91

Public engagement is an important and necessary part of the IBR Program's process. IBR's engagement efforts seek to provide ongoing opportunities for meaningful two-way communication with bridge users, community organizations, residents on both sides of the river, businesses, neighborhoods and those that reside within the five-mile Program area. As the Modified LPA's design work progresses, IBR plans to offer future opportunities for community members to provide input for consideration on elements of design such as architecture, active transportation investments and transit elements. These opportunities to explore and weigh in will occur through Program advisory group meetings and neighborhood association meetings. The IBR Program advisory groups were set up to ensure an ongoing dialogue with a broad range of interested parties representing a variety of constituencies and priorities throughout the Modified LPA's development and design process. Community members may also request an IBR presentation on a range of Program topics, including design options. You may request a presentation from the IBR team by emailing info@interstatebridge.org or completing the Presentation Request form at https://www.interstatebridge.org/presentation-request/ (IBR 2025l).

2-92

All information analyzed in the Draft SEIS is posted on the IBR website, including traffic and environmental data. Because the information is technical and extensive, the Draft SEIS' findings are broken down into more digestible formats including graphics, infographics, factsheets, Q&A, explanatory videos, and 3D visualization videos. Additionally, printed materials (including mailers, door hangers for canvassing efforts, and display boards) were created and used at IBR-hosted events, tabling events and briefings to jurisdictions, agencies, neighborhood associations and advisory groups.

Additionally, the IBR Program engaged community members through email, newsletters, advertisements, social media and traditional media. The IBR Program continues to host office hours, where community members can make an appointment to speak with a technical expert to answer their questions. All of these outreach efforts helped ensure the community had multiple resources and options for understanding the technical information in the document.

2-93

To ensure that all community members were informed and engaged, the IBR Program coordinated with Community Engagement Liaisons to connect with community members in-language. These engagements included attending in-person events, coordinating in-person briefings and providing translation and interpretation support. This included holding 43 small group sessions with 16 different target audiences.

The IBR Program website features an option to translate the site's content into seven different languages. Program fact sheets are also available in multiple languages and posted online. Additionally, all of the IBR Program's webinars and advisory group meetings include closed captioning in English and Spanish and ASL interpretation.

The Draft SEIS executive summary was made available in 11 languages and multiple interpreters were provided at the in-person public comment and open house events. All IBR Program materials can be made available in other languages upon request.

2-94

The IBR Program is committed to ensuring the Modified LPA is delivered in a bi-state environment that includes both sides of the river throughout our processes. A key piece of this effort is the establishment of the IBR Program's advisory groups, as well as the Executive Steering Group, all with balanced representation from both sides of the river. The IBR Program also has regular meetings with both technical staff and leadership from partner agencies, including the City of Portland, City of Vancouver, Port of Portland, Port of Vancouver, TriMet, C-TRAN, Oregon Metro, and Southwest Washington Regional Transportation Council.

The Oregon and Washington Bi-State Legislative Committee is a legislative action committee comprising elected officials from both states that provide oversight and guidance on Program work. Additionally, the IBR Program engages community members through email, newsletters, social media, and traditional media. The IBR Program continues to host office hours, where community members can make an appointment to speak with a technical expert to answer their questions.

2-95

The 60-day public comment period for the Draft SEIS gave community members a chance to provide their feedback which was used to update the technical analysis and recommend design options in the Final SEIS. Following extensive efforts to inform and engage the public

about the Draft SEIS findings, the IBR Program captured public comments from members of the public through the IBR Program's website, email, physical mail, and by phone.

The IBR Program also hosted two open house public hearings in Portland and Vancouver where community members were invited to ask questions on specific topics found within the Draft SEIS technical reports and hear answers from IBR Program subject matter experts. Community members were also encouraged to share their public comments at these events, either verbally with a court reporter or in writing.

2-96
As design work progresses, community members will have opportunities to shape aspects of design such as architecture, active transportation investments and transit elements. Future opportunities to weigh in will occur through IBR Program advisory group meetings, engagement with partner agencies, neighborhood association meetings and Program organized events.

The IBR Program engages community members through its advisory groups, email, newsletters, social media, and traditional media. The IBR Program continues to host office hours, where community members can make an appointment to speak with a technical expert to answer their questions.

2-97
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

2-98
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

2-99
Urban Design professionals are a key part of the IBR Program's design team. The IBR Program team has used much of what they learned, including urban design explorations, from the previous CRC Project's efforts.

As the Modified LPA's design work progresses, the IBR Program will offer future opportunities for community members to provide input for consideration on elements of design such as architecture, active transportation investments, and transit elements. These opportunities to explore and weigh in will occur through IBR Program advisory group meetings and neighborhood association meetings. The IBR Program advisory groups were set up to ensure an ongoing dialogue with a broad range of interested parties representing a variety of constituencies and priorities throughout the Modified LPA's development and design process.

2-100
Based on the specific location and direction of view for KVP 2, and the current design, the simulation shown in Figure 4-1 of the Visual Quality Technical Report is correct.

2-101
Section 2.2.4 of the Visual Quality Technical Report has been updated to include the Hayden Island Plan in the list of plans for the local regulatory context.

2-102
Showing the key viewpoints in relation to the existing I-5 configuration also helps the general public identify the location of a key viewpoint. To avoid potential confusion

associated with multiple key viewpoint graphics, and the details of showing design options, an additional figure was not added.

2-103
The simulations in the Visual Quality Technical Report that supported the Draft SEIS reflected the design at that time. For the Final SEIS, the simulations shown in Figures 4-5 and 4-6 have been updated to reflect the current proposed design, which includes areas of structures and fill when not crossing over existing roadways.

2-104
Chapter 7 of the Visual Quality Technical Report has been updated with the Avoidance, Minimization, and Mitigation Commitments being made by the IBR Program. The commitments include developing guidance for architectural elements of the Modified LPA in consultation with local agencies, tribes, and communities. For further analysis of impacts and mitigation for East Delta Park, see Section 3.7, Parks and Recreation, and Chapter 4, Section 4(f) Evaluation, of the Draft and Final SEIS.

2-105
The level of detail in the Draft and Final SEIS analysis is consistent with the intent of the NEPA process, which is to evaluate impacts at a relatively early stage of project development. The types of mitigation strategies described in the comment will be developed at a later phase of the design process in coordination with the City of Portland and local communities. Design and aesthetics considerations are discussed in Section 3.9, Visual Quality, of the Draft and Final SEIS and in the Visual Quality Technical Report.

2-106
Tolling will be administered by the Washington State Department of Transportation Good To Go! program, which provides multiple payment options for customers. Good To Go! offers multiple channels for customer communications which provide flexibility for drivers, including a mobile-responsive website and customer portal, automated phone system, and online case management.

2-107
The Oregon Transportation Commission (OTC) and Washington State Transportation Commission (WSTC) will jointly set toll rates and policies for the IBR Program, including discounts or exemptions. Exemptions for specific trip types or purposes have not been identified by WSTC on other Washington facilities.

While there are still steps remaining for the Commissions to review the results of any study that may be conducted, and to adopt toll rates and any desired discounts or exemptions, all toll scenarios being analyzed in the next round of analysis (referred to as a Level 3 Investment Grade Toll Traffic and Revenue Analysis) assume a toll discount program. The Level 3 analysis is anticipated to be completed in early 2026. Tolling is anticipated to begin when construction in the corridor begins, after federal approval to move to the construction phase.

A Bi-State Tolling Subcommittee has been set up to develop tolling recommendations for consideration by the full transportation commissions. These meetings are open to the public and have time for public comment during each meeting.

Before tolling begins on the facility, toll rates, policies, and account information will be widely communicated through a variety of channels to ensure drivers are aware of rates before they enter the tolled facility. Toll rates and policies are anticipated to be set 6-8 months before tolling begins on the facility to ensure there is enough time to conduct robust communication about tolling throughout the Portland-Vancouver Metro region. This communication will share information so that travelers know that tolling is starting, how to set up an account, how to pay a toll, how to pay the lowest rate, and what the toll rates will be on the facility. This approach will include a variety of outreach tactics to meet people where they are to help travelers be prepared once tolling begins. Information about the Good To Go! pass incentive program, and information about any potential toll discount programs, will be widely available and accessible. WSDOT currently provides flexible account and payment options to meet customer needs.

Consistent with past efforts in Washington when tolling starts on a new facility, a number of tools will be used to provide information to a variety of community members. Marketing to new customers before tolling begins on a facility has typically included information gathering to understand local attitudes and awareness about tolling. It has also included focus groups to inform marketing and help increase the likelihood that a variety of users will be receptive to advertising efforts.

There will also be new signage to inform drivers of the bridge toll rates at that time of day. These signs would be at route decision points on local roads, I-5 on-ramps, and on I-5, including locations north and south of the bridges where drivers make informed route decisions (e.g., I-5/I-205 junction and I-5/I-84 junction).

As has historically been the case with past tolled facilities in Washington if performance monitoring of a facility demonstrates changes in travel patterns and congestion resulting from tolling, WSDOT and ODOT will work with local agencies to identify whether mitigation is needed. WSDOT has been implementing tolls for over 20 years, with lots of lessons learned, improving the customer's experience with each new toll facility, and evolving of policy/approach along the way. Good to Go! customers are always welcome to submit feedback on their experience with driving on a tolled facility, paying their bill, signing up for an account and more on the Good to Go! website.

2-108
The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) have the authority to set toll rates and policies, including exemptions

and discounts. OTC and WSTC would jointly establish toll rates and any applicable policies (e.g., variations based upon time of day) for the IBR Program. The OTC and WSTC would adopt toll rates, including exemptions and discounts, six to nine months before pre-completion tolling begins on the Interstate Bridge. Formal action will be needed by OTC and WSTC in order to implement rates and policies, including discounts and exemptions. It is anticipated that tolling would begin on the existing Interstate Bridge in 2028. For more information, see Tolling Standard Response L.24: Tolling Exemptions and Discounts.

2-109
The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) have the authority to set toll rates and policies, including exemptions and discounts. OTC and WSTC would jointly establish toll rates and any applicable policies (e.g., variations based upon time of day) for the IBR Program. The OTC and WSTC would adopt toll rates, including exemptions and discounts, six to nine months before pre-completion tolling begins on the Interstate Bridge. Formal action will be needed by OTC and WSTC in order to implement rates and policies, including discounts and exemptions. It is anticipated that tolling would begin on the existing Interstate Bridge in 2028. For more information, see Tolling Standard Response L.24: Tolling Exemptions and Discounts.

2-110
References to the City of Portland 2035 Comprehensive Plan have been updated.

2-111
The list of comprehensive plan and zoning designations that are summarized in the referenced text was intended to include those designations within the primary study area only. Section 3.4, Land Use and Economic Activity, of the Final SEIS and the Land Use Technical Report have been edited to clarify this.

2-112
The map figures referenced in the comment have been reviewed and the figures have been updated to correct overlapping colors to the extent possible; however, the map scale that is necessary to portray the primary study area does not allow for the fine detail and pinpoint accuracy needed to portray zoning districts with complete precision. Section 3.4, Land Use and Economic Activity, of the Final SEIS and the Land Use Technical Report have been updated with the revised map figures.

2-113
The referenced text has been revised for completeness. Section 3.4, Land Use and Economic Activity, of the Final SEIS and the Land Use Technical Report have been updated accordingly.

2-114
The Final SEIS for the IBR Program analyzes reasonably foreseeable effects that result from the proposed action. As detailed in Section 3.22 (Aviation) of the Draft and Final SEIS, the Modified LPA would not affect long-term aviation activities at Portland International Airport (PDX), either directly or indirectly. Additional information on the PDX Airport Master Plan has been added to Section 3.22 of the Final SEIS. The IBR Program will continue to monitor potential effects to PDX through ongoing coordination with the Port of Portland and their ongoing master planning efforts at PDX.

2-115
The IBR Program looks forward to coordinating with the Historic Landmarks Commission and Portland City Council on completion of the Type 4 Land Use Demolition Review process.

2-116
Thank you for identifying these permitting requirements. In later phases, the IBR Program will engage with the City of Portland to comply with these requirements.

2-117
Portland Parks previously occupied a portion of ODOT right of way for use as an off-leash dog area. The area is not currently in use for that purpose and the IBR Program would not displace any current uses. Portland Parks owns an approximately 1-acre undeveloped area immediately west of the section of right of way that was previously occupied, and the design changes to the Modified LPA incorporated in the Final SEIS to avoid property in West Delta Park would facilitate Portland Parks providing a future off-leash dog area in that location.

2-118
As detailed in the noise analysis prepared for the Final SEIS, consistent with its land use designation, the site is considered a maintenance facility. Maintenance facilities are categorized in Federal Highway Administration/ODOT Noise Abatement Land Use Activity Criteria F, and do not have a noise impact threshold. Noise receptor PD-192 represents an outdoor use area at Delta Park Soccer Field #4 located at the southwestern end of Delta Park, near I-5 at N Victory Boulevard. An equivalent residential receptor calculation of 2 was provided for this Soccer Field, which is consistent with many of the other athletic fields at Delta Park. Considering the usage at this site, the site's location nearly 500 feet from I-5, the primary noise source in the area, and that all other modeled sites in the area are below ODOT NAAC, noise mitigation is not feasible.

2-119
The IBR Program surveyed trees along East Delta Park's western boundary, and Section 3.7.4 of the Final SEIS reflects potential tree impacts at East Delta Park. As discussed in

Section 3.7, Parks and Recreation, of the Draft and Final SEIS, construction activities in the city of Portland would be regulated by City of Portland preservation standards for trees in development situations (PCC 11.50.040, Tree Preservation Standards) and Tree Plan requirements (PCC 11.50.020) to protect trees on park property that would be close to construction activities from adverse impacts.

2-120

The height of the wall varies between 5 and 32 feet. Design for the retaining wall at the northwest corner of East Delta Park has been modified so that it would avoid Portland Parks and Recreation (PP&R)-managed property, would be located entirely within ODOT right of way, and would be maintained by ODOT. The IBR Program reached out to the Bow and Arrow Club, which responded they did not have concerns about the retaining wall design.

Constructive use includes proximity impacts such as noise, access restrictions, vibration, ecological intrusions, and visual impacts. Not all proximity impacts result in a constructive use—only those that will "substantially diminish" the activities, features, and attributes of a Section 4(f) property. For instance, a park whose central features include views and quiet where a transportation project would block views and devalue the serenity of the park due to noise could be a proximity impact, whereas merely a change in views or incremental increases in noise likely would not be a proximity impact. The Final Section 4(f) Evaluation in Chapter 4 of the Final SEIS has been updated to include an analysis of constructive use at East Delta Park, including visual effects. The Final Section 4(f) determination in the Final SEIS is that the Modified LPA with any design options (regardless of the eventual design of the retaining wall) would not lead to a constructive use of the park.

The current visual character of East Delta Park consists of adjacent commercial development and parking lots to the south and east and I-5 and busy roads to the north and west. Views from the park toward the north and west would include new retaining walls, which would cast late-afternoon shadows into the park a similar distance as the trees currently along the west park boundary. As described in Section 3.9.3 of the Visual Quality Technical Report, recreational viewers at East Delta Park (key viewpoint 1), would perceive a reduction in natural harmony; however, these impacts would be minor. Vehicle parking and model aircraft flying, which are activities located in the northwest corner of Delta Park, are not highly view sensitive.

The IBR Program will continue to coordinate with the City on this topic throughout the design phase.

2-121

The Final SEIS has been updated to include a graphic showing the portions of Marine Drive Trail in the primary study area, differentiating between the areas located in the public roadway right of way and the areas located on the levee and managed by PP&R. The Marine Drive Trail segments that are located in public roadway right of way and/or are sidewalks are part of the local transportation system and function primarily for active transportation connection; therefore, they meet the exception under 23 CFR 774.13(f)(4) and are not a Section 4(f) recreational property.

2-122

The design for the shared-use path has been modified to avoid PP&R-managed property. The shared-use path would be located entirely within the ODOT right of way along NE Martin Luther King Blvd.

2-123

As a result of the analysis of avoidance alternatives in the Final Section 4(f) evaluation, design of the proposed NE Martin Luther King Blvd access ramp under the Modified LPA (under all design options) has been revised. With the revised design, the proposed access ramp would intersect N Union Court farther from the entrance to East Delta Park and closer to N Hayden Meadows Drive, increasing the distance between ramp traffic and the park, and avoiding all Section 4(f) resources. The Final Section 4(f) Evaluation in Chapter 4 of the Final SEIS has been updated to include an analysis of constructive use at East Delta Park. The result of that analysis was that there is no constructive use of East Delta Park.

2-124

The IBR Program will replace impacted trees and vegetation in collaboration with local agency partners and in compliance with local agency requirements. Details around which trees and the plan and timeline for replacement are not yet identified at this stage in design. Applicable permits will be obtained by the IBR Program prior to the start of construction. Permit applications typically include more advanced design than the conceptual design developed for the SEIS. Removal of trees on public and private property will be addressed as the design advances and through the local permitting process.

2-125

Following state and federal guidance, the noise analysis evaluated reasonably foreseeable effects and mitigation measures at impact locations for all areas of frequent human use, which include outdoor areas at residences, churches, schools, recreational trails, and a number of others outlined in Section 3.11.3 of the Draft and Final SEIS. The analysis focuses on areas where people walking or biking have a place to stop and talk with one another or rest on benches. All permitted future development is required to be included in the noise analysis and has been included to date. As design progresses, additional refinements and amenities may be considered when feasible.

2-126

This table is not intended to capture analysis metrics, which can be found in the analysis chapters, so the table is not being modified. Additionally, costs are not included in the Final SEIS analysis.

2-127
The website has been updated with the current advisory group membership. Website update requests can be submitted directly to the IBR Program at info@interstatebridge.org.

2-128
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

2-129
The services provided by the ODOT permit facility have been moved to ODOT offices that are not located in the IBR Program area.

2-130
The headings in Chapter 4 of the Final SEIS have been corrected.

2-131
Section 3.4.1 of the Parks and Recreation Technical Report has been updated to include a summary of the trees in East Delta Park.

2-132
Thank you for your comment.

2-133
As described in the Draft and Final SEIS, substantial technical analysis has been completed that culminated in the Modified LPA and design options presented in the Draft and Final SEIS. The analysis includes consideration of how elements of the highway, active transportation, and light-rail would be located relative to each other, as well as origins and destinations. The configurations in the Draft and Final SEIS reflect the best balance of structural design constraints, connectivity, and access on both sides of the river, and minimization of land use and marine impacts on both sides of the river. Adding the shared-use path on the west side of transit would also have structural and constructability challenges in providing an ADA-compliant ramp connection to ground level in downtown Vancouver and would result in additional impacts to properties on the Vancouver side (including to the Port of Vancouver) and Hayden Island.

During the Columbia River Crossing project, locating the shared-use path adjacent to transit (light-rail or bus rapid transit) was considered in the Draft EIS, specifically with the two build alternatives that included a pair of replacement bridges for I-5 over the Columbia River plus a third bridge that carried either LRT or bus rapid transit co-located with active transportation. This co-located transit and active transportation on a new bridge was replaced in the LPA with double-deck bridge configuration in the Final EIS to minimize environmental impacts and reduce cost. Transit (LRT) would be on the lower deck of southbound bridge carrying I-5 highway traffic on the upper deck, and active transportation would be on the lower deck of the northbound bridge carrying I-5 highway traffic on the upper deck. This LPA configuration in the Final EIS (2011) is similar to the Modified LPA with a double-deck bridge configuration that was evaluated in the Draft SEIS and Final SEIS. The IBR Program would continue to consider refinements to improve the connection between the shared-use path and transit during the design process, and improve the ramp connections to the street system below.

2-134
All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

The IBR Program will consider opportunities for rest and observation through the design process, as feasible.

2-135
The active transportation improvements described in the Draft and Final SEIS would provide north-south and east-west connections throughout the primary study area and connect to existing facilities outside of the primary study area. All Modified LPA bridge configuration design options would include a shared-use path, generally 24 feet wide, which would be designed to meet the standards of the Americans with Disabilities Act. The IBR Program will continue to coordinate with the Cities of Portland and Vancouver regarding the active transportation facilities and connections in their respective jurisdictions. For more information, see Design Standard Response F.12: Shared-Use Path Connections.

All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

The IBR Program will consider elements to separate SUP users during the design process, as feasible.

2-136
The active transportation improvements described in the Draft and Final SEIS would provide north-south and east-west connections throughout the primary study area and connect to existing facilities outside of the primary study area. All Modified LPA bridge configuration design options would include a shared-use path, generally 24 feet wide, which would be designed to meet the standards of the Americans with Disabilities Act. The IBR Program will continue to coordinate with the Cities of Portland and Vancouver regarding the active transportation facilities and connections in their respective jurisdictions. For more information, see Design Standard Response F.12: Shared-Use Path Connections.

2-137
The active transportation improvements described in the Draft and Final SEIS would provide north-south and east-west connections throughout the primary study area and connect to existing facilities outside of the primary study area. All Modified LPA bridge configuration design options would include a shared-use path, generally 24 feet wide, which would be designed to meet the standards of the Americans with Disabilities Act. The IBR Program will continue to coordinate with the Cities of Portland and Vancouver regarding the active transportation facilities and connections in their respective jurisdictions. For more information, see Design Standard Response F.12: Shared-Use Path Connections.

The Modified LPA would add to and/or improve the existing active transportation network within the primary study area and, as defined in Figure 3-1 of the Transportation Technical Report, would provide safe and accessible connections.

2-138
There is no credible method to estimate a future crash type distribution given volume and geometric changes. Shoulders provide multiple benefits, including additional space to ensure safety and recovery for the traveling public, workers during maintenance, and incident response.

2-139
The Purpose and Need statement for the IBR Program is provided in Chapter 1, Purpose and Need, of the Draft and Final SEIS. A Purpose and Need statement is required for projects complying with the National Environmental Policy Act and defines why a project has been initiated and what problem(s) it seeks to address. The statement serves as the basis for defining how project alternatives will be developed and evaluated. As detailed in Chapter 1, the six specific needs to be addressed by the IBR Program are: (1) growing travel demand and congestion; (2) impaired freight movement; (3) limited public transportation operation, connectivity, and reliability; (4) safety and vulnerability to incidents; (5) substandard bicycle and pedestrian facilities; and (6) seismic vulnerability.

To meet the Purpose and Need statement, the proposed Modified LPA would include transportation improvements for several modes of transportation (vehicles, freight, public transit, and active transportation) as well as improving the seismic resiliency of the river crossing.

As summarized in Section 3.3.4.1 of the Transportation Technical Report (TTR), ODOT and WSDOT have defined congestion at 45 mph on freeways, which is approximately 75% of the standard freeway speed of 60 mph. The current speed limits in the corridor range between 50 and 60 mph, as discussed in the TTR. Specifically, the current speed limit across the Interstate Bridge is posted at 50 mph due to the current bridge design not meeting current design standards. ODOT and WSDOT have established a congestion

threshold of 45 mph, which can be applied across the Portland Metro region and is roughly 75% of the posted speeds of 60 mph, as described in the TTR.

Chapter 1, Purpose and Need, of the Draft and Final SEIS provides a description of the IBR Program's Purpose and Need. It is important to note that travel safety and traffic operations are one element of the IBR Program's purpose, in addition to improvements to connectivity, reliability, travel time, and operations of public transportation modal options. All of these in combination work together to help meet the needs of growing demand and congestion, limited public transportation operation, connectivity and reliability, and safety and vulnerability to incidents. Congestion analysis measures one metric that, along with numerous other variables, helps to understand the Modified LPA as compared to the No-Build Alternative.

Currently, I-5 experiences crash rates more than two times higher than statewide averages for comparable facilities. The Modified LPA would improve the conditions on I-5 such that causes of such crashes would be reduced. Improved speeds are the result of both a reduction in the number of vehicles on I-5 under the proposed Modified LPA, as compared to the No-Build Alternative (partly the result of improved multimodal elements of the Modified LPA and variable rate tolling), as well as facilities that are being designed to improve merging, diverging, and weaving maneuvers between the seven closely spaced interchanges within the IBR Program area.

2-140

As described in the Final SEIS, the IBR Program is aligned with the City's Transportation System Plan goals of reducing crashes, limiting traffic congestion, and promoting healthy lifestyles. The IBR Program will continue to work with the City of Portland through final design in support of mutual goals.

2-141

On southbound I-5, traffic bottlenecks currently occur at the Interstate Bridge, the I-5/I-405 split in North Portland, and the Rose Quarter area. The proposed Modified LPA would ease traffic congestion caused by the bottleneck at the Interstate Bridge but would not address the other two southbound bottlenecks. Nevertheless, several features of the proposed Modified LPA would help reduce those bottlenecks, including the extension of the MAX Yellow Line light-rail transit to Vancouver, express bus enhancements, and variable-rate tolling on the new Columbia River bridges. For more information, see Transportation Standard Response M.25: Downstream Congestion Effects in Portland.

The proposed Modified LPA is a package of multimodal improvements including highway, freight, public transit, and active transportation that are moving forward together to meet the Purpose and Need for the IBR Program. The Modified LPA, including all design options, would include three through lanes in each direction along I-5, similar to existing conditions, and would connect to existing through lanes at the north and south end of the primary study area. The Modified LPA would also include design options with one or two auxiliary lanes that would better accommodate increased vehicle trips by improving safety and operations across the Columbia River bridges. For more information, see Transportation Standard Response M.34: More Highway Lanes.

ODOT and WSDOT have added lanes in the Portland Metro region to address localized safety and operations over the years. ODOT recently conducted before-and-after studies for four freeway improvement projects designed to minimize existing congestion and prevent future bottlenecks. These studies, documented in ODOT's 2020 Traffic Performance Report on page 8, analyzed the impacts of the improvements. Key findings included improved travel time reliability during the PM peak period, reduction in vehicle hours of delay, crash reductions, reduction in hours of daily congestion, and improved travel speeds during peak periods.

On southbound I-5, traffic bottlenecks currently occur at the Interstate Bridge, the I-5/I-405 split in North Portland, and in the Rose Quarter area. The Modified LPA would ease congestion caused by the bottleneck at the Interstate Bridge and does not address the other two southbound bottlenecks, which are beyond the scope of the IBR Program. However, several features of the Modified LPA would help reduce those bottlenecks, including the extension of the MAX Yellow Line light-rail transit to Vancouver, express bus enhancements, and variable-rate tolling on the new Columbia River bridges.

Sections 3.4.2 and 4.3 of the Land Use Technical Report have additional discussions of the existing integrated framework of state and local land use and transportation plans in both Oregon and Washington, the relationship between local land use plans and anticipated future growth patterns, and further details on the areas that would see the most mobility benefits. The Land Use Technical Report also discusses Oregon and Washington statewide growth management laws, which place formal requirements for coordination and concurrency between adopted land use and transportation plans and projects.

2-142

As summarized in Section 3.3.4.1 of the Transportation Technical Report (TTR), ODOT and WSDOT have defined congestion at 45 mph on freeways, which is approximately 75% of the standard freeway speed of 60 mph. The current speed limits in the corridor range between 50 and 60 mph, as discussed in the TTR. Specifically, the current speed limit across the I-5 Interstate Bridge is posted at 50 mph because the existing design does not meet current design standards. ODOT and WSDOT have established a congestion threshold of 45 mph, which can be applied across the Portland Metro region and is roughly 75% of the posted speeds of 60 mph, as described in the TTR. The congestion definition is not intended for poor weather or construction work zones but for typical conditions. The Modified LPA was chosen to address the Purpose and Need of the IBR Program.

Chapter 1, Purpose and Need, of the Draft and Final SEIS provides a description of the IBR Program's Purpose and Need. It is important to note that travel safety and traffic operations are one element of the IBR Program's purpose, in addition to improvements to connectivity, reliability, travel time, and operations of public transportation modal options. All of these in combination work together to help meet needs of growing demand and congestion, limited public transportation operation, connectivity and reliability, and safety and vulnerability to incidents. Congestion analysis measures one metric that, along with numerous other variables, helps to understand the Modified LPA as compared to the No-Build Alternative.

Currently, I-5 experiences crash rates more than two times higher than statewide averages for comparable facilities. The Modified LPA would improve the conditions on I-5 such that reasons for these crashes would be reduced. Improved speeds are the result of both a reduction in the number of vehicles on I-5 under the proposed Modified LPA, as compared to the No-Build Alternative (partly the result of improved multimodal elements of the Modified LPA and variable-rate tolling), as well as facilities that are being designed to improve merging, diverging, and weaving maneuvers between the seven closely spaced interchanges within the IBR Program area.

2-143

The Modified LPA is predicted to experience 13% fewer total crashes overall than the No-Build Alternative. This reduction in crashes is due to volume decreases and geometric design improvements on I-5 mainline, ramps, and ramp terminal intersections as well as active transportation improvements. The Modified LPA would decrease the number of ramps and/or the lane mileage of those ramps; improve merging, diverging, and weaving distances; and separate movements via braided ramps and CD systems. All of these design changes would contribute to improved safety conditions and reduce crashes. The future predicted safety analysis includes geometric and volumetric changes. No consideration of congestion is included in that analysis, nor does that analysis make any assertions about crash severity. Only total crashes are discussed. More detail regarding specific severities is not available as future crash severity and type distributions cannot be credibly estimated due to expected changes to volumes and travel patterns. The proposed improvements to geometric and safety design improvements over existing conditions are expected to lead to a reduction in crashes as summarized and discussed in further details in the Final SEIS and Transportation Technical Report.

2-144

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14154 - Unleashing American Energy and EO 14148 - Initial Rescissions of Harmful Executive Orders and Actions. Together, EO 14154 and EO 14148 revoked EO 13990 - Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021) and EO 14008 - Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations - "Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender." As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, FHWA and FTA will not include greenhouse gas (GHG) emissions and climate change analyses in the federal environmental review process, and any purported GHG emissions or climate change impacts will not be considered in the federal decision. Accordingly, no GHG emissions or climate change analyses are included in this Final SEIS.

FHWA and FTA's responses herein are limited to issues raised in the comment that do not implicate GHG emissions or climate change impacts. To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider and respond to aspects of the comment implicating GHG emissions or climate change, those responses are provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of any federal decision-making.

2-145

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2-146

Both the shared-use path on the new Columbia River bridges, bridge approaches, and

nearby local streets would see considerable improvements to the quality of the active transportation facilities. See Chapter 2 of the Final SEIS for further details on active transportation improvements included with the Modified LPA.

2-147
The active transportation improvements described in the Draft and Final SEIS would provide north-south and east-west connections throughout the primary study area and connect to existing facilities outside of the primary study area. All Modified LPA bridge configuration design options would include a shared-use path, generally 24 feet wide, which would be designed to meet the standards of the Americans with Disabilities Act. The IBR Program will continue to coordinate with the Cities of Portland and Vancouver regarding the active transportation facilities and connections in their respective jurisdictions. For more information, see Design Standard Response F.12: Shared-Use Path Connections.

All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

The IBR Program is designing active transportation facilities in accordance with federal, state, and local jurisdiction standards. Treatments, such as those suggested here, will be considered during the design process, as feasible.

2-148
The active transportation improvements described in the Draft and Final SEIS would provide north-south and east-west connections throughout the primary study area and connect to existing facilities outside of the primary study area. All Modified LPA bridge configuration design options would include a shared-use path, generally 24 feet wide, which would be designed to meet the standards of the Americans with Disabilities Act. The IBR Program will continue to coordinate with the Cities of Portland and Vancouver regarding the active transportation facilities and connections in their respective jurisdictions. For more information, see Design Standard Response F.12: Shared-Use Path Connections.

The shared-use path (SUP) would be on the northbound Columbia River bridge, and transit would be on the southbound Columbia River bridge. The IBR Program will continue to consider options for improving the connection between the SUP and transit during the design process, as well as for improving the ramp connections to the street system below.

2-149
As described in the Draft and Final SEIS, substantial technical analysis has been completed that culminated in the Modified LPA and design options presented in the Draft and Final SEIS. The analysis includes consideration of how elements of the highway, active transportation, and light-rail would be located relative to each other, as well as origins and destinations. The configurations in the Draft and Final SEIS reflect the best balance of structural design constraints, connectivity, and access on both sides of the river, and minimization of land use and marine impacts on both sides of the river. Adding the shared-use path on the west side of transit would also have structural and constructability challenges in providing an ADA-compliant ramp connection to ground level in downtown Vancouver and would result in additional impacts to properties on the Vancouver side (including to the Port of Vancouver) and Hayden Island.

During the Columbia River Crossing project, locating the shared-use path adjacent to transit (light-rail or bus rapid transit) was considered in the Draft EIS, specifically with the two build alternatives that included a pair of replacement bridges for I-5 over the Columbia River plus a third bridge that carried either LRT or bus rapid transit co-located with active transportation. This co-located transit and active transportation on a new bridge was replaced in the LPA with double-deck bridge configuration in the Final EIS to minimize environmental impacts and reduce cost. Transit (LRT) would be on the lower deck of southbound bridge carrying I-5 highway traffic on the upper deck, and active transportation would be on the lower deck of the northbound bridge carrying I-5 highway traffic on the upper deck. This LPA configuration in the Final EIS (2011) is similar to the Modified LPA with a double-deck bridge configuration that was evaluated in the Draft SEIS and Final SEIS. The IBR Program would continue to consider refinements to improve the connection between the shared-use path and transit during the design process, and improve the ramp connections to the street system below.

2-150
The Modified LPA would add to and/or improve the existing active transportation network within the primary study area and, as defined Figure 3-1 of the Transportation Technical Report, would provide safe and accessible connections. The example extension is beyond the limits and scope of the IBR Program area.

2-151
The IBR Program is committed to improving the infrastructure within the primary study area. As described in Chapters 1 and 2 of the Draft and Final SEIS, active transportation investments are part of the IBR Program's Purpose and Need and are a component of the Modified LPA. The Modified LPA would add to and/or improve the existing active transportation network throughout the primary study area and, as defined in Figure 3-1 of the Transportation Technical Report, would provide safe and accessible connections. All proposed active transportation facilities would connect to existing or planned future connections immediately adjacent to the IBR Program area.

2-152
The most recent IBR Program cost estimate prepared in 2026 ranges from $13.5 to $15.2 billion, with a likely estimated cost of $14.4 billion. The 2026 Cost Estimate Validation Process report breaks down Program costs by construction package and is available on the Cost Estimate webpage: https://www.interstatebridge.org/costestimate (IBR 2025n). For more information, see Financial Analysis Standard Response H.14: Financial Plan.

The Modified LPA, including all design options, would include new earthquake-resilient, multimodal Columbia River bridges; safety shoulders; auxiliary lanes; improvements to seven closely-spaced interchanges within the 5-mile primary study area; extension of light-rail transit from Portland to Vancouver; safe and accessible shared-use paths; and a new earthquake-resilient North Portland Harbor bridge. Each of these components would work together to address the transportation needs associated with the aging Interstate Bridge and ensure an effective, earthquake-resilient, multimodal corridor that improves safety and mobility for everyone. The first construction packages are anticipated to be the new Columbia River bridges and approaches. Subsequent construction packages would be sequenced throughout the Program area. Construction of other components of the Modified LPA would be sequenced during and after the construction of the new Columbia River bridges begins.

The most recent cost estimate (2026) ranged from $13.5 billion to $15.2 billion in year of expenditure dollars. This estimate included preliminary engineering and program management, right-of-way acquisition, construction, various labor and material quantities, unit costs, and relevant additive factors. Taxes for current market conditions are also included, along with costs associated with the management of potential risks that could result in cost increases and opportunities for cost savings. The estimate increased from 2022 due to numerous factors such as: A national increase in construction costs for escalating materials, labor, and equipment prices; impacts of an extended construction schedule based on construction sequencing needs; cost and schedule risks; and updated pricing and materials quantities based on more detailed design. More detail on factors that contributed to the updated estimate are included on the website.

The IBR Program periodically makes updates to its cost estimate using the Cost Estimate Validation Process. This is a best practice the Program employs to ensure costs are examined from all angles, helping to identify potential cost increase risks and cost reduction opportunities. Cost estimates will be refined as the federal environmental review process progresses and the Program advances design of the Modified LPA.

2-153
The IBR Program looks forward to continuing close coordination with all eight of the local jurisdictional partners.

2-154
Please see responses to the letter from the Bicycle Advisory Committee above and the following comments in this letter.

2-155
Active transportation facilities that accommodate people walking, riding, and rolling have been added to the proposed Modified LPA described in Chapter 2 of Final SEIS, along Victory Blvd from Expo Rd to the northbound I-5 ramp terminus intersection.

2-156
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14154 - Unleashing American Energy and EO 14148 - Initial Rescissions of Harmful Executive Orders and Actions. Together, EO 14154 and EO 14148 revoked EO 13990 - Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021) and EO 14008 - Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations - "Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender." As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, FHWA and FTA will not include greenhouse gas (GHG) emissions and climate change analyses in the federal environmental review process, and any purported GHG emissions or climate change impacts will not be considered in the federal decision. Accordingly, no GHG emissions or climate change analyses are included in this Final SEIS.

FHWA and FTA's responses herein are limited to issues raised in the comment that do not implicate GHG emissions or climate change impacts. To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider and respond to aspects of the comment implicating GHG emissions or climate change, those responses are provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of any federal decision-making.

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

As design progresses, the IBR Program will continue to engage with its advisory committees and the community.

2-157
The active transportation improvements described in the Draft and Final SEIS would provide north-south and east-west connections throughout the primary study area and connect to existing facilities outside of the primary study area. All Modified LPA bridge configuration design options would include a shared-use path, generally 24 feet wide, which would be designed to meet the standards of the Americans with Disabilities Act. The IBR Program will continue to coordinate with the Cities of Portland and Vancouver regarding the active transportation facilities and connections in their respective jurisdictions. For more information, see Design Standard Response F.12: Shared-Use Path Connections.

All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

The IBR Program is designing active transportation facilities in accordance with federal, state, and local jurisdiction standards. Final design will consider amenities, grades, and access.

2-158
Thank you for your comment.

2-159
Thank you for your comment.

2-160
The Modified LPA would change traffic patterns near East Delta Park by shifting truck volumes to different locations near the park compared to existing conditions. The removal of the existing off-ramp along the northwest corner of the park would eliminate trucks on that park boundary. Additionally, the existing eastbound MLK loop ramp to Union Court would not be retained in its current location because it would be too close to the proposed interchange improvements, negatively effecting safety on the roadway for all modes of transportation, including trucks. Therefore, the Modified LPA would relocate the ramp to the east, which would shift truck traffic volumes near the northern park boundary.

The design of the proposed Modified LPA in the Draft SEIS relocated the ramp as close to the Marine Way undercrossing of MLK as possible. However, this location would require the use of the Section 4(f) resource, East Delta Park. To avoid the use of this Section 4(f) resource, the Modified LPA in the Final SEIS would shift the MLK southbound off-ramp approximately 800 feet east closer to N Hayden Meadows Drive to connect to Union Court beyond the Section 4(f) property limits.

Section 4.6 and Appendix D of the Transportation Technical Report (TTR) includes peak hour volume details for intersections around Delta Park, which show small increases in volumes under the Modified LPA as compared with the No-Build Alternative in this area.

Section 4.6 of the TTR shows that peak hour traffic volume would be below capacity during both peak hours.

2-161
Please see response to the previous comment. Additionally, the Modified LPA would

provide connections to and from MLK to the Vancouver Way/Jubitz area. The local roadway modifications resulting from the new Marine Drive interchange would result in minor changes in travel distances and travel times between I-5 and the Vancouver Way/Jubitz area along MLK. The Modified LPA would not preclude a future undercrossing near Hayden Meadows Drive.

2-162
Growing travel demand and congestion is one of the needs identified in Chapter 1, Purpose and Need, of the Draft and Final SEIS. The Transportation Technical Report and Section 3.1 of the Final SEIS include an analysis of diversion from tolling and a description of reasonably foreseeable effects.

2-163
Thank you for your comment.

2-164
Thank you for your comment.

2-165
In response to the referenced condition from the City of Portland, the IBR Program replied with the following in December 2022: “The communities on both sides of the river will be included in development of urban design and architectural guidance. A public involvement plan will be developed to identify the appropriate stakeholder groups and methods of engagement around program urban design elements. While the bridge architecture is focused on accommodating the safe travel needs of the public, the program has a strong commitment to reflect the desires of the community in aesthetic style.” Section 3.9, Visual Quality, of the Final SEIS includes the IBR Program’s measures to avoid and minimize changes in visual character as a result of the Modified LPA, which includes developing guidance for architectural elements in consultation with local agencies (which includes the City of Portland). The IBR Program will implement these measures during preliminary and final design.

2-166
Urban Design professionals are a key part of the IBR Program’s design team. Additionally, the IBR Program will continue to collaborate with existing advisory groups on design elements as the IBR Program progresses. Please see the response to the following comment abouts subsequent phases of the IBR Program and how the City of Portland’s Design Commission can be involved.

2-167
The IBR Program will continue to work with PBOT through the design and construction phases of the proposed Modified LPA, including the Columbia River bridges and investments in Oregon. The IBR Program will coordinate with City of Portland’s IBR Project Manager regarding the timing and need for coordination with City of Portland commissions (such as the Design Commission mentioned in this comment) during these phases. The IBR Program will also work with City of Portland’s IBR Project Manager to clarify and come to a common understanding of what elements constitute “critical design decisions.”

2-168
The IBR Program will continue to work with the City of Vancouver through the design and construction phases of the proposed Modified LPA, including the Columbia River bridges and investments in Washington. The IBR Program will coordinate with the City of Vancouver regarding the timing and need for coordination during these phases. The IBR Program is committed to a similar process with the City of Portland regarding the Oregon investments.

Submission 3: City of Vancouver (November 19, 2024)

CITY OF Vancouver WASHINGTON

November 18, 2024

Interstate Bridge Replacement Program
Attn: Greg Johnson, Program Administrator
500 Broadway, Suite 200
Vancouver, WA 98660

RE: City of Vancouver Comments on the Interstate Bridge Replacement Program Draft Supplemental Environmental Impact Statement

Dear Administrator Johnson,

3-1

Thank you for you and your team's continued coordination and work with partners to achieve a Draft Supplemental Environmental Impact Statement (Draft SEIS) and Section 106 Report. City of Vancouver staff has reviewed these documents and we are pleased that the analysis affirms intended benefits of the Modified Locally Preferred Alternative (Modified LPA) and demonstrates consistency with the Interstate Bridge Replacement (IBR) Program's Purpose and Need. The proposed investments reflect extensive collaboration among Program partners and community engagement.

Following are staff's comments on the Draft SEIS with particular focus on Chapters 3 (Existing Conditions and Environmental Consequences along with accompanying technical reports) and 4 (Section 4(f) Draft Evaluation). Comments regarding the Program's Section 106 report are embedded in Chapter 3.08, Cultural Resources and in alignment with Attachment A. Our comments are based on the following policies, plans, and regulations as guidance:

- City of Vancouver Desired Outcomes Resolution (2021)
- City of Vancouver Conditions of Approval for the Modified LPA (2022)
- IBR Modified LPA Commitments (2022)
- Federal agency requirements and funding considerations
- Existing City plans: *Comprehensive Plan (2011-2030), Parks, Recreation, and Cultural Services Comprehensive Plan, Climate Action Framework, Urban Forestry Management Plan, Housing Action Plan, and Reside Vancouver Anti-Displacement Strategy*
- City plans recently adopted or underway: *2023-29 Vancouver Strategic Plan, 2024-2044 Transportation System Plan, Comprehensive Plan Update (currently underway), Citywide Equitable Development Strategy, Economic Development Strategy, Downtown Redevelopment Study, Downtown Access, Mobility and Parking Plan, and Update to Downtown Design Guidelines.*

3-1

In addition, comments have been developed through consultation with City subject matter expert staff, feedback from the Vancouver community collected during the comment period through numerous IBR-led events, and through City-led discussions with the following City advisory bodies:

- Mayor and City Council members
- Parking Advisory Committee (10/9/2024)
- Parks and Recreation Advisory Commission (10/16/2024)
- City Center Redevelopment Authority (10/17/2024)
- Planning Commission (10/22/2024)
- Aviation Commission (10/23/2024)
- Transportation and Mobility Commission (10/29/2024)
- Culture, Art & Heritage Commission (11/7/2024).

In general, we find that the Draft SEIS reflects consistency with the City of Vancouver's Desired Outcomes Resolution (2021), Conditions of Approval for the Modified LPA (2022), and IBR's Commitments for the Modified LPA (included in Attachment B). The comment letter calls out where City staff recognizes that more work is needed to fully achieve some of these provisions and, as development of a Final SEIS proceeds, City staff will continue to affirm consistency with provisions in these documents. Additionally, there is a need to indicate which elements are included as required Program measures per federal standards/regulations, mitigation measures, which will be addressed in subsequent phases of work, and which may be defined as Community Benefits through the Community Benefits Advisory Group process.

3-2

As the program shifts into focusing on detailed designs, it will be important for the City and public to be highly engaged. The engagement process should build up IBR's advisory groups, Community Benefit Organization (CBO) partnerships, and communication channels, but should be expanded to include other methods to ensure that all interested parties and voices are involved. In the coming months, we recommend working with the cities to develop a plan for engaging partner agencies and the community in the Conceptual Design Report and other design documents. This would support the City's Conditions of Approval that: "engagement must be accessible and open to a wide variety of stakeholders and all community members" and "recreational and open space design shall be determined in collaboration with Program partners and the community."

3-3

For reference, Attachment C summarizes feedback we heard from City of Vancouver Advisory Bodies and general public. Attachment D includes additional administrative comments on the Draft SEIS.

3-4

On behalf of City of Vancouver staff and leadership, we look forward to continuing the important IBR Program work together.

Sincerely,

Katherine Kelly

Katherine Kelly
Policy Advisor

P.O. Box 1995 | Vancouver, WA 98668-1995 | 360-487-8000 | TTY: 711 | cityofvancouver.us

City of Vancouver Comments on Draft SEIS and Section 106 Report

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3-5

Community Connectors

Evergreen Area

City staff has begun a collaborative process with the IBR team to develop a site plan for the Community Connector, a proposed freeway lid defined within the Modified LPA adjacent to the future light rail station near Evergreen Boulevard. The process has involved focus groups with community leaders and interested parties in August 2024, the creation of an initial list of guiding principles for the Connector and its surroundings (Attachment E), and submittal of a federal grant application to help fund construction. As a next step, the City and IBR are planning to conduct community engagement on alternative concepts for the Community Connector beginning in early 2025.

- Continue to support a collaborative, community-oriented process for developing a site plan for the Community Connector.
- Incorporate the initial desired outcomes and guiding principles for the Community Connector and its surroundings, which reflects early feedback from community leaders and interested parties (Attachment E).

3-6

Waterfront Area

Under the Modified LPA, the height of a new bridge would open up land under I-5 at the Vancouver waterfront. An extension of Main Street underneath the freeway from central Downtown to the waterfront is planned. New east-west active transportation connections are also envisioned in this space, including a new path from Main Street to Old Apple Tree Park and a segment of the Renaissance Trail. It will be important to design this space with activation for public use, accessibility for all, safety, security, and consideration of long-term maintenance and operations in mind. The following are initial guiding principles for design of the space, for incorporation into the Final SEIS and the design process moving forward:

- Serve the region's diverse and growing community, connect Vancouver's waterfront, and integrate with existing and forthcoming open space investments (City of Vancouver Desired Outcome).
- Design active transportation facilities to be safe and accessible for all with direct, intuitive connections to existing networks of public spaces, parks, and recreation facilities.
- Use "crime prevention through environmental design" (CPTED) principles.
- Ensure coordination between the City, WSDOT, Port of Vancouver, TriMet, National Park Service, and adjacent property owners in developing the long-term plan for the maintenance and activation of the area.
- Based on Community Benefits Advisory Group (CBAG) recommendations:
  - Create riverfront public access points and provide recreational opportunities, communal and open space including areas for fishing and hiking on both sides of the river, where feasible.

3-6
- Explore opportunities to develop community spaces, such as an inclusive civic center with shared parking for the public market and transit station.
- Integrate river access with public spaces and stormwater facilities.

Shared Use Path (SUP) Landing at Vancouver Waterfront

3-7
- In section 4.8.2.1 of the Transportation report, acknowledge an adverse impact for active transportation users due to the increased bridge height, which requires SUP users to travel a greater vertical and horizontal distance to reach the bridgehead from the waterfront. The conceptual design for the ramp connection shown in the Draft SEIS does not fully meet the following City of Vancouver Condition of Approval: *Active transportation facilities shall be designed to facilitate a comfortable, low stress experience during all seasons and in all types of weather, prioritize safety of vulnerable users and ensure safe and convenient access from the local network to new facilities*.

3-8
- While the proposed ramp would be designed to meet or exceed Americans with Disabilities Act (ADA) requirements, some users may not want to or be able to use this ramp due to its length and potential conflict with users traveling at faster speeds. Address this issue through design of the ramp and by pursuing multiple design options for connecting the bridge's SUP to the waterfront, Downtown, and Fort Vancouver Historic Reserve – considering the wide range of user groups and their various abilities, needs, and preferences. This includes consideration of other ramp alignments, elevators, and integration with transit stations.

3-9
- Consider extending the SUP from the bridge over the Columbia River to the Community Connector and Evergreen Station, in addition to connections at the waterfront.

3-10
- Limit the number of columns supporting the SUP ramp connection to the waterfront as much as feasible in order to create a more usable and inviting space.

Path connecting Main Street Extension to and through Old Apple Tree Park

3-11
- Avoid impacting mature trees, especially those within Old Apple Tree Park.

3-12
- Design for easy access to annual Old Apple Tree Festival, considering large crowds.

3-13
- Maximize contiguous open space while providing a direct path from Main Street to the park's entrance.

3-14
- Consider expanding the footprint of Old Apple Tree Park in order to integrate with space that will open up under I-5 in the waterfront area.

Process moving forward

3-15
- Continue to work with the City to develop and implement a community engagement process to inform decisions about design, use, and operations and maintenance of the Waterfront area.

3-16

Applicable to both areas

Based on potential recommendations from the CBAG, incorporate the following principles into the design and operation of both station areas:
- Include bicycle amenities (repair kiosks, etc.) near the stations. (While this is assumed to be included already, section 1.1.4.2 in the Alternatives Description of each report is not explicit about bike amenities).
- Explore creative solutions to ensure accessibility in constrained spaces.
- Consider the provision of public restrooms near the transit stations.
- Improve mobility and accessibility for all users at transit stations and the shared use path by connecting spiral ramps, elevators, and stairs with resting areas.
- Provide adequate shelter for all weather conditions at transit stations.

3.01 Transportation (Transportation Technical Rpt.)

Active Transportation

3-17
- Include reference to the City of Vancouver's 2024 – 2044 Transportation System Plan (TSP) definition of small mobility in the description of planned active transportation improvements. According to the TSP, small mobility devices include but are not limited to: scooters, one-wheels, bikeshare bicycles, e-bikes, and cargo bikes. *Renaming bike lanes as "mobility lanes" provides a more inclusive term for the many different types of devices we need on our streets to meet our climate goals.*

3-18
  - Describe how the Modified LPA will account for the range of small mobility devices that will be used on the new active transportation facilities – acknowledging the importance to plan for the full range of existing and emerging modes. This is consistent with CBAG recommendations on "future proofing" and the City's TSP, which says: *The term "mobility lane" also helps us account for the emerging speed differential between bikes, e-bikes, and other mobility devices.*

3-19
  - Analyze the safety and accessibility of the proposed bike facilities and shared use paths (including the one on the new bridge and its connection to the Vancouver waterfront) through the lens of small mobility – considering speed differential across modes, spatial needs, and other design factors.

3-20
- Consider and incorporate the following CBAG recommendations related to active transportation:
  - Consider maintenance, safety, active management, and future proofing in the design aspects of the multi-use paths throughout the program area.

3-21
  - Develop robust trail systems that surpass federal requirements, leveraging creative solutions to increase functionality and community value, and are responsive to the community's needs and input.

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- Enhance safety for bicyclists and pedestrians crossing the bridge by incorporating protective features into the design (such as the spacing of the railing/gaps).
- Provide wayfinding signage to aid navigation, focusing on recreational and transportation users.
- Provide adequate bicycle signage and wayfinding, both during construction and after program for safety enhancement in local communities.
- Provide shelters, water, and bathrooms for different users, with a focus on those using paths for both recreation and essential travel.
- Expand the bridge's bike and pedestrian paths and install barriers to separate them from vehicular traffic, enhancing both safety and noise reduction. Consider design treatments to reduce exposure to wind and vehicle exhaust.
- Design active transportation facilities to create a comfortable, low-stress experience, prioritizing the safety of vulnerable users and providing convenient access from the local network to new facilities.
- Incorporate safety metrics such as parent comfort level for bike paths and level of traffic stress in urban design to ensure user-friendliness and safety.

- Work with the City and community (especially Neighborhood Associations adjacent to or overlapping) to ensure the 29th and 33rd Street overpasses are more comfortable for people walking, rolling, biking, and using small mobility devices.

Local Streets

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- Further analyze findings related to traffic impacts on the local transportation system from increased bus service in the downtown area, including C-TRAN Highway-99 Bus Rapid Transit (BRT) service.
- Evaluate the impact of elimination of the westbound SR-500 to Fourth Plain Blvd interchange on the existing SR-500/St. John's interchange and streets (including Mill Plain interchange area) that lead from this interchange to the Fourth Plain corridor.
- Consider mitigation needed on the City's local roadway pavement structure due to construction vehicles using local roadways to access construction areas.
- Provide more detail about which intersection movements/legs are failing in the Existing Conditions and the Modified LPA.
- Clarify the mitigation for the Columbia Shores and Columbia Way intersection since delay is made worse with the Modified LPA option.
- In section 3.1.3 of the Transportation chapter, clarify why the demand volume across I-205 bridge in 2045 would be 3% lower as compared to the No Build.

Transportation Demand Management (TDM)

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3-36

- The Modified LPA speaks to the physical infrastructure to meet the non-single occupancy vehicle (SOV) travel needs but does not speak to continuing existing TDM programs. To fulfill IBR's commitment to develop a comprehensive TDM program, the Final SEIS needs to identify more TDM strategies than just physical infrastructure like education, encouragement, communications and marketing, and subsidies and incentives. Address the City's Condition of Approval to develop strategies for managing auto demand and congestion during peak traffic periods, supporting downtown Vancouver's circulation goals, and reducing greenhouse gas emissions – in addition to using variable rate tolling.
- Elaborate on potential impacts to – and options to enhance - TDM and TSM during construction.

Tolling

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- Align the summary of tolling impacts in Chapter 3.01 with the detailed discussion on tolling in the Transportation technical report:
  - Include the information on diversion to I-205 in Chapter 3.01 in Section 4.11 (Tolling and Diversion).
  - In section 4.11, clearly explain how the analysis arrived at the key findings listed in Section 4.11.3, particularly those related to diversion to the I-205 Bridge and changes in destination choice. The report refers to multiple appendices, making it hard to understand the rationale for the key findings.
- Clarify how the diversion effects from tolling may vary over time (as people make adjustments to their travel patterns) and vary across time of day (e.g., the possibility for more diversion to I-205 during off-peak hours).
- To address opposition to pre-completion tolling that City staff has heard, there should be clear and robust information shared immediately about preventive measures the Program will take to address noise, vibration, construction dust, maintenance of traffic on both the I-5 mainline and within neighborhoods adjacent to the Program. Note that one neighborhood stated they are not opposed to tolling post-construction but are opposed to tolling starting during construction, for the reasons noted above.

Safety

3-40

One of the City's Desired Outcomes is to "Reduce collisions on local roads leading to and within downtown." Additional information and potential mitigation measures are needed to achieve this outcome.

- In section 4.9.2.2 of the Transportation report, clarify what type of crash risk could increase at the Evergreen Boulevard/C Street intersection. Clarify the contribution to volume changes at this intersection due to trips associated with the Evergreen transit station and park and ride (options 2a or 2b). Identify potential mitigation that would reduce the crash risk.

3-41

- The Draft SEIS says that under the "No C Street Ramps" option, the potential for crashes at the Mill Plain interchange increases because there would be more traffic at that location. Of the 55 intersections in the Vancouver study area (Table 3-37 in Appendix G of the Transportation Technical Report), Mill Plain Blvd and I-5 NB on-/off-ramps had the second highest number of crashes (30). Therefore, regardless of the change in overall crash risk in Vancouver, any increase in the number of crashes at the Mill Plain interchange would be problematic and would require mitigation.

3-42

- Evaluate and consider the recommendations provided in the Executive Summary of the IBR Health Analysis prepared by the Washington State Department of Health, Clark County Public Health, Cowlitz Indian Tribe, Oregon Health Authority, Multnomah County Health Department (Attachment F). The City of Vancouver supports this effort in general and the following recommendations related to safety specifically:
    - Design and mark routes during construction to protect pedestrians and active transportation users from injury and environmental exposures.
    - Expand information about potential air quality, safety, and connectivity impacts of construction.
    - Compile and release to the public additional information about potential air quality, safety, and connectivity impacts of tolling-related traffic diversion through neighborhoods.

Freight

3-43

- Continue coordination with partners to ensure that high, wide and heavy cargo can safely move through the project area. In alignment with the Port of Vancouver, the City specifically requests that the Mill Plain interchange accommodate northbound turns from Mill Plain to I-5 of at least 100 meters (turning radius) to accommodate wind farm shipments (I-5 to SR-500 to I-205).

3-44

- Ensure the continued facilitation of High, Wide, and Heavy freight movement through the project area. Specifically, the following elements are critical:
    - Safety shoulders of at least 12 feet on both sides for both directions of traffic.
    - Grades not exceeding 4% on the main profile.
    - Turning radii of at least 100 meters NB from the Mill Plain interchange.
    - Height clearances of at least 20 feet under the Mill Plain interchange and throughout the project area.
    - Toll gantries need to have at least 25 feet of clearance to allow freight movement underneath.

Temporary Effects

3-45

- Provide multilingual support to transit agency partners during and post construction so that changes or impacts to transit service does not endanger the livelihoods of non-English speakers who rely on transit for their primary mode of transportation.

3-46

- Incorporate the potential CBAG recommendation to: "Increase public transit services and explore alternative routes to mitigate transportation impacts to transit riders, walkers, bikers, rollers, and people using mobility scooter during construction, including the implementation of shuttle buses and additional bus routes along the impacted routes in the cities of Vancouver and Portland."

3-47

- Ensure that any closures or detours for pedestrian circulation provides an ADA accessible option.

3.02Navigation (Navigation Technical Rpt.)

3-48

- City staff advocates for ongoing efforts to work with the owners and operators of impacted vessels to identify mutually acceptable measures that result in a fixed span bridge.

3-49

- Continue advocating for a Preliminary Navigation Clearance Determination from the US Coast Guard as soon as possible, followed by approval of a permit to enable construction of a fixed span bridge.

3.03 Property Acquisitions and Displacements (Acquisitions Technical Rpt.)

3-50

- Provide a range of degree/severity and general parameters describing potential impacts for partial acquisitions, temporary easements, and subsurface easements. For example, Section 5 of the Acquisitions report describes the types of temporary acquisitions required and quantifies the number of easements needed for each subarea and land use type; however, it does not analyze the potential impacts from the temporary use, such as the potential for property damage.

3-51

- Clarify why the parcel with the existing Vancouver Community Library is shown as a partial acquisition (i.e., Park and Ride facility).

3-52

- The Acquisitions report indicates that the realignment of W 3rd Street could require full acquisition and displacement of the office building located on the southeast corner of W 4th Street and Columbia Street. This building is the "Lucky Lager Warehouse", which is listed on the Clark County Heritage Register. Although it is not eligible for National Register of Historic Buildings, displacement of this building should be avoided if possible. Seek design adjustments to avoid the full acquisition and displacement of the Lucky Lager building.
    - If acquisition of the Lucky Lager Warehouse is unavoidable, coordinate with the City and property owner(s) to determine potential land uses for this block, pending final design of the transportation improvements adjacent to this site.

3-53

- Consistent with the potential CBAG recommendation, ensure that the real estate process, including outreach and negotiations, provide for language access and culturally specific and relevant services.

3-54

- Potential impacts to residential properties north of Fourth Plain are of particular concern. IBR should pay extra attention to working with property owners and

3-54 tenants in this area. Inspections prior to construction upon owner agreement and other relative recommendations discussed as part of the CBAG "Avoid Further Harm" category apply here.

3.04 Land Use & Economic Activity (Land Use and Economics Technical Rpts.)

3-55
- Update references to the City's Strategic Plan (2023-2029) and TSP (2024-2044) to reflect the adoption dates. This includes but is not limited to section 2.3.4 in the Land Use report.
  - Analyze consistency of the Modified LPA with the City's recently adopted plans in the Land Use report.

3-56
- Consider the City's current planning work in the development of mitigation measures and future designs. This includes the 2025-2045 Comprehensive Plan update, Downtown Access, Mobility, and Parking Plan, Downtown Redevelopment Study, Downtown Design Guidelines, Waterfront Gateway redevelopment, and Citywide economic and equitable development strategies. Coordinate with City staff to get up-to-date information on these efforts.

3-57
- Update Section 3.3.2 of the Land Use Report to reflect updates and corrections to recent and pending development, as listed in Attachment D.

3-58
- Page 2-11 of the Economics report states that the "employee-per-square-foot ratios for business types used data from the results of the latest reported ratios from Metro modeling (Metro 2015, p.8)." In doing so, the Draft SEIS estimates that 400 employees are associated with the 10 downtown Vancouver businesses that would be displaced, as shown in Table 3.4-11 in the Land Use & Economic Activity chapter. In order for the program to support displaced businesses and employees, a more accurate count is needed.
  - Conduct additional analysis of the existing businesses that would be affected by any business displacements in Downtown Vancouver. Consult with the business owners to get an accurate employee count and to understand their specific needs for relocation.

3-59
- Coordinate with the City and property owners to address the potential for construction to cause negative economic effects by possibly blocking visibility of storefronts and impacting access to businesses in Downtown.

3-60
- Work with the City and southwest Washington partners to redesign the area just east of I-5 near the waterfront (Kirkland development area) to ensure no loss of function, access, or economic opportunity.

3.05 Neighborhoods & Equity (Neighborhoods & Populations, Equity, Technical Rpts.)

Neighborhoods and Population

3-61
- Table 4-2 (Overview of Anticipated Effects on Vancouver Neighborhoods) in the Neighborhoods and Population technical report (Neighborhoods report) only includes 7 of the 10 Vancouver neighborhoods in the program area; it is missing the first three discussed in Sections 4.4 and 5.3). In addition, the discussion on the potential impacts and benefits in Sections 4.4 and 5.3 is inconsistent across neighborhoods in Vancouver. For example, the Draft SEIS does not make a finding about the impact of displacement on neighborhood cohesion for Shumway, but it does for Esther Short. The discussion the Hough neighborhoods is only one paragraph. Some discussions mention impacts to parks in the neighborhood, while others do not.

3-62
  - Update the summary of effects on each neighborhood in Sections 4.4 and 5.3 to follow the same outline to enable a more complete picture, even when the finding is "no impact."

3-63
  - Include temporary and long-term effects on applicable parks and recreation facilities and clarify if any of these effects would have adverse neighborhood impacts.

3-64
  - Include all 10 Vancouver neighborhoods in Table 4-2.

3-65
- The Neighborhoods Report says "The Evergreen Inn, immediately north of the SR 14 interchange, is also anticipated to experience noise impacts that cannot be mitigated. Please see the Noise and Vibration Technical Report for discussion of noise impacts and mitigation for the Modified LPA." However, the Noise and Vibration report does not mention the Evergreen Inn, and Tables 4-4 and J-3 do not show an impact for the closest receptor location (DT-036). Section 4.6.2.4 of the Noise and Vibration report predicts a moderate noise impact at the Normandy Apartments due to light rail noise and identifies mitigation in section 7.7.2.1, but this impact and mitigation is not mentioned in the analysis of impacts to Esther Short in the Neighborhoods Report.
  - Confirm and update the anticipated noise impacts to Esther Short in the Neighborhoods Report to align with the findings in the Noise report.

3-66
- Section 4.1.10 of the Neighborhoods report finds that the "No C Street ramps" design option could reduce neighborhood cohesion in the Esther Short neighborhood by substantially increasing travel delay for residents and people accessing the neighborhood. However, this potential impact is not acknowledged in Table 4-2 (Overview of Anticipated Effects on Vancouver Neighborhoods). In addition, the Program-specific mitigation for impacts on neighborhood cohesion included in section 7.1.2 is too vague, as written.

3-67
  - Acknowledge the potential impact to neighborhood cohesion in the Esther Short neighborhood resulting from the "No C Street ramps" design option in Table 4-2, and identify specific measures that would mitigate this impact, if that design option is selected.

3-68
  - Identify specific measures to mitigate neighborhood cohesion impacts resulting from impacts to Marshall Park in the Central Park neighborhood) and from the potential business and residential displacements in the Esther Short neighborhood (depending on the design option).

3-69

- Per the Health Analysis report (Attachment F), modeling is on too large of a scale to understand local health impacts in the program area.
    - In the Neighborhood report, provide additional analysis and define efforts to mitigate any health impacts, such as green infrastructure and indoor air filtration.

3-70

- Leading up to and during the Draft SEIS comment period, City staff has heard concerns about construction impacts from Vancouver community members. There is particular concern about dust, noise, and vibration during construction. Residents and businesses in the Esther Short neighborhood are worried about impacts to Downtown circulation due to increased traffic congestion – including pedestrian safety, reliability of affected bus routes, access to businesses, ADA accessibility. Residents of Smith Tower and Esther Short neighborhood are concerned about the ability for emergency vehicles to respond to calls for services (particularly for senior housing, including Evergreen Inn). Residents of Shumway are concerned about cut-through traffic when the 39th and 33rd overpasses are closed/being rebuilt. Arnada neighborhood has concern about construction-related impacts to Arnada Park. The Neighborhoods and Population technical report (Neighborhoods report) affirms concerns about adverse effects on cohesion, including "given that the potential construction duration could be up to 15 years, neighborhood quality and cohesion could be negatively impacted during construction for neighborhoods adjacent to the corridor".

3-71

    - Continue to coordinate with City staff to identify specific measures that will reduce and avoid construction-related impacts on neighborhoods. This includes impacts related to traffic, pedestrian and bicycle networks, and access to businesses, residences, and community resources such as parks, schools, and public spaces.

3-72

    - Work with the City to develop and implement a strategy for managing construction impacts in Downtown that includes support and outreach to businesses.

3-73

    - Include a mitigation that will ensure dust control in areas where outdoor sports are played. Use of water trucks during construction is proposed.

3-74

    - Ensure ongoing communication and engagement with residents, businesses, and community groups in the program area. Provide timely information about construction timeline, potential construction-related effects and the measures taken to reduce and avoid impacts. Provide notifications of any construction disturbances as soon as practical.

3-75

    - Coordinate with the City of Vancouver's community engagement, communications, and IBR teams to utilize the City's outreach and engagement channels.

3-76

- Consider and incorporate the following potential recommendations from the CBAG:

3-76

    - Develop a proactive communication plan for before and during construction to keep the public informed of potential impacts such as noise, route closures, other mobility impacts, etc.
    - Include communication for transit/mobility impacts as soon as possible, as well as messaging to homeless service providers.
    - Establish a comprehensive process for community members to voice concerns and report negative impacts, potentially including an online platform and/or hotline where community members can report issues and receive timely responses, ensuring a commitment to responsiveness and due diligence to reach resolution. Explore the use of AI.

Equity

The Equity report, as well as the Environmental Justice report, demonstrate IBR's commitment to "prioritize access, influence, and decision-making power for marginalized and underserved communities throughout the program". Additional analysis, mitigation, and engagement is needed to fully achieve the City's Conditions of Approval, as noted in this section and under Environmental Justice below.

- Section 6 of the Equity report (Indirect Effects) does not fully characterize the City's *Reside Vancouver*, which was prepared in 2019 and focused on two neighborhoods in Central Vancouver. Since then, the City has developed citywide data sources. In Section 6:
    - Refer to the City's Displacement Risk Analysis and Map completed in 2022 to characterize equity priority communities and displacement risk within and outside of the program area (including it the Fourth Plain area just east of the program area).

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    - In addition to the statement that low-income homeowners could benefit from a rise in property values, acknowledge that the risk that rises in property values can still cause displacement if the homeowner is not able to afford the corresponding increase in property taxes over time.

3-78

    - Mention how proximity to light rail stations could lead to increased risk of residential displacement.

3-79

    - Align with the updated discussion of indirect impacts and mitigation in the Environmental Justice report.

3-80

- In response to concerns about indirect displacement and the goal to maximize benefits to equity priority communities, the CBAG has affirmed the recommendations to support transit-oriented development (TOD) and to "prioritize innovative developments on the land adjacent to the bridge, with a focus on projects that promote accessible and affordable housing." The CBAG is also considering recommendations to "develop affordable housing near transit areas" and "prioritize the development of affordable housing by developing underutilized properties." Staff supports these concepts and encourages the IBR Program to:

3-80

- Work with the City to explore opportunities for TOD in Vancouver as part of the IBR Program and community benefits work.
- Work with the City and partners to pursue funding for TOD to support affordable housing development near the light rail stations.
- Build upon the City's preparation and assumed adoption of an Equitable Development Strategy and other Downtown planning efforts and work with City staff to identify any additional infrastructure or access needs beyond IBR and City planned actions, and anti-displacement and community stabilization measures specific to Downtown and the Esther Short neighborhood.

3-81

- Accessibility of the transit and active transportation networks to people of all ages and abilities is a top concern. While the Equity report discusses many of the transportation benefits of the Modified LPA and acknowledges that "differences in the experiences of active transportation users could adversely affect equity priority communities more than the general population", the Program-specific mitigation does not align with the discussion of potential impacts and design considerations.

3-82

  - In Sections 4 and 5 of the Equity report, provide more details on how the various equity priority communities could experience differences in the ability to use and benefit from the Modified LPA investments, and identify measures to address any potential impacts.

3-83

  - In Section 4.2, discuss the potential challenges to various equity priority communities associated with "extensive ramp distance" connecting the shared use path on the bridge to the waterfront, as discussed in the Transportation report. For example, older and younger people may have less stamina, and blind/hearing-impaired travelers have greater risks. Refer to the discussion on the Waterfront Area above for recommendations on how to address equitable accessibility concerns with the shared use path.

3-84

  - Integrate design considerations and community input listed in Sections 4.1.4 and 4.2 into the Program-specific mitigations in section 7.1.2 to ensure these important details do not get lost. Add to this list:
    - Design facilities for all ages, including young people and older adults.
    - Considering accessibility for blind and deaf people in all stages of program design and implementation.
    - Treat ADA as the floor, not the standard – implement the Public Right-of-Way Accessibility Guidelines (PROWAG) as current best practice for design and construction.

3-85

  - Consider and incorporate the feedback from accessibility-oriented community leaders and people with disabilities provided to the City of Vancouver (Attachment G).

3-86

- Explore and incorporate the following CBAG recommendations:
  - Use universal design and be radically inclusive

3-86

  - Consider accessibility in the selection of materials for transit areas, such as textured pavement.
  - Prioritize mobility and accessibility in the design of elevators and staircases, along with considerations for aesthetics.
  - Incorporate innovative solutions to exceed ADA requirements, enhancing accessibility and mobility thoughtfully.
  - Integrate acoustic enhancements in designs to better accommodate individuals with visual impairments, ensuring path support.
  - Incorporate green spaces and water stations at public transit locations to accommodate service animals, especially during hot days.
  - Involve experts with lived experience and the broader community in transportation planning to ensure that designs effectively address the mobility and accessibility needs of various groups, especially individuals with disabilities.

3-87

- Section 4.1.1 of the Equity report discusses "differences in terms of distribution of benefits (i.e., increased access) between equity priority communities living in the study area and their non-equity priority counterparts". Section 8 (Synopsis and Next Steps) states: "To address this, the Program is working closely with C-TRAN to optimize the transit network and create convenient bus connections from the Evergreen Station to surrounding racially diverse neighborhoods." In this section, also state that the Program should work with the City to optimize the active transportation networks and connections to bus stops and the light rail stations as a means for increasing regional transit access to jobs among equity priority communities.

3-88

- In Section 4.4 of the Equity report (Tribal Consultation), describe the level of engagement with Tribal governments and summarize the potential benefits and impacts to tribes, based on IBR's consultation.
  - Acknowledge the long-standing impact the existing bridge and freeway has had on spaces that were once occupied by indigenous populations.
  - Consistent with CBAG's potential recommendation, collaborate with tribal governments and property owners with the goal of maintaining access to the river throughout construction.

3-89

- Section 5.1.1 of the Equity report finds that "construction of the Modified LPA would likely affect houseless individuals and families living in the IBR Program area during construction." Section 7.2.2 includes the Program-Specific Mitigation to "coordinate with local jurisdictions and other organizations offering services to people experiencing unsheltered houselessness in areas directly affected by construction activities. Services would be provided in advance of construction and could include harm reduction, access to health services, and emergency shelter or alternate housing options." To strengthen the proposed mitigation, consider the following potential recommendations from the CBAG:

3-89

- Develop comprehensive strategies and funding options with the program and other partners that can be implemented to address the relocation and housing needs of people experiencing unsheltered homelessness affected by the program.
- Explore partnerships with agencies providing culturally specific services focused on equity priority communities and those who conduct street outreach and engagement for housing placement.

3.06 Public Services and Utilities (Public Services and Utilities Technical Rpts.)

3-90

- The City of Vancouver owns stormwater conveyance and outfall facilities within the program area, but the Utilities chapter does not list them as critical facilities that could be potentially disrupted by the program.
  - Describe the City of Vancouver's stormwater facilities in the Utility report.

3-91

  - Analyze and discuss the potential disruption to City stormwater facilities during construction.

3-92

  - Relocate or retain all existing stormwater connections prior to any downstream conveyance modifications, removal or disruptions to avoid flooding.

3-93

- Clarify the process for obtaining review and approval from Vancouver Fire Department (VFD) as part of bridge and roadway design, and ensure VFD and Vancouver Police Department (VPD) in all stages of Program design and implementation.

3-94

- The Utilities report contains multiple statements that fire flow on both sides of the river will be disrupted. It also states that "Loss of the main could affect water supplies and fire flows." This is not entirely accurate as the loss of the main would absolutely affect water supply and fire flow. Loss of the main in all areas listed is not an option. Whether short-term or long-term, where any modifications to water mains is planned, careful coordination with VFD and PF&R will be critical, and temporary provisions to accommodate fire flow may be required. Maintenance of flows is particularly important in the future, since as noted in the energy and air quality analyses, use of electric vehicles is expected to increase and the volume of water required to control an electric vehicle fire is exponentially larger due to the nature of battery fires. Therefore, the Final SEIS should acknowledge the potential impact and include the following mitigation measures:
  - Phase construction to avoid interruptions to fire flow to the extent possible.
  - Coordinate with VFD to develop a plan for ensuring fire flow is maintained throughout construction, using temporary provisions as needed. Temporary provisions may entail temporary above ground hard piping, storage water, and/or fire pumps.

3-94

  - If temporary disruptions in fire flows is unavoidable, provide additional details on the anticipated locations and durations to VFD and Portland's Fire and Rescue as soon as that information is available.

3-95

- In responding to emergencies, VFD finds that emergency rooms are frequently at capacity and travel across the Columbia River is required. Therefore, any street closures, even during off business hours, must be coordinated with emergency service providers (fire, police, ambulance services, and the 911 call center). To ensure that emergency access is maintained through construction, refine the Program-specific mitigation measures for temporary effects to public services to include the following details:
  - Notify emergency service providers of any planned closures of lanes, stacking of traffic, or other potential delays for fire response and medical transport across the Columbia River.
  - Clearly identify any alternate routes in communications with emergency service providers.
  - Consider reserving a lane strictly for emergency use only.
- It will be critical for the VPD to be able to access construction zones in response to calls for police services. Construction zones will change frequently and will contain hazardous materials and equipment. To avoid interruptions to emergency service, include the following mitigation measures:
  - Communicate regularly with VPD about access points to construction zones.
  - Clearly mark explosives and other hazards within construction zones so that they are visible in the event VPD needs to access the site in an emergency.

3-96

- Confirm that utilities extending beneath I-5 along Columbia Way and 5th Street would not be temporarily affected by construction.

3.07 Parks and Recreation (Parks and Recreation Technical Rpt.)

3-97

- Ensure that all parks used during construction or permanently affected by the program are, at a minimum, returned to the state they were in or better (per City standards) when construction commenced.

3-98

- Plant replacement trees in parks as soon as possible (i.e. prior to construction and when the remaining construction will not damage them).

3-99

- Ensure the survival or replacement of the new trees for at least 10 years following planting.

3-100

- Incorporate the potential CBAG recommendation to maintain green space within the project alignment and compensate for lost green space by creating or enhancing green spaces in underserved areas.

3.08 Cultural Resources (Historic Built Environment Technical Rpt., Section 106 Rpt.)

3-101
- The City supports and reiterates all comments and proposed additions, edits, refinements relative to the Vancouver National Historic Reserve submitted by The Historic Trust (see Attachment A). Of particular note is the need to immediately work with the City and stakeholders to begin a process of defining agreed upon mitigations for impacts to the Post Hospital.

3-102
- Area of Potential Effect (APE)

3-103
  - Incorporate the APE boundary on interactive project map on the Section 106 portion of IBR website.
  - The City maintains that there may be proposed changes to the boundary of the APE and/or consideration of potential impacts and associated mitigations to properties adjacent to the APE. The process to determine effects with any potential boundary changes to the APE must be laid out in a Programmatic Agreement (PA).

3-104
  - In consultation with the City, other consulting partners, and the community, develop a plan to define and implement mitigations related to The Post Hospital.

3-105
- Where there are identified adverse impacts to Historic buildings, the City advocates there be, at a minimum, replacement of windows, installation of HVAC systems, dust mitigation such as watering trees and landscape areas, to address anticipated noise, vibration, and air quality impacts due to IBR Program construction.

3-106
- Prior to completion of the IBR Program's next round of financial and risk analysis and subsequent cost estimate, the City requests that there be coordination among WSDOT, Oregon Department of Transportation (ODOT), and consulting partners to create a process to define: 1) current Section 106 cost estimates, and 2) a minimum set aside of funding for Section 106 mitigations.

3-107
- Define, in a Programmatic Agreement, tangible capital and programmatic elements that proactively draw attention to the area so that understanding of the historical and cultural significance expands. Examples of this include more visibly prominent elements that will be relevant and accessible for several generations.

3-108
- Continue collaboration with program partners to define physical and programmatic mitigations and benefits through a Programmatic Agreement.

3-109
- Support the City in acquiring archaeological support staff.

3.09 Visual Quality (Visual Quality Technical Report)

3-110
- Early in the report, clarify how the IBR program will make design decisions and the roles of local agencies and the public in this process to provide a consistent baseline upon which all visual findings can be justified. Emphasize the need for consistency with local design standards. Refer back to this description where applicable.

3-111
- In section 7.1.2.1 (Mitigation Common to All Landscape Units), clarify that IBR will conduct public engagement to inform the final design of program elements that go beyond freeway specifications. Engagement will include but not be limited to in-

3-111
person workshops. IBR will coordinate with the cities to develop and implement outreach and engagement.

3-112
- Acknowledge the potential tension between local standards and a uniform theme for the Program, given that two cities and two states are involved. The final design should seek to balance the goals for context-sensitivity and a consistent, unifying theme that reflects regional collaboration.

3-113
- Remove reference to the Vancouver Design Review Committee (which no longer exists) and replace with City of Vancouver community development staff.

3-114
- In addition to station areas, include in the program-specific mitigation applicable to all landscape units:
  - Use CPTED principles in the design and lighting of underpass areas, overpasses, and any other area that is publicly accessible by foot.
  - Seek to balance the objectives of lighting (which can sometimes be at odds with each other): provide safety and security at night for transit operators and users of public spaces, avoid impacts to wildlife and ecosystems, and avoid excessive or obtrusive light and glare at adjacent land uses.
  - Coordinate lighting design and volume (lumens) with City and WSDOT standards.

3-115
- The Visual Quality report finds that the Modified LPA replace and restore landscaping in the program footprint, but that "this new landscaping would not substantially replace visual elements associated with mature trees for many years" and therefore "vegetation removal would be considered a long-term impact." As mitigation, explore opportunities to plant more mature trees to accelerate the restoration process (consistent with CBAG recommendations).

3-116
- In the program-specific mitigation for visual quality impacts, incorporate the desired design outcomes found in Attachments B (City of Vancouver Desired Outcomes) and E (Guiding Principles for the Community Connector and Evergreen Station Area).

3-117
- Include the following measures related to park and rides: utilize thoughtful urban design to maintain the human scale and pedestrian friendly feel of downtown Vancouver. Avoid hindering access for walking, biking, small mobility devices, bus, paratransit, and other alternative forms of mobility.

3-118
- Clarify that the IBR team will be responsible for the relocation of the Boat of Discovery art installation in collaboration with the art owner, City staff, and Port of Vancouver staff (refer to Page 4-34).

3-119
- Consider and incorporate the following affirmed and potential recommendations from the CBAG:
  - Create designs that prioritize preservation and enhancement of natural features, focusing on the views both from and towards the bridge while working within the constraints of the bridge structure to maintain structural integrity and safety.

3-119

- Include viewpoints or designated areas for cyclists and pedestrians on the bridge to enhance their experience and safety.
- Integrate art and local history and culture into the bridges and program area designs, at various scales, to enhance its aesthetic appeal and connection to the community.
- Create a distinct and iconic bridge.
- Consider design with an eye toward ice and other severe weather conditions.
- Include accountability to ensure that various contractors are adhering to the aesthetic and design specifications to create consistent design throughout the program area.
- Consider functionality in the design to create a space that builds community and connection.
- Incorporate desirable design elements in a consistent manner throughout the program area, such as textured acoustic walls and articulated bridge columns, ensuring both large- and small-scale aesthetic and functional details.
- Include rich landscaping of plants and flowers that will both beautify the space and make it a desirable destination.

3-120

- Acknowledge that parking structures would likely be seen an adverse visual change to the cultural or project environment in Downtown Vancouver (even with a thoughtful process that complies with the City's design standards and guidelines and involves the community).

3-121

- To address concerns by residents of the Esther Short neighborhood near I-5, clarify the changes to views from Smith Tower and other buildings that currently have views of the river.

3-122

- Add more photosimulations and key viewpoints in the entire program area within Vancouver for all design options for greater visual representation of potential opportunities and impacts.

3-123

- Residents of neighborhoods close to the freeway are concerned about the visual impact of new and reconstructed noise walls. Staff supports the following mitigations, based on recommendations from the Arnada Neighborhood Association, CBAG, and City of Vancouver Parks and Recreation Advisory Commission.
  - Provide the highest standard anti-graffiti coating available at the time of its construction. Ensure funding for graffiti removal for at least 25 years from date of completion.
  - Work with the City, neighborhood associations, and community in general to develop the final designs for the sound walls.
  - Design walls to be aesthetically pleasing.

3-124

3.10 Air Quality (Air Quality Technical Report)

- Include more information about the health impacts of transportation-related pollution. Specifically, transportation is a significant contributor to air pollution-related illnesses and premature death. Emissions from vehicles can lead to respiratory, cardiovascular, neurodegenerative, and metabolic diseases, as well as cancer and reproductive issues.

3-125

- The Draft SEIS assumes significant decreases in traffic-related pollution due to federal regulations on fuels and vehicle efficiency. Furthermore, the air quality analysis is based on regional data and refers to a small number of existing monitoring sites in Vancouver. Explain how IBR will monitor air quality to ensure consistency with this finding for the program area over the long-term, and how IBR would mitigate emissions, if monitoring indicates that air quality in the program does not improve to the expected levels by 2045. Clarify the plan to mitigate long-term air pollution from highway traffic in that event.

3-126

- Table 3-8 in the Air Quality report lists sensitive receptors near the program footprint. All 16 are located in Vancouver, including hospitals, schools, and assisted living facilities. Additional analysis is needed to understand the exposure to mobile source air toxics under the future scenarios and to identify measures that would reduce potential health impacts due to freeway pollution. This may include installing monitoring stations for toxic air contaminants at sensitive receptors in Vancouver.

3-127

- Update the analysis to address the following City of Vancouver Condition of Approval: Active transportation facilities shall be designed to minimize users' exposure to roadway pollutants such as particulate matter and hazardous chemical compounds.
  - Install monitoring stations along pathways and parks located along the freeway, so people can understand the health hazards of exposure to unfiltered freeway air.

3-128

- Add a more explicit disclaimer that Motor Vehicle Emissions Simulator (MOVES) calculates emissions, not air concentrations that can be compared to health benchmarks or standards. It follows that if emissions go down, so do air concentrations, but it is not necessarily a 1:1 correlation.

3-129

- Provide additional analysis of construction-related air quality impacts to residents living within or near the program area, acknowledging that this population is already exposed to higher pollution from the freeway. It is not adequate to exclusively use the Dan Ryan Expressway as a proxy; analyze the specifics of the program area's context.

3-130

- Clarify the specific temporary impacts anticipated for the large construction staging areas and for each of the design options.

3-131
- In Section 7.2.2 of the Air Quality report, change the program-specific mitigation from "encourage" to "require" to ensure that contractors minimize impacts to surrounding communities.

3-132
- Evaluate and consider the following recommendations related to air quality provided in the Executive Summary of the IBR Health Analysis (Attachment F):
  - Improve greenspace and tree canopy cover to improve air and water quality, provide shade, and increase natural spaces.
  - Meet and exceed, where possible, state and local requirements to reduce noise and air pollution to protect the health of workers and community members.
  - Protect workers and community members on high-risk days for high heat and poor air quality events.
  - Establish systems for continuous monitoring for noise and air quality during and after program construction, ensuring that pre-construction conditions are measured as a baseline.
  - Expand information about potential air quality, safety, and connectivity impacts of construction.
  - Compile and release to the public additional information about potential air quality, safety, and connectivity impacts of tolling-related traffic diversion through neighborhoods.

3-133
- Ensure the final design improves flow of traffic to minimize congestion and environmental impacts of idling.

3-134
- Denote Vancouver's Climate Action Framework in the Final EIS as further evidence of strong political support for climate action and established citywide policies to address the impacts of climate change.

3.11 Noise & Vibration (Noise & Vibration Technical Rpt.)

3-135
- The City supports proposed mitigation measures, including installation of sound walls along the freeway to reduce impacts to the extent practical. Design and construct with as minimal impact to buildings as possible.

3-136
- The Noise and Vibration report finds that "traffic noise levels would approach or exceed the NAC at one office and an outdoor use area at the Vancouver Community Library" and that noise mitigation at this site is not feasible because the residential equivalent use at this site was calculated as one residence while WSDOT feasibility requires a minimum of three first row impacted receivers to benefit from a noise wall. The parking lot and vacant parcels adjacent to the Library are owned by the City and this site is referred to as "Library Square." The plan is to develop this site with high density uses and to complement the adjacent light rail station at Evergreen Boulevard and the Community Connector. One objective of the Connector is to buffer the negative impacts of the freeway, including traffic noise.

3-136
  - Analyze the potential for the Community Connector to reduce noise levels at the library and future residential uses on the Library Square site.
  - Identify other potential measures that could reduce noise levels at this location, for consideration as plans for Library Square progress.

3-137
- Residents living along the freeway in Vancouver are concerned about the potential impacts to their homes from construction vibration, which is discussed in Sections 5.1.2 and 7.9.2.1 of the Noise and Vibration report. The Draft SEIS analysis is based on US DOT guidelines, which recommends the maximum peak particle velocity (PPV) levels remain below 0.5 inches per second at the nearest structures. The Draft SEIS finds that vibration associated with certain activities could reach this threshold within 100 feet of sensitive receivers, and that there is the potential for vibration damage to "fragile buildings and structures" at levels less than 0.5 in/sec PPV. The discussion of contractor requirements in section 5.1.2.1 does not match the regulatory requirements in section 7.9.2.1, and the potential impact may not be fully mitigated by the requirement to monitor.
  - Confirm regulatory requirements for fragile buildings and structures and align the discussions in sections 5.1.2.1 and 7.9.2.1.

3-138
  - Clarify what would happen if monitoring finds that construction is exceeding the thresholds or if vibration causes architectural or structural damage.

3-139
  - Refer to comments in Cultural and Section 106 sections for additional comments on potential impact to historic structures.

3-140
- The Noise and Vibration Report finds that "shared-use path users would have more exposure to noise from highway vehicles [under the single-level bridge configuration] than with the [double deck option] due to reduced shielding between the shared-use path and highway traffic.
  - Include program-specific mitigations to address this impact, consistent with the CBAG recommendation to reduce highway noise for all bridge users, including pedestrians and cyclists.

3-141
- Evaluate and consider the following noise-related recommendations provided in the Executive Summary of the IBR Health Analysis (Attachment F):
  - Meet and exceed, where possible, state and local requirements to reduce noise and air pollution to protect the health of workers and community members.

3-142
  - Establish systems for continuous monitoring for noise and air quality during and after program construction, ensuring that pre-construction conditions are measured as a baseline.

3.12 Energy (Energy Technical Rpt.)

3-143
- The analysis of construction-related effects is based on one set of assumptions related to construction materials and equipment. Section 7.2.2 (Program-Specific Mitigation) includes: "Continue to consider advances in energy-reducing and/or

3-143 energy-saving materials and methods." Provide data on the differences in energy consumption and greenhouse gas (GHG) emissions between the various materials and equipment that could be used, to inform decision-making about which materials and methods to advance.

3-144
- Coordinate with the City's Electric Vehicle (EV) Infrastructure Strategy to further incentive EV use through IBR's mitigation and community benefits. This is consistent with CBAG's recommendation to: "Incentivize the installation of electric charging stations in the construction zone for contractor use to meet EV requirements. These charging stations are to be placed so that they may become convenient public facilities after construction is complete and ongoing operations and ownership is determined."

3-145

3.13 Electric and Magnetic Fields (Electric and Magnetic Fields Technical Rpt.)

Staff does not have any comments on this chapter/report.

3.14 Water Quality and Hydrology (Water Quality and Hydrology Technical Rpt.)

3-146
- The City of Vancouver has over 400 acres of impervious surfaces that drain into the I-5 corridor to existing WSDOT stormwater facilities that outfall to the Columbia River. The Water Quality and Hydrology chapter mentions the contributions to the stormwater system from the program area; however, it does not recognize contributions from outside of the program area.
    - Delineate the outside contributing area from City of Vancouver to the existing WSDOT conveyance facilities. The City can provide additional GIS or other data to assist in this delineation.
    - Ensure that any stormwater conveyance or treatment facilities that will be constructed or replaced by the program are sized to accommodate the total volume of anticipated flows, including flows from inside and outside of the project area.

3-147
- The Water Quality and Hydrology chapter states that infiltration is the preferred option for stormwater runoff mitigation; however, infiltration rates in the area may not be sufficient to infiltrate all stormwater from the project and outside contributing areas. Infiltration of the project runoff will also require close adherence to Vancouver Municipal Code 14.26 – Water Resources Protection Ordinance to ensure that groundwater is protected from potentially mobilized contaminants. If infiltration is proposed, a Critical Aquifer Recharge Area (CARA) technical report may be required.
    - Provide a CARA technical report outlining how infiltration within the project area will not negatively impact the underlying aquifer once stormwater design has progressed to detailed design.

3.15 Wetlands (Wetlands Technical Rpt.)

3-147
- See Attachment D for administrative comments on this chapter.

3.16 Ecosystems (Ecosystems Technical Rpt.)

3-148
- The City's Urban Forestry Management Plan (UFMP) recommends direction and actions for Vancouver to optimize the benefits of trees by envisioning an equitable, climate adaptive, integrated, and sustainable approach to managing the city's urban forest resources over the next twenty-five years. Action 3.1D.9 states: "utilize long-lived, large form, drought-tolerant, climate-resilient native planting and retention of mature trees". Action 1.3C.10 and 12 addresses removing and controlling invasive species on public properties. The City's Climate Action Framework (CAF) is a blueprint to reduce greenhouse gas emission and build resiliency to climate change impacts. CAF Strategy NS-1, states to increase carbon storage in trees, vegetation and soil. Accordingly, the Climate and Ecosystems chapters should include the following measures:
    - Continue to work with City staff to design program elements in support of the City's Climate Action Framework and Urban Forestry Management Plan.
    - IBR contractors should eradicate invasive species prior to and during construction in the program footprint, such as English ivy, Tree of Heaven, Black Locusts and blackberry.
    - Utilize native, climate adaptive vegetation, long-lived, large form, and drought-tolerant, trees in new landscape areas.
    - Incorporate native or climate adaptive conifers to reflect the gateway to the Evergreen State.

3-149
- Explore opportunities to plant replacement trees in the program area as soon as possible (pre-completion) so that those trees can begin to establish and provide the intended mitigation.

3-150
- Explore partnerships with landscaping and naturescaping groups to rehome trees that can't be saved.

3-151
- Consider use of pollinator practices in the new landscaping.

3.17 Geology and Groundwater (Geology and Groundwater Technical Rpt.)

3-152
- The Geology and Groundwater chapter implies that the City of Vancouver Safe Drinking Water Act (SDWA) monitoring is a characteristic assessment of groundwater quality. This is misleading because shallow groundwater monitoring data indicate contamination of groundwater due to the infiltration of personal care products, ineffective septic systems, and polluted runoff. Infiltration in the program area at the proposed scope and scale will likely impact both shallow and deep hydrogeology, potentially mobilizing contaminants to travel towards drinking water sources in new ways. Furthermore, the DSEIS states that the City is meeting SDWA standards, but the City has recently violated SDWA standards for per- and polyfluoroalkyl substances (PFAS) at several sources and for different analytes. The City is implementing treatment systems to address the violations, but the sources

3-152 of our drinking water are not pristine. Accordingly, the City's Strategic Plan includes this goal and strategy: "To ensure Vancouver's drinking water is safe for the community, the public works department will monitor PFAS concentrations and invest in treatment systems that reduce PFAS in drinking water in order to meet federal drinking water regulations and reduce the concentration of PFAS in drinking water by the end of 2028." Developing new sources of drinking water that are shallower and more abundant will mean more vulnerability to shallow infiltration of pollution, particularly persistent compounds like PFAS, as well as potential shifts in groundwater flow regimes.

- Update the analysis to reflect the potential for the construction of the Modified LPA and long-term operations to contaminate drinking water sources and modify groundwater patterns.
  - Analyze the localized effects to supply wells in the area not just the City of Vancouver for the short-term and long-term. Use publicly available data to model various scenarios of infiltration rates.
  - Mitigate any potential contamination to meet applicable standards.

3-153
- The DSEIS states "there is no evidence of notable erosion or landslides in the study area." However, the Clark County maps show "severe erosion risk areas" and slopes exceeding 25% in the vicinity of the I-5/SR-500 interchange (see Attachment H).
  - Update the analysis to reflect the County's maps on soil and landslide hazards, analyzing the potential impacts from construction and operation of the Modified LPA.

3.18 Hazardous Materials (Hazardous Materials Technical Rpt.)

3-154
- Consider smoke management in the selection of the bridge configuration and subsequent design phases, maintain fire-fighting water supply and emergency vehicle access throughout construction, and enable VPD access to construction zones if needed. Closed-truss construction would require smoke management, while open-truss construction on a lower deck creates limited emergency access conditions. The National Fire Protection Association (NFPA) issues standards for addressing these issues.
  - Design the new bridged to comply with NFPA 502: Standard for Road Tunnels, Bridges, and Other Limited Access Highways, including but not limited to the standards listed in Attachment D (Administrative Staff Comments).

3.19 Climate Change (Climate Change Technical Rpt.)

3-155
- City staff appreciates the IBR program's focus on climate resiliency and mitigation overall. The Draft SEIS shows how the Modified LPA aims to mitigate transportation-related emissions with strategies to reduce vehicle miles traveled, enhance multimodal transportation options, and shift trips to clean, non-polluting sources. This reinforces several of the City's Desired Outcomes and Conditions of Approval for the Modified LPA (see Attachment B). Staff also appreciates the references to the City's Climate Action Framework, which established the following targets:
  - 80% reduction in GHG by municipal operations by 2025
  - 80% reduction in GHG emissions by the Vancouver community by 2030
  - Carbon neutrality by both municipal operations and the Vancouver community by 2040

3-156
- In Section 3.19.1 of the Climate chapter (Changes or New Information Since 2013):
  - update the reference to Vancouver's Climate Action Framework to also note the interim goal of 80% reduction in communitywide emissions by 2030.
  - include mentions of the City of Vancouver's 2024 – 2044 Transportation System Plan (TSP) and the 2023-29 Vancouver Strategic Plan.

3-157
- Update the introduction to the Climate chapter to clarify the human-caused origins of GHG emissions and the connection between fossil fuel combustion in automobiles and freight, as well as high-energy intensity building materials like steel and concrete. This will set the context for the project's contribution to climate change and the mitigation efforts that must be made.

3-158
- As noted in Table 8-1 of the Climate Report, the City made Conditions of Approval to define a GHG reduction target, monitor GHG emissions, and provide regular reports on the status of GHG mitigation efforts.
  - Establish an ongoing program to monitor volume of vehicles and active transportation modes across the bridge and report results annually to Metro and RTC for inclusion in transportation and air quality modeling.
  - Reserve funding for a long-term (10-year) research project, to be conducted by a local college or university in Oregon or Washington (such as the Transportation Research and Education Center (TREC) or National Institute for Transportation and Communities (NITC) programs at Portland State University). This research would evaluate how the modeled outcomes for GHG and other air pollutants compare to actual observed results over time. The ultimate goal would be to publish the findings in a peer-reviewed journal and present them at a national conference, such as the Transportation Research Board (TRB) Annual Meeting, exploring any factors contributing to significant discrepancies between the modeled and observed outcomes.

3-159
- Include wildfire smoke's impact on traffic visibility as a climatic factor.

3-160
- Discuss impacts to construction workers due to extreme weather events.

3-161

- Consider and incorporate into the mitigation the following CBAG recommendation: use material options that are sustainable and environmentally friendly (balancing decisions to use low carbon materials, costs, and life of materials) into the program design, including local elements (examples include ash and shells). Consider other emissions as well.

3.20 Environmental Justice

3-162

- The discussion on noise and vibration impacts in the Environmental Justice (EJ) report is inconsistent with the Noise and Vibration report with respect to Vancouver's three neighborhoods that meet EJ thresholds (Esther Short, Arnada, and Rose Village). It incorrectly states that there would be a substantial noise impact in Rose Village. Based on the Noise Report, the substantial impact would be west of the freeway in the Shumway neighborhood.
    - Update Sections 4.6 and 7.1.1.2 and Table 4-3 in the EJ report to align the findings with the Noise and Vibration report and to summarize the effects on EJ populations in Washington neighborhoods (i.e., traffic noise impacts and recommended noise walls in all three EJ areas, as well as impacts from light rail noise and vibration in Esther Short, with associated mitigation).

3-163

- The EJ analysis is focused on the three Vancouver neighborhoods that have high concentrations of EJ populations relative to the region. This approach overlooks EJ populations living in other neighborhoods within Vancouver. It also assumes an even distribution across the neighborhood or block group, which overlook possible concentrations of EJ populations within that area and can lead to the inaccurate conclusion that effects on EJ populations are the same as the general population. There is particular concern about underestimating impacts to lower-income people living adjacent to the freeway (where it is likely that property values are lower and housing is less expensive). The "No Thresholds" approach described in Section 2.6.6.1 is intended to account for this limitation in the quantitative approach. For example, section 2.6.6.1 states that "a community-based organization or social service group that primarily serves EJ populations may exist within a neighborhood that otherwise has a low proportion of low-income and minority residents". Given that people seek out and access resources and opportunities outside of their neighborhoods, the analysis of impacts to community resources should look beyond those located in EJ areas. However, the EJ report only describes the "No Thresholds" approach in the Methods section and does not specify which impacts use this approach, nor apply it to all impacts where it would be most suitable.
    - Use the "No Thresholds" approach to analyze impacts that span a larger geographic scale than EJ neighborhoods (tolling, indirect displacement, and community resources). The study areas should include: the entire catchment area for people that would normally take I-5 to cross the river to evaluate tolling impacts, block groups that are within a 15-minute bike or bus ride to evaluate the potential for indirect displacement, and the secondary EJ study area to evaluate impacts to community resources.

3-163

    - Use the "No Thresholds" approach to analyze impacts at a small geographic scale than the neighborhood (acquisitions, traffic noise, and construction-related impacts). A No Thresholds approach could lead to the finding of disproportionately high and adverse impacts to EJ populations living along the freeway, particularly for full acquisitions/displacements, traffic noise that is not mitigated, and construction-related noise and air quality effects. EJ populations and other sensitive populations living near the freeway are already disproportionately impacted by noise and air pollution.
    - Include mitigation measures to reduce and avoid impacts to EJ populations, based on updated findings using the "No Thresholds" approach. Ensure these communities are not disproportionately impacted by construction activities.

3-164

- Section 7.2.2 of the EJ report states that "interruptions to traffic, bus, light-rail service, and cross-river bicycle and pedestrian facilities would result in a disproportionately high and adverse effect on EJ populations" and that "disruptions to peak period and daytime travel on I-5 are proposed to be mitigated through construction best practices, such as scheduling construction activities during nighttime hours and on weekends with approval by ODOT and/or WSDOT." This measure can have the unintended consequence of disproportionately affecting shift workers that need to travel on nights and weekends. Studies indicate that women and people of color are more likely to work night shifts in US manufacturing jobs. This concern reinforces the Equity Advisory Group (EAG) recommendation to "consider the disproportionate impacts that congestion can have on people working long hours or multiple shifts, workers who often must adhere to strict shift schedules, and parents—particularly single parents" (Section 4.3.2 of the Equity Report).
    - Analyze the potential effects of nighttime and weekend closures of transportation facilities on shift workers.
    - Identify large employers in the secondary study area that utilize shift work to understand employee needs.
    - During construction, inform employers and workers of significant traffic pattern changes.
    - In addition to the proposed mitigation, consider offering free rides by transit across the river when the shared use path on the bridge is fully closed.

3-165

- In the EJ report, describe the participation of Tribal governments in the identification and mitigation of archaeological resources.

3-166

- The EJ and Equity reports note several times how equity priority communities have a greater reliance on modes besides driving. Therefore, under the No-Build Alternative, EJ populations and other equity priority communities would experience

3-166

disproportionate impacts resulting from the insufficiencies in the transportation system that will only get worse over time. This includes issues with transit access, frequency, reliability, and travel times, as well as the safety and connectivity of the active transportation network.

- Update the finding for the No-Build Alternative in the long-term effects section of the EJ report to acknowledge the disproportionately high and adverse effect on EJ populations of that scenario.

3-167

- Tolling: There is broad concern about the equity impacts of the tolling program as discussed in section 5.2 of the Equity Report and 4.7 of the EJ report. One of the City Desired Outcomes is to "Implement tolling in an equitable manner that includes mitigation programs."
  - Advocate to the Bi-state Tolling Subcommittee and Transportation Commissions to implement a low-income toll program when tolling begins on the existing bridge.
  - Encourage them to consider a discount program for people with a disability or chronic illness.
  - Offer technical assistance and multilingual support to help enroll qualified people into the low-income tolling program.

3-168

- Section 6.2 of the EJ report states: "Even if low-income renters faced adverse effects, it is not clear that such effects would be disproportionate, as rising rent levels can also displace middle income earners. Renters as a group typically move with some regularity…" Staff disagrees with these statements. The tolling analysis acknowledges that increases in transportation costs as a share of household income have a disproportionate impact on low-income populations. Given that housing costs make up the largest share of household costs (followed by transportation), the same premise would apply here. Increases in rent would have a disproportionate effect on lower-income renters. The point about renters moving with some regularity is in part because of their financial vulnerabilities to market conditions - it should not be used to justify a finding of no disproportionate impact. While "the vast majority of affordable rental properties in Vancouver would not experience indirect effects from the Modified LPA", it could also affect housing prices along the Vine routes due to the high frequency, direct connections to the light rail stations, which would affect EJ populations in neighborhoods along the routes. In Section 6.2:
  - Acknowledge the potential for the Modified LPA to contribute to increased housing prices and rents in Vancouver – particularly areas within a 15-minute walk, bike, or bus ride to the light rail stations, recognizing that many factors influence housing prices and it would not be possible to quantify the exact contribution from the program.
  - Acknowledge the disproportionately high and adverse impact that would occur to EJ populations due to increased housing prices resulting at least in part from the Modified LPA.

3-168

  - Elaborate on the other City and regional programs for increasing the supply of affordable housing and for supporting renters vulnerable to displacement, such as the City's Affordable Housing Fund.
  - As mitigation, explore and implement anti-displacement and community stabilization measures, building upon the City of Vancouver's equitable development and anti-displacement policies, strategies, and community engagement models.

3-169

- The EJ report includes an extensive description of the Program's community engagement activities completed since 2020. Ongoing outreach and engagement will be critical to meeting the Program's equity goals and commitments, as well as the City's Desired Outcomes and Conditions of Approval related to equity and community engagement, such as prioritizing "historically marginalized and underserved communities within Program area to establish objectives, design, implement and evaluation of success of project".
  - In Section 2.5.2.1, describe how successful engagement activities were in reaching EJ communities. Provide a demographic breakdown of participants where possible.
  - Continue to work with equity priorities communities to amplify potential benefits, understand potential impacts, and define possible mitigations and community benefits.
  - Focus on providing clear, accessible, and transparent communication and culturally specific engagement.

3-170

3.21 Section 6(f) and Federal Lands to Parks (FLP)

- Continue consultation with NPS and the City to discuss mitigations relative to potential FLP impacts at Marshall Park and Old Apple Tree Park.

3.22 Aviation (Aviation Technical Report)

3-171

- The City has been working with IBR and the Federal Aviation Administration (FAA) to develop conceptual plans intended to minimize impacts to aviation operations of Pearson Field, given the constraints and trade-offs. Staff supports the Modified LPA and agrees with the Draft SEIS findings and proposed mitigation measures in the Draft SEIS. However, there is concern about the height of construction cranes and potential penetration of air space during construction.
  - Clarify in the program-specific mitigation measure the intent to communicate with the pilots at Pearson Field about the timing and duration of construction activity that will impact flight patterns – in addition to FAA's practice of issuing "Notice to Air Missions".
  - Continue to collaborate with staff and aviation stakeholders to define any necessary mitigations.

3-172

3.23 Cumulative Effects (Cumulative Technical Rpt.)

- In Section 2.5 of the Cumulative Effects report, call out and summarize the Main Street Promise, Fourth Plain Boulevard and Fort Vancouver Way Safety and Mobility Project, and 29th and 33rd Streets Safety and Mobility Project (see Attachment I for additional information). While the Main Street project is incorporated in the Regional Transportation Plan (RTP), it should be described in this section explicitly to provide context for its mentions later in the report.
    - Clarify how these projects would relate to the IBR program.
    - Continue to coordinate with City staff and design the IBR program elements to tie into these improvements.

3-173

- The analysis of temporary effects in the Cumulative Effects report finds that "If construction of future projects does occur simultaneously with IBR Program–related construction, adverse cumulative effects would be temporary and minimized through construction coordination between ODOT, WSDOT, and other agencies." Staff concurs that coordination will be essential to minimizing cumulative effects. It will be important for the IBR program to have up-to-date construction timelines for the approved development and transportation projects listed in the Cumulative Effects and Land Use reports.
    - Prior to finalizing construction plans for each phase, confirm the construction timelines for the approved development and transportation projects listed in the Cumulative Effects and Land Use reports.
    - Coordinate traffic control plans, business assistance strategies, emergency response plans, and other construction management tools with City staff.
    - Notify emergency service providers of any street and freeway closures, even during off business hours. Identify any detours or short-term alternate routes, particularly for routes serving hospitals, senior living facilities, and other locations with relatively high needs.

3-174

- Maximize workforce development opportunities including but not limited to apprenticeships and pre-construction education and recruitment with emphasis on equitable outcomes for historically disadvantaged communities.

Chapter 4 – Draft Section 4(f) Evaluation

3-175

Based on the section 4(f) determination criteria, the de minimus impact finding for Old Apple Tree Park is acceptable to City staff, with the following measures:

- Keep the park open during construction.
- Confine construction to the western and northern portion of the park.
- Continue discussions with City staff about the permanent alignment of the shared use path from Main Street, the connections to existing paths, and the overall park footprint. Ensure that the Final SEIS provides enough flexibility for the new path's alignment, while providing the environmental clearance to move forward into final design and construction.
- Minimize any tree root impact with the path and all construction.

3-175

Based on the section 4(f) determination criteria, the de minimus impact finding for Marshall Park is acceptable to City staff, with the following measures:

- Keep the park open during construction.
- Continue discussions with City staff about the mitigation for permanent impacts, including a recreational feature as potential replacement for the impact to the horseshoe pits, as agreed to by the City.
- Ensure that the Mayor's Grove trees are adequately protected and/or mitigated in consultation with City.

3-176

Design Options

This section summarizes City staff's current position on Design Options, based on the analysis provided in the Draft SEIS and additional information for purposes of putting in the record.

Westward Shift

- The Draft SEIS describes additional acquisition and displacement on the east side of I-5 in Downtown that would be required to shift the centerline of I-5 to the west, and possible corresponding reduction in impacts to archaeological resources on the east side. The relative benefit and avoidance of impacts to archaeological impacts are not defined in the report and, with that, the City does not support shifting the centerline of I-5 to the west.

3-177

- Clarify what changes in local planning resulted in the proposed westerly shift and what the objective of this shift is.

Park and Ride Options

3-178

- The City supports and reiterates the comments submitted by the City's Parking Advisory Committee and the City Center Redevelopment Authority (CCRA). These letters, which are included in Attachment C, reflect community concerns about the potential for park and ride structures in Downtown Vancouver.

3-179

- Continue to work with the City to define the number of park and ride spaces as soon as possible.
- Evaluate the potential to use existing parking spaces to the maximum extent possible.
    - Work with the City to develop a dispersed parking program that connects transit riders to the existing supply, building upon the Downtown Access, Mobility, and Parking Plan toolkit under development.

3-179

- Prioritize locations that would be least impactful to the station areas and Downtown in general, while still achieving the access needs and complying with Federal Transit Administration's grant funding criteria.
- Consider City-owned lots within the walkshed of the station areas.

- Compare 0, 1, or 2 new facilities, considering the differences between existing and new structures, below- or above-ground structures, and shared use and single use facilities.
- Provide a more detailed analysis on the potential transportation, climate, land use, economic, visual, neighborhood, and equity/environmental justice effects resulting from new, large parking structures.
  - Clarify impacts to the operations of local streets in Downtown resulting from the park and rides, especially during peak hours.
  - Discuss consistency of park and rides with Vancouver's Climate Action Framework in Table B-7 of the Climate Change report.
  - Elaborate on the alignment with City goals for Downtown to be walkable, transit-oriented, safe, and vibrant.
  - Clarify the mitigation measures in each report/chapter to address the potential for adverse impacts resulting from park and rides.
  - Work with City staff to identify and minimize potential conflicts between modes and associated safety and traffic flow issues that may arise due to the provision of park and rides facilities, if any are required.
- Consider the opportunity costs of building a new parking structure compared to using the existing parking supply to meet demand and developing another use on the park and ride sites.
- Remove the Waterfront Gateway park and ride site from further consideration.

3-180

- Lower the assumed number of parking spaces that could be accommodated on the Library Square site to reflect the City's vision for the site (pedestrian-oriented with high density development).

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- Continue to work with City staff and the community to analyze the appropriate level and design of park and ride for any/all sites that may be required. Design must be high quality, human-scaled environment that prioritizes access by active transportation modes (walking, biking, etc.) and by bus and paratransit.

3-182

- The community has questions about how shared use facilities would work. For example, if park and ride lots are only for transit rides and parking there is free or reduced cost compared to other lots in the area, then people could purchase a ticket for transit but not actually take transit, providing them with cheap parking in a prime location in Downtown Vancouver and undermining the City's parking management system.
  - When developing any shared use agreements, consider how to regulate the usage of parking lots by various user groups, such as local employees and

3-182

visitors to Downtown Vancouver. This includes the pricing structure and enforcement.

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- Consider the potential to expand carpooling and shuttle services from park and ride lots outside of Downtown Vancouver.

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- Across all reports and chapters, ensure the descriptor of the park and ride design option reflects the potential for the Modified LPA to include up to two park and rides (rather than saying the Modified LPA will or does include two park and rides).

C Street Ramps

3-185

- The City supports retaining C Street ramp connections to I-5. The findings of the Transportation technical report show that without these connections there would be multiple adverse impacts. For example, as described in section 4.6.4.2, six intersections would fail to meet the relevant intersection performance standards under the AM or PM peak period. Congestion would impact the Mill Plain Boulevard and 15th Street couplet (a primary freight corridor), as well as transit service that operates in the downtown area. Retention of C Street ramps would enable direct access to and from Downtown and discourage cut through traffic. The placement of these ramp connections is not anticipated to result in a significant visual barrier as there will already be major structural elements associated with the westbound SR-14 to southbound I-5 ramp as well as the structure that will carry the light transit rail lines through interchange areas.

3-186

- For the "No C Street Ramps" option, provide a detailed analysis of possible mitigations for the six failing intersections. Work with the City to identify feasible mitigation efforts, if any, considering right-of-way constraints, safety factors, and other potential impacts on the surroundings. It is unclear what is meant by "the final design phase" in section 7.1.6.2 (Program-specific mitigation for the "Without C Street Ramps" option). It is important to understanding if the impacts of this option can be mitigated, prior to selecting an option for the Final SEIS; it is not acceptable to punt the selection of final mitigation to a later design phase.

Bridge Configuration

3-187

Based on the evaluation of potential impacts and benefits of bridge configurations, City staff prefers the single-level fixed span. Compared to the double deck option, the single-level option would:

- provide better access and design from a fire and life safety perspective,
- have less intrusion into Pearson Field protected airspace due to the lower maximum bridge height,
- benefit freight movement and active transportation users due to the reduced grade compared with stacked bridge option, and
- have slightly lower air quality, energy, and GHG impacts due to the reduced acceleration and braking of vehicles.

3-187

Overall, the impacts associated with the additional width of the light rail guideway and shared-use path would be incremental. Therefore, it is staff's current position that the benefits would be worth the trade-offs, particularly with the proposed mitigation.

Compared to the movable span option, the fixed span option would eliminate issues with the current lift configuration, including traffic delays, unpredictability, disruptions to transit service and active transportation trips, and associated impacts to freight and air quality. The movable span would also require higher capital and operating costs and would intrude more into Pearson Field airspace, compared to the fixed span options. As described under Navigation above, the City encourages IBR to continue advocating for a United States Coast Guard Preliminary Navigation Clearance Determination and permit to enable the fixed span.

Auxiliary Lanes

City staff supports the Modified LPA, which includes one auxiliary lane through the program area. A second auxiliary lane would only provide modest benefits in the southbound direction during the AM peak due to bottlenecks at the I-405 and I-84 interchanges. While benefits of a second auxiliary lane would be greater for the northbound direction in the PM peak period, it would require narrowing the width of the outer shoulders to minimize the width of the freeway and associated property acquisitions. The Two Auxiliary Lane option would also result in slightly higher VMT, compared to the One Auxiliary Lane option.

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- Auxiliary lanes must be designed with advanced technologies and methods to reduce congestion time and length, particularly for the northbound lanes, and to do the same for potential safety improvements.

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- Clarify where exactly auxiliary lanes would be implemented, including scale and length. For example, define where they might be extended beyond the Columbia River bridge crossing such as short extensions to accommodate safer access from interchange areas to I-5 mainline.

3-190

- Clarify the width of the shoulder lane under a two auxiliary lane option and how the narrower width would affect bus on shoulder service, freight movement, emergency access and incident response, and use of the shoulders for drivers that need to pull over.

3-191

- Clarify specific acquisition needs and property impacts under the single-level fixed-span and two auxiliary lane configurations with C Street Ramps and I-5 centerline.

3-192

Attachments:

3-193

A. Comments from The Historic Trust (supported by City of Vancouver)
B. City of Vancouver's Desired Outcomes and Conditions of Approval for the Modified LPA, IBR Commitments

3-194

C. Summary of feedback on the Draft SEIS from City of Vancouver Advisory Bodies and general public
    a. Comment letter from the Parking Advisory Committee
    b. Comment letter from the City Center Redevelopment Authority

3-195

D. Administrative Comments by Chapter/Report (spreadsheet)

3-196

E. Guiding principles for the Community Connector and Evergreen Station Area (updated to reflect feedback from community leaders and interested parties in August 2024)

3-197

F. Executive Summary: Health Analysis of the Interstate Bridge Replacement Program

3-198

G. Summary of feedback from people with disabilities and accessibility-oriented leaders

3-199

H. Geologic Hazard maps created from Clark County website

3-200

I. Fact Sheets for Main Street Promise, Fourth Plain Safety and Mobility Project, and 29th and 33rd Streets Safety and Mobility Project,

Attachment A: Comments from The Historic Trust (supported by City of Vancouver)

THE HISTORIC TRUST

November 18, 2024

Interstate Bridge Replacement Program
Attn: Draft SEIS Public Comment
500 Broadway, Suite 200
Vancouver, WA 98660

VIA Email: draftseis@interstatebridge.org

Dear Interstate Bridge Replacement Program staff,

Please find following the comments of The Historic Trust on the Interstate Bridge Replacement (IBR) Project Draft Supplemental Environmental Impact Statement (DSEIS) in regard to project impacts on the Vancouver National Historic Reserve Historic District (VNHR Historic District), which encompasses the Vancouver Barracks and Officers Row historic districts. The new bridge will improve regional transportation and commerce, and provide a seismically-safe river crossing which will be of benefit to the entire Interstate 5 corridor. The Trust appreciates the opportunity to participate in the DSEIS review process.

As manager of city-owned properties at the VNHR, the Trust is committed to excellent stewardship of the historic districts therein for community benefit in the present and to pass them on to the future. The Trust also recognizes the cumulative, and in many cases permanent, effects of this very large undertaking and emphasizes the imperative to work on behalf of the community for the best possible outcomes for preservation of cultural resources. The VNHR Historic District offers to the public educational, commercial, recreational, community observance, and aesthetic enjoyment opportunities. The Trust looks forward to continuing to work with City of Vancouver staff, IBR project staff, and fellow stakeholders to protect cultural resources and mitigate adverse effects by developing and implementing meaningful, cost-effective, and long-lasting measures that will preserve the irreplaceable historic buildings and spaces of the VNHR Historic District for continuing public engagement and use.

We are happy to provide additional information and answer questions. Thank you for your review and for the coming responses.

Best regards,

Temple Lentz, President/CEO
360-992-1805

Attachment A

THE HISTORIC TRUST
CELEBRATION - EDUCATION - PRESERVATION

Comments on the Interstate Bridge Replacement Project
Draft Supplemental Environmental Impact Statement

November 18, 2024

Introduction

The Interstate Bridge Replacement (IBR) project will provide the region with a significantly improved and seismically-sound crossing over the Columbia River. The Historic Trust (THT) supports this important project and welcomes the opportunity to comment on the Draft Supplemental Environmental Impact Statement (DSEIS), and the coming bridge.

The primary focus of the comments will be on the City of Vancouver (COV)-owned properties as THT manages them for the City via a lease arrangement. However, the THT supports the mitigation requested by the National Park Service and values their review of Reserve archaeological impacts. THT is not commenting on the "No Build Alternative." As part of the joint management of the Vancouver National Historic Reserve, knowledgeable National Park Service staff will provide necessary archaeology-related comments through partnership with THT and a standing agreement with the COV.

The following comments address project impacts on the Vancouver National Historic Reserve Historic District (VNHRHD), which encompasses the Vancouver Barracks and Officers Row historic districts. Effects include property acquisitions and auditory, atmospheric, vibration, and visual intrusions. The Trust also recognizes the cumulative, and in many cases permanent, effects of this very large undertaking and emphasizes the logical and efficient imperative to work together with the IBR project on behalf of the community for the best possible outcomes for preservation of cultural resources.

Additionally, THT advocates strongly for enhancement of the community connector (I-5 lid) between downtown Vancouver and the VNHRHD. The connector is a crucial step to ensure the most seamless link possible between two important public areas which were connected historically and are today comprehensively used by local residents and out-of-town visitors for commerce, education, housing, recreation, and heritage tourism.

An overall concern in reviewing the DSEIS is that the maps tend to be very difficult to interpret, even when enlarged electronically. It is challenging for viewers to provide effective comments as one often cannot determine with certainty where the borders are because the lines are sometimes blurry, and the layers difficult to distinguish.

THT continues to appreciate the opportunity to comment on project planning documents and values continued collaboration with project staff and regional partners.

Mitigation for Adverse Effects

Investment of mitigation funding in standing buildings is greatly needed and will produce very publicly-visible and impactful results. Direct physical preservation is long-term and will most effectively mitigate temporary, permanent, and cumulative impacts of new bridge construction.

For the highest level of public benefits of edification, enjoyment, and engagement associated with cultural resources, mitigation for the temporary and permanent project impacts must be implemented both within and judiciously beyond the Area of Potential Effect (APE). THT proposes a group discussion with IBR staff to determine the most meaningful, cost-effective and long-lasting ways of applying mitigation funding to the buildings in the VNHR Historic District.

Comments

Section 3.7 Parks and Recreation

The acquisition of acreage to be acquired for the MLPA within the FVNHS will permanently impact the park, and by extension the larger VNHRD. An increase in noise will affect people's educational, recreational, commercial, and residential uses of the Reserve. THT supports mitigation acceptable to the National Park Service and City of Vancouver that is commensurate with the effects of construction noise, vibration, glare, changes in views, and dust, the permanent loss of land, and heightened noise levels over time from increased traffic.

Section 3.8 Cultural Resources

The following comments concern the Vancouver National Historic Reserve Historic District (WA 1357), which incorporates Vancouver Barracks Historic District (WA 1358), and Officers Row Historic District (WA 918), Washington State Patrol District Five Headquarters (WA 1148), and the Vancouver Barracks National Cemetery (WA 1319).

All versions of bridge construction plans and post-construction operation, other than the "No Build" option on which THT is not commenting, will impact the Vancouver National Historic Reserve Historic District (VNHRHD). These include temporary vibratory, audible, visual, and atmospheric effects during construction, and cumulative post-construction permanent audible, visual, and atmospheric effects from increased traffic and change of setting and viewshed. As noted in Table 3.8-7, all of these areas will experience Adverse Effects. THT is concerned about the designation of No Adverse Effect for WA 1148, the Washington State Patrol District Five Headquarters. Because of its immediate proximity to Interstate 5, vibratory and atmospheric, and increases in traffic noise will occur.

3.8.1 – Changes or New Information Since 2013
p. 3.8-4
While it is a welcome change to divide the Vancouver National Historic Reserve into multiple historic districts and a site, especially given multiple owners, additional recognition should be given in this introductory section to the many resources within each of them in terms of applying mitigation. Suggest adding this sentence between "…National Historic Site" and "Portions of the VNHR…": Each district and the site encompasses multiple resources.

3.8.2 – Existing Conditions

"Washington," page 3.8-10, second (first full) paragraph: needs to be expanded for accuracy and clarity.

Suggested edits:

Following the Oregon Treaty of 1846 which set the boundary between then-British Canada and the United States at the 49th parallel, the Hudson's Bay Company's (HBC) Fort Vancouver area came under the jurisdiction of the United States. In 1849, the U.S. Army arrived and established Camp Columbia, eventually named Vancouver Barracks, the first American military post in the Northwest. The following year, the Army surveyed boundaries for a military reservation that encompassed Fort Vancouver within its 2,560 acres. The military reserve was gradually reduced in size to the area roughly bounded today by the Columbia River to the south, the remnants of East Reserve Street, West Reserve Street/Interstate 5, and Fourth Plain Boulevard to the north.

Following the final departure of HBC operations in 1860, the reservation remained exclusively in use by the American military until the late 1940s, when surplus operations began following the conclusion of World War II. A large portion remained in use by the Army, while other sections were transferred to various other public entities, such as the Veterans Administration and the Vancouver School District. A portion in the southern part of the reserve known through archaeological testing to contain the HBC stockade area was designated in 1948 as the Fort Vancouver National Monument (FVNM) and transferred to the National Park Service. The boundaries of the FVNM were expanded in 1961 to include all of what is now the Vancouver portion of the Fort Vancouver National Historic Site (FVNHS). Ownership of Officers Row was transferred to the City of Vancouver in 1984, the Howard House in 1995, and most of the West Barracks in 2007 – all rehabilitated by the City and partners such as the Vancouver Area Development Authority and The Historic Trust. Following many decades of diminishing use, the Army completed its departure from Vancouver Barracks in 2012.

Paragraph 5, p. 3.8-11

Edits for clarification of last three lines:
The 366-acre Vancouver National Historic Reserve (VNHR) was established by the U.S. Congress in 1996, and encompassed, in terms of the current boundaries of the APE, Officers Row, FVNHS, the West Barracks (still in Army ownership at that time), Pearson Airfield, and portions of the Columbia River waterfront. Management partners designated in the legislation were the City of Vancouver, National Park Service, State of Washington, and the Army. The Army's partnership concluded in 2012 with its final departure from Vancouver Barracks.

"Washington"
p. 3.8-10
Second paragraph, line 8 reference to Kanaka Village should state that its development began in 1829 rather than 1827.

"Historic Built Environment Resources - Washington"
p. 3.8-14
Paragraph 6 - Change final sentence to "These properties, several of which contain multiple resources, are summarized…"

p. 3.8-18

Figure 3.8-3, Interstate Historic Built Environment Resources, incorrectly labels the entire southern portion of APE to the east of the freeway as Fort Vancouver National Historic Site. That area is not entirely owned by the National Park Service. Rather, it should be labeled Vancouver National Historic Reserve. An alternative term also used locally is Fort Vancouver National Site to distinguish the entirety from the smaller National Historic Site.

p. 3.8-20 Table 3.8-5

WA 1357 - VNHRHD – Incorrectly identifies period of construction as starting in 1824. The Hudson's Bay Company did not build in this area until 1829.

WA 918 - Officers Row Historic District - Incorrectly identifies period of construction as concluding in 1903. The final building dates to 1906. Description would be more correct if changed to: Historic district consisting of 21 buildings constructed by the U.S. Army for residential and administrative purposes.

WA 1358 – Description would be more correct if changed to: Historic district consisting of 23 buildings constructed by the U.S. Army.

p. 3.8-23

On Figure 3.8-4, it is very difficult to ascertain the boundary of the VNHR. Perhaps make the border a darker brown?

3.8.3 Direct Effects

"Modified LPA - Historic Built Environment Resources"

p. 3.8-27 Vancouver National Historic Reserve Historic District (WA 1357)
THT is concerned that adverse effects identified such as construction vibrations, increase of noise from construction and ongoing freeway operations will negatively impact ability to rent nearby Trust-managed residential, commercial, and event spaces, and share associated educational opportunities with the community. THT's ability to preserve and maintain the buildings and site for the community will be hampered through loss of revenue. Those buildings are primarily the NCO duplexes which are located at the upper right of each inset maps of Figure 3.8-7 on page 3.8-29.

p. 3.8-30 Figure 3.8-8 – Design Options Comparison (WA 1357)
THT is concerned that identified adverse effects on WA 1357 North and WA 1358 also shown on the map such as construction vibrations, increase of noise from construction and ongoing freeway operations will negatively impact the organization's ability to share residential, commercial, event, and open spaces and their associated educational opportunities with the community. Thus, the ability to preserve and maintain the buildings and site will be hampered through loss of rental revenue and learning opportunities will be reduced.

THT is also concerned about physical impacts to the buildings from construction location and vibrations. The Post Hospital (WA 1358) and NCO duplexes (WA 1358 and WA 1357) are constructed of unreinforced masonry. The NCO duplexes of special concern are the ones closest to the freeway – 602/604 Barnes Road and 400/402 Hatheway. All but one of the wood-frame

Officers Row buildings north of Evergreen Blvd. and west of Fort Vancouver Way (WA 1357) have unreinforced brick foundations.

All options will have the most significant impacts on properties closest to the route, including the Post Hospital, western NCO duplexes, and western Officers Row.

pp. 3.8-35 – 37 Table 3.8-9 Direct Effects of the Modified LPA on Washington Historic Built Environment Resources

WA 1357 – VNHR Historic District, WA 918-Officers Row Historic District, and WA 1358-Vancouver Barracks Historic District

Identified Adverse Effects on the Historic Reserve overall include Army roadway demolition, construction vibrations, including those from installation of tieback anchors, roadbed upgrades, temporary increase in dust from construction, permanent changes to setting affecting views, and temporary and permanent changes to noise level, and are of concern from THT's perspective and will require mitigation.

Vibration monitors must be installed to track any changes to COV-owned site buildings, and property owners must have access to all data. An agreement is needed to stipulate that the project provides complete compensation for needed repairs, and that repairs must be done to Secretary of Interior Standards for the Treatment of Historic Properties.

Sound walls will be needed to ameliorate the increases in noise levels. COV and THT must play a contributing role in determination of height and appearance. The wall must be coated by the project with the most effective graffiti deterrent product available at time of construction, and a project-funded reserve established at the COV to pay for graffiti removal for 25 years.

3.8.5 Program Planning

pp. 3.8-43 to 44 WA 918
THT is concerned that monitoring for 500 feet will not be sufficient as some of the buildings are constructed of unreinforced masonry and/or have URM foundations. Area for monitoring construction vibrations should be extended eastward to include the 1849-built Grant House, to ensure that the site's oldest building is adequately monitored and protected. Though vibration damage risk may be minimal, the building is irreplaceable and is a foundational piece of Pacific Northwest, American military, and Vancouver, Washington, history.

3.8.6 Mitigation and Programmatic Agreement

THT will continue to participate in the Programmatic Agreement development process, and urges application of mitigation not only to places and spaces within the APE, but also historic buildings that are in reasonable adjacency.

p. 3.8-44 Paragraph 4

In the second to last paragraph, third line from bottom there is something awkward. Perhaps "phased" should be phase?

WA 1357 and 1358 - Post Hospital

Though full project impacts are not yet known, it is a realistic assumption the Post Hospital will be significantly adversely affected by construction of the project. The building's extremely close proximity to project route and unreinforced masonry construction make it exceedingly likely that project vibrations will cause irreparable harm. Loss of the irreplaceable building would greatly affect the historical interpretation of the site as it is of unique design and was critical for many years to the functioning of the barracks. Loss of such a large building set prominently on a rise would also **significantly affect views** of the western border within the site and **would eliminate a noise barrier** between I-5 and the interior of the VNHR. Because the hospital is currently used by THT's maintenance crew for production of building materials for preservation on site and other maintenance tasks, an alternative location would also be needed for their work. These impacts are notable and, without proper mitigation, the adverse result is unacceptable.

Because the former hospital, however, has not been thoroughly studied and considered, informed decisions cannot yet be made about its future.

To properly evaluate the future of the Post Hospital and mitigate for adverse effects, the IBR Project must make specific reference to and inclusion of the Post Hospital in the Programmatic Agreement for mitigation of historic and cultural resources that are protected under Section 106. Specific language for that document is proposed below and will also be proposed separately as comment for that document's concurrent comment period.

To summarize:
Prior to start of construction, IBR project will fund a study to determine the potential and cost assumptions for seismic stabilization and reinforcement, rehabilitation, and re-use.

- If re-use is feasible, the study must then fund a substantial public engagement process for potential re-use.
- If the building can be successfully and feasibly seismically stabilized and rehabilitated, the project will contribute substantial funding for protection during construction, rehabilitation, and re-use.
- If the building cannot feasibly be rehabilitated, the project will mitigate its loss by funding removal of hazardous substances, deconstruction, and salvage. The project will fund a public engagement process to envision new uses of the space, and design and construction of a new building.

For use in Programmatic Agreement:

Post Hospital – Historic Building Retrofit, Rehabilitation, Salvage, or Removal

I. Seismic Retrofit and Rehabilitation Feasibility Assessment

- WSDOT and ODOT, in coordination with FHWA, FTA, City of Vancouver (COV), and The Historic Trust (THT), will hire a contractor

- to prepare the Seismic Retrofit and Rehabilitation Feasibility Assessment.
- The Seismic Retrofit and Rehabilitation Feasibility Assessment will include recommendations regarding prudence and feasibility of seismic retrofit and rehabilitation of the Post Hospital. Considerations will include but not be limited to selected Project alignment and proximity of Project during and after construction and financial feasibility.
- A delivery schedule for review and submittal of the Seismic Retrofit and Rehabilitation Feasibility Assessment will be developed in coordination with the COV and THT.
- WSDOT and ODOT will oversee implementation of the following scope of work:
  - WSDOT and ODOT, in coordination with FHWA, FTA, COV and THT, will deliver the draft Seismic Retrofit and Rehabilitation Feasibility Assessment for review by DAHP, NPS, the Tribes, and other consulting parties;
  - WSDOT and ODOT will deliver the final Feasibility Assessment to FHWA, FTA, COV and THT after considering comments from DAHP, NPS, the Tribes, and other consulting parties; and
  - WSDOT and ODOT will distribute the final assessment to DAHP, NPS, the Tribes, and other consulting parties.
- The final Seismic Retrofit and Rehabilitation Feasibility Assessment will be completed by WSDOT and ODOT in coordination with FHWA, FTA, COV and THT prior to the demolition of the property. The decision to proceed with a Seismic Retrofit and Rehabilitation Plan will be made by WSDOT and ODOT in coordination with FHWA, FTA, COV and THT.
- COV, as property owner, will be a signatory on all documents.

II. Strengthen and Retrofit Plan

- If through the Salvage and Reuse Feasibility Assessment WSDOT and ODOT, in coordination with FHWA, FTA, COV and THT, determine that strengthening and retrofitting the building is prudent and feasible, WSDOT and ODOT will direct the preparation of a Strengthen and Retrofit Plan. The Strengthen and Retrofit Plan will be prepared and implemented prior to the beginning of construction in the area near the property.
- The Strengthen and Retrofit Plan will include a public process for consideration of prudent and responsible future uses of the building.
- WSDOT and ODOT will plan for and manage the completion of work relating to seismic retrofit, preservation of historic fabric, and disposal of any hazardous materials.
- The Project will make a significant contribution to costs for interior retrofit of the building to suit the determined future use.
- COV, as property owner, will be a signatory on all documents.

III. Salvage and Reuse Plan

- If through the Salvage and Reuse Feasibility Assessment WSDOT and ODOT in coordination with FHWA, FTA, COV and THT determine the building cannot be saved for strengthen and retrofit but that salvage and reuse is prudent and feasible, WSDOT and ODOT will direct the preparation of a Salvage and Reuse Plan. The Salvage and Reuse Plan will be prepared and implemented prior to the demolition.
- The Salvage and Reuse Plan will provide a proposed approach for salvage and reuse implementation.
- Preference will be given first to the COV retaining ownership and reuse of these materials and second to retaining public use of these materials within public spaces or structures in or adjacent to the VNHR and third, to public ownership and reuse of these materials within public spaces or structures outside the VNHR. If reuse in these manners is found to be infeasible, or additional public entities demonstrate no interest in salvage or reuse, WSDOT and ODOT, in coordination with FHWA, FTA, COV and THT, may also explore the opportunity for reuse by the general public.
- Implementation of the Salvage and Reuse Plan will consider:
  - If the property is salvaged, WSDOT and ODOT will plan for and dispose of any resultant hazardous materials.
  - If no party that is willing and able to salvage and reuse property components is identified within six months of WSDOT and ODOT's initial advertising availability, WSDOT and ODOT will notify COV, THT, and consulting parties.
  - If no party that is willing and able to acquire and relocate the property within six months of WSDOT and ODOT's initial advertising of availability, and the assessment and cost proposal has determined salvage is feasible, WSDOT and ODOT will deconstruct the structure and will ensure that small structural elements are available for reuse and will make availability of these known through appropriate media.
- WSDOT and ODOT will oversee the implementation of the following scope of work:
  - WSDOT and ODOT will deliver the draft Salvage and Reuse Plan for review by FHWA, FTA, DAHP, COV and THT.
  - WSDOT and ODOT will deliver the final Salvage and Reuse Plan to FHWA, FTA, COV and THT after considering comments from DAHP, NPS, the Tribes, and other consulting parties.
  - WSDOT and ODOT will distribute the final Salvage and Reuse Plan to DAHP, NPS, the Tribes, and other consulting parties.
  - COV, as property owner, will be a signatory on all documents, not a consulting party.

Section 3.9 Visual Quality

The Historic Reserve portion of the Greater Central Park Landscape Unit attracts all portions of the population identified in the DSEIS as being influenced by visual character – local and

regional residents, and tourists. Those users utilize all forms of transportation stipulated – motorized vehicles, bicycles, public transit, and pedestrian, as well as mobility assistance devices such as motorized wheelchairs, skateboards, Segways, scooters, and similar.

THT concurs that the overall effect on visual quality will be adverse.

P. 3.9-4 Table 3.9-2
The Visual Character description of Greater Central Park should be changed from: "Park-like campus and open fields crossed by several major roadways and elevated railroad tracks. Recreation- and education-oriented development" to: Park-like campus and open fields crossed by several major roadways and elevated railroad tracks. Recreation- and education-oriented development. Area includes historic districts relating to early British fur-trading and later U.S. Army usage. Buildings and grounds in the Officers Row and the West Barracks have residential, retail, commercial, recreational, community commemoration, and educational uses, and versatile event venues.

P. 3.9-6 Table 3.9-3
Viewer groups for Greater Central Park should also include Residential, Educational, Retail/Commercial, and Civic.

P. 3.9-18 Greater Central Park Landscape Unit
The first sentence notes that many views are currently blocked by existing vegetation. As this project will have visual impacts for many decades into the future, consideration must be given to how views will change when that vegetation, such as trees, dies or is removed for other reasons in the future. Mitigation must include a fund for future landscape screening. Project construction may result in the removal of vegetation, as noted on p. 3.9-25, which will require replacement immediately.

P. 3.9-22 Table 3.9-8 Greater Central Park Landscape Unit Degree of Impact on Visual Quality

In addition to the impacts noted, the removal of the Post Hospital, should that be necessary, would immensely impact the "cultural order" category and raise the degree of impact to 7.

P. 3.9-27 3.9.5 Indirect Effects
Description of the Greater Central Park Landscape Unit should also include West Vancouver Barracks.

3.9.6 Potential Avoidance, Minimization, and Mitigation Measures
p. 3.9-27 Regulatory Requirements, bullet one – add design standards for all of Central Park and those specific to the VNHR.

Place-Specific Mitigation
P. 3.9-29 – Greater Central Park Landscape Unit

Add:
Vancouver National Historic Reserve
Consult and comply with Vancouver Central Park and Vancouver National Historic Reserve design standards for period-appropriate landscape screening and replacements of vegetation as needed.

The western edge of the VNHR will be affected by the design of the new connector between downtown Vancouver and the Reserve. Mitigation can include appropriate plantings and vegetative screening as necessary to enhance the visual and experiential qualities of the connector, and views to and from it.

3.9-30 Mitigation for Temporary Effects

Add:
Place-Specific Mitigation
Greater Central Park Landscape Unit

- Communicate responsibly and pro-actively with site managers at the VNHR (THT and National Park Service) about intrusive temporary impacts and their duration.

  Throughout construction near the COV-owned buildings at the VNHR, THT needs as much advance notice as possible of impacts such as noise, dust, and glare, and their expected duration, so that staff can keep commercial and residential tenants and event venue renters apprised, and time and plan the organization's community events as carefully as possible.

Section 3.10 Air Quality

Page 3.10-15 Mitigation for Temporary Effects

Add:
Place-Specific Mitigation
Greater Central Park Landscape Unit

- Communicate responsibly and pro-actively with site managers at the Vancouver National Historic Reserve (The Historic Trust and National Park Service) about intrusive temporary impacts and their duration.

  Throughout construction near the City of Vancouver-owned buildings at the Vancouver National Historic Reserve, The Historic Trust needs as much advance notice as possible of impacts such as extra dust, and its expected duration, so that staff can keep commercial and residential tenants and event venue renters apprised, and time and plan the organization's events as carefully as possible.

Section 3.11 Noise and Vibration

As section 3.1.1 Noise Environment of the *Noise and Vibration Technical Report* notes on pages 3.11-1 and 3.11-11, the VNHRHD is located in an area where noise levels are already significant from all the sources mentioned, and increases are predicted on p. 3.11-13, no matter which alternative is eventually implemented. Additionally, noise is expected to increase over time due to additional traffic. THT is therefore concerned about how increases will affect the residential, commercial, recreational, and educational uses of the site by tenants and the visiting public. Mitigation will be required.

Throughout construction near the City of Vancouver-owned buildings at the Vancouver National Historic Reserve, THT needs as much advance notice as possible of impacts such as increased

noise and vibrations, and their expected duration. Trust staff must apprise commercial and residential tenants and event venue renters of same, and time and plan the organization's own public events as carefully as possible.

Figures 3.11-7 and 3.11.8, pp. 3.11-18 and 3.11-19 and p. 3.11-24 Fort Vancouver – Modified LPA Modeled Traffic Noise Levels

The expected traffic noise impacts recorded at receptor FV-018 near the NCO duplexes will negatively affect those residing there, and possibly those working in or hosting events at the nearby Red Cross Building and Artillery Barracks. Figure 3.11-8 adds areas of special concern at FV-002, FV-003, FV-004, and FV-005 which are located by buildings adaptively re-used for commercial rentals, and the Police Headquarters.

Mitigation in the form of a sound wall and screening vegetation will be necessary. Sound wall design and vegetation will conform with design guidelines for the VNHR Historic District. THT will participate in the sound wall design planning and in vegetation selection. If it proves:

- necessary to vacate the residential and commercial rental properties during construction, and/or not schedule events in the venues, the IBR project must compensate for the loss in revenue, and

- impossible to rent any of the affected units at a rate which is sufficient to provide enough revenue to properly maintain the buildings and event venues, IBR project must provide funding to compensate for the loss.

Noise monitoring should continue throughout construction and beyond to determine actual level of impact. IBR project will provide the THT access to the information produced by the monitoring, discuss the results, and provide any necessary restitution for losses in revenue.

p. 3.11-24
The VNHR offices referred to in the "Fort Vancouver" section at or near FV-002, 3, 4, and 5 each contain multiple tenants. Change text to: …noise levels would be above the WSDOT NAC at two residences and four total office buildings, each of which contains multiple tenants…

Construction Vibration p. 3.11-33
THT continues to be concerned regarding construction vibration negatively impacting buildings on the western edge of the VNHR, particularly those west of Fort Vancouver Way. Especial concerns are raised regarding the URM Post Hospital, brick NCO duplexes, and all the buildings with brick foundations west of Fort Vancouver Way.

Vibration monitoring should continue throughout construction and beyond to determine actual level of impact and be extended into the VNHR at least as far as 1101 Evergreen Blvd., the Grant House. IBR project will provide THT access to the information produced by the monitoring, discuss the results, and provide any necessary restitution for losses in revenue due to disruption and/or damage from vibrations.

3.11-6 Potential Avoidance, Minimization, and Mitigation Measures

THT requests consideration of a noise wall south of Evergreen Blvd.

P. 3.11-36 Table 3.11-13 Noise Wall Analysis Summary

11A – The noise wall described here would seem to be a reasonable mitigation measure. Concerns include whether 6 ft. is high enough and/or 464 ft. is long enough. As manager of property close to the wall, THT must be included to consult on wall design and appearance, and vegetative screening which complies with landscape guidelines for the historic area. Another concern is how sound will pass over the wall, and how far into the historic district it will travel. Existing signage at the edge of the freeway indicates the location of Officers Row, and helps draw visitors and business clients into the historic area. Loss of the sign will need to be mitigated with another means of drawing people in which fits well with the IBR project.

P. 3.11-38

The concluding sentence states that balloting of benefitted receptors will take place. THT needs additional information on the process as to how it is decided who votes, and how to provide input on same.

P. 3.11-53 Construction Vibration

Bullet 2: The number of feet should not be the sole consideration for how far monitoring extends to the east. The type of buildings and building materials must be taken into consideration. For example, buildings with brick foundations should be monitored. All construction-related vibration must be monitored for historic structures in proximity to the project to determine if cumulative effects of all the vibration are occurring.

3.23 Cumulative Effects

3.23.-11 Land Use and Economic Activity

The Land Use and Economic Activity section should contain a paragraph about the Vancouver Barracks Post Hospital, owned by the City of Vancouver, in the VNHR Historic District. The project's Adverse Effects will greatly affect the economic future of the former hospital.

Similarly, the overall Adverse Effect for the Vancouver National Historic Reserve will impact the city-owned buildings there. Noise, vibration, visual, and atmospheric effects during construction, and permanent increased noise and visual changes after construction, will affect people's decisions as to whether or not to rent commercial and residential spaces and event venues. Rental revenue is a critical component in enabling appropriate maintenance and preservation of these historic buildings, and being able to pass them on to the future.

This section should also make reference to the planned community connector, which will positively stimulate heightened economic activities in downtown and the Historic Reserve and synergistically link the two areas.

P. 3.23-20 – Parks and Recreation Cumulative Effects

Evaluation of the increased access to the public recreational, educational, residential, and business activities of Officers Row and the West Barracks at the Vancouver National Historic

Reserve should include studies to most effectively place, and potentially increase directional signage on the freeway, at transit stations, and at the community connector under development between downtown Vancouver and the Reserve.

P. 3.23-22

The Historic Built Environment section must contain a specific reference to the adversely-effected Vancouver Barracks Post Hospital. The eastern edge of the IBR project will greatly affect to what extent the building can be preserved and re-used.Loss of the building would negatively permanently affect the number of buildings available for public use and interpretive education, and the visual qualities of the site.

Paragraph 5: Aegis/Providence Academy redevelopment is incorrect. The Aegis project name changed to Aeon. The Aeon project was not built in conjunction with Providence Academy.

Paragraph 6: The most public-facing way to mitigate the negative effects of the project on historic resources is to invest in structural and aesthetic preservation of them. Presently, the projected mitigation is documentation-heavy and structural preservation-light. Public engagement with historic resources will be most benefited by actions to help save the buildings, continue to adaptively re-use them, and pass them on to future generations.

P. 3.23.23 Cumulative Effects

Conclusion – Historic Built Environment
Paragraphs 2, 3, and 4 all refer to the Adverse Effects of the Modified LPA on historic resources. The most effective way to ameliorate those effects is to direct mitigation efforts toward keeping existing buildings standing and historically-preserved for public usage for businesses, housing, education, and enjoyment.

Visual Quality

P. 3.23-23

The potential loss of the historic Vancouver Barracks Post Hospital needs to be taken into consideration in terms of project impacts on visual quality. This large, imposing building is an important part of local history, and also provides a visual edge to the western side of the West Barracks area. Demolition and replacement would have a significant impact on any viewer.

Noise and Vibration

The Post Hospital specifically has played an unofficial role as a noise barrier. Should this building be removed due to construction impacts, the resulting noise increase will affect the entire western side of the Historic Reserve.

P. 3.23-26 Paragraph 2

The importance of the Vancouver National Historic Reserve in civic life must be specifically recognized and accounted for. To accomplish this, change: "Many residences and other uses in

the study area, including those adjacent to I-5 and the proposed light-rail transit line, have experienced increasing noise levels over time…" to "Many residences and other uses in the study area, including those adjacent to I-5 and the proposed light-rail transit line such as the recreational, commercial, residential, and educational opportunities at the Vancouver National Historic Reserve, have experienced increasing noise levels over time …"

P. 3.23-26 Cumulative Effects Conclusion – Noise and Vibration

THT is extremely concerned about the short-term construction and permanents impacts of increased noise and vibration on the Vancouver National Historic Reserve, and looks forward to continuing to work on mitigating them.

Energy

Cumulative Effects Conclusion - Energy

P. 3.23-29 Paragraph 5

THT is interested in helping reduce local energy demand by instituting such measures as installation of roof-top solar panels where feasible, such as on the roof of the Police Headquarters Building, and instituting other energy conservation measures that do not impact, or have justifiable impacts, on historic structures. Discussions regarding how energy conservation measures could be part of the mitigation of Adverse Effects on the Historic Reserve would be beneficial for the public.

P. 3.23-41 Climate Change

THT is seeking to explore how the Vancouver National Historic Reserve can contribute to reduction of GHG. The environmental advantages of re-using buildings, "the greenest building is one that is already built," and thus continuing the use of old-growth timber that has already been harvested, are already inherent in the historic districts. However, measures to increase energy conservation in building operations and produce energy with roof-top solar panels are items to discuss as both beneficial for the environment and applicable to mitigation.

Section 4F

P. 4-11 Inset map of Figure 4-1

This map incorrectly identifies the Artillery Barracks as the Post Hospital. The hospital is farther to the west right by the freeway, west of the Red Cross Building and by the Interstate 5 shield.

P. 4-13 Figure 4-3

The U.S. Army no longer owns any land at the Vancouver National Historic Reserve. The property identified as belonging to the Army is National Park Service property.

P. 4-16, Paragraph 1
The U.S. Army is no longer a partner in site operations, having entirely vacated in 2011. Remove reference to the Department of the Army as a site management partner.

P. 4-20 Figure 4-8

Correction needed to more clearly delineate the VNHR. It is difficult to see all the brown outlines and brown underlay indicating the VNHR. People who are unfamiliar with the area will find it challenging to see where it is.

Whereas the name of Fort Vancouver National Historic Site is in generally the correct location, including just one name incorrectly implies that there is one sole owner of the area. The figure would be clearer with additional owners indicated.

P. 4-24 Chapter 4, WA 368, 369, 918, 109

The description is not as clear as it could be. Edits below.

The VNHR is an NRHP-listed historic district that encompasses 397.7 acres and includes four listed or determined eligible historic districts and one historic site which all include multiple historic and cultural resources. Of the 397.7 acres within the VNHR boundary, 49.74 acres were WSDOT highway right of way at the time of listing of the reserve and do not contribute to eligibility. The Fort Vancouver National Historic Site was first established as a national monument in 1948, and was elevated to an historic site in 1966 to preserve and interpret historically significant and exceptionally complex overlapping areas associated with Native American, Hudson's Bay Company, U.S. military, and NPS uses of land that have occurred over time. The VNHR was created by an act of Congress in 1996.

P. 4-25 WA 1148

The patrol headquarters was built in 1979, not 1975.

Section 4-5

P. 4-52 – Paragraph 4

Concluding sentence does not include the section number of the evaluation.

P. 4-52 – Paragraph 6

The Discovery Walk Festival no longer occurs.

P. 4-53 – Paragraph 4

Second line – The Fort Vancouver NHS does not include the entire Vancouver Barracks Historic District. A rephrasing is needed: Fort Vancouver NHS includes part of the Vancouver Barracks Historic District determined eligible in 1984. Those elements include the HBC….

P. 4-108

The first sentence of the description incorrectly implies that there are five total historic properties. Though the quantity is addressed in the next paragraph, a more accurate statement for this introductory paragraph would be: The VNHR Historic District is an NRHP-listed historic

district that encompasses 397.7 acres and includes one historic site and four NRHP-listed or determined eligible historic districts which each contain multiple historic resources …

P. 4-109 Figure 4-39

This figure would be clearer with additional information indicating ownership.

P. 4-110 Paragraph 5

The Trust is concerned that vibrations from installation of the tie-back anchors at the northwest corner might harm the historic structures in that area.

P. 4-111 Paragraph 1 and following bullet points.

The IBR Program will cumulatively adversely affect the entire VNHR. The list of contributing properties should include all historic resources within the VNHR. The permanent incorporation of land will impair the likelihood of rehabilitation of the Post Hospital. Loss of the Post Hospital will have a negative historic effect on the site, and also mean that a barrier to sound entering the site will be lost and noise will increase for visitors, tenants, and event venue users.

Pp. 4-111 and -112

Vibrations – THT is concerned about the adverse effects of vibrations on the VNHR, especially the buildings from the Grant House west.

P. 4-112

Aesthetics - Views from additional buildings should be taken into account. For example, people on the second stories of buildings on Officers Row and in the West Barracks will likely be able to see the IBR. Additionally, as trees change over time whether through pruning, removal, or replacement with small ones, the views will change.

p. 4-113

Noise – THT is concerned that increased noise levels will result in lowered public interest in renting residential, commercial, and event spaces. Loss of rental income will impair the ability of the Trust and the City of Vancouver to be excellent maintenance stewards of the buildings. Recreational and educational aspects of the site will be diminished for the public as extra noise will affect enjoyment of such site activities as walking and biking and taking walking tours.

P. 4-121, Bullet Point (ii)

THT urges inclusion of a robust public process in making decisions about the Post Hospital and has made comments to this effect on Chapter 3.8 and the draft Programmatic Agreement.

P. 4-128

All design options will result in permanent incorporation of VNHR property into the project and increase of noise, and temporary vibratory impacts on VNHR buildings. The final line of

paragraph 7 does not indicate sufficient mitigation. The national significance of the property and value to the community require more than "standard" mitigation. THT urges mitigation that focuses on building stability and other measures for long-term physical preservation in recognition of permanent and cumulative site impacts.

P. 4-129

The final line of paragraph 5 indicates that noise mitigation is not reasonable. Options other than demolition of the Normandy Apartments must be explored so that the increase of noise can be mitigated. If the noise cannot reasonably be mitigated, comparable mitigation should be applied elsewhere within the APE or reasonably adjacent to the APE to help amend the cumulative and permanent damage to the site.

P. 4-129 Paragraph 5

Condition inspection of the Post Hospital must take place well ahead of start of project construction so that proper planning for, and public engagement about, rehabilitation or removal can be efficient and effective.

P. 4-134 Paragraph 3

The final line of paragraph 3 should be changed to: There would be visual and noise effects on recreational and educational opportunity users, commercial and residential tenants, and event venue renters at the Fort Vancouver NHS and the City of Vancouver-owned properties in the VNHR historic district managed by THT.

P. 4-135 Paragraph 1

The note that the majority of historic sites are NRHP-eligible at the local level does not take into account the multiplicity of resources within the VNHR, all of which are listed in the NRHP at the national level of significance.

P. 4-135 Section 4.6.4

The Vancouver National Historic Reserve was created by an act of Congress in 1996 in addition to the Fort Vancouver National Historic Site being created by an act of Congress.

P. 4-140 Paragraph 1

It is important to note here the significance and lasting import of a well-designed community connector between downtown Vancouver and the VNHR in contributing to neighborhood access and mobility between these important civic locales.

P. 4-145 Paragraph 1

THT looks forward to being an active partner in determining what mitigation results from the project in terms of achieving the most public good through historic building preservation utilizing reasonable public expenditure.

Attachment A

Visual Quality Technical Report

Page 2-12 2.4.2.1 Types of Neighbors

Types of viewers at VNHRT include residential, recreational, civic, retail, and commercial.

2.4.2.2 Types of Travelers

The VNHR attracts all types of travelers listed: motoring, bicycle, and pedestrian.

P. 3-3 3.1.2 Regulatory Context

The list does not include any of the governing documents for the VNHRT.

P. 3-4 3.1.3.2 Key Viewpoints

While it is not possible as noted in the Key Viewpoints section description to assess every view, Figure 3.2 on page 3-6 shows only a small number of viewpoints which does not seem sufficient to capture the complexity of views in different areas. Suggest at minimum adding three more view evaluations from Evergreen Blvd. and Ft. Vancouver Way looking west, from the second floor porch of the Grant House looking west, and McClellan Avenue and Ft. Vancouver Way looking west. The upper floor of the Grant House should provide perspective on what will be visible above the trees, and offer an opportunity to assess what the view will be as the height of trees will change over time. In regard to the possibility of the loss of the Post Hospital which forms a barrier between the Reserve and the new construction associated with the bridge, consideration must be given to what the westward view from the Reserve will be if this large building is gone.

Noise and Vibration Technical Report

Suggest that title be changed to "Considering the importance of our natural and cultural environment" or some other phrasing to indicate that the built environment is part of the study.

P. 3-3 3.2.4 Fort Vancouver Land Use

This paragraph incorrectly states that the O.O. Howard House is part of the Officers Row National Historic District. Rather, it is part of the Vancouver National Historic Reserve and Vancouver Barracks historic districts.

P. 3-11 Figure 3.7

Modelling should be done to determine to what degree the noise level will increase at the VNHR Historic District if the Post Hospital is removed.

Attachment B: City of Vancouver's Desired Outcomes and Conditions of Approval for the Modified LPA, IBR Commitments

	Category	Item
		City of Vancouver Desired Outcomes
1	Overall	Meet or exceed climate and equity goals as defined by the city, region, and IBRP advisory groups during all phases of the program
2	The Built Environment	Construct the bridge and all related structures to be resilient in the event of a Cascadia Seismic event
3	The Built Environment	Support efforts to make current and future Downtown Vancouver a thriving and attractive place to live, work, and visit within the greater Portland-Vancouver region
4	The Built Environment	Improve connectivity for all users among key downtown and Historic Reserve destinations to support economic vitality and placemaking opportunities
5	The Built Environment	Extend Main Street to the Vancouver waterfront and identify additional opportunities to reconnect other local roadways within the bridge influence area
6	The Built Environment	Improve access to transit for all users
7	The Built Environment	Improve access and connectivity throughout local bikeway, roadway, and sidewalk systems
8	The Built Environment	Improve multimodal access and connectivity to, from, and across the Interstate 5 regional highway system to Downtown Vancouver and the Historic Reserve area
9	The Built Environment	Include a dedicated guideway for transit that accommodates multiple high capacity transit modes and is designed to serve both current and future transit needs as the region grows
10	The Built Environment	Replace and/or upgrade subsurface City assets where appropriate to support new infrastructure
11	Urban Design	Prioritize the movement of people, freight, and goods
12	Urban Design	Emphasize and center human and natural systems
13	Urban Design	Integrate and recognize the IBRP area's history, especially that of Indigenous Peoples
14	Urban Design	Better connect the west side of Interstate 5, the City's core downtown area, with the east side of Interstate 5, the City's Historic Reserve area, via a lid or some other public open space over Interstate 5 south of Evergreen Street connecting Library Square to the Historic Reserve

Attachment B

	Category	Item
15	Urban Design	Create new public open spaces under the bridge that serve the region's diverse and growing community, connect Vancouver's waterfront, and integrate with existing and forthcoming open space investments
16	Urban Design	Establish continuity and integration of design associated with transit improvements that complement existing and future downtown transit investments
17	Urban Design	Integrate new aesthetic features to amplify Vancouver and associated bridge improvement elements as landmark destinations
18	Mobility	Focus on efficient, connected, and safe movement of people, freight, and goods
19	Mobility	Provide more reliable travel for all modes and all users
20	Mobility	Reduce overall Interstate Bridge congestion and length of peak congestion periods including no lift span on the bridge
21	Mobility	Reduce peak period impacts on the local road system
22	Mobility	Reduce collisions on local roads leading to and within downtown
23	Mobility	Incorporate tolling to fund construction of the Bridge and associated elements
24	Mobility	Retain three through travel lanes on Interstate 5 in the Bridge Influence Area and, based on updated analyses, accompanying auxiliary lanes to support the Program's Purpose and Need
25	Construction, Operations & Maintenance	Meet or exceed requirements to employ Minority, Women, and Disadvantaged Business Enterprise (WMDBE) firms
26	Construction, Operations & Maintenance	Create opportunities for inter-generational wealth through workforce investment programs during planning, design, and construction phases of the program
27	Construction, Operations & Maintenance	Implement tolling in an equitable manner that includes mitigation programs
28	Construction, Operations & Maintenance	Proactively mitigate construction impacts to Downtown Vancouver businesses, residents, and visitors
29	Construction, Operations & Maintenance	Efficiently manage post-construction operating and maintenance costs
30	Construction, Operations & Maintenance	Use climate smart construction materials built for existing and future types of transportation

Attachment B

City of Vancouver Modified Locally Preferred Alternative - Conditions of Approval		
31	Community & Stakeholder Engagement	Engagement must be accessible and open to a wide variety of stakeholders and all community members.
32	Climate	In collaboration with Program partners define a GHG reduction goal that is Program-specific and supports state, regional, and local GHG emission reduction goals, including the City's goal of carbon neutrality by 2040.
33	Climate	The GHG analysis committed to by IBR Program shall include data related to changes in travel behavior (modal splits and induced demand), modeled vehicle miles traveled at years 2030, 2040, 2050, and assumptions regarding tolling consistent with Oregon and Washington State Departments of Transportation toll programs.
34	Climate	Collaborate with Partners to define mitigation strategies for urban heat island effects and air pollutants associated with Program infrastructure and vehicular traffic .
35	Climate	Prepare and present a plan that shows how Program-related GHG will be monitored and reported during and after construction, and how it will be mitigated plus funding options for mitigations. There shall be regular updates on progress, with annual reporting on status of GHG target and mitigation efforts to offset emissions.
36	Equity	The IBR Program shall assess the impacts of the Program on Black, Indigenous and People of Color (BIPOC) communities, low- and moderate-income residents, renters, people with disabilities and mobility challenges, and other equity-priority populations in the region using partner agreed-upon methodologies and data. This analysis should include an assessment of the distribution of program impacts and benefits (as defined by the Program Equity and Mobility Advisory Committee- #18 below), potential outcomes, and mitigations for equity priority communities at 2030, 2040 and 2050.
37	Equity	Evaluate equitable outcomes using performance measures developed by the IBRP Equity Advisory Group to measure benefits and impacts to equity priority communities (including BIPOC).
38	Equity	Prioritize historically marginalized and underserved communities within Program area to establish objectives, design, implement and evaluation of success of project.
39	Bridge Replacement	Further analysis is needed to determine design of a bridge that meets the defined Program Purpose and Need.
40	Bridge Replacement	Confirm the constraints on bridge design related to navigation and airspace.

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41	Bridge Replacement	The bridge shall have the highest quality architecture for the project allowable by engineering limitations and within reasonable cost to produce a signature design.
42	Bridge Replacement	The bridge cannot negatively impact City of Vancouver's ability to convert Washington Street to a two-way street or any other future changes to the local road network and related facilities as defined by the City through the design phase of the IBR Program.
43	Transit	Safety and Security is a primary objective of the transit system and specific improvements, strategies and measures should be deployed to ensure maximum security and safety for transit patrons and the adjacent community.
44	Transit	All park and ride location(s) within the City of Vancouver will be determined in partnership with the City of Vancouver and C-TRAN, be designed to integrate with the community character and landscape, and not negatively impact multimodal access, safety, and circulation.
45	Transit	Ensure that design of the transit guideway allows for access and use by buses and emergency vehicles in addition to light rail transit.
46	Active Transportation	Active transportation facilities shall be designed to facilitate a comfortable, low stress experience during all seasons and in all types of weather, prioritize safety of vulnerable users and ensure safe and convenient access from the local network to new facilities.
47	Active Transportation	Active transportation facilities shall be designed to minimize users' exposure to roadway pollutants such as particulate matter and hazardous chemical compounds.
48	Interchanges & Roadway Design	More detailed design of interchanges in Vancouver is required to fully evaluate potential community impact, urban development potential, and enhanced access for all users.
49	Interchanges & Roadway Design	Interchanges and roadways must be designed with a goal to not impact any properties outside of WSDOT ROW.
50	Freight	Preserve and enhance freight access in a manner that is safe, efficient, and does not negatively impact community design or character.
51	Transportation Demand Management & Tolling	The Program shall further refine scenarios with variable rate tolls on the existing I-5Bridge.
52	Transportation Demand Management & Tolling	Demand management strategies shall be developed with the goals to manage auto demand and congestion during peak traffic periods, support downtown Vancouver's circulation goals, reduce greenhouse gas emissions, and must include the use of variable rate tolling.

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53	Transportation Demand Management & Tolling	Freeway access streets should receive additional traffic management as warranted and agreed to by the City.
54	Urban Design	The bridge river crossing shall be an iconic design, connect the historical and interpretive artifacts and landscape elements, and not harm the landscape or existing archeological or cultural resources.
55	Urban Design	Recreational and open space design shall be determined in collaboration with Program partners and the community.
56	Urban Design	The bridge design shall improve the existing user experience in downtown Vancouver, accounting for the health, safety and welfare of the general public. In circumstances where nuisances are reasonably expected from the project design, impacts will be mitigated to the maximum extent practicable.
57	Urban Design	Community connections shall be designed to connect historical and cultural landscape elements. These include but are not limited to a lid over I-5 connecting Downtown to the Historic Reserve, extension of Main Street, and redevelopment or re-use of land unencumbered by physical structure for the bridge itself or supporting water treatment facilities (5th Street to north bank of the Columbia River).
58	Enhancement, Impact Avoidance, Mitigation	The IBR Program shall provide the highest model of environmentally and socially friendly design and construction for a bridge of its proposed size and scale. Temporary screening of construction and staging areas will be aesthetically appealing and help tell the story of the bridge and community.
59	Enhancement, Impact Avoidance, Mitigation	The Program must respect properties outside of WSDOT ROW and have a goal to avoid both short- and long-term impacts to those properties during and after construction. If impacts are unavoidable, they must be mitigated to the full extent practicable and as required by prevailing federal, state or local laws and ordinances.
60	Enhancement, Impact Avoidance, Mitigation	The Program must identify proposed mitigation for any potential adverse human or natural health impacts.
61	Enhancement, Impact Avoidance, Mitigation	The City of Vancouver must be included in any Health Impact Assessment (HIA) work included as part of the Program.
62	Construction and Contracting	The Program shall implement a robust workforce training and apprenticeship program that provides opportunities to Vancouver and Clark County residents.
63	Construction and Contracting	The Program shall minimize and mitigate disruptions to residents, businesses, roadway users and the built environment resulting from construction and staging activities, including maintaining multimodal access and circulation.

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IBR Program - Commitments for Modified Locally Preferred Alternative		
64	Process	The IBR program will develop a workplan to address partner requests and conditions of approval. The workplan will address any conflicts that arise between partner agencies independent conditions of approval and will provide a timeline for responding to partner agency requests.
65	Community & Stakeholder Engagement	Authentically engage with the program's advisory groups in all major program decisions, timelines, and milestones.
66	Community & Stakeholder Engagement	Commit to partner engagement to help shape a communications strategy and execution, environmental process, and the development of the program design.
67	Community & Stakeholder Engagement	Commit to a robust community engagement program to solicit and obtain public input for all stages of the program including establishing public priorities for design and evaluation of impacts to the built and natural environment, and input on design options.
68	Community & Stakeholder Engagement	Develop a Community Benefits Program.
69	Climate	Provide a high level of sustainable design and construction practices including a stormwater strategy and minimal impact on fish, wildlife, and watershed health.
70	Climate	Prepare an in-depth Greenhouse Gas (GHG) analysis including climate change, air quality, carbon emissions and Vehicle Miles Traveled (VMT).
71	Equity	Prepare an Equity Report that assesses the impact of tolls on low-income people, including toll avoidance and limited access to technology for payment of tolls; the impact of the project on low-income and minority populations in regard to affordable housing and employment; and the impact of the project on populations at or below the poverty level. It entails an examination of access to jobs and services, physical accessibility, potential negative impacts related to construction and/or property acquisition, and other elements in alignment with our equity objectives.
72	Equity	Implement an accountability tracking tool that will include regular staff reports to the program and the Equity Advisory Group regarding how the Equity Framework (and equity more broadly) has shaped decisions and activities.
73	Equity	Prioritize access, influence, and decision-making power for marginalized and underserved communities throughout the program in establishing objectives, design, implementation and evaluation of success.
74	Bridge Replacement	Employ high quality architectural design for the North Portland Harbor Bridge and Columbia River main span.

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75	Bridge Replacement	Design a bridge that is aesthetically pleasing, cost efficient, and sustainable.
76	Bridge Replacement	Design and construct the program following principles of sustainability, cost efficiency, context sensitivity, and avoidance and minimization of impacts.
77	Transit	Develop the high-capacity transit terminus, station placement, alignment and design to allow for future extensions and connections.
78	Transit	Develop options and define impacts and costs for the high-capacity transit alignment accounting for development opportunities, safety and efficiency, traffic movement, construction costs and impacts.
79	Transit	Conduct further analysis on the size and design of park and rides accounting for ridership and cost-effectiveness, impacts on the street network and integration with the surrounding land uses; document in the Supplemental Final Environmental Impact Statement (SFEIS).
80	Transit	Develop stations, furnishings, roadwork and sidewalk elements in character appropriate to Vancouver and Hayden Island.
81	Transit	Refine station locations accounting for safety, compatibility with surrounding uses, cost-effectiveness and efficiency of operations.
82	Transit	Develop a plan for Transit Operations & Maintenance funding sources.
83	Transit	Optimize the HCT option selected to maximize ridership potential and improve the transit network to meet the region's needs today and into the future; and that fits within the operating plans of the two partner transit agencies: C-TRAN and TriMet.
84	Active Transportation	Undertake additional design to include robust active transportation facilities on the bridge, approaches and throughout the program area; meet or exceed standards; meet the active transportation demand considering tolls and other transportation demand measures.
85	Active Transportation	Provide good active transportation connections to HCT stations including infill of missing sections.
86	Active Transportation	Retain and enhance multimodal transportation especially in the vicinity of highway overcrossings.
87	Freight	Confirm the configurations of the Marine Drive/Hayden Island and Mill Plain interchanges allow for unimpeded, safe and efficient movement of freight and workforce traffic and complement current and future operations at the region's Port's Marine Terminals and key industrial districts.
88	Freight	Ensure the auxiliary lane design and configuration on the bridge allows for safe and efficient movement of freight and general-purpose traffic. Develop the design of the bridge to consider adequate shoulder width and grade to allow for high, wide and heavy and general industrial freight and containers.

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75	Transportation Demand Management & Tolling	Develop a comprehensive TDM program that includes variable-rate tolling.
90	Transportation Demand Management & Tolling	Use TDM to help manage peak period auto demand.
91	Transportation Demand Management & Tolling	Implement tolling on I-5 as soon as legally and practically permissible.
92	Transportation Demand Management & Tolling	Develop a plan to educate the public about tolls.
93	Transportation Demand Management & Tolling	Evaluate and seek authorization for pre-completion tolling of the existing bridge under Title 23 Section 129 while the replacement bridge is under construction.
94	Enhancement, Impact Avoidance, Mitigation	(General) Right size and develop a transportation program that is responsive to community needs, environmentally responsible, resilient to future climate and social changes, and satisfies the Purpose and Need.
95	Enhancement, Impact Avoidance, Mitigation	(HIA) Work with Multnomah County and other interested agencies to develop a Health Impact Assessment to evaluate the potential impacts and benefits to human health from the program.
96	Enhancement, Impact Avoidance, Mitigation	(NEPA) Prepare a Supplemental Environmental Impact Statement (SEIS) pursuant to the National Environmental Policy Act (NEPA) that assesses potential impacts to the built and natural environments including as assessment of climate change and greenhouse gas emissions; the SEIS will include mitigation measures to avoid or reduce potential impacts as feasible. The SDEIS will include opportunity for public input and comment during a public review period and at public hearing(s).
97	Enhancement, Impact Avoidance, Mitigation	Prepare a sustainability plan.
98	Construction and Contracting	Develop a construction management approach that includes appropriate requirements to reduce GHGs and carbon footprint during construction.
99	Construction and Contracting	Set targets to achieve DBE utilization and employ innovative strategies to achieving workforce diversity goals.
100	Financing	Develop a financial plan including capital sources and uses of funds for presentation to the program partners and the public that indicates federal, state, and local funding.
101	Financing	Prepare a Level 2 toll traffic and revenue study.
102	Financing	Prepare an investment grade (Level 3) toll traffic and revenue study.

Attachment C:
Summary of feedback on the Draft SEIS from City of Vancouver Advisory Bodies and general public

Summary of Board & Commission Meetings

City of Vancouver staff presented findings from the Draft SEIS to seven City boards and commissions during the public comment period. The following sections highlight key discussion topics from each of those presentations. In addition to the summaries below, some groups, including the Parking Advisory Committee and City Center Redevelopment Authority, have submitted their own comment letters on the Draft SEIS.

City staff will continue to provide updates to these boards and commissions throughout the environmental review and design processes.

Parking Advisory Committee (PAC)

10/9/2024

- **Park and Ride concerns:** Initial modeling for the Modified LPA predicted full utilization of two park and rides in Downtown Vancouver. Given that the existing Downtown parking supply is underutilized, the committee discussed the implications for the IBR program and the need for additional structures.
- **Regulation issues:** Discussion on how to regulate usage of parking lots, especially for people working in Downtown Vancouver. Final design needs to clarify operational considerations.
- **Environmental considerations:** Questions raised about the environmental impact of park and rides, including GHG analysis and their alignment with climate goals.

Parks and Recreation Advisory Commission

10/16/2024

- **Kiggins Bowl impact:** Uncertainty around the timeline and extent of impact from the temporary construction easement.
- **Stormwater management:** Clarifications needed on the distinction between stormwater management and parkland mitigation.
- **Safety and community concerns:** Emphasis on safety for pedestrians and cyclists, tree preservation, and honoring culture through design.

City Center Redevelopment Authority (CCRA)

10/17/2024

- **Park and ride concerns:** Concerns about the appropriateness of new, large parking structures in downtown, including the potential for vandalism and inefficiency. Conflicts with vision for Downtown as a vibrant, walkable, transit-oriented place to live, work, shop, and visit. Impacts on future redevelopment potential.
- **Questions about:** the destination of park and ride users, other possible locations for park and rides, potential pricing, waterfront access under the bridge, light rail hours of operation, impact on traffic without the C Street ramps, and how the comments on the Draft SEIS will be used.
- **Downtown Parking Plan:** how does the City's draft plan address park and rides? Suggestion to mesh the recommendations from that plan to address IBR needs.

Planning Commission

10/22/2024

- **Equity concerns:** Concerns about potential impacts on low-income populations and vulnerable communities, particularly from displacement, tolling, and noise.
- **Questions about:** the adequacy of mitigation, partial acquisitions, and the viability of carpool programs.
- **Shared Use Path:** Concerns about the grade of the ramp connection. Want rigorous mitigation, given that the design is not final.

Aviation Advisory Committee

10/23/2024

- **Flight path impact:** Discussions on potential obstructions from the new bridge and impacts on flight paths, particularly regarding the height and location of the C Street ramps, SR 14 interchange, and construction equipment.
- **Construction impact:** Recognition of potential disruptions to airport operations during construction of the Modified LPA. Given the anticipated duration of construction, it won't feel "short-term".
- **Questions about:** visualizations from Pearson Field, height of new structures compared to existing downtown buildings, and economic impacts.

Transportation and Mobility Commission

10/29/2024

- **Active transportation access:** Practical and accessible design of active transportation connections to the bridge, particularly at the Waterfront, are needed. Consider an active transportation connection to Evergreen and elevators. Plan for electric powered devices.
- **Equity impacts:** Concerns about the impact of acquisitions and displacement on residents' homes and livelihoods. Provide multilingual communication about transit disruptions and support for small businesses during the construction phase. For tolling, offer the low-income discount program from the start and offer technical assistance to those that qualify.
- **Downtown:** Concerns about having an ugly park and ride structure Downtown and how it would be priced and managed to serve its intended purpose. Questions about the design for the waterfront area under I-5. Desire for more info on construction impacts to the waterfront, given its importance as an economic driver.

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- **Questions about:** travel modeling assumptions and outputs, rationale for comparing to a No Build scenario, reasons for analyzing the "without C Street Ramps" and "westward shift of I-5" design options, cost-benefit and safety implications of the braided ramps and overpass reconstructions, relationship to planned improvements to Fourth Plain, construction packaging for contractors, budget for public art, and status of IBR funding.

Culture, Arts and Heritage Commission
11/07/2024

- **Construction effects on historic buildings:** Concerns about the proximity of construction to downtown Vancouver's unreinforced masonry buildings, which are vulnerable to vibrations and structural impacts. Recognize the deteriorated state of some historic buildings, provide thorough evaluations, and prevent unintended damage.
- **Specific sites of concern:** Providence Academy, Covington House, Officer's Row and Pearson Field and the West Reserve.
- **Preservation:** Focus on saving key remnants of the past.
- **Cultural representation:** Don't miss telling the important stories of underrepresented communities.

Summary of Public Meetings & Events

City of Vancouver staff attended various meetings and community events during the comment period to hear what questions and concerns the Vancouver community had about the IBR program and Draft SEIS. This included the following public events hosted by IBR, presentations to and discussions with community groups, and local events:

Date	Meeting/Event
October 1, 2024	Shumway Neighborhood Association Meeting
October 5, 2024	Old Apple Tree Festival
October 8, 2024	Lincoln Neighborhood Association Meeting
October 15, 2024	Downtown Stakeholders
October 15, 2024	Vancouver Open House
October 21, 2024	Esther Short NA Meeting
October 22, 2024	WA APEX Contractor forum
October 22, 2024	Rose Village Neighborhood Association Meeting
October 24, 2024	Vancouver Heights Neighborhood Association Meeting
October 26, 2024	IBR Public Hearing – Virtual #1
October 30, 2024	IBR Public Hearing – Virtual #2
November 4, 2024	Tour of Smith Tower
November 5, 2024	Shumway Neighborhood Association
November 13, 2024	Vancouver Neighborhood Alliance
November 14, 2024	Arnada Neighborhood Association Meeting
November 15, 2024	East Vancouver Business Association Meeting

The following section summarize the key themes from these meetings and events.

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Active transportation access: Concerns about how people will access the shared use path on the bridge, considering the height of the new bridge. One access point at the Waterfront doesn't seem like enough and an additional access point to the shared use path at Evergreen is desired.

Climate and environmental: Concerns about negative impacts to the water, wildlife, trees and people who will have to deal with pollution/dust from construction. Desire for mitigation to include long-term air quality monitoring, as well as the early replacement and long-term maintenance of any trees removed. Requests for more measures to incentivize electric vehicle use and reduce vehicle miles traveled (VMT).

Construction: Common questions were related to construction phasing/timing, impacts and closures to the existing I-5 bridge, traffic impacts in neighborhoods during overpass reconstruction, and what will happen to the old bridge. Concerns about how construction is going to impact ADA accessibility, traffic, older buildings and the environment (particularly related to dust and noise). Downtown residents particularly concerned about impacts to congestion, pedestrian access, bus reliability, and emergency service access during construction.

Design: Common questions were related to the height of the bridge, number of travel lanes, frequency of bridge lifts, and the I-5/SR 500 interchange. Concerns about how high the bridge will be, that Coast Guard support/permit has not been secured and that some design details haven't been shared with the public yet, such as the Fourth Plain overpass. Support expressed for the Community Connector providing a better connection across I-5. People want clarity on how they will navigate to daily services, such as the grocery store or doctor. Communication with community throughout the design process will be critical.

Funding: Questions about how much funding has been secured and how much more is still needed. Concerns about how a new administration at the federal level might impact funding for the bridge.

Park and ride: Concerns about the excess of parking already in Downtown Vancouver and the potential for park and rides to exacerbate existing traffic problems. Downtown Vancouver is a destination, and a new garage in downtown may suggest Vancouver is merely a stop en route to Portland. Suggestions include: using existing parking rather than constructing new facilities, improving wayfinding and transit solutions, coordinating with private parking structures, and providing a valet/shuttle system. Additional concerns about accessible parking access.

Property impacts: Concerns about property acquisition and impacts to residents, businesses, public spaces, Providence Academy, the Vancouver National Historic Reserve, and other historic properties.

Transportation: Concerns about how the project will impact traffic, particularly in the downtown core of Vancouver where streets and on-ramps are already congested. Concerns about the potential negative impacts of light rail. Questions about the benefit of only two stations in Vancouver. Concerns that terminating light rail in downtown could create more congestion, with some desiring to have light rail extended farther north.

Tolling: Clarity needed about when tolling will be in place, what the pricing structure will be and what the money will be used for. Concerns that tolling will have a greater impact on low/fixed-income residents who cross the bridge multiple times a day. Suggestion that residents who are going to be directly impacted by construction for several years should have a lower tolling rate or be exempt from tolling.

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CITY OF Vancouver WASHINGTON

MEMORANDUM

TO: **Interstate Bridge Replacement (IBR) Program Team**

FROM: **Ryan Morin, Chair**
Parking Advisory Committee (PAC)

DATE: **November 14, 2024**

SUBJECT: **Parking Advisory Committee comments on park and ride and IBR Draft Supplemental Environmental Impact Statement (SEIS) Report**

The City of Vancouver ("COV") Parking Advisory Committee ("PAC") was formed in 1999 to advise City Council on parking policy and implementation within downtown parking enforcement area. Additional PAC advisory duties include property acquisition or construction for parking facilities, parking analysis and studies, recommendations to adopt and amend ordinances related to on- and off-street parking.

Under the direction of the PAC, the COV Parking Services Division partnered with Walker Consultants to draft a new Access, Mobility, and Parking Plan ("Plan") for downtown Vancouver. The PAC is tasked with reviewing existing conditions, helping to develop action items, and provide guidance to the City's implementation of the Plan. Over the last 10 months, the PAC has reviewed extensive data, including downtown trip behaviors and occupancy and utilization data for on- and off-street parking spaces. The downtown core is expected to continue its dramatic growth, and this plan seeks to balance parking efficiency, access, curb management, and mobility alternatives to accommodate expected future growth.

During the PAC meeting in August 2024, IBR representatives provided an overview of the proposed IBR investments, and at the October 2024 meeting, COV staff, in collaboration with the IBR team, briefed the PAC on the key findings in the Draft SEIS related to the park and ride options under consideration. This memo summarizes the feedback provided by committee members during those meetings.

- New park and ride structures are in opposition to COV goals and policy to reduce the reliance on single occupancy vehicles downtown. A dispersed parking plan would better align with City goals. Investing in new parking facilities downtown will only induce more vehicle trips.
- COV Parking Services, along with partners, recently completed an existing conditions report. The report concluded that downtown Vancouver has roughly 14,000 parking spaces, the majority of which are chronically underutilized.
- The Library Square site (Evergreen #1) would be better utilized for other purposes. Building a parking structure would be a lost opportunity compared to a new transit-oriented development (TOD) focused on housing and commercial/retail amenities. The adjacent uses

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are active and lively, park n ride facilities contribute to congestion that will negatively impact pedestrians.

- If new park and ride structures are required by federal partners, site W2 would be least harmful to long-term downtown development goals. Proposed site W2 is close to the Waterfront and may help to address parking demand in addition to serving transit users.
- In the opinion of PAC members, urban and dense areas are not ideal for park and ride locations. Leveraging existing suburban park and ride lots, with express buses bringing commuters to downtown, would be more ideal.

The Parking Advisory Committee strongly supports the City of Vancouver adopted goals, cited above, and therefore encourages the IBR project to utilize existing parking resources rather than building new park and ride facilities.

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MEMORANDUM

TO: Interstate Bridge Replacement (IBR) Program Team

FROM: Patrick Quinton, Executive Director
City Center Redevelopment Authority

DATE: November 14, 2024

SUBJECT: CCRA Board Feedback on IBR Draft Supplemental Environmental Impact Statement (SEIS) Report

The Board of the City Center Redevelopment Authority ("CCRA"), a state-chartered public authority responsible for redevelopment within downtown Vancouver, has reviewed relevant sections of the Draft SEIS and received a briefing on the report from City of Vancouver ("City") staff on October 17, 2024. This memo summarizes the feedback provided by the Board during that meeting and in individual conversations with Board members since the meeting.

CCRA was formed in 2006 to lead the redevelopment of downtown Vancouver and is a separately chartered public agency under Washington State Law. CCRA's charter and bylaws state that the Board shall "…undertake, assist with and otherwise facilitate the redevelopment of property within the Vancouver City Center Vision ("VCCV") plan area." The CCRA charter grants the organization broad powers to achieve the redevelopment goals for downtown including the authority to acquire and sell property and initiate public private partnerships to undertake redevelopment projects.

Since the formation of CCRA in 2006, **downtown Vancouver has been transformed and attracted billions in new private investment**. CCRA has played an active role in this transformation through both advocacy and by serving as the lead public partner in strategic redevelopment sites such as Waterfront Gateway. CCRA will play an expanded role in downtown redevelopment in the future, particularly with high opportunity sites such as Library Square.

Toward that end, CCRA has begun planning for the next wave of downtown development by commissioning a Downtown Redevelopment Study ("Study") that will identify the high opportunity areas for future development that will catalyze the necessary investment to continue downtown Vancouver's transformation into a dense, walkable and accessible urban center. That study is explicitly incorporating in its analysis the current plans for a new bridge to help CCRA understand the redevelopment potential of the areas impacted by the IBR project, and its early findings inform our feedback in this memo.

CCRA feedback on the Draft SEIS focuses on three specific areas as described below: **Park and Ride, Urban Design and Traffic Impacts**.

Park and Ride

While the CCRA Board understands that Park and Ride facilities are often located near transit termini, the Board has always believed that **the location of Park and Ride facilities downtown runs counter to both best practices in real estate development and thoughtful transportation planning.** Park and Ride facilities in urban centers occupy valuable real estate that could provide more public benefit through housing and office development. In addition, the City's parking and transportation planning prioritizes improving mode split to and within downtown so the presence of additional public parking facilities that could induce more car trips will only make this work more challenging.

The City is nearing completion a new Downtown Parking Plan that includes an inventory of existing parking and will establish a plan for managing future growth downtown without increasing the public parking supply. The findings from that plan indicate that downtown has 14,000 parking spaces, most of which are significantly underutilized. A key conclusion from those findings is that the elements exist to implement a shared parking system throughout downtown that can meet the needs of existing and future users, including those who park downtown to access light rail. Because implementation of the new plan calls for the City to organize shared parking agreements with downtown property owners to unlock more the existing parking supply for public use, the CCRA Board is confident that a dispersed parking alternative will be available to meet the needs of anticipated park and ride users and therefore **requests that downtown Vancouver be spared from the addition of any new park and ride facilities**.

In the event the above request is not honored, the CCRA Board strongly advocates that the location and requirements for new Park and Ride facilities in downtown meet the criteria below:

- Avoid utilizing or constraining high opportunity redevelopment sites, including Waterfront Gateway and Library Square. These sites have already been identified in the Study as two of the last remaining opportunities for large mixed-use development with the potential for catalyzing further private development.
- Require that any new park and ride garage operate as a shared use facility that serves as many different types of parking users as possible. A shared use facility could minimize the impact on downtown by eliminating the need for new parking associated with development or to support retail.
- Employ pricing strategies that complement the City's demand driven pricing designed to discourage long term parking, increase turnover and encourage use of alternate forms of transportation.
- Utilize thoughtful urban design to maintain the human scale and pedestrian friendly feel of downtown Vancouver. Poorly designed parking structures near transit stations can hinder access for walking, biking and other alternative forms of mobility.

Urban Design

The construction of a new bridge will dramatically alter the environment near the I-5 roadway in downtown Vancouver. The new bridge and adjacent roadway will also create new spaces with the potential to add or detract from the human experience downtown. The CCRA Board is not alone in asking for the IBR to take great care in the design of new underpasses and other public spaces near highway infrastructure to create safe and inviting environments for people on foot, bike or other non-motorized transportation.

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Spaces under freeways have historically been neglected wastelands viewed by the public as unsafe and detracting from the urban fabric. To counter this, communities across the US have employed innovative solutions to design and activate these historically uninviting spaces. The Board urges the IBR team to seek out best practices in designing, managing and activating these practices and include these recommendations in the final project design.

In addition to thoughtful design, governance of these spaces will also determine how they are activated and utilized. The CCRA Board advocates for local control of these new spaces and ongoing funding to allow for active management that is coordinated with other downtown uses and activities.

Traffic Impact

The CCRA Board remains concerned that the **IBR project will impact traffic patterns in a manner that negatively impacts downtown Vancouver**. In particular, we are concerned that the loss of one or both of the C Street Ramps will divert additional car traffic through downtown seeking access to I-5. While the Board appreciates the challenges associated with accommodating existing I-5 access in the new design, they do not believe that an appropriate tradeoff is to flood downtown Vancouver with additional traffic with no intention of stopping within downtown. Maintaining the existing access to downtown from I-5 is the best option for supporting for the future vision for downtown Vancouver.

The CCRA Board appreciates the opportunity to provide this feedback and strongly supports the IBR project and the transformative impact the project will have on Vancouver and SW Washington. The project is vital to the resilience of our transportation system, the economic future of our region, and Vancouver's emergence as a driver of growth for the State of Washington. The Board hopes that extreme care is taken in the planning and implementation of this project to protect the integrity of downtown Vancouver from the meaningless traffic, lifeless structures and unwelcoming spaces that have resulted from similar projects. The Board is committed to remaining engaged with the IBR team to help ensure that this project delivers the promised benefits for Vancouver and the region.

Attachment D: Administrative Comments by Chapter/Report (spreadsheet)

	Item	Department / Division	Chapter/report	Section #	Page #	Figure/ Table #	Comment
3-201	1	FIRE	2. Description of Alternatives	2.2.3 Columbia River Bridges (Subarea B), Double-Deck Fixed-Span Configuration	26	Figure 2-16	NFPA 502: Standard for Road Tunnels, Bridges, and Other Limited Access Highways. This would include smoke management. Open-truss construction on a lower deck creates limited emergency access conditions that would also require compliance with NFPA 502 and other referenced standards. •Open-truss construction on a lower deck creates limited emergency access conditions that would also require compliance with NFPA 502 and other referenced standards. •During construction, repair, alteration or demolition of any facility addressed in NFPA 502, the provisions of NFPA 241 shall apply. •Bridges and elevated highways over 1000 feet in length shall comply with NFPA 502 Chapter 6. •Closed-circuit television systems are required where the length of a bridge or elevated highway length exceeds 1000 feet. •On limited access highways drainage systems shall be installed to channel and collect surface runoff, which can include spilled hazardous flammable liquids, and shall be designed to direct to areas that to no introduce additional fire hazards on or outside the facility. •Standpipes for fire protection shall be installed where the transverse width of the bridge or elevated highways exceeds 100 feet and where the length exceeds 1000 feet. •Hose connection design shall comply with NFPA 502 chapter 6. •Where emergency communications are interrupted by the bridge or tunnel system, a two-way radio enhancement system shall be installed. •Enclosed highway reflective or lighted directional signals indicating the distance to the two nearest emergency exists shall be provided on the walls at a distance of no more than 82 feet. •Products of combustion such as heat, smoke, and toxic gasses shall be considered in the design of the ventilation system where required. Smoke control provisions shall be in accordance with NFPA 502 Chapter 11 •Electrical systems shall support life safety operations, fire emergency operations and normal conditions. •Where required exit signs shall be externally illuminated, and wayfinding lighting shall be powered by the emergency power systems. •For enclosed road tunnels, emergency and standby power systems shall be provided in accordance with NFPA 110, NFPA 111, NFPA 70 and NFPA 502. Emergency lighting shall be connected to the emergency power system. •Wiring in manholes shall be protected from spillage of flammable liquids or firefighting products by the installation of manhole covers with sealing and locking capabilities. •A hazard analysis will be required for various emergency responses including but not limited to, mass casualty incidents, sustained fire events involving large vehicle fire loads and lithium-ion battery vehicle fires. The following incidents shall be considered during the development of facility emergency response plans: (1) Fire or a smoke condition in one or more vehicles or in the facility (2) Fire or a smoke condition adjoining or adjacent to the facility (3) Collision involving one or more vehicles (4) Loss of electric power that results in loss of illumination, ventilation, or other life safety systems (5) Rescue and evacuation of motorists under adverse conditions
3-202	2	PW - Transportation	3.1 Transportation	3.1.3 Long-Term Effects, Safety in 2045, Modified LPA	43		Section 3.1-page 43 paragraph 5. The document states “Due to reconfigured interchanges, access points and auxiliary lanes, the modified LPA is predicted to reduce the total crashes by 13% compared to no build alternative”. In the transportation technical report (3.9.4 Vehicular Crashes during Interstate Bridge Openings and Gate Closures, page 3-135 or page 213 of the PDF), it states "Based on the results of the analysis, crashes in both directions are approximately 2 times more likely when a gate closure occurs than when it does not." The elimination of bridge lift with modified LPA is going to further reduce the crash frequency. Anecdotally, there are more travel time delays due to crashes than bridge lifts and congestion due to capacity constraints. Confirm that the improvement in travel time has been accounted for due to decreased crash risks for both reasons.
3-203	3	CDD	3.1 Transportation	3.1.3 Long-term effects, Bottle Necks & Speeds 2045, Modified LPA without C Street Ramps	27		I thought that there was also some congestion in the NB direction at the Mill Plain off ramp without the C Street ramps. This only mentions the SB congestion. Would there be NB congestion too?
3-204	4	CDD	3.1 Transportation	3.1.3 Long-term effects, Transit in 2045, Transit Travel Time	35		Wouldn't the movable bridge span option result in additional travel time? Why is that design option not included here? s it because it wouldn't operate during the AM and PM peak hours?
3-205	5	CDD	3.1 Transportation	3.1.3 Long-term effects, TDM and TSM in 2045	44		"New and improved bicycle and pedestrian facilities that accommodate more bicyclists and pedestrians and improve connectivity, safety, and travel time." Not only would there physically be more space to "accommodate more bicyclists and pedestrians" but would also accommodate a wider range of users/skill sets compared to the no build.
3-206	6	PW - Transportation	3.1 Transportation	3.1.6 Potential Avoidance, Minimization, and Mitigation Measures, Modified LPA Without C Street Ramps	52		Section 3.1 Page 52. “Modified LPA without the C Street ramps”. The elimination of C Street ramps would cause local streets to fail. Detailed analysis of the six failing intersections not provided. The potential mitigation may not be physically possible to right-of-way constraints. Even if the mitigation were implemented the concurrency corridor of Mill Plain and 15th Street may still fail.
3-207	7	PW - Transportation	3.1 Transportation	3.1.3 Long-Term Effects, I-5/I-205 Travel Forecasts in 2045	21	Table 3.1-11	Section 3.1-page 21 Table 3.1.11 states that with the modified LPA the daily demand volume in 2045 would drop by 3% as compared to no build, but further down (page 22, last paragraph), it states that the peak hourly volume across the bridge would be 10% higher in the modified LPA as compared to no build. The two statements do not seem to align. Clarify how these relate and why the demand volume across I-205 bridge in 2045 would be 3% lower as compared to the No Build.
3-208	8	PW - Stormwater	3.16 Ecosystems	3.16.4 Temporary Effects, Modified LPA, Aquatic Resources, In-Water Work Timing	29		In-Water Work Timing, second bullet. Is this supposed to be a time window between November 1 and February 28? As stated it is limited to those two days.
3-209	9	PW - Surface Water	3.17 Geology & Groundwater	3.17.2 Existing Conditions, Groundwater Resources	4		Text references only Special Protection Areas for the City of Vancouver but the state DOH Source Water Assessment Program map shows several overlapping designated Wellhead Protection Areas (WHPAs) in the study area that should be mentioned
3-210	10	CMO	3.19 Climate Change	3.19.1 Changes or New Information Since 2013	3	Table 3.19-1	This project needs to add another metric for VMT that focuses on the change in VMT in the immediate project area (the stretch of freeway that will be modified by this project). The current measure of "regional VMT" covers so large an area as to be meaningless metric. Analysis should also maintain a consistent geography - if VMT change is measured regionally, then transit and bike/ped trip projections should be as well (or vice versa - measure VMT relative to the existing facility).
3-211	11	CMO	3.19 Climate Change	3.19.1 Changes or New Information Since 2013	3		Note if induced demand and vehicle electrification were included as factors in the analyses. This should be called out here for clarity. Otherwise it is confusing to the reader.
3-212	12	CMO	3.19 Climate Change	3.19-1			This section should include mention of the City of Vancouver's Transportation System Plan.
3-213	13	CMO	3.19 Climate Change	3.19-1		Table 3.19-1	The difference between the construction energy and emissions estimates between the CRC and the Modified LPA are huge. This warrants a more in-depth explanation than referencing a "change in methodology and assumptions."
3-214	14	EPH	3.3 Property Acquisitions and Displacement	3.3.3 Long-Term Benefits and Effects, Modified LPA	10		"(Site 1) would make use of an existing parking structure through a lease agreement; it would require the full acquisition of five commercial properties adjacent to the Vancouver Community Library, but no displacements." The statements is not true as no existing parking structure exists - just some surface parking.

Attachment D

	Item	Department / Division	Chapter/report	Section #	Page #	Figure/ Table #	Comment
3-215	15	CDD	3.4 Land Use and Economic Activity	3.4.3 Long-Term Benefits and Effects, Modified LPA, Business Displacements, Property Tax Impacts	31		Potential typo- "Waterfront Site 3 is owned by the State of Washington, so there would be no loss of property tax associated with that potential impact." This should say Site 2 right?
3-216	16	CDD	3.4 Land Use and Economic Activity	3.4.3 Long-Term Benefits and Effects, No Build Alternative, Land Use	17	Table 3.4-6	Typo - should say "Site 2: Additional 0.1 acres acquired."
3-217	17	CDD	3.6 Public Service & Utilities	3.6.2 Existing Conditions, Public Services	4	Figure 3.6-2	Think Hudson Bay High School should be called out on this map
3-218	18	PW	3.6 Public Service & Utilities	3.6.2 Existing Conditions, Utilities	6	Table 3.6-4	Does Lumen have infrastructure in the study area? I didn't see them listed but thought they had fiber that crossed the bridge. Perhaps it's owned by another group.
3-219	19	CDD	Acquisitions Report	4.3.4			Clarify where exactly the additional 0.2 acres of property acquisition would be needed for the single-level configuration.
3-220	20	CDD	Acquisitions Technical Report	4.3.4.2 Design Options, Park and Rides	4-8 (93 of 138)		Statements about Hayden Island inapproprioately added to discussion on Evergreen park and ride "Several types of properties or businesses may be difficult to relocate based on location and/or property types. These include small restaurants and taverns on Hayden Island, which rely on local patronage and may be difficult to reestablish elsewhere, as well as marine-oriented businesses adjacent to North Portland Harbor that require a waterfront location. Floating homes may also be difficult to relocate due to limited nearby moorage opportunities."
3-221	21	CDD	Acquisitions Technical Report	4.3.4.2 Design Options, Park and Rides		Tables 4-5 and 4-6	The identifiers in Tables 4-5 and 4-6 do not match the project description terminology, which labels the Park and ride sites as 1a, 1b, 1c and 2a and 2b. Final SEIS should use consistent descriptors across all reports.
3-222	22	CDD	Acquisitions Technical Report	Appendix			The IBR ID #38470012 is listed many times in Appendix Table A4. This seems like a typo?
3-223	23	CMO - Climate	Air Quality	3.10.3 Long-Term Effects	3.10-10	Table 3.10-4 and 3.10-5	In the tables, note what the federally/state allowed standards are for each pollutant (for baseline referencing). Values should be shaded green/yellow/red to provide reader with some context as to whether these numbers are "good" or in exceedence of any relevant air quality standards. Data without context is not helpful for the reader's understanding of the situation"
3-224	24	CMO - Climate	Air Quality	3.10.3 Long-Term Effects	3.10-12		Include additional context about impacts and benefits of shifting I-5 west. The SEIS describes potential impacts for those west of I-5 currently, but doesn't not explain if there are any benefits for sensitive populations or EJ communities east of I-5 currently. Proposed mitigation measures for these impacts should also be included in this chapter.
3-225	25	CMO - Climate	Air Quality	3.10.6 Potential Avoidance, Minimization, and Mitigation Measures	3.10-14		Should proposed mitigation measures be included here to address shifting I-5 west and closer to sensitive populations?
3-226	26	CMO - Climate	Air Quality				The SEIS assumes significant decreases in traffic-related pollution due to federal regulations on fuels and vehicle efficiency. Is it safe to assume those federal regulations will be maintained under the new administration?
3-227	27	CMO - Climate	Air Quality	3.10.4 Temporary Effects	3.10-13		The Exec Summary says that potential off-site locations have been evaluated (p. S-11) - that info should be pulled into this chapter as well so that it's clear in the context of air quality.
3-228	28	EPH	ALL				Revise to read that up to 2 park and rides ***may*** be built instead of ***will*** be built.
3-229	29	CDD	All reports / chapters (especially EJ)	general			Be clear when the analysis is referring to the IBR study area v. secondary study area.
3-230	30	**CDD**	**Climate Change technical report**	**7 and 8**			**Explain how decisions will be made about which additional considerations will be implemented. What factors will be considered?**
3-231	31	CDD	Cumulative Effects report	3.12.2 Effects from Past, Present, and Reasonably Foreseeable Future Actions	3-33 (118 of 168)		The discussion on cumulative effects to Vancouver neighborhoods is lacking. There are other projects that could be mentioned here.
3-232	32	CDD	Environmental Justice Technical Report	2.3.1 EJ Secondary Study Area	2-8 (81 of 202)	Figure 2-1	Since this chapter is focused on EJ communities, it would be helpful to show the EJ secondary study area over the equity index map layer to highlight which sections of the secondary study area affect communities of concern.
3-233	33	CDD	Environmental Justice Technical Report	2.5.2.1 Initial Community Engagement (2020-2021)	2-13 (86 of 202)		Says "Four community-specific listening sessions were held in November 2022…" but this section appears to be summarizing activities in fall 2021. Should this say November 2021?
3-234	34	CDD	Environmental Justice Technical Report	3.2.1 Minority Populations	3-9 (107 of 202)		Instead of saying "Comparing block groups in Portland and Vancouver, Portland is more racially diverse than Vancouver relative to its total population" it would be more accurate to say "Within the study area, the block groups in Portland are more racially diverse than the block groups in Vancouver." Since the table is not comparing the total populations of Portland and Vancouver.
3-235	35	CDD	Environmental Justice Technical Report	3.2.2.1 Meaningfully Greater and High-Priority Low-Income Areas	3-17 (116 of 202)		"Additional analysis was done to assess block groups with meaningfully greater concentrations of minority populations compared to the Portland-Vancouver region as a whole." This should say low-income, not minority.
3-236	36	CDD	Environmental Justice Technical Report	3.2.2.1 Meaningfully Greater and High-Priority Low-Income Areas	3-17 (116 of 202)		"The following sections describe low-income housing locations and eligibility in subsidized and free lunch programs to bring additional understanding to low-income populations within the study area." This should be described in the Methods section.
3-237	37	CDD	Environmental Justice Technical Report	3.2.2.2 Low-Income Housing	3-19 (118 of 202)		"A number of subsidized housing units, public housing projects, and other low-income housing sites are located within the study area. As shown in Figure 3-7, there are no low-income housing sites located within the Oregon portion of the study area; however, three sites are located completely within the Vancouver portions of the study area: Smith Tower, Lewis and Clark Plaza, and Evergreen Inn... The analysis of impacts to low-income populations in this report therefore considers these areas." This sentence should clarify that 3 sites are within the IBR Study Area. There are many more within the EJ Secondary Study Area. Also, how does the analysis consider these areas? Most of the sites (with the exception of the ones on the north side of Fourth Plain west of I-5) appear to be within a neighborhood analyzed in 3.2.3, but some of the sites are in a neighborhood not meeting one of the two EJ thresholds.
3-238	38	CDD	Environmental Justice Technical Report	3.2.2.2 Low-Income Housing	3-19 (118 of 202)		Double check the locations of the housing sites. The Central Park Place dot appears to be in the wrong location - it should be between Mill Plain and Fourth Plain.
3-239	39	CDD	Environmental Justice Technical Report	2.2.1 Minority Populations	2-5 (78 of 202)		Bullet with American Indian and Alaska Native - the 12 at the end should be a superscript
3-240	40	CDD	Environmental Justice Technical Report	2.2.1 Minority Populations	2-5 (78 of 202)		Should be 'Black or African American', not just 'Black' (as listed in FHWA's Guidance on EJ and NEPA)
3-241	41	CDD	Environmental Justice Technical Report	2.4.3 Community Resource Mapping	2-9 (83 of 202)		Add 'community based organizations and service providers' as potential community resources.
3-242	42	CDD	Environmental Justice Technical Report	2.6.1 Long-Term Impact Assessment Methods	2-21 (94 of 202)		The description of this section is 'long-term assessment methods', but acquisitions and displacements only focus on displacements due to proposed property acquisitions (short-term) and not long-term displacement risk due to increased property values and rents. Acknowledge that the Indirect Effects section discusses indirect displacement risk.
3-243	43	CDD	Environmental Justice Technical Report	2.5.2.1 Initial Community Engagement (2020-2021)	2-13 (86 of 202)	Table 2-2	Why are Youth and Low-Income Populations grouped together? This should be separated out.
3-244	44	CDD	Environmental Justice Technical Report	3.2.3 Neighborhood Characteristics	3-27 (126 of 202)	Table 3-19	Technically this table also includes a couple neighborhoods in Gresham. It would be more accurate to say "Oregon neighborhoods" any time Gresham and Portland neighborhoods are lumped together - or acknowledge that Portland encompasses Gresham for the purposes of this analysis. Given that Rockwood is an EJ priority area, it is especially important for Rockwood residents to be able to navigate this report and understand where the analysis includes their neighborhood.

Attachment D

	Item	Department / Division	Chapter/report	Section #	Page #	Figure/ Table #	Comment
3-245	45	CDD	Environmental Justice Technical Report			Table 3-20	Listing Regal Cinema as a community resource in this chapter contradicts the Neighborhoods report, which says "Compared to the centered mainline, the shifting the I-5 mainline west would require two additional property acquisitions: the Normandy Apartments, where 33 residential units would be displaced, and **the Regal City Center complex**, where three businesses would be displaced. This is a notable effect, especially for those living in these units. However, these displacements are not anticipated to substantially alter neighborhood cohesion because the Normandy Apartments are located at the edge of the neighborhood in an otherwise nonresidential area. Moreover, **the displaced businesses, which are not considered community resources**, make up a small portion of overall commercial property in the neighborhood."
3-246	46	CDD	Environmental Justice Technical Report			Table 4-3	Column 3 (Impact Specific to Minority and Low-Income Populations) in the Acquisitions section under Washington neighborhoods discusses the Westward shift design option twice. Replace the first mention with a summary of acquisitions and displacements in the Arnada neighborhood, the third EJ area in Vancouver.
3-247	47	CDD	Environmental Justice Technical Report			Table 4-3	Acknowledge potential impact to Esther Short neighborhood from the construction of up to two park and ride structures in the Land Use and Economics section. This land use would have greater adverse effects than other potential uses of the park and ride sites - and would undermine the intent for Downtown to be a pedestrian-oriented area.
3-248	48	CDD	Environmental Justice Technical Report			Table 4-3	The Transportation row in the table says "Changes to local traffic circulation resulting from the Evergreen Station would occur in the Esther Short neighborhood, a high-priority EJ area" and "Transit, active transportation, and safety enhancements associated with the Evergreen high-capacity transit station..." Section 4.4.2 (Transit Impacts) says "The proposed Evergreen LRT Station would be located in the Esther Short neighborhood—a high-priority EJ area." Correct these sentences to include the Waterfront Station, which is also located in that neighborhood.
3-249	49	CDD	Environmental Justice Technical Report	4.4.3		Table 4-3	Other benefits to EJ populations that could be listed in this table (to align with Sections 4.4.2 and 4.4.3) are: 1) the improvement in I-5 crossings due to the pathway to Old Apple Tree Park and other overpass/underpass improvements along the corridor - which will improve access to open spaces and other resources for Esther Short, Arnada, and Rose Village; 2) the shared use path over the river that will support many more active transportation trips - modes that lower-income populations have more reliance on compared to the general population; 3) improved transit access for EJ populations living along the Vine routes that will connect to the Evergreen station - with benefits extends beyond the study area into other EJ area such as Fourth Plain Village. Given how important bus connections will be at Evergreen, the service area of the Vine, and the higher rates of transit ridership among EJ pops, this is an important EJ benefit to acknowledge.
3-250	50	CDD	Environmental Justice Technical Report			Table 4-3	How would the No C Street Ramps design option affect the Esther Short neighborhood? Would shifting freeway traffic to the north reduce congestion on local streets? It seems there could be a benefit to Esther Short, but at a cost to Arnada.
3-251	51	CDD	Environmental Justice Technical Report	4.2, 4.3, 4.4		Table 4-3	Table 4-3 summarizes the impacts from the Design Options but the topical discussions in section 4 (Long-term effects) do not. In particular, section 4.3 Displacements and Community Resources does not disucss the westward shift of I-5 and its impacts to Esther Short - and section 4.4.1 Local Traffic Impacts does not discuss the No C Street Ramps option and the impacts to Esther Short and Arnada.
3-252	52	CDD	Environmental Justice Technical Report			Tables 3-19 and 3-20	To be consistent with the "No Thresholds" analysis approach, this table should list all community resources in the program area. EJ populations living within and outside of EJ focus areas access resources outside of those areas. Where the resources are located is irrelevant.
3-253	53	CDD	Environmental Justice Technical Report	4.3	4-21		Acknowledge minor, temporary impacts to Arnada Park in the Arnada neighborhood.
3-254	54	CDD	Environmental Justice Technical Report	4.2			The finding for the No Build Alternative is incorrectly found in "4.2 Modified LPA Summary of Project Impacts".
3-255	55	CDD	Environmental Justice Technical Report	4.2			"The Yellow Line extension would operate in an exclusive transit guideway with shoulders to provide space for express bus shoulder operations." This implies that the transit guideway will have shoulders for bus use, not the freeway.
3-256	56	CDD	Environmental Justice Technical Report	4.4.3			Acknowledge benefits to Arnada from active transportation improvements to Mill Plain and Fourth Plain, and to Rose Village from reconstructed overcrossings of I-5 at 29th Street and 33rd Street.
3-257	57	CDD	Environmental Justice Technical Report		4-38		"Esther Short has a high-priority percentage of Black or African American and Native American or Alaska Native residents when compared to the Portland-Vancouver region (Table 3-20)." Flagging that no where else is Esther Short described this way and that the Neighborhood characteristics analysis does not apply the thresholds to individual races/ethnicities - just to the minority population overall.
3-258	58	CDD	Environmental Justice Technical Report	6.2 Indirect Effects	6-2		"Other indirect effects could include increased noise and pollution in neighborhoods directly adjacent to the corridor, including Arnada and Rose Village, which have been identified as high priority and meaningfully greater EJ areas, respectively." 1) This is inconsistent with the Air Quality report and findings summarized in earlier sections of the EJ report which say "air quality would improve for the region, including for meaningfully greater and high-priority EJ areas within the study area." Clarify if this is meant to refer to construction-related pollution. 2) Arnada is a "meaningfully greater" area for low-income, and Rose Village is a "meaningfully greater" area for low-income and minority populations. Only Esther Short is high priority which should be added to this list.
3-259	59	CDD	Environmental Justice Technical Report	7.1.1.2 Mitigation for Long-term Noise Impacts	7-2		"Noise impacts in the Rose Village neighborhood would be mitigated by Noise Wall 4, which would be located in the area east of I-5 between E 33rd Street and SR 500. Noise Wall 4 would replace an existing 4- to 8-foot-tall, approximately 200-foot-long wall located just north of the 33rd Street overcrossing and would continue along the WSDOT right of way until reaching the bridge over E 39th Street." See previous comments about correcting the noise impacts to Rose Village and Shumway. Also, per Section 7.7.1.4 of the Noise report, Noise Walls 3,5, and 7 would be on the east side of I-5 (in Rose Village), wall 8 would be in Arnada, and wall 12 would be in Esther Short. Make sure this section is consistent with the impacts mentioned in 4.6 - including Noise and Vibration impacts in all 4 EJ neighborhoods.
3-260	60	CDD	Equity Technical Report	6. Indirect Effects	6-2 (95 of 115)	Figure 6-1	This should reference the City's Equity Index map or the Displacement Risk map. The map shown in Figure 6-1 is showing overall vulnerability; not displacement risk that takes into account housing data.
3-261	61	CDD	Equity Technical Report		5-3	Table 5-1	The bullet for "33 multifamily units displaced" is incorrectly placed in the Upper Vancouver row - it should go in the Downtown Vancouver row.
3-262	62	CDD	Equity Technical Report	5.1.1 Houseless Populations	5-5 (92 of 115)	Table 5-2	Title says 'Multnomah County Houseless Populations…', but table includes Clark County. Title should be updated to better reflect data in table.
3-263	63	CDD	Equity Technical Report	4.2	4-7		"A Community Connector (wide pedestrian crossing) at Evergreen Boulevard." We are not using "wide pedestrian crossing to describe this feature - it's more than that. Update this to reflect the description in 1.2.4.
3-264	64	CDD	Equity Technical Report	4.1.1			Why was 45 minutes chosen for the HCT Transit Access analysis? How would results differ if it was based on jobs reachable within 1 hour during the peak period? I imagine that many people are used to commuting for over 45 minutes, and that the LRT extension will at least given them a more viable alternative.
3-265	65	CDD	Equity Technical Report	7.1.2 and 8			Add "align new infrastructure with communities' future visions and plans" to the Program-specific Mitigation to match the description of possible community benefits provided in the "Synopsis and Next Steps" section of the report.

	Item	Department / Division	Chapter/report	Section #	Page #	Figure/ Table #	Comment
3-266	66	CDD	Equity Technical Report	4.3.3 Other Highway and Driving Equity Considerations			"Numerous studies have found that BIPOC individuals—in particular, African Americans—experience disproportionately high rates of traffic-related injuries and fatalities... While the extent of this issue is not known with respect to the IBR Program area specifically, implications of these studies are relevant. As the IBR Program moves forward, design decisions would consider improving safety for BIPOC users of the transportation system." Wouldn't this lead to the finding that there would be a disproportionate impact (either benefit of the MLPA or burden under the No Build)?
3-267	67	**CDD**	**Equity Technical Report**	**4.1 High Capacity Transit**			**Describe further how/why access to jobs doubles as a proxy to services**
3-268	68	**CDD**	**Equity Technical Report**	**8. Synopsis**			**Add further detail about Clark College access via existing C-TRAN service (i.e., explain C-TRAN investments that provide good service today). Also discuss current IBR/C-TRAN work to optimize access across the entire transit network considering local, BRT, and new light rail options.**
3-269	69	CDD	Executive Summary				Update Table 2 in the Executive Summary to reflect the additional transportation impacts of the movable span configuration (column 7) compared to the fixed span options. Column 7 says "Same as effects listed in Column 3" for all of the transportation impacts with the exception of traffic safety, which does not align with the discussion in section 4.5 of the Transportation Report (Bridge Openings and Gate Closures).
3-270	70	CDD	Land Use report	4.3.15			4.3.15 Park-and-Ride Integration with the Urban Environment should be part of the discussion on consistency with the Vancouver Comprehensive Plan - not a standalone section.
3-271	71	CDD - Dev Review	Land Use Technical Report	3.5.4 City of Vancouver Overlay Districts	3-61 (140 of 193)	Figure 3-19	Correct the Historic Preservation Overlay along Main Street to extend farther up to 11th Street.
3-272	72	CDD - Dev Review	Land Use Technical Report	3.3.2 Recent and Pending Development	3-10 (89 of 193)		Add 2009 approval of the Vancouver Waterfront Development master plan
3-273	73	CDD - Dev Review	Land Use Technical Report	3.3.2 Recent and Pending Development	3-10 (89 of 193)		The City is holding a pre-application for 103 Columbia Street (for 51,595 square feet) but there have not been any approvals or construction.
3-274	74	CDD - Dev Review	Land Use Technical Report	3.3.2 Recent and Pending Development	3-10 (89 of 193)		Address should be 210 W 3rd Street (not 210 W 4th Street).
3-275	75	CDD - Dev Review	Land Use Technical Report	3.3.2 Recent and Pending Development	3-11 (90 of 193)		The Hyatt Place project should be removed from the list, because it was replaced by the 400 Washington Street Apartments project listed on page 3-10 of the report.
3-276	76	CDD - Dev Review	Land Use Technical Report	3.3.2 Recent and Pending Development	3-11 (90 of 193)		Add to list of projects: Kirkland Renaissance Boardwalk at 101 and 111 SE Columbia Way (a mixed-use project with 217 residential units and 115,000 square feet of commercial space that has received preliminary approval.)
3-277	77	CDD	Land Use Technical Report	4.2.2.1 Park and Rides	4-15 (159 of 193)		Incorrectly states "Two multistory park-and-ride facilities would be built in Vancouver along the light-rail alignment, one near the Waterfront Station and one in the vicinity of the Evergreen Station." This should say that up to two park and ride facilities could be built in Downtown Vancouver. It should not say "built" because one of the options is existing. All reports and chapters of the Draft SEIS should be reviewed and updated to reflect the correct project description for park and rides.
3-278	78	CDD	Land Use Technical Report	9. Permits, Plans and Approvals	9-1 (186 of 193)		Includes discussion on the Clark Park and Ride facility - remove this remnant from CRC which is no longer relevant.
3-279	79	CDD	Land Use Technical Report	7.2.3 Park and Rides	7-2 (184 of 193)		Mitigation measures aren't really mitigation. They summarize code requirements and the program description of how a joint use facility on Library Square or Waterfront Gateway would work. Mitigation should be to use the existing parking supply to meet park and ride demand, rather than build any new structure.
3-280	80	CDD	Navigation Report	1.4 Purpose of this Report	1-3		The second paragraph in this section is confusing. "The IBR program is undertaking a NEPA re-evaluation and expects to complete a Supplemental Environmental Impact Statement (EIS) to reflect changes to the program and existing conditions. Issuance of the preliminary navigation clearance determination is expected to occur prior the Supplemental EIS so that its findings can be used in the NEPA process." Is this referring to the Draft or Final SEIS? Update this section to be clear about the status of the preliminary navigation clearance determination.
3-281	81	CMO	Neighborhoods	2.5.4	2-8		Elaborate on how information from the Community Advisory Group and Equity Advisory Group has been integrated into this analysis.
3-282	82	CMO	Neighborhoods and Populations Technical Report	4.4.10.1 Displacements and Property Impacts	4-14 (146 of 162)		Line 33 states "No residencies would be displaced in the neighborhood" and then on page 15 it states "the Normandy Apartments, where 33 residental units would be displaced". Clarify that the first part refers to the Modified LPA - with no westward shift.
3-283	83	CMO	Neighborhoods and Populations Technical Report	5.3 Washington Temporary Effects	5-3 (153 of 162)		In the Neighborhoods and Equity Existing Conditions and Environmental Consequences document on page 3.5-26, Section 3.3 states that temporary easements would not adversely affect neighborhood cohesion or liveability and in the technical report for Washington Temporary effects each neighborhood seems to have significant qualify of life affects and it even states that these impacts would reduce cohesion and neighborhood quality for the duration of construction. Reconcile this inconsistency.
3-284	84	CMO	Neighborhoods and Populations Technical Report	2.6 Analysis Methods Approach	2-13 (83 of 162)	Table 2-2	How has information from the Community Advisory Group and Equity Group been integrated into this analysis? They are not listed under any of the data sources in Table 2.2, page 2-13 (with the exception of "community input" listed as a data source for Community Benefits Evaluation Category which is vague)
3-285	85	CMO	Neighborhoods and Populations Technical Report	3.4 Description of Relevant Neighborhood Plan Goals for Portland and Vancouver	3-45 (132 of 162)	Table 3-47	How has the age of Neighborhood Action Plans been taken into account? For instance Shumway and Hudson's Bay's are from 1998. Shumway is updating theirs this year.
3-286	86	CDD	Noise and Vibration Technical Report			Table 7-3	Table 7-3 shows 12 single-family units at receptor LRT-1 located at E 7th St./ E C St, and section 4.6.2.4 "Downtown Vancouver Light-Rail Noise" describes the receptor as Normandy Apartments, which the Acquisition Chapters describes as 33 multi-family units. If only 12 of the 33 units would be impacted, then clarify why. Otherwise, update the reference to the Normandy Apartments to reflect the correct number of units. Would this change any of the findings?
3-287	87	CDD	Noise and Vibration Technical Report	7.7.1.4			Summary list of recommended noise walls incorrectly lists Noise Wall 8 as "north side of N Marine Drive at the Newport Apartments." in 7.7.1.4 Noise Mitigation Summary. It should be labeled as: west of I-5 between E Fourth Plain Boulevard and E Mill Plain Boulevard.
3-288	88	**CDD**	**Noise and Vibration Technical Report**	**7. Potential Mitigation**			**Please coordinate with City staff about about potential mitigation beyond noise walls as an option to mitigate any impacts where determined that noise walls are not reasonable.**
3-289	89	CDD	Parks and Recreation Technical Report	3.6.4 National Park Service	3-16 (91of 148)		Just to note (not necessarily to change): "These plans include a possible pedestrian overpass between E Evergreen Boulevard and 7th Street." The City is not actively pursuing this overpass - the focus is on the Community Connector and pathway to Old Apple Tree park for enhancing connectivity with the Reserve.
3-290	90	PW - Transportation	Transportation Technical Report	1.1.4 Downtown Vancouver (Subarea C)	1-41 (61 of 1,121)	Fig 1-23	Figure shows one of the proposed park and ride locations (1c) within the space currently contemplated for either the Waterfront Gateway or the Convention Center expansion.
3-291	91	PW - Transportation	Transportation Technical Report	3.6.1 Roadway Network	3-51 (129 of 1,121)	Table 3-13	SE Columbia Shores Blvd has sidewalks on both sides of the street. Need to correct the entry in this table for pedestrian facilities.
3-292	92	PW - Transportation	Transportation Technical Report	3.7.1.1 Regional and Local Transit Service	3-80 (158 of 1,121)	Table 3-25	The Vine entry appears to only acknowledge the Fourth Plain BRT and not the Mill Plain BRT, which goes to the park and ride in east Vancouver.
3-293	93	CDD	Transportation Technical Report	3.8.2 Active Transportation Facilities in the City of Vancouver	3-95 (173 of 1,121)	Table 3-30	29th Street is an overcrossing, not an undercrossing. 33rd Street has narrow curb-tight sidewalk on both sides of the overcrossing.

Attachment D

	Item	Department / Division	Chapter/report	Section #	Page #	Figure/ Table #	Comment
3-294	94	PW - Transportation	Transportation Technical Report	4.8.1.2 Active Transportation Facilities in the City of Vancouver	4-127 (351 of 1,121)	Table 4-45	I'm not aware of a RTC RTP project to complete multimodal improvements to Mill Plain Blvd west of I-5. That work was done with the WSDOT project completed in 2022. Clarify which project this is referring to, and if it has been completed already. (Source for Table 4-45 says "Source: Metro/RTC Financially Constrained RTP 2018".)
3-295	95	CDD	Transportation Technical Report	4.8.1.2 Active Transportation Facilities in the City of Vancouver	4-128 (352 of 1,121)	Table 4-46	29th Street is an overcrossing, not an undercrossing. 33rd Street has narrow curb-tight sidewalk on both sides of the overcrossing.
3-296	96	CDD	Transportation Technical Report	4.8.2.3 Active Transportation Facilities in the City of Vancouver	4-138 (362 of 1,121)	Table 4-51	33rd Street has narrow curb-tight sidewalk on both sides of the overcrossing. 29th Street sidewalk potentially buffered from travel lanes by landscaping.
3-297	97	CDD	Transportation Technical Report	4.8.2.3 Active Transportation Facilities in the City of Vancouver	4-142 (366 of 1,121)	Table 4-52	For E 29th Street, we may end up recommending sharrows instead.
3-298	98	PW - Transportation	Transportation Technical Report	3.1 Introduction	3-1 (79 of 1,121)		Last two sentences on Page 3-1 and first five sentences on Page 3-2 are a repeat of what is contained in the last paragraph on Page 3-1.
3-299	99	PW - Transportation	Transportation Technical Report	3.10.2.2 Facility Management System, Transit Priority at Traffic Signals	3-145 (223 of 1,121)		OR 99 corridor should be Main Street/Hwy 99 corridor.
3-300	100	PW - Utilities	Utilities Technical Report	3.3 Existing Utilities - Washington	3-7 (79 of 102)	Figures 3-2 & 3-3	The 3 mains you've called out and shown are the *most* major, but there are five other areas within the project limits where water main crosses I-5 ranging from 6" to 12". Not sure what your determining factor for what is considered major is, but fyi.
3-301	101	PW - Utilities	Utilities Technical Report	3.3.1 Water and Sanitary Sewer	3-5 (77 of 102)		Water can be fed from the east. Revise last sentence to "...adjacent to Columbia Way immediately east of I-5.".
3-302	102	PW - Utilities	Utilities Technical Report	3.3.1 Water and Sanitary Sewer	3-5 (77 of 102)		There is a sewer lift station located in ROW just south of 201 Columbia St. It is mentioned on page 4-3 lines 25 & 26 and shown on Fig-4-2, but it should be mentioned on page 3-5 as well.
3-303	103	PW - Utilities	Utilities Technical Report	3.3.1 Water and Sanitary Sewer	3-5 (77 of 102)		The water line in Columbia Way is mentioned, but there is also a sewer line east of I-5 that is the only source of supply along Columbia Way that should be mentioned as well
3-304	104	FIRE	Utilities Technical Report				Notify emergency service providers of any planned closures of lanes, stacking of traffic, or other potential delays for fire response and medical transport across the Columbia River. - Portland 911 Bureau of Emergency Communications (503) 823-3333 – non-emergency; (503) 760-6911 – emergency; 311@portlandoregon.gov. - Clark Regional Emergency Service Agency (360) 737-1911 – non-emergency; (360) 696 696-4461 – emergency; cresa@clark.wa.gov.
3-305	105	CDD	Visual Quality technical report			All the Degree of Impact tables	The scores need more explanation. For example, in Table 4-7, why is the finding for KVP 17 a net adverse impact, but KVP 18 is neutral, when KVP 18 is closer to the bridge and the visual change would be greater? Only providing some of the photosimulations in the report makes it hard to concur with the scores. This goes for the entire analysis.
3-306	106	CDD	Visual Quality technical report			Visual Compatability tables	In Table 4-8, Project Materials for the Downtown LU: "Material, color, and textures would be finalized during the final design phases but materials are anticipated to be consistent with **design recommendations** and local design directives. A consistent project design character would be applied across the entire Modified LPA for elements such as railings, retaining walls/barriers, light posts, benches, signs, and landscape/mitigation areas." Similar statement for Columbia River LU but not Burnt Bridge or Columbia Slough. What does "design recommendations" refer to? Why is this only mentioned in some but not all of the LUs?
3-307	107	CDD	Visual Quality technical report	3.2.4.1			This section is missing a conclusion about the degree of harmony for the natural environment of the Greater Central Park LU.
3-308	108	CDD	Visual Quality technical report	4.2.2.1			"Material, color selection, and textures would be identified during the final design phase of the Modified LPA but would be specified to be consistent with design recommendations, local design directives, and guidance of the **IBR Urban Design Committee**." This is the only mention of an "IBR Urban Design Committee" in this report. What is that referring to?
3-309	109	CDD	Visual Quality technical report	4.2.3	4-29		"This location is currently a gateway into the downtown leading up to the Vancouver Community Library and the House of Providence (also known as The Academy), past the City Center 12 cinemas." Replace with Regal Cinemas for consistency.
3-310	110	CDD	Visual Quality technical report	4.2.3	4-30		"A lid over I-5 (the Community Connector) would cross I-5 directly south of Evergreen Boulevard (see Figure 4-13)...The design and treatments of the Community Connector would be completed in future phases. This report assesses the potential visual effects of the new structure described in the Project Description (Chapter 1)." Why does it say "future phases"? The whole IBR program will be phased, and what goes on top of the lid is still TBD. The RCP grant assumes that IBR would be responsible for constructing it, including the top of lid features, but the City would take over O&M of the top of lid. It's unneccasry to say report assesses the potential visual effects of the new structure described in the Project Description (Chapter 1) - as that applies to everything.
3-311	111	CDD	Visual Quality technical report		4-29		"and a tie-in to the planned City of Vancouver road diet and two-way cycle track on Fourth Plain Boulevard" - is this referring to the "Fourth Plain Boulevard and Fort Vancouver Way Safety and Mobility Project"?
3-312	112	CDD	Visual Quality technical report	4.2.4.3	4-51		"New cultural elements, such as unified design elements and improved lighting, would likely be beneficial to the cultural environment." Disagree with this finding for the Greater Central Park LU, which is mainly historic in character. The finding should be consistent with the prior paragraph that acknowledges: "The visual character of the existing Interstate Bridge has been a distinctive part of the cultural environment for a long time. Removal of the existing Interstate Bridge and lift towers would remove this character."
3-313	113	CDD	Visual technical report	4.2.2.4			Change the degree of impact for KVP 19 to lower the ratings for natural harmony and cultural order under the Modified LPA, reflecting a net adverse change from existing conditions. The conceptual photographic simulations show that the helix ramp connecting the shared use path on the bridge to the waterfront would be highly visible to trail and river users. It would increase the amount of concrete visible from this vantage point along the river.
3-314	114	PW - Surface Water	Water Quality and Hydrology Technical Report	2.2.3.2 City of Vancouver	2-9 (80 of 150)		City of Vancouver Surface Water requires mitigation for additions over 2000 SF, not 2500 SF.
3-315	115	PW - Surface Water	Water Quality and Hydrology Technical Report	3.2.5 Storm Drainage	3-7 (93 of 150)		The report indicates an additional wetpond after discharge from the treatment pong to Burnt Bridge Creek. I do not see based on review of plans any additional wetpond, and it appears there is simply a piped overflow from the treatment pond.
3-316	116	PW - Surface Water	Wetlands and Other Waters	3.15.2 Existing Conditions, Wetlands in Washington	6		First paragraph states that Wetland B and the WSDOT Burnt Bridge Creek wetland complex are shown in Figure 3.15-3 but they are no longer visible due to the scale of the map image. Good to note that they exist but are not in the current study area.They are shown in Figure 3-7 page 3-3 of the corresponding technical document.

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Item	Department / Division	Chapter/report	Section #	Page #	Figure/ Table #	Comment
1	EPH	3.1 Transportation	3.1.3 Long-Term Effects, Active Transportation in 2045, Modified LPA	42	N/A	We should support an active transit connection to the WF station to allow for elevator access to the active transit bridge path.
2	PW - Transportation	3.1 Transportation	3.1.3 Long-Term Effects, Arterials and Local Streets in 2045, Intersection Operations	34	N/A	The documents states "The park and ride option in downtown Vancouver would not notably alter the operating conditions for the modified LPA under any design options". Page 1-42 of the technical report states that there would be 570 parking spaces for the waterfront station and 700 spaces for the evergreen station. The document also states (page 3-85 technical report) that other partnering entities such as churches and other unaffiliated partners would provide additional parking spaces for the parking and ride. The document assumes (page 4-69 technical report) that half of the available parking spots would be filled up during the AM peak. This means that the park and ride would attract more then 650 trips during the peak hour. Therefore the study needs to take a closer look at the impact of park and ride on downtown roadway network.
3	PW - Transportation	3.1 Transportation	3.1.4 Temporary Effects, Arterials and Local Streets	47	N/A	Section 3.1-page 47 paragraph 2. The document states that construction traffic would use local roadways to access construction areas. Heavy truck traffic over local roadways over extended period could severely damage local roadway pavement structure.
4	PW - Transportation	3.1 Transportation	3.1.6 Potential Avoidance, Minimization, and Mitigation Measures, Long-term effects, Program-Specific Mitigation	51	N/A	Section 3.1 page 51 paragraph 2. The document states that "Congestion with the two auxiliary lane design option would extend 1.5 miles and last approximately 4 hours". The two auxiliary lane option would have the least negative impact on C-D roadway system. Congestion on the C-D system can in-turn cause back-up and congestion on local streets. The two auxiliary lane would there be the preferred option for Vancouver.
5	CDD	3.1 Transportation	3.1.2 Existing Conditions, Arterial and Local Street Network and Intersection Operations	14	Table 3.1-7	For the intersections that are failing under existing conditions- can you provide what movement/ leg is failing?
6	CDD	3.1 Transportation	3.1.2 Existing Conditions, Transit	15	N/A	Another Vine BRT line (Hwy 99) will be open in advance of completion of IBR- is this Vine BRT included in the No Build/ Modified LPA modeling? Opening date is 2027.
7	CDD	3.1 Transportation	3.1.3 Long-Term Effects, Arterials and Local Streets in 2045, Intersection Operations	34	N/A	Report says "The park-and-ride options in downtown Vancouver would not notably alter the operating conditions for the Modified LPA under any of the design options." - Does this mean that there is no discernable difference between Modified LPA and other design options - or that there is no discernible difference from No Build? Is this implying that the trips to the park and rides during peak periods would not impact area study intersections?
8	CDD	3.1 Transportation	3.1.4 Temporary Effects, Active Transportation	47	N/A	Need to make sure that closures/any redirection still provides an ADA accessible option
9	EPH	3.11 Noise and Vibration			N/A	A larger lid at library square would decrease the noise impacts to the Library and future development (likely residential)
10	PW - Surface Water	3.17 Geology & Groundwater	3.17.2 Existing Conditions, Geologic Hazards	3	N/A	around the 500 interchange, in the study area, there are numerous slopes mapped for hazard as well as severe erosion risk areas
11	PW - Surface Water	3.17 Geology & Groundwater	3.17.2 Existing Conditions, Groundwater Quality	4	N/A	COV has violated SDWA standards on PFAS at several sources and for different analytes. Costly treatment system installation as well as blending will address these but the sources of our drinking water are not pristine. Developing new sources of drinking water that are shallower and more abundant will mean more vulnerability to shallow infiltration of pollution, particularly persistent compounds like PFAS, as well as potential shifts in groundwater flow regimes.
12	PW - Surface Water	3.17 Geology & Groundwater	3.17.2 Existing Conditions, Groundwater Quality	4	N/A	Safe Drinking Water Act monitoring requirements are not an indicator of overall groundwater quality. It's misleading to say city of Vancouver SDWA monitoring is a characteristic assessment of groundwater quality. The COV also has a shallow groundwater monitoring data report showing personal care products and emerging contaminants related to infiltration of polluted sources of runoff and ineffective septic systems. Infiltration in the IBR study area at the scope and scale proposed will likely impact both shallow and deep hydrogeology, potentially mobilizing contaminants to travel towards drinking water sources in new ways.
13	CMO	3.19 Climate Change	3.19.1 Changes or New Information Since 2013	2	N/A	Reference to Vancouver's Climate Action Framework should also note the interim goal of 80% reduction in communitywide emissions by 2030.
14	CMO	3.19 Climate Change	3.19 Climate Change	1	N/A	This intro makes no mention of the human-caused origins of GHG emissions or the connection between fossil fuel combustion in automobiles and freight, as well as high-energy intensity building materials like steel and concrete, and their contribution to climate change-driving GHGs. This is a critical point in setting the context for the project's contribution to climate change and the mitigation efforts that must be made.
15	CMO	3.19 Climate Change	3.19 Climate Change	1	N/A	This section should include mention of the City of Vancouver's Transportation System Plan.
16	CMO	3.19 Climate Change	3.19.3 Designing for Resilience in a Changing Climate, Other Climatic Factors, Wildfire Risk	6	N/A	Shoud include wildfire smoke's impact on traffic visibility as a climatic factor
17	EPH	3.3 Property Acquisitions and Displacement	3.3.3 Long-Term Benefits and Effects, Modified LPA	6	Figure 3.3-3	Why are the western most parcels of library square including the Library being shown as partial aquisitions? Shouldn't it only be the potential park site and those adjacent to I5, not the library's current property?
18	EPH	3.4 Land Use and Economic Activity	3.4.3 Long-Term Benefits and Effects, Modified LPA, Land Use, Washington	19	N/A	Park and ride facilities would conflict witht he City's land use goals and policies
19	EPH	3.4 Land Use and Economic Activity	3.4.3 Long-Term Benefits and Effects, Modified LPA, Business Displacements	31	Table 3.4-11	Per page 2-11 in the IBR SDEIS Economics Technical Report, it states that the "employee-per-square-foot ratios for business types, used data from the results of the latest reported ratios from Metro modeling (Metro 2015, p.8)." In doing so, their estimate determines that 400 employees would be displaced from an estimated 10 downtown Vancouver businesses, found in Table 3.4-11 in the Land Use & Economic Activity section of the DSEIS. Since Covid, some of these buildings have been advertising open spaces for lease, and/or have current open spaces within them, so this 400 estimated amount of employees could actually be less, at this time.
20	CMO - Climate	Air Quality	3.10.6 Potential Avoidance, Minimization, and Mitigation Measures	3.10-15		Is "encourage" strong enough wording under Program-Specific Mitigation? There have been numerous construction projects in OR that REQUIRE going above the baseline. I suggest this be a requirement (usually called a Good Neighbor Agreement) for this project on both sides of the river.
21	CMO - Climate	Air Quality				Suggest adding a more explicit disclaimer that MOVES calculates emissions, not air concentrations that can be compared ot health benchmarks or standards. It follows that if emissions go down, so do air concentrations but it's not necessarily 1:1.
22	CMO - Climate	Air Quality				How will IBR project monitor air quality for vulnerable/exposed facility users, i.e. people on foot or on bike, using project facilities - particularly paths located alongside the span of the freeway bridge? New monitoring stations need to be installed to ensure that road users with close proximity and total, unfiltered exposure to freeway air, especially when there are no alternative pathways, understand the health hazards associated with their travel.This is also noted in the Exec Summary - and it calls out safety for peds and bicyclists as well for being located extremely close to traffic lanes currently. Add safety and noise to air quality exposure here.

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Item	Department / Division	Chapter/report	Section #	Page #	Figure/ Table #	Comment
23	CMO - Climate	Air Quality				The Air Quality chapter needs to include more information about the health impacts of transportation-related pollution. Specifically that transportation is a significant contributor to air pollution-related illnesses and premature death. Emissions from vehicles can lead to respiratory, cardiovascular, neurodegenerative, and metabolic diseases, as well as cancer and reproductive issues. (from HIA summary, p. 3)
24	CMO - Climate	Air Quality report				After the explanation of what the model suggests, explain how long-term modeling will verify that the project assumptions really are playing out as expected. What plans does the project have for mitigation if monitoring finds that there are increased emsissions, either during construction or operation of the bridge? How will the project protect neighboring communities if the project is built based on these findings and they turn out to be wrong?" The executive summary says that the ROD will describe monitoring and enforcement programs to ensure mitigation measures are carried out effectively. Does that mean this will be addressed in the ROD, or should we push for it now in the SEIS?
25	CDD	Chapter 4 - 4(f)	Overall			Per 4f determination criteria, De minimus impact of Old Apple Tree Park is acceptable. The park must remain open during construction and construction shall be confined to western and northern portion of the park. Continue discussion about permanent alignment of shared use path and potential extension of path boundary within the park, access to the path, and its relation to overall park footprint. Minimize any tree root impact with the path and all construction.
26	CDD	Chapter 4 - 4(f)	Overall			Per 4f determination criteria, De minimus impact of Marshall Park is acceptable. The park must remain open during construction. Continue discussion with staff about permanent mitigation, including a recreational feature as potential replacement for impact to horseshoe pits as agreed to by City. Ensure that Mayor's Grove trees adequately protected and/or mitigated in consultation with City.
27	PW	Climate Change Technical Report	3.3 Climate and Equity Considerations	3-3 (97 of 201)	N/A	top of page, include language regarding native and climate adaptive vegetation.
28	PW	Climate Change Technical Report	6.1 Design Considerations	6-1 (129 of 201)	N/A	6.1 include language regarding utilizing native and climate adaptive vegetation.
29	PW	Ecosystems Technical Report	7.2.1.3 Site Erosion/Sediment Control Measures	7-4 (245 of 266)	N/A	Add language regarding planting quality long lived trees; native or climate adaptive conifers given this is the gateway to the Evergreen State. Also include language of eradicating invasive species along the cooridor such as English ivy, Tree of Heaven, Black Locusts and blackberry and replanting native or climate adaptive plants.
30	CDD	Environmental Justice Technical Report			Table 4-3	The Noise row incorrectly states that there would be a substantial noise impact in Rose Village. Based on the Noise Report, the substantial impact would be west of the freeway in the Shumway neighborhood (not an EJ area), and the potential noise and vibration impacts from traffic and LRT in Arnada, Esther Short, and Rose Village could be mitigated.
31	CDD	Environmental Justice Technical Report	4.6			Update this section to reflect the predicted noise and vibration impacts and proposed mitigation measures in Esther Short, Arnada, and Rose Village. The Noise Report discusses NAC impacts from traffic noise and recommended noise walls in all three areas, in addition to impacts from LRT and vibration noise in Esther Short, with associated mitigation. Based on these findings, there would not be disproportionate impacts to EJ populations in Vancouver. This section should clearly lay this out. Remove Table 4-14 OSHA Occupational Noise Exposure Chart (refer to Noise report for details).
32	CDD	Environmental Justice Technical Report	4.7.2			"Because low-income populations tend to use transit at a higher rate than the general population, improvements in transit speeds and reliability would contribute to offsetting the burden of the tolls." This is an important point that should have a citation and be mentioned in section in 3.1.2 (Travel Characteristics). All other mentions of this point can reference back to this - including in the Transportation and Equity reports.
33	CDD	Environmental Justice Technical Report	7.2.2 Mitigation for Temporary Transportation Impacts			Recommend the additional mitigation measure to provide free rides by transit across the river if/when the bike/ped path is fully closed. Hotline to call an on-demand service provided by TriMet or C-TRAN?
34	CDD	Environmental Justice Technical Report	7.2.2 Mitigation for Temporary Transportation Impacts			"Disruptions to peak period and daytime travel on I-5 are proposed to be mitigated through construction best practices, such as scheduling construction activities during nighttime hours and on weekends with approval by ODOT and/or WSDOT." This can have the unintended consequence of disproportionately affecting shift workers who are more likely to travel on nights and weekends. Studies indicate that women and people of color are more likely to work night shifts in US manufacturing jobs: https://pmc.ncbi.nlm.nih.gov/articles/PMC10192004/.
35	CDD	Environmental Justice Technical Report	6.2 Indirect Effects	6-2		"If low-income renters were forced to move because rents and associated costs of living increased downtown, this could result in adverse effects." Off to say "could" in this sentence. Getting forced out due to prices would be adverse.
36	CDD	Environmental Justice Technical Report	6.2 Indirect Effects	6-2		The City also has housing-supportive programs such as the Affordable Housing Fund.
37	CDD	Environmental Justice Technical Report	3.1.2			The EJ and Equity reports note several times how equity priority communities have a greater reliance on modes besides driving, and the Equity report notes how BIPOC individuals experience disproportionately high rates of traffic-related injuries and fatalities. Update section 3.1.2 of the Environmental Justice report (Transportation Characteristics) to describe how travel patterns differ for environmental justice populations. Refer back to this section throughout the report and in the Equity and Transportation reports.
38	CDD	Environmental Justice Technical Report	6.2 Modified LPA	6-2 (184 of 202)	N/A	Low-income homeowners could benefit from a rise in property values, but there is also a risk that over time that rise in property values can still cause displacement if the homeowner is not able to afford the corresponding increase in property taxes. This should be noted here.
39	CDD	Environmental Justice Technical Report	2.5.2.1 Initial Community Engagement (2020-2021)	2-12 (85 of 202)	N/A	How successful were engagement activities in reaching EJ communities? Only total numbers of people engaged are given with no demographic breakdown for many of the activities listed.
40	CDD	Equity Technical Report				Need more detail to explain the potential impacts related to the "extensive ramp distance" for various user groups. EJ populations are typically more reliant on non-auto transportation, meaning that the design of this connection could disproportionately affect EJ populations - such as residents of Esther Short. What alternatives to an extensive ramp can be provided for the people crossing the river by foot, wheelchair, bike, scooter, etc.?
41	PW - Transportation	Equity Technical Report	4.4 Tribal Government Consultation	4-10 (87 of 115)	N/A	The discussion regarding tribes in the report appears to be limited to this one section which only speaks to the improved and timely communication that is happening between the program and the impacted tribes. The report seems to lack any discussion of what the impacts area and how they should be mitigated. And its completely silent on the long standing impact the existing bridge and freeway has had on spaces that were once occupied by indiginous populations.
42	CDD	Equity Technical Report	6. Indirect Effects	6-1 (94 of 115)	N/A	Reside is cited when talking about neighborhoods at risk of displacement. The City's Displacement Risk Analysis and Map that was done in 2022 should be referenced instead. It is not only more up-to-date, but looks at census tracts citywide; Reside only focused on two neighborhoods in central Vancouver. I do not think what they have is an entirely accurrate representation of what is in Reside.
43	CDD	Equity Technical Report	4.4 Tribal Government Consultation	4-10 (87 of 115)	N/A	In general, this section feels quite vague. Is there more information that could be added to give a better idea of the level of engagement with Tribal governments and the level of input they have had in the process?

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Item	Department / Division	Chapter/report	Section #	Page #	Figure/ Table #	Comment
44	CDD	Equity Technical Report	6. Indirect Effects	6-1 (94 of 115)	N/A	I think mention of HCT alignment - particularly potential LRT stop locations/alignment - should be mentioned here. In particular the presense of equity priority areas and areas with higher displacement risk located in the Fourth Plain area just east of the project area. Proximity to LRT stops could lead to increased risk of residential displacement.
45	EPH	Land Use Technical Report	4.2.2.1 Park and Rides	4-18 (162 of 193)	N/A	The section states that there are 3 issues to assess in determining adverse impacts to land use downtown, but displaced future development is not included in this analysis. Displacing future better uses of the potential park and ride sites has negative impacts to the land use of downtown and should be considered as part of this analysis.
46	EPH	Land Use Technical Report	4.3.15 Park-and-Ride Integration with the Urban Environment	4-27 (162 of 193)	N/A	Park and rides are not consistent with Vancouver's comprehensive plan or downtown redevelopment goals, but will be accomodated if required to recieve federal funding. If neccessary, park and rides will be designed in a manner to mimize their negative impact on the urban form and surounding uses
47	EPH	Land Use Technical Report	4.2.2.1 Park and Rides	4-16 (160 of 193)	Figure 4.6	Remove P&R location 3 from report. The City does not support the use of this site as a park and ride location
48	CMO	Neighborhoods and Populations Technical Report	1.2 Modified LPA Construction	1-54 (67 of 162)	N/A	Both commissions have supported the study of a low-imcone toll program, but has any consideration been given to those who are disabled, specifically those with chronic illnesses that may need to cross the bridge to seek treatment frequently and how tolling will affect them?
49	CMO	Neighborhoods and Populations Technical Report	4.4.10.1 Displacements and Property Impacts	4-15 (147 of 162)	N/A	The Evergreen Inn is anticipated to experience noise impacts that cannot be mitigated. If you identify a potential impact, how are there not any mitigation options? What benefits might be offered to the Evergreen Inn and why aren't these identified?
50	CMO	Neighborhoods and Populations Technical Report	4.4.10.1 Displacements and Property Impacts	4-16 (148 of 162)	N/A	Traffic impacts on neighborhood cohesion for Esther Short for C Street ramp elimination design option
51	CMO	Neighborhoods and Populations Technical Report	4.4.2 Overview of Effects on Vancouver Neighborhoods	4-9 (141 of 162)	Table 4-2	Shumway and Lincoln are absent from this chart of Overview of Anticipated Effects on Vancouver Neighborhoods
52	PW	Parks and Recreation Technical Report	4.2.11 Old Apple Tree Park	4-15 & 4-16 (107 & 108 of 148)	Figure 4-6	Old Apple Tree Park. The central area of the park is utilized for the Old Apple Tree Fesitval hat has occured annually since 1984. Ideally, the new path would enter from the SW corner of the park and follow the southern property line/tree line and connect near the bike parking vs cutting through the ctern of the open space. This would allow for the continued use of the open space. If it is a height issue bringing the path to grade, perhaps a circular loop design that mimics the Land Bridge landing the path along the south side of the park. *Refer to comments from 4(f) chapter as well (below).*
53	CDD	Transportation Technical Report	4.6.4 Intersection Operations	4-70 (294 of 1,121)		The report concludes that "The park-and-ride site alternatives were found not to significantly change intersection operation results... All potential park-and-ride sites would have similar traffic operations as the Modified LPA for intersections in [all subareas]." Did the analysis look at scenarios with one or no park and ride lots? It seems that it only analyzed scenarios with two park and rides, based on the description of the MLPA in the methods section. The reports should explicilty compare additional scenarios (zero or one location) to adequately understand the potential traffic impacts of the various park and ride options. For example, concentrating 700 spaces on the Library Square site would mean that one car would enter the structure every ~10 seconds during the AM peak hour - in addition to any users of the Library and future development on the site. Intuitively, this volume of traffic would have localized effects that would need to be carefully managed.
54	CDD	Transportation Technical Report	General			The Draft SEIS should evaluate the pros and cons of providing a dispersed park and ride program in which transit riders have access to the existing supply of parking Downtown through agreements with property owners, wayfinding, and technology - with no new parking spaces constructed.
55	CDD	Transportation Technical Report	4.10 Transportation Demand Management and Transportation System Management	4-162	N/A	The modified LPA speaks to the physical infrastructure to meet the non-SOV travel needs but does not speak to continuing exisiting TDM programs as a part of the modified LPA. The modified LPA needs to come with more TDM strategies than just physical infrastructure like education, encouragement, communications and marketing, and subsidies and incentives.
56	PW - Transportation	Transportation Technical Report	4.6.4.2 Subarea 2: Mill Plain Boulevard, Impacts Common to all potential park-and-ride sites	4-82 (306 of 1,121)	Table 4-28	LOS F at multiple intersections without C Street ramps suggests this is not a viable option.
57	PW - Transportation	Transportation Technical Report	4.6.4.2 Subarea 2: Mill Plain Boulevard, Impacts Common to all potential park-and-ride sites	4-83 (307 of 1,121)	Table 4-29	LOS F at multiple intersections without C Street ramps suggests this is not a viable option.
58	PW - Transportation	Transportation Technical Report	1.1.5.1 Highways, Interchanges, and Local Roadways	1-44 (64 of 1,121)	N/A	Elimination of the WB SR-500 to Fourth Plain Blvd interchange. Has the program evaluated the impact of this on the existing SR-500/St. Johns interchange and the city streets that lead from this interchange to the Fourth Plain corridor?
59	PW - Transportation	Transportation Technical Report	3.6.4.3 Subarea 3: SR 14, City Center Interchange, and Columbia Way	3-72 (150 of 1,121)	Table 3-22	LOS F at Columbia Shores/Columbia Way. Which leg is failing and does this get worse with the LPA?
60	PW - Transportation	Transportation Technical Report	4.6.4.1 Subarea 1: SR 500, Main Street, 39th Street, and Fourth Plain Boulevard, Impacts Common to all potential park-and-ride sites	4-74 (298 of 1,121)	Table 4-26	LOS F at Fourth Plain/Main? Which leg?
61	PW - Transportation	Transportation Technical Report	4.6.4.1 Subarea 1: SR 500, Main Street, 39th Street, and Fourth Plain Boulevard, Impacts Common to all potential park-and-ride sites	4-75 (299 of 1,121)	Table 4-27	LOS F at Main/39th? Which leg?
62	PW - Transportation	Transportation Technical Report	4.6.4.3 Subarea 3: SR 14, City Center Interchange, and Columbia Way, Impacts Common to all potential park-and-ride sites	4-86 (310 of 1,121)	N/A	Not intuitive that there would be no impacts to the intersections in subarea 3 with the potential park and ride sites. You're concentrating new traffic to these sites - how can there not be an impact beyond the modified LPA?
63	PW - Transportation	Transportation Technical Report	4.6.4.3 Subarea 3: SR 14, City Center Interchange, and Columbia Way, Impacts Common to all potential park-and-ride sites	4-93 (315 of 1,121)	Table 4-31	Failing LOS at Columbia Shores/Columbia Way is made worse (delay) with both modified LPA options. Mitigation?
64	PW - Transportation	Transportation Technical Report	1.1.4 Downtown Vancouver (Subarea C)	1-41 (61 of 1,121)	N/A	Discussion of proposed westerly shift of the freeway is due to changes in local planning. Would like to see additonal clarity as to exactly what those changes are and what objective are we trying to attain.
65	FIRE	Transportation Technical Report	5.6 Arterials and Local Streets	5-4 (399 of 1,121)	N/A	Street and road closures, even during off buisiness hours, must be coordinated with notifications to emergency services. Short term alternate routes should be identified. Keep in mind that mutual aid takes place between Vancouver and Portland.

This page includes staff comments that were incorporated into the letter, for reference only. There is no need to respond to these comments in addition to those made in the letter.

Item	Department / Division	Chapter/report	Section #	Page #	Figure/ Table #	Comment
66	PW - Stormwater	Utilities	3.6.2	7-13		City of Vancouver owns stormwater conveyance and outfall facilities within the footprint of the project, and are not listed as critical facilities that could be potentially disrupted by the project. Disruption to a stormwater outfall would require mitigation or re-routing ahead of disruption, and should be discussed as a utility in this section overall. City Stormwater is also sent to WSDOT conveyance and outfall facilities, which will need to be relocated prior to any disturbance by the project to avoid future flooding.
67	PW - Utilities	Utilities				General comments that with further design and development of this project the City will need to review more closely the locations of bridge structures in relation to existing utilities.
68	PW - Utilities	Utilities Technical Report	General			The City Stormwater Utility is not included in discussion in this technical report. The City has significant utilities within and that drain to the affected corridor. This includes over 400 Acres of area that drain to existing WSDOT Facilities that may be impacted during various phases of construction.
69	PW - Utilities	Utilities Technical Report	5.1.2 Potential Temporary Effects – Washington	5-2 (90 of 102)	N/A	The two main crossings north and south of the I-5/SR-14 interchange (Columbia Way & 5th St) won't be potentially temporarily affected? If not great, just confirming.
70	PW - Utilities	Utilities Technical Report	4.2.2 Potential Long-Term Effects – Washington	4-5 (85 of 102)	N/A	"Loss of the main could affect water supplies and fire flows." is not entirely accurate as it absolutely *would* affect water supply and fire flow. Loss of the main in all areas listed is not an option. Instead would require relocation/replacement in kind or better.
71	FIRE	Utilities Technical Report	4.2.2 Potential Long-Term Effects – Washington	4-5 (85 of 102)	N/A	Multiple references state that fire flow on both the Hayden Island side and the Vancouver side will be disrupted. Whether short term or long term, where temporary fire flow disruption is planned, careful coordination with VFD and PF&R will be critical. Temporary provisions to accommodate fire flow may be required.
72	PW - Stormwater	Water Quality and Hydrology	3.14.2 Existing Conditions, Stormwater	7 and 8	N/A	The existing stormwater management system that flows to the Columbia River conveys nearly 500 acres, mostly through existing WSDOT conveyance within the I-5 ROW with outfall under the existing I-5 bridge touchdown point. The report mentions the project area contributions, however the existing flows from City of Vancouver are over 400 acres, which will require any new conveyance to be sized for the existing flows from outside of the project area in addition to the identified flow within the project area. All existing connections will need to remain, or be relocated prior to any downstream removal.
73	CMO - Climate	Air Quality	3.10.4 Temporary Effects	3.10-13		More should be added about specific EJ communities in the project area and mitigation measures to ensure these communities are not disproportionately impacted by construction activities, staging areas, and material hauling routes. Although these effects are expected to be similar across all design options of the Modified LPA, it should be called out in the SEIS as an impact that needs to be mitigated strategically for EJ communities and sensitive populations already disproportionately impacted by pollution generally, not just specific to this project. It is not adequate to exclusively use the Dan Ryan Expressway as a proxy.
74	CDD	Environmental Justice Technical Report	2.6.1 Long-Term Impact Assessment Methods	2-21 (94 of 202)	N/A	Archaeology should have specific mention of participation of Tribal governments. What does this process look like when it comes to Tribes and archaeological resources?
75	CDD	Environmental Justice Technical Report	4.2, 4.3, 4.6			There are inconsistencies for how Rose Village is discussed in Section 4 (Long-term effects). Section 4.3 (Displacements and Community Resources) says "Because no residential displacements would occur in this neighborhood and noise mitigation sound walls would improve noise conditions, no disproportionately high and adverse impacts to EJ populations are anticipated." Section 4.6 (Noise and Vibration) discusses the substantial noise impacts but not the proposed mitigation, and it does not draw a conclusion. Table 4-3 says "The area between E 33rd Street and E 39th Street encompasses the Rose Village neighborhood—a meaningfully greater EJ area for both low-income and minority populations. The residences that would experience a substantial noise impact may include EJ populations. Therefore, noise impacts to the Rose Village Neighborhood would result in a disproportionately high and adverse effect on EJ populations." Furthermore, the Noise Report shows the substantial noise increases between 33rd and 35th on the **west** side of the freeway in the Shumway neighborhood, not the Rose Village neighborhood. Section 4.4.2 of the Noise report (Modified LPA Traffic Noise for **East** of I-5/Mill Plain to North Vancouver Traffic) says "No substantial increase impacts are predicted."
76	PW - Surface Water	Water Quality and Hydrology Technical Report	3.3.2.5 Columbia River North Stormwater Watershed (Washington)	3-16 (102 of 150)		The City of Vancouver has over 400 acres of impervious surface that drain into the I-5 corridor to existing WSDOT stormwater facilities that outfall to the Columbia River. Additional GIS or other data can be provided to more clearly define the contribution to the existing outfalls for future design.

Attachment E: Draft Guiding Principles for the Community Connector and the Evergreen Station Area

Desired Outcomes, based on community and stakeholder input to date

- The Connector reconnects the east and west sides of I-5, serving as an important active transportation corridor.
- The Connector provides a safe, well-maintained public space that integrates the Downtown and Historic Reserve.
- Reflect local culture, history, and the needs/aspirations of the existing community.
- Coordinate the design with the development of the transit station, Library Square site, and other surrounding uses.
- Support a new "mobility hub" within the Downtown "transit district" (with safe, convenient transfers between modes).
- Build a resilient, adaptable structure (work in a variety of weather, allow change over time).

Place-making Principles

- Integrate the design for the Evergreen Station, the Community Connector, Library Square site, the interface with the Historic Reserve, and the surrounding street network – strengthening the connection between the two sides of the freeway.
- Create an inclusive hub for Vancouver – where community members can gather and all people feel welcome and safe.
- Provide a visual and symbolic "gateway" to Vancouver and the State of Washington – utilizing iconic design.
- Celebrate the local culture of today and honor the many histories of the surrounding area and the city's people.
    - Incorporate story-telling through public art, signage, sound, interactive installations.
    - Include communities on the east side of I-5 in addition to Downtown and other neighborhoods on the west side.
    - In addition to the local culture and history, reflect the regional connectedness promoted by the IBR investments in this area.
    - Support local businesses through information, signage, programming, and partnerships.
- Provide a pedestrian-oriented corridor that aligns with 9th Street runs through the Library Square site and the Connector and supports active uses and special events.
- Design the Community Connector as a calm, inviting, family-friendly place to pass through, learn, and hang out.
    - Incorporate space for community gathering and interaction, as well as passive recreational use.
    - Provide amenities for children – complementary to the library and serving the growing Downtown population.
    - Provide scenic viewpoints.

    - Enable small events, pop-up markets, and group activities – but not necessarily large events. Plan for loading/unloading, space for tents, electricity, and acoustics.
- Explore the provision of public restrooms in this area, recognizing the increased demand from the transit station.

Transportation Principles

- Provide enhanced east-west connections for walking and small mobility modes (e.g., bikes, e-bikes, scooters).
    - Link to the surrounding sidewalk and small mobility networks.
    - Incorporate amenities that support these modes, such as a bike repair kiosk, bike rentals, wayfinding signage.
- Ensure that local bus and bus rapid transit (BRT) connections to and from the Evergreen light rail station are safe, convenient (short), and accessible to all transit riders.
- Ensure that wayfinding through the space is intuitive – with direct routes and clear sight lines to key destinations.
- Ensure that bus turning and through movements support efficient transit operations, while minimizing interference with pedestrian movement.
- Integrate the light rail platform and facilities needed to support transit operations into the space in ways that minimize conflicts with pedestrian flows and sight lines.
- Locate and design pathways to minimize grade changes as much as possible, recognizing the topography of the area and constraints associated with the transportation facilities.

Design Principles

- Design the spaces to recognize and balance the variety of user needs and to prioritize accessibility for people with disabilities.
    - Use universal design and other best practices for designing public spaces and transportation facilities – going beyond Americans with Disabilities Act (ADA) requirements where possible.
    - Consider and incorporate the detailed feedback from people with disabilities and accessibility-oriented leaders provided to the City and IBR to date – while involving this population at every stage of design and implementation moving forward.
- Strategically locate and design Transportation facilities to promote safety – separating faster moving modes from slower moving ones and gathering places.
- Use "Crime prevention through environmental design" (CPTED) principles to promote security and provide "eyes" on public spaces.
    - Activate the spaces through both design and programming (e.g., interactive installations, events, groundfloor uses on Library Square that generate foot traffic).
    - Partner with the Library, the Historic Trust, local businesses, and other nearby property owners, agencies, and community groups to program the space.

Attachment E

- Strategically locate and design lighting to promote security, while minimizing unwanted spillover.

- Provide a mix of hardscape and vegetation on the Community Connector.
  - Select plants that provide aesthetic and environmental benefits (such as shading and bee habitat) – seeking creative ways to address long-term maintenance challenges.
- The space, including any landscaping, is designed to:
  - be flexible and adaptable (with evolving uses over time);
  - be cost effective to build and maintain;
  - promote environmental sustainability (low carbon materials and methods);
  - be resilient to weather events and reduce the heat island effect; and
  - provide visual, noise, and air quality buffers from the freeway and transit guideway.
- Size the Community Connector to balance the competing objectives for the space, including long-term maintenance and security considerations.
  - Prioritize functional and accessible active transportation connections.
  - Seek creative ways to use the site's challenging topography as an advantage.

Attachment F

Executive Summary: Health Analysis of the Interstate Bridge Replacement Program

Prepared by: Washington State Department of Health, Clark County Public Health, Cowlitz Indian Tribe, Oregon Health Authority, Multnomah County Health Department

Interstate Bridge Replacement Program Overview & Public Comment Information

The Interstate Bridge Replacement (IBR) Program will be one of the largest infrastructure projects in the region for a generation. Because of this scale, it provides tremendous opportunity to positively impact health and advance environmental justice and equity.

The project is currently undergoing an evaluation through the National Environmental Policy Act (NEPA) to assess potential impacts. The IBR Program is currently (September 20 to November 18, 2024) undergoing a public comment period on its Draft Supplemental Environmental Impact Statement (DSEIS), a series of draft documents that cover topics studied under the environmental review. **You can provide comment on the DSEIS on the IBR Program website through November 18, 2024 (https://www.interstatebridge.org/DraftSEIS).**

Health Analysis Overview

As part of the planning and implementation of the IBR Program, regional partners requested that a health impact assessment (HIA) be included to understand the project's effects on community health and well-being. State and local health departments in Oregon and Washington, joined by a representative from the Cowlitz Indian Tribe, began meeting in early 2024 to collaborate to complete this request. Time constraints limited the scope of the HIA, and a modified health analysis relying on literature review, existing data, and public health best practices was drafted. The health agencies reviewed readily available information and select DSEIS technical reports to examine the potential health effects of the Modified Locally Preferred Alternative (LPA) – including environmental justice and health equity concerns. The health analysis assesses potential health impacts of the Modified LPA and does not propose an alternative.

The final analysis will be complete and submitted as a public comment by the end of the comment period, November 18, 2024. This summary highlights key takeaways for each topic area and an overview of the project recommendations that will be submitted to the IBR Program. The recommendations in the final health analysis will include additional detail and implementation suggestions.

For more information about the health analysis, contact EHAssessment@doh.wa.gov.

Topic Areas

The Health Analysis identifies six topic areas of public health interest related to the program. Each topic area is represented by an icon. An icon or multiple icons accompany each of our recommendations to indicate which topic area and associate health outcomes could be improved by implementation of the recommendation:

- Air quality
- Climate change and health
- Transportation & active transportation
- Social determinants of health
- Noise
- Water quality

Key Takeaways

To reduce negative health impacts of the IBR Program, we recommend decision-makers design, construct, and maintain a program that prioritizes human health and safety, ecological health, and environmental justice. This includes keeping public health partners, community, and Tribal representation at the table in decision-making for the Program.

Impact Area	Health Effects
Construction of the Modified LPA	• **Access.** Construction changes to roads, public transportation, and bike and pedestrian lanes could negatively impact access to employment, health care, and other needed services, particularly for those that do not have car access. • **Displacement.** The Modified LPA would acquire properties and displace residences and businesses that would disproportionately negatively affect equity priority communities in East Columbia, Rockwood, Esther Short and Rose Village. • **Air Quality.** The DSEIS does not provide sufficient evidence about projected air quality changes under the Modified LPA to properly assess health impacts to air quality during construction.
Long-Term Effects from Modified LPA	• **Air Quality**. Traffic-related air pollution contributes to negative health impacts including respiratory and cardiovascular disease, increased risk of all-cause mortality, cancer, and cognitive development for children. The DSEIS states that air quality will not be impacted, despite estimated increases in vehicle miles traveled. • **Road Safety.** The DSEIS states that crashes will increase by 15% under the Modified LPA, mainly due to estimated increases in traffic volumes. No information is provided on how crash frequency would change by travel mode, crash type, severity, location, or for environmental justice communities. • **Transit.** Mode shift from cars to new transit options under the Modified LPA will likely improve health outcomes related to physical activity. However, transit access to jobs for BIPOC residents, immigrants and refugees, and people under the age of 25 will not increase as much as it is predicted to for white, non-Hispanic residents. • **Noise.** The DSEIS describes higher levels of noise and vibration will negatively and disproportionately impact communities identified as equity priority communities. • **Tolls.** The cost of tolls would disproportionately negatively impact low-income community members.

Topic Areas Summary

Air quality + health concerns + potential project impacts

- Transportation is a significant contributor to air pollution-related illness and premature death. Emissions from vehicles, including carbon monoxide, nitrogen oxides, and particulate matter, can lead to respiratory, cardiovascular, neurodegenerative, and metabolic diseases, as well as cancer and reproductive issues.
- The DSEIS projects that the Modified LPA would result in a 33% increase in vehicle miles traveled (VMT) by 2045 compared to the 2015 baseline. Despite the expected increases in VMT, the DSEIS predicts that vehicular emissions will decrease compared to the 2015 baseline. The DSEIS estimates this using modeling from EPA's MOVES model, which assumes that emissions will decrease due to the 2007 EPA Control of Hazardous Air Pollutants from Mobile Sources. This modeling was run on a geographic scale (including Clark, Multnomah, Clackamas, and Washington counties) that is too large to understand local health and environmental impacts in the project area.
- The DSEIS states that concentration of air toxics from mobile sources would likely be more pronounced on road segments where traffic would increase under the Modified LPA compared to the No-Build Alternative due to diversion to avoid tolls. However, many of these road segments were not included in the air quality analysis.
- Modified LPA policy decisions which minimize mobile sources of air toxics during the operation of the project and design elements which mitigate the coinciding health impacts, like green infrastructure and indoor air filtration, would reduce potential public health burdens.

Transportation and active transportation + health concerns + potential project impacts

- Physical activity improves a wide range of health outcomes across the lifespan. Transportation planning and design features influence the opportunities available to community members to be physically active by walking, biking, or using transit.
- Project construction may create travel barriers or delays to essential destinations, regardless of mode.
- The extension of the light rail line and addition of enhanced walking and bike facilities will likely increase physical activity and support improved community health.
- Traffic volumes are projected to increase under the Modified LPA. Design and policy options that encourage more people to walk, bike, or use transit, rather than drive, would yield additional health benefits through increased physical activity.
- The DSEIS projects that the Modified LPA will result in a 15% increase in crashes on the freeway network and negligible change in crash frequency on the local road network. No information is provided on projected changes in crash type or severity.
- Tolls have the potential to further encourage mode shift to transit. This could improve health outcomes related to physical activity and air quality. However, tolls could also have a disproportionate impact on low-income community members.

Noise + health concerns + potential project impacts

- Harmful traffic noise levels can contribute to chronic and cardiovascular disease, disturb sleep, and reduce cognitive functioning. Older adults, shift workers, and people with preexisting sleep disorders are more sensitive to noise-induced sleep disturbance, and children are particularly sensitive noise-induced health effects and learning disruptions.
- The Modified LPA would approach or exceed noise abatement criteria at 65 locations in Portland and 135 locations in Vancouver, including residences, offices, and one school. Noise walls are the only proposed noise mitigation for the project.
- Noise monitoring during construction, and re-examination of noise mitigation would yield greater protection from harmful noise exposure for community members in the project area.

Climate change and health + health concerns + potential project impacts

- Climate change is associated with many adverse health outcomes, including but not limited to heat-related illness, respiratory illness, cardiovascular failure, adverse perinatal outcomes, mental health impacts, injury, and death. The health impacts of climate change are not equal, and several populations are disproportionately affected.
- The DSEIS *Climate Change Technical Report* projects several climate change scenarios with impacts in the region over the project period, including higher temperatures and temperature extremes, more fires and severe smoke, changes in precipitation, and increased risks of flooding.
- Workers, pedestrians, bicyclists, transit users, and adjacent communities may be exposed to heat, wildfire smoke or poor air quality, and other severe weather events during bridge construction and operation.
- Modified LPA design and construction operations that prioritize reducing the urban heat island effect, increasing shade and respite from heat, mitigating flooding risks, and planning for heat, wildfire smoke, and other severe weather and climate (flooding, extreme precipitation) events could improve resiliency and yield more protection from climate change-related illness and injury in the project area.
- The DSEIS *Climate Change Technical Report* anticipates the Modified LPA would result in a reduction of greenhouse gas emissions compared to the No-Build Alternative.

Social determinants of health + health concerns + potential project impacts

- The construction and operation of the Interstate bridge replacement will influence other factors that affect health, including housing, income, employment, and access to greenspace and health care.
- The IBR Program could negatively impact access to traditional cultural activities, culturally specific health care, and access to ancestral lands for American Indian and Alaska Native communities.
- The Modified LPA requires the acquisition of land that would displace 43 homes. Construction could also displace houseless community members residing in the project area.
- The Modified LPA will have varied economic impacts. Between 32-35 businesses and 600-742 employees are projected to be impacted due to property acquisitions required for construction. The project will also drive a temporary increase in construction-related employment while the bridge is being built.
- The IBR Program will comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act to provide relocation assistance to displaced residents and businesses. Additional supports to lessen the emotional impact of displacement for all, like investments to support homeless individual relocation, workers affected by business displacement, and the return of displaced individuals or businesses, could support greater health and well-being.

Water quality + health concerns + potential project impacts

- Safe and clean water is essential for the health of humans, animals and the entire ecosystem. Impacts to the health of the Columbia River and surrounding waterways, including the Troutdale Aquifer, could not be more consequential.
- Construction, specifically in-water construction, will have impacts on turbidity of the water, and can disturb hazardous sediments and toxic contamination. There are already waterways in the project area with pollutants that have required monitoring.
- Fugitive dust from construction and demolition can settle into the water and impact water quality. Climate change and drought can increase concentrations of contaminants in water.
- The IBR Program will implement stormwater infrastructure which will help improve water quality. Continuing to adapt to emerging issues such as 6PPD contamination, which is lethal for salmon, could positively impact water quality and ecosystem health.
- The DSEIS *Water Quality Technical Report* and the DSEIS *Hazardous Materials Technical Report* discuss the need to sample and analyze the levels of hazardous sediments and toxic contamination, but no plan to conduct sampling or report on the results prior to in-water work.

Recommendations

Design with health in mind

1. Design active transportation (bike lanes, sidewalks, and multi-use trails) and public transportation that is accessible to all to improve air quality and physical activity.
2. Design safety features to reduce injury for active transportation users and vehicle users.
3. Improve greenspace and tree canopy cover to improve air and water quality, provide shade, and increase natural spaces.
4. Design with sustainable materials and standards to reduce greenhouse gas emissions.
5. Prioritize resilience to extreme weather events, climate change, and seismic events to improve safety.
6. Maintain and improve good air and water quality in the project area to protect physical and mental health.
7. Minimize excess noise in the project area to protect nearby neighbors and populations disproportionately affected by noise.
8. Maintain and improve connectivity and community cohesion to promote access to community services.
9. Center equity and focus on local businesses in contracting to improve economic opportunities for underrepresented groups.
10. Minimize home and business loss, and proactively support displaced residents, businesses, and employees.

Construct with health in mind

11. Meet and exceed, where possible, state and local requirements to reduce noise and air pollution to protect the health of workers and community members.
12. Design and mark routes during construction to protect pedestrians and active transportation users from injury and environmental exposures.
13. Maintain community connectivity through reliable access to transit, neighborhood services, and regular transportation routes.
14. Protect workers and community members on high-risk days for high heat and poor air quality events.
15. Establish systems for continuous monitoring for noise and air quality during and after program construction, ensuring that pre-construction conditions are measured as a baseline.
16. Implement workforce development and support programs to develop and retain a diverse workforce.

Prioritize sustainability, transparency, communication and health for the lifetime of the project

17. Institute accessible systems for real-time two-way communication about project design and construction impacts to keep community members informed of project impacts, and the program informed of community impacts.
18. Prioritize health in program policies and decision-making throughout the lifetime of the program by incorporating regular engagement with community members, health department staff, and Tribal governments.

Provide additional information and modeling to better understand potential health impacts

19. Assess how design could increase access to health care in the region.
20. Compile and release to the public more information about demolition plans for the current bridges, including a detailed noise assessment with noise heat mapping, predicted noise levels, and any overlap in noise emitting activities with construction (e.g. if demolition and new construction are happening at the same time).
21. Expand information about potential air quality, safety, and connectivity impacts of construction.
22. Compile and release to the public additional information about potential air quality, safety, and connectivity impacts of tolling-related traffic diversion through neighborhoods.
23. Develop and release to the public a detailed sampling and analysis plan of riverbed sediment including potential contaminants, hazardous sediments, and toxics.

DOH 334-564 October 2024
To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or e-mail civil.rights@doh.wa.gov.

Attachment G: Summary of feedback from people with disabilities and accessibility-oriented leaders

The following highlights key takeaways from recent engagement activities conducted by the City of Vancouver, including:

- Community Connector focus group with representatives from Community in Motion, Northwest Association for Blind Athletes, Pasitos Gigantes, and Washington State School for the Blind and Washington State School for the Deaf (August 2024)
- Disability Community Meeting re: Downtown Parking Plan (June 2024)
- Conversations associated with the Comprehensive Plan Update, Heights District, Main Street Promise, and Waterfront Gateway projects

Pedestrian Infrastructure

- Poorly maintained sidewalks, cracked/uneven sidewalk around street trees and cobble streets present hazards for people who use mobility devices. They often damage people's mobility devices and discourage them from visiting certain locations.
- Pedestrian push buttons need to be low enough for someone in an assistive mobility device.
- Crossing signals need audible walk indicators.
- Remind businesses to keep their A frame signage out of the way.
- 8-10 feet is the recommend for pathway width for Deaf folks to be able to communicate with each other while walking or rolling.
- With shared use paths, guide dogs will pull to the left, which is problematic when bike and pedestrian travel is only split visually.
- 9th Street is a main east-west corridor but one of the most unsafe roads to walk along. 8th and C Street intersection is also unsafe.

Transit Service

- Bus service doesn't always take folks exactly to their destination. Identify high-priority routes between transit pick-up/drop-off locations and major destinations.
- Dedicated pick-up/drop-off zones for people using van services (C-TRAN's C-VAN or Community in Motion) are needed.

Parking & Drop-off Zones

- Accessible parking spaces need 8 feet clearance (typically on the right side of car but some accessible vans have rear entrance) and should be close to ramp that leads to sidewalk/entrance to destination.
- Ensure pick-up/drop-off zones have enough clearance for people with wheelchairs or mobility devices.

- Add more accessible parking than the required minimum.
- Keep in mind the destinations—accessible parking that's blocks away from the destination isn't accessible.
- Enforce accessible parking regulations (e.g., have a placard) and fine violators.
- "Empathetic" signage and marketing campaigns can help curb abuse/misuse of accessible parking spots.
- Parking meters/pay stations and the signage on them needs to be accessible and readable for people in wheelchairs.
- Ensure parking garages (if any are added) are clearly marked and brightly lit.
- Work with local business owners to use private lots on weekends/when not in use.

Construction impacts

- Construction notifications and information about how access will be impacted, particularly for people with disabilities, is critical.
- Offer more thoughtful alternate routes when streets are blocked by construction. Crossing unexpectedly is often not possible for people using a mobility device. Notices posted at intersections could let people know if the street ahead is not accessible.

Communication

- Plan for and provide info in other languages:
  - Braille should always be available, even if there's an audio button to give audible information.
  - Spanish is the second most spoken language, followed by Russian, Ukrainian, and Vietnamese. Vancouver also has a large Chuukese population. QR codes could be used to provide information in other languages.
- Check with experts to ensure Braille and multilingual signage is correct. The Ogden Resource Center at Washington State School for the Blind can help check accuracy of Braille.
- Braille signage should be made in metal and located in a place that a blind person will find it, not above a stairwell or on a bottom stair.
- QR codes are supplemental to Braille, not an alternative to Braille. When using QR codes on public signage, provide a tactile box around the code.

Design guidelines or principles

- Implement universal design guidelines from the **American Society of Landscape Architects** or other organizations, including:
  - Textured paving and textured transitions, helping people understand where they are on the street.
  - Use tactile wayfinding directional strips and different shaped poles for different things (e.g., octagonal pole for transit stop versus round pole for information or speed limit signs).
  - Some spaces have used a different shaped pole to indicate transit stop vs. speed limit sign (octagonal vs. round)
  - Accessible sidewalks, free of obstructions, such as major cracks or rises in the pavement.

Attachment G

- Accessible wayfinding, including signs with Braille or scannable QR codes for people with low vision.
- Public spaces and seating options that are comfortable for multiple people using mobility devices.
- Create **DeafScapes** and design street spaces to better meet **Deafspace design guidelines.**
- Use colors that help reduce glare and minimize overstimulation for neurodivergent community members.

- Provide green spaces with shade.

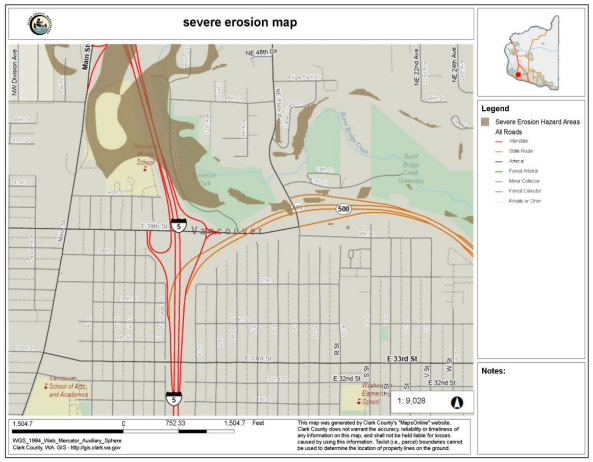
Disability community-featured art:

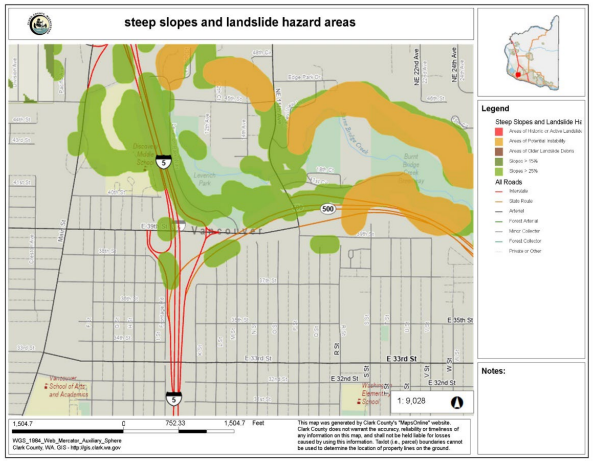
- Vancouver was the birthplace for support and hub for a lot of people with disabilities. It is a special place for marginalized and under-represented communities, especially youth. This history can be brough forward through public art.
- Washington State School for the Blind and Washington State School for the Deaf were part of this community before WA statehood. Could be partners in getting art into place.

Future Engagement

- Connect directly with people who are blind, deaf, have mobility issues during the design process and through implementation to get first-hand experience ("Nothing About us Without Us!" - DDOmbuds.org).
- Vancouver partners to include:
  - Community in Motion
  - National Federation of the Blind
  - Northwest Association for Blind Athletes
  - Pasitos Gigantes
  - Veterans: Clark County Veteran Assistance or Vancouver VA Medical Center
  - Washington Council for the Blind
  - Washington State School for the Blind
  - Washington State School for the Deaf
- Ensure all graphics are accessible for future engagement.
- Provide braille/tactile maps at large gatherings.

Attachment H: Geologic Hazard maps created from MapsOnline, Clark County WA. GIS.





Attachment I: Project Fact Sheets

MAIN STREET PROMISE

Safe. Accessible. Connected.

Project Overview

The City of Vancouver is investing in the future of Main Street—making it safer, more accessible and connected for businesses, residents and visitors.

A community-led effort nearly 30 years in the making, this project will reconstruct Main Street from 5th Street to 15th Street. The roadway, sidewalks, street lighting and adjacent outdoor spaces will be reconfigured to improve safety, foster a sense of community and drive economic prosperity.

Engagement & Feedback

Over the past year, the Main Street design was developed and refined via community input gathered through presentations at more than 20 City and community boards and commissions meetings, five project advisory group meetings, two open house events and two surveys. The project team also received feedback through numerous online and in-person interactions with property owners, businesses and community members who walk, bike, roll, drive and use public transit to visit Main Street.

Project Improvements & Benefits

Increase safety and mobility

- Curbless streets to increase access and help slow traffic
- Extended and ADA-compliant sidewalks
- Tactile sidewalk treatments and audible crossings for visually impaired community members
- Pedestrian-scale lighting to illuminate sidewalks
- Enhanced intersections and crosswalks
- More bicycle parking
- New traffic bumps to reduce vehicle speed
- Parallel parking to improve visibility for drivers and pedestrians

Welcome visitors and support Main Street businesses

- Removable bollards that can close the street for pedestrian-only events
- Outdoor seating and furnishings
- Year-round decorative lighting
- Pet waste disposal stations
- Six new dedicated spaces for fixed or rotating public art

Improve infrastructure

- Reconstruct water, sewer and stormwater utilities
- Repave the roadway surface and install new traffic signals
- New power access for use during festivals and events
- Electric charging stations for vehicles and e-bikes

CITY OF Vancouver WASHINGTON



The project area covers approximately a half-mile stretch of Main Street from 5th to 15th Street.

Contact the project team

beheardvancouver.org/mainstreetpromise

(360) 487-7940

smallbusiness@cityofvancouver.us

See more project information, including open house exhibits and summaries →

beheardvancouver.org/mainstreetpromise

Learn more about project advisory group members and review meeting summaries →

beheardvancouver.org/mainstreetpag

Attachment I

Construction Timeline*

Construction will occur two blocks at a time during each phase.

Phase 1 Begins** (Sewer)	Phase 2 Begins** (Water)	Phase 3 Begins
Summer 2024	Winter 2024	2025 to 2026
Block Captains kickoff Coffee Corners begin		

** Construction schedules are subject to change.*
*** Construction begins at 5th Street*

Construction Approach & Impacts

Main Street construction will happen in three phases to help minimize disruptions to businesses and residents. During each phase, work will occur two blocks at a time. This approach allows for normal vehicle and pedestrian access outside of the construction zone.

Within the two-block construction zone, the contractor will be required to maintain pedestrian access to buildings. Temporary closures to pedestrians (up to 4 hours at a time) will be needed at times to complete work. During those times, accessible detours will be provided. The project team will communicate with affected businesses and property owners in advance to help minimize construction impacts.

Phase 1 (reconstruct sewer utilities) & Phase 2 (reconstruct water utilities)

- Minimal sidewalk impacts, heavy road impacts.
- Construction begins at 5th Street and moves towards 15th Street.
- Temporary business impacts when connecting utilities (4 hours max per closure).

Phase 3 (all other streetscape construction)

- Sidewalk and road impacts.
- Construction begins in two-block increments between 5th Street and 15th Street.
- Temporary business impacts expected (4 hours max per closure).

Supporting Businesses During Construction

The City is committed to working with business owners to ensure that they have up-to-date information and that their concerns are addressed in a timely manner. A Block Captain program will be implemented at the start of construction, ensuring each business has a go-to resource on their block for the latest information. A construction hotline will allow businesses to report concerns and receive support. The project team will also host a series of "Coffee Corners" with business owners, assist businesses with marketing efforts and offer technical assistance for business needs.

Downtown Stakeholders Forum

Regular City of Vancouver and VDA meeting that provides key progress updates. View schedule here: **beheardvancouver.org/downtown-stakeholders**

MAIN STREET PROMISE
Safe. Accessible. Connected.

Project information is also available in Spanish and Russian at **beheardvancouver.org/MainStreetPromise**. If you would like to request interpretation support, project materials in another language or accommodations with a disability, please email smallbusiness@cityofvancouver.us or call (360) 487-7940.

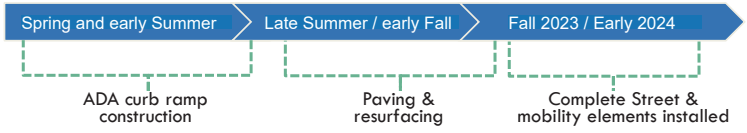
Attachment I

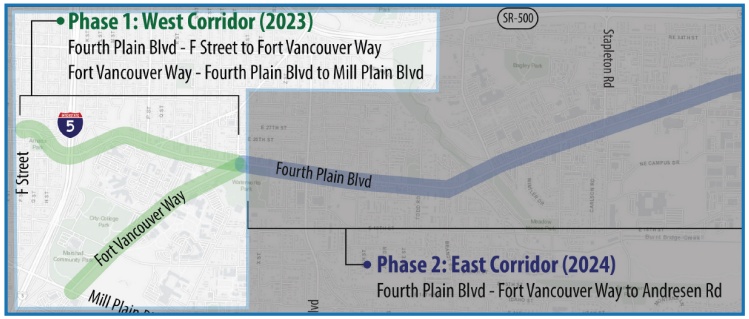
Fourth Plain Boulevard & Fort Vancouver Way
Safety and Mobility Project

Project Purpose

- Leverage planned paving preservation project to transform roadway to safely serve all users
- Look at ways to make the streets safer for all including people who drive, walk, ride a bike, use a mobility device, or ride the bus
- Identify other potential safety improvements

Phase 1 Project Extent & Timeline (2023-2024)







Fourth Plain, F Street - Ft. Vancouver Way
- Two-way cycle track on south side of Fourth Plain (2024)

Ft. Vancouver Way, McLoughlin - Fourth Plain
- Improve cycling and transit modes
- Add buffered mobility lanes and BAT* lanes
- Remove on-street parking north of McLoughlin



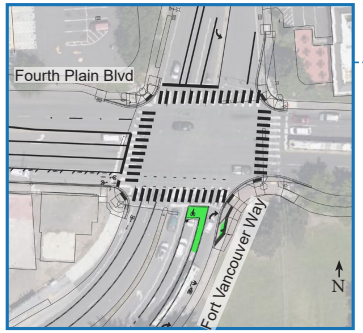
Ft. Vancouver Way, Mill Plain - McLoughlin
- BAT lanes and buffered mobility lanes on east and west side of Ft. Vancouver Way (2024)

*BAT lanes are for buses and right turning vehicles to access local businesses and streets

Attachment I

Fourth Plain Boulevard & Fort Vancouver Way
Safety and Mobility Project

Phase 1 Fourth Plain Blvd and Fort Vancouver Way Intersection Improvements



Fourth Plain & Ft. Vancouver Way Intersection
- Bi-directional bike lane on south side of Fourth Plain Blvd (west of Ft. Vancouver Way)
- Buffered bike lane on Ft. Vancouver Way with bike box for through and left turn bicycle travel.

Community Engagement

- **Community members were supportive of safety and mobility improvements along Fourth Plain Blvd & Fort Vancouver Way. Respondents were in favor of investments in both public transit and bike infrastructure, with a focus on safety for all road users.**
- **83% of surveyed residents and 88% of small businesses support repurposing a vehicle travel lane to counteract speeding, improve transit reliability and create more safe travel options for pedestrians and small mobility users.**

Next Steps

Phase 1 Completion (2024)

Fourth Plain Blvd, Ft. Vancouver Way
- Complete Street & mobility elements installed

Phase 2 Implementation (2024 and beyond)

Fourth Plain Blvd, Ft. Vancouver Way - Andresen Road
- Add buffered mobility lanes, and BAT lanes
- See the BeHeard Page for more Phase 2 design details

Learn More:
vancouvermoves@cityofvancouver.us
beheardvancouver.org/fourth-plain-fort-vancouver-mobility

CITY OF Vancouver WASHINGTON

Attachment I

29th & 33rd Streets
SAFETY & MOBILITY PROJECT

CITY OF Vancouver WASHINGTON

The 29th and 33rd Streets Safety and Mobility Project is exploring how to improve safety and mobility for all people using 29th Street between Kauffman Avenue and Neals Lane, and 33rd Street between Kauffman Avenue and Grand Boulevard. These roads connect Vancouver neighborhoods separated by Interstate 5 (I-5) and provide important connections to other roads, such as Main Street, St. Johns Boulevard and Grand Boulevard.

This project is coordinating with pavement work planned for 2025 between I-5 and St. Johns Boulevard and the longer-term reconstruction of the I-5 overpasses through the Interstate Bridge Replacement Program.

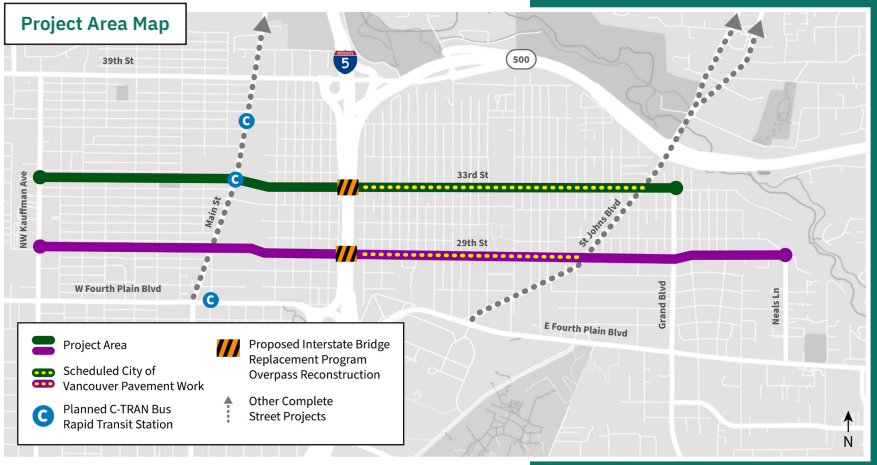
Preliminary Design Considerations

- **Complete Streets policy:** Ensures all people can share the road safely and comfortably
- **Vancouver Transportation System Plan:** Identifies the project roadways as important community connections on the pedestrian and bike/small mobility networks
- **Existing conditions analysis:** Evaluation of traffic volumes, speeds, crash data, parking occupancy, roadway condition, and identification of safety and accessibility issues

Project Timeline

- **March - May 2024**
  Assess existing conditions within the project area.
- **June - July 2024**
  Share project information and gather your feedback on opportunities for improvements along the corridor.
- **August - October 2024**
  Share design recommendations and gather your feedback on near-term and long-term investments.
- **2025 – 2026**
  Implement the near-term improvements through planned pavement work and evaluate project impacts.

Project Area Map



Visit the project website to learn more, sign up for email updates and share your comments!
beheardvancouver.org/29th-and-33rd-safety

To request accessible formats or other languages, contact:
VancouverMoves@CityofVancouver.us
360-487-8000 | WA Relay: 711

Response to Submission 3: City of Vancouver (November 19, 2024)

3-1
Thank you for your comment.

Each of the City of Vancouver's comments is responded to below.

3-2
The IBR Program will continue thoughtful and robust engagement opportunities with the general public, advisory groups, and local jurisdictions. This outreach and engagement will be extended to additional phases of the IBR Program as much as practicable.

3-3
Thank you for your comment and the summaries of the City of Vancouver Advisory Bodies' meetings. Responses to the City of Vancouver Parking Advisory Committee and City of Vancouver City Center Redevelopment Authority (included in Attachment C) are included in response to each of those agency/organizations' submissions. Responses to comments in Attachment D are also included below, except where the City of Vancouver noted that the comments were duplicative.

3-4
Thank you for your comment.

3-5
The IBR Program will continue to coordinate with the City of Vancouver to develop a site plan for the Community Connector based on previous and ongoing City of Vancouver/public engagement. The IBR Program commits to reviewing the desired outcomes and guiding principles developed from early community input and will apply this information, where feasible, as design advances for the Community Connector and Evergreen Station area.

3-6
Bullets 1 and 2:
As design for the waterfront area advances, the IBR Program will continue to coordinate with the City of Vancouver and other relevant parties on potential connections to open spaces.

Bullet 3:
The IBR Program will apply general safety principles throughout the IBR Program area and Crime Prevention Through Environmental Design principles at all new proposed transit stations.

Bullet 4:
The IBR Program will also coordinate with the City of Vancouver and appropriate parties on the long-term use, ownership, and maintenance of land in the waterfront area.

Bullet 5:
The IBR Program is preparing a Community Benefits Plan to identify possible ways to implement the CBAG's recommendations. The intent of this comment will be considered through development of the Community Benefits Plan and design process.

3-7
The active transportation improvements described in the Draft and Final SEIS would provide north-south and east-west connections throughout the primary study area and connect to existing facilities outside of the primary study area. All Modified LPA bridge configuration design options would include a shared-use path, generally 24 feet wide, which would be designed to meet the standards of the Americans with Disabilities Act. The IBR Program will continue to coordinate with the Cities of Portland and Vancouver regarding the active transportation facilities and connections in their respective jurisdictions. For more information, see Design Standard Response F.12: Shared-Use Path Connections.

The IBR Program is designing the proposed shared-use path, and all related active transportation facilities, in compliance with state regulations that make them accessible to all users.

3-8
The active transportation improvements described in the Draft and Final SEIS would provide north-south and east-west connections throughout the primary study area and connect to existing facilities outside of the primary study area. All Modified LPA bridge configuration design options would include a shared-use path, generally 24 feet wide, which would be designed to meet the standards of the Americans with Disabilities Act. The IBR Program will continue to coordinate with the Cities of Portland and Vancouver regarding the active transportation facilities and connections in their respective jurisdictions. For more information, see Design Standard Response F.12: Shared-Use Path Connections.

All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

The IBR Program will continue to consider refinements for improving the connection between the proposed shared-use path (SUP) and transit during the design process as well as for improving the ramp connections to the street system below.

The IBR Program will consider maintenance and safety in the design of active transportation facilities to accommodate users of all ages and abilities, device types, and activities. The proposed SUP on the Columbia River bridge would generally be 24 feet wide, excluding the outside rail.

3-9
Extending a shared-use path (SUP) on the west side of the transit alignment would result in additional property impacts, including new residential displacements. Extending a SUP to the Community Connector on the east side would require additional foundations and columns to support the elevated SUP, which would be approximately 2,000 feet long. The extension would require additional drilling in environmentally sensitive areas, which would require additional clearances for cultural resources, and could possibly affect additional properties to accommodate the path. The alignment of an elevated SUP near the Normandy Apartments would require construction adjacent to and over the southbound I-5 freeway.

During construction, because of the constrained right of way in this area, constructing this path above I-5 would result in additional significant impacts to southbound I-5 traffic including temporary shoulder and travel lane closures. This would create challenges for I-5 traffic maintenance and to safety for travelers and construction workers. This construction would also occur in the critical area needed to construct the new Columbia River bridges and would extend the timeline-due to an increase in duration of construction and permitting delays-to make the new bridge functional for all modes of transportation, including river navigation.

3-10
The number of bridge columns will be optimized in final design. The Modified LPA's proposed alignment of the shared-use path (SUP) in Vancouver was revised for the Final SEIS based on comments from the City of Vancouver and the community. The revised SUP is shown in Section 2.2 of the Final SEIS and Appendix C (Conceptual Design Drawings) to the Final SEIS. The revised alignment would help to open up sight lines along the Vancouver Waterfront.

3-11
As noted in Section 3.7, Parks and Recreation, of the Final SEIS, impacts to mature trees

will be avoided to the extent practicable.

3-12
The Modified LPA would include active transportation improvements providing additional nonmotorized access to Old Apple Tree Park that would make it easier for large groups to get into and out of the park.

3-13
As discussed in Section 4.3.4 of the Final SEIS, trail alignment would be coordinated with the City of Vancouver's Parks, Recreation and Cultural Services Department. Contiguous open space would be maximized to the extent practicable with consideration to providing a direct path from Main Street to the park's entrance.

3-14
As design progresses, the IBR Program will continue identifying ways to create safe and inviting environments for users of all modes, including design of roads and active transportation facilities under elevated structures. The IBR Program will also continue to coordinate with agency partners and the public through the design and construction phases of the proposed Modified LPA. Safety and maintenance plans for the Columbia River bridges would follow the approaches the Oregon and Washington State Departments of Transportation take today as they relate to unsheltered homeless communities. For more information, see Design Standard Response F.10: Areas Under Elevated Structures.

The Modified LPA would require a permanent airspace easement of approximately 4,400 square feet over the northwest corner of Old Apple Tree Park for maintenance of the proposed I-5 northbound to SR 14 elevated ramp. This easement would provide the Washington State Department of Transportation (WSDOT) with the right to enter Old Apple Tree Park with equipment to perform routine inspections of the ramp structure. Within the WSDOT right of way, the Modified LPA would not include expansion of the park under I-5; however, the IBR Program will investigate opportunities for the City of Vancouver's Parks, Recreation and Cultural Services to access areas of highway right of way that could be used for public benefit until there is any future need for highway use, subject to WSDOT approval.

3-15
The IBR Program's design team will continue to coordinate with the City of Vancouver on their efforts to engage the public on waterfront considerations. The IBR Program commits to reviewing feedback generated from this outreach and will consider the information, where feasible, as design advances for the waterfront area within the IBR Program scope.

3-16
All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

The Modified LPA would provide bicycle parking at light-rail transit (LRT) stations for customers accessing transit by bicycle, per TriMet standard requirements. Adequate shelter would be provided at LRT stations. The IBR Program is preparing a Community Benefits Plan to identify possible ways to implement the CBAG's recommendations. The intent of this comment will be considered through development of the Community Benefits Plan and design process.

3-17
Section 3.8 of the Transportation Technical Report (TTR) has been updated to provide better clarity and context for micromobility. Section 4.8 of the TTR has also been updated to address this comment.

3-18
On-street bicycle facilities are bikeways in the right of way intended specifically for use by people biking or those using other small mobility devices (such as skateboards, scooters, e-devices, bikeshare bikes, cargo bikes) that are capable of traveling at a speed faster than pedestrians. Section 3.8 of the Transportation Technical Report has been revised to reflect this information.

3-19
Section 3.8 of the Transportation Technical Report has been updated to provide better clarity and context for micromobility. The Modified LPA design will follow principles of WSDOT Complete Streets and applicable local regulations and policies.

3-20
The IBR Program will consider maintenance and safety in the design of active transportation facilities to accommodate users of all ages and abilities, device types, and activities. The proposed shared-use path on the Columbia River bridge would generally be 24 feet wide, excluding the outside rail.

3-21
The Modified LPA would add to and/or improve the existing active transportation network within the IBR Program area and is defined in Figure 3-1 in the Transportation Technical Report and would provide safe and accessible connections. The IBR Program will continue to work with the City of Vancouver and community during the design phase to consider refinements for the elements of the shared-use path in Vancouver.

3-22
The IBR Program would incorporate protective features, as required by agency standards, during final design.

3-23
The IBR Program would provide adequate wayfinding and signage both during construction and at completion of the proposed Modified LPA. This will be identified in final design.

3-24
The Modified LPA does not currently include these types of facilities. The IBR Program is preparing a Community Benefits Plan to identify possible ways to implement the CBAG's recommendations. The intent of this comment will be considered through development of the Community Benefits Plan and design process.

3-25
All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

3-26
The IBR Program is designing safe and accessible active transportation facilities for all users, according to applicable design standards. The IBR Program will continue to coordinate with the City of Vancouver during the design phase so that new active transportation facilities consider the context of the IBR Program area when connecting with the existing network and comply with local policies.

3-27
The IBR Program performed both pedestrian and bike level of traffic stress analyses for each condition, which are both measures of comfort or perceived safety. This analysis can be found in Section 4.8 of the Transportation Technical Report.

3-28
As noted in the Draft SEIS and Section 1.1.5.3 of the Transportation Technical Report, active transportation improvements made to 29th Street and 33rd Street would be consistent with City of Vancouver plans and policies. The IBR Program is also subject to WSDOT's current design standards, which provide for safe travel and access for all modes.

3-29
The IBR Program will coordinate with the City of Vancouver to evaluate and address reasonably foreseeable effects on the downtown transportation system resulting from changes in bus services resulting from the Modified LPA.

3-30
The analysis includes the proposed elimination of the westbound SR 500 to Fourth Plain Boulevard movement. Local intersection analysis is based on the assumption that vehicles are using the alternative routes of 39th Street, St. Johns Boulevard, and Mill Plain.

Additional text has been added to the Transportation Technical Report to discuss the traffic diversions related to the SR 500 and Fourth Plain Braid. The IBR Program will continue to track if additional intersections are impacted.

3-31
This is a standard practice. Section 7.2.4 of the Transportation Technical Report has been updated to address this comment.

3-32
Additional data showing intersection operations by approach have been added to Appendix E of the Transportation Technical Report.

3-33
The delay summarized in the Transportation Technical Report (TTR) to support the IBR Program Draft SEIS between the No-Build Alternative and the Modified LPA was the result of a coding error in the traffic operations model. The traffic operations model was updated for the Final SEIS and results have been updated in the TTR showing similar results between the No-Build Alternative and the Modified LPA; no mitigation would be needed.

3-34

The Modified LPA is a proposed set of multimodal improvements that increase transit and highway capacity on the I-5 corridor in addition to including variable-rate tolling. When taken in combination, the net effect of all of these changes would be a reduction in overall vehicle trips crossing the Columbia River, with decreases on both bridges compared with the No-Build Alternative. The regional travel demand model is not calibrated at an individual bridge level and is the reason that existing and future-year raw regional model outputs have been post-processed. Post-processing allows for the analysis to reflect the distribution of trips by bridge and by hour throughout the day, accounting for both capacity and congestion levels on both bridges as well as the impact of the toll under the Modified LPA. Section 3.1.3 of the Draft SEIS included information about why volumes across both bridges is lower, so no change has been made for the Final SEIS.

3-35

As stated in Section 4.10 of the Transportation Technical Report, the existing Transportation Demand Management (TDM) programs listed in Section 3.10 would be continued. These include TDM strategies that are not just physical infrastructure as proposed by the IBR Program but also nonphysical components that support the City of Vancouver's conditions of approval related to TDM.

3-36

Chapter 5, Chapter 6, and the mitigation table (Chapter 7) of the Transportation Technical Report have been updated to address this comment from the City of Vancouver and comments from other agencies. The mitigation text has been revised to include a temporary mitigation commitment related to pre-completion tolling and TDM and Transportation Systems Management during construction.

3-37

The last paragraph in the Tolling and Diversion section of Section 3.1 of the SEIS has been revised because it combined SEIS results with the screening draft analysis and the text could have been confusing.

Tolling is described in several locations in the SEIS and related documents, each with a specific context and purpose. Please see below for a description of the purpose of each.

• Section 3.1, Transportation, of the Draft SEIS provides high-level findings with key information, stating that the Modified LPA with Recommended Design Options and other design options reduces overall vehicle trips across the Columbia River on an average weekday and would not result in diversion to I-205. It references the Transportation Technical Report (TTR) for more detailed findings; additional detail from the TTR was added to this section of the Final SEIS to provide a better understanding of the findings.

• Section 4.11 of the TTR includes the information as Section 3.1 with more detail. While added detail has been included in Section 3.1 for the Final SEIS, that section of the SEIS is not intended to contain the same detailed information as the TTR; rather, it is a higher-level summary and readers can review the TTR for a more detailed explanation. With regard to Section 4.11 of the TTR and how analysis arrived at key findings listed in Section 4.11.3, those details are pulled from other TTR sections as well as Appendix J (Diversion Analysis) to the TTR. Section 4.11.3 in the Final SEIS includes additional detail to point to sections where the findings are detailed.

• Appendix J (Diversion Analysis) of the TTR provides even more detail about the summaries and analysis provided in Section 4.11 of the TTR.

• Appendix H (Travel Demand Modeling Methods) of the TTR discusses how tolling works in the regional demand model specifications, along with model-related sensitivity tests that are meant to show that even if the model specifications were different, the model performs reasonably. There is also a section on the model inputs that are mostly included in the TTR already but are included here again in the context of the regional travel demand model (as opposed to in context of the results discussed in the TTR).

• Attachment D to Appendix H (Toll Project Value-of-Time Assumption Review Memorandum) consists of reference material that provides background on the values of time only. This detail is not needed in the other documents.

• Attachment F to Appendix H (IBR Screening Level Tolling Sensitivity Report) provides background for the sensitivity tests performed ahead of the SEIS. It is not meant to be used in the assessment of impacts.

3-38

Please see diversion analysis in Section 4.11 of the Transportation Technical Report (TTR), which provides information on what happens when tolling is in place. Additional text has been included in Section 4.11.3 with reference to a table in the TTR that shows when diversion is predicted to happen (directional/time of day). Although how travel patterns would likely change over time can be described qualitatively, there is insufficient quantitative data to accurately predict how travel patterns would change over time due to tolls.

3-39

Tolling authority for the IBR Program comes from 23 U.S. Code Section 129, which allows tolling of federal highways in several circumstances, including the "reconstruction or replacement of a bridge or tunnel." 23 U.S. Code § 129 can be found on the U.S. House of Representatives website: https://uscode.house.gov/view.xhtml?req=(title:23%20section:129%20edition:prelim) (U.S. House of Representatives 2026).

The IBR Program prioritizes minimizing impacts to those residing adjacent to the primary study area. Both states are committed to identifying mitigation that is required in the

National Environmental Policy Act process. The procurement documents will outline the requirements for noise, air quality, water quality, and other mitigating circumstances. Tolling rates and policies, including implementation, are the responsibility of the Bistate Tolling Subcommittee.

3-40
As stated in Section 4.9.2.2 of the Transportation Technical Report, crashes at the Evergreen Boulevard/C Street intersection could increase by up to one additional crash per year due to the increase in volume forecasted. The IBR Program will work with the City of Vancouver during the design phase to identify any additional safety improvements at this intersection as needed and as feasible.

3-41
Table 4-2 in the Neighborhoods and Communities Technical Report and Table 3.5-11 in Section 3.5 of the Final SEIS have been updated as requested. The IBR Program's Recommended Design Option is to retain the C Street ramps.

A set of proposed mitigation measures has been developed to address the intersection operations that do not meet mobility standards under the Without C Street Ramp design option. A description of potential mitigation measures is included in Section 3.1.6 in the Final SEIS and Chapter 7 of the Transportation Technical Report.

3-42
The Health Analysis was submitted as a public comment on the Draft SEIS. The Health Analysis was a third-party effort conducted by the Washington State Department of Health, Oregon Health Authority, Clark County Public Health, Multnomah County Health Department, and Cowlitz Indian Tribe Health and Human Services. NEPA does not require the analysis of health effects for the IBR Program as those effects are not reasonably foreseeable. Although not required as part of the NEPA process, the Health Analysis was prepared in response to requests from several of the IBR Program's partners, and the authors of the Health Analysis described their findings and recommendations with the IBR Program's advisory groups in 2025.

Proposed mitigation measures for resources evaluated in the Draft SEIS are included in the Final SEIS. More detailed design measures and processes will be determined as the IBR Program advances.

3-43
Coordination will continue with partners to optimize the safe movement of high, wide, and heavy cargo through the primary study area. The proposed turning radius at the Mill Plain interchange will be addressed in the final design process.

3-44
The IBR Program will follow federal and state standards and will work with the freight community to optimize opportunities to accommodate high, wide, and heavy loads. With the Modified LPA, the maximum grades would not exceed 4% on the mainline I-5. Based on previous information provided by the freight community, the turning radii northbound from the Mill Plain interchange would be at least 100 meters. However, in the bridge head area, the tolling gantries would not meet the desired 25-foot vertical clearance. The gantries would meet agency design standards, which are lower, maintaining a minimum of 18 feet of vertical clearance between the road surface and tolling equipment mounted to the gantry.

Adequate shoulders, vertical clearance, and safety measures would be provided regardless of the selected design options. The IBR Program will follow federal and state design and safety standards and will continue to work with the City of Vancouver, the Port of Vancouver, and the broader freight community to optimize opportunities to accommodate high, wide, and heavy loads.

3-45
Both C-TRAN and TriMet must meet the requirements of Title VI in taking reasonable steps to provide meaningful access to their services for community members with limited English proficiency. The IBR Program will coordinate with Program partner agencies to help ensure that roadway and transit changes resulting from construction are clearly communicated to travelers.

3-46
The IBR Program will coordinate with transit agencies on how increases in transit services beyond the Modified LPA could benefit the community.

3-47
Construction documents will require the contractor to maintain pedestrian circulation, including an ADA-accessible option. Where exceptions are needed, processes as required by law will be followed.

3-48
Vessels that could potentially be impacted by a 116-foot fixed-span bridge configuration have been identified, and the IBR Program is engaged in discussions with each owner to reach agreement on how to resolve the impacts. Resolutions to impacts include, but are not limited to, modifications to existing vessels to allow for safe passage under the bridge or financial compensation to offset economic impacts.

3-49
The IBR Program will continue its regular coordination with the U.S. Coast Guard to address agency concerns and facilitate bridge permitting.

3-50
The analysis and associated reporting on potential property impacts are based on preliminary engineering, which does not provide enough detail to accurately describe the degree of temporary impacts. In lieu of making assumptions regarding the degree of temporary property impacts, the report includes mitigation language that applies to permanently and temporarily impacted properties consistent with the Uniform Relocation Act.

The IBR Program is investigating the need for subsurface easements. The final decision on whether these easements are necessary will depend on the type of wall being developed.

The Final SEIS and Acquisitions Technical Report have been updated to better describe the meaning of and activities associated with the Temporary Construction Easements.

3-51
Potential impacts to the Vancouver Community Library parcel would not affect the Library building itself. Sidewalk construction for the realignment of Reserve Street could impact the eastern edge of the Library parcel. The Draft SEIS identified that there would be no potential displacement of the building or an impact on the use or function of the building. Impacts have been refined for the Final SEIS and will be further clarified through final design. Any permanent or temporary impacts would be addressed following the Uniform Relocation Act.

The potential permanent impact to the Library parcel would be related to the proposed realignment of sidewalk on Evergreen Boulevard and the construction of the Reserve Street connection. The temporary construction easement (TCE) would be to allow space for the construction of these street improvements. The potential permanent impact square footage in Table A4 of the Final SEIS is 1,761 square feet, and the TCE square footage is 1,479 square feet. This is different from the square footage documented in the Draft SEIS due to the change in the proposed design for Reserve Street at this location.

For more detail on specific potential impacts on the Library parcel, see Assessor No. 38823000 in Appendix A of the Acquisitions Technical Report.

3-52
The IBR Program team will continue to refine and, where possible, reduce the impacts to all properties, including the property in question. If the IBR Program cannot eliminate a potential impact to the subject property, the IBR Program will coordinate with the City of Vancouver and property owners on mitigation measures.

3-53
The IBR Program will ensure that real estate outreach includes accommodations for language access and culturally specific and relevant services.

3-54
The IBR Program team will continue to refine and, where possible, reduce the potential impacts to all properties, including the property in question. The IBR Program will follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) for parcels directly affected by proposed construction, including by underground easements. The Uniform Act includes requirements for inspections as part of the appraisal process and for close coordination with the property owner.

It is a standard process to understand existing conditions of directly impacted parcels before construction in order to distinguish any harm caused by construction. Preconstruction inspections may include both the interior and exterior of the property as needed. Indirectly affected parcels may also be inspected, depending on the type of construction work, the property's proximity to the construction, geography, and concerns received.

3-55
Section 3.4, Land Use and Economic Activity, of the Final SEIS and the Land Use Technical Report have been updated to reflect the adoption dates of the City of Vancouver's Strategic Plan and TSP. Sections 4.3.13 and 4.3.14 of the Land Use Technical Report have been updated to include analysis of the Modified LPA's consistency with the City of Vancouver's 2023-2029 Strategic Plan and the 2024-2044 TSP (i.e., "Vancouver Moves").

3-56
The Land Use Technical Report has been updated to consider the 2025-2045 Comprehensive Plan update; Downtown Access, Mobility, and Parking Plan; Downtown Redevelopment Study; Downtown Design Guidelines; Waterfront Gateway redevelopment; and Citywide economic development strategies in the development of mitigation measures.

3-57
Section 3.3.2 of the Land Use Technical Report has been updated to reflect updates and corrections to recent and pending development in the City of Vancouver.

3-58
The Draft SEIS uses available information for analysis purposes. The individual agreements developed with displaced businesses will include current and accurate employee information available at that time.

3-59
Potential avoidance, minimization, and mitigation measures are included in Section 3.4.6 of the Draft and Final SEIS, including measures to reduce potential impacts to local businesses from construction.

3-60
The IBR Program will work with the City of Vancouver and southwest Washington partners through design and construction to avoid or minimize disruptions during construction.

3-61
Table 4-2 in the Neighborhoods and Communities Technical Report and Section 3.5 of the Final SEIS have been updated to provide more consistent information on all Vancouver neighborhoods in the primary study area.

3-62
The summaries in Section 4.4 and Section 5.3 of the Neighborhoods and Communities Technical Report have been updated as requested.

3-63
Additional information on impacts to parks and recreational facilities has been added as applicable.

3-64
Table 4-2 in the Neighborhoods and Communities Technical Report and Section 3.5 of the Final SEIS have been revised as requested.

3-65
The Evergreen Inn would not experience noise impacts under the Modified LPA. The statement to this effect in the Neighborhoods and Communities Technical Report has been deleted, and the report has been reviewed to ensure consistency with the findings identified in the Noise and Vibration Technical Report.

3-66
Table 4-2 in the Neighborhoods and Communities Technical Report and Section 3.5 of the Final SEIS have been updated as requested. The IBR Program's Recommended Design Option is to retain the C Street ramps.

A set of proposed mitigation measures has been developed to address the intersection operations that would not meet mobility standards under the Without C Street Ramp design option. A description of potential mitigation measures is included in Section 3.1.6 in the Final SEIS and Chapter 7 of the Transportation Technical Report.

3-67
Table 4-2 in the Neighborhoods and Communities Technical Report and Section 3.5 of the Final SEIS have been updated as requested. The IBR Program's Recommended Design Option is to retain the C Street ramps.

A set of proposed mitigation measures has been developed to address the intersection operations that would not meet mobility standards under the Without C Street Ramp design option. A description of potential mitigation measures is included in Section 3.1.6 in the Final SEIS and Chapter 7 of the Transportation Technical Report.

3-68
No neighborhood cohesion impacts are expected to result from proposed changes to Marshall Park. Section 4.4.9 of the Neighborhoods and Communities Technical Report has been revised to state: "While the park is located in the Central Park neighborhood, the affected portion of the park is adjacent to I-5 and not located within a residential area. According to the Parks and Recreation analysis, traffic noise levels from I-5 are predicted to remain roughly similar to existing conditions, and long-term character, use, and enjoyment of the existing facilities would not be affected."

The IBR Program's Recommended Design Options would minimize potential residential and business displacements in the Esther Short neighborhood compared with other design options evaluated in the Draft SEIS; therefore, no impacts to neighborhood cohesion in Esther Short would be anticipated.

3-69
As described in the Air Quality Technical Report and Section 3.10, Air Quality, of the Draft and Final SEIS, the Modified LPA would reduce emissions of criteria pollutants and air toxics compared with the No-Build Alternative. As described in Section 3.10.3 of the Draft and Final SEIS, there is not sufficient information to credibly evaluate any potential health impacts from mobile source air toxics and there are no established thresholds to identify when mitigation would be required. The IBR Program will continue to consider potential reasonably foreseeable effects as the Modified LPA moves forward with final design.

3-70
The IBR Program will continue to coordinate with the City of Vancouver to identify and implement specific measures to avoid and minimize construction impacts to neighborhoods. This coordination will continue throughout final design and construction.

3-71
The IBR Program will continue to coordinate with the City of Vancouver to identify and implement specific measures to avoid and minimize construction impacts to neighborhoods. This coordination will continue throughout final design and construction.

3-72
While the IBR Program will do everything feasible to avoid and minimize impacts during construction, there would be reasonably foreseeable effects to the community while the proposed Modified LPA is constructed. The IBR Program is aware that residents and travelers in downtown Vancouver already experience daily congestion through the I-5 corridor. The long-term goal is to improve safety, mobility, and access once the proposed Modified LPA is constructed.

During construction of the proposed Modified LPA, there could be some temporary ramp, roadway, and sidewalk closures that would impact multimodal travelers in downtown Vancouver. The IBR Program will work with property owners and businesses to maintain access throughout construction and will identify detours when necessary on local streets for vehicles and bikes/pedestrians.

As the IBR Program approaches the proposed construction phase, the IBR Program will implement a strategic outreach effort, in coordination with local jurisdictions, aimed at keeping business owners, residents, and other parties affected by the IBR Program's activities informed and engaged.

3-73
Dust control in areas where outdoor sports are played would be minimized because the IBR Program will comply with both Oregon and Washington policies to minimize dust and diesel exhaust during proposed construction. In addition, all contractors will be encouraged to further minimize impacts to surrounding communities by using lower-emitting construction equipment, using electric equipment, and avoiding haul routes through residential areas. Section 3.10.6 of the Final SEIS references the Associated General Contractors of Washington Education Foundation and Fugitive Dust Task Force pamphlet, "Guide to Handling Fugitive Dust From Construction Projects," which identifies water spray as a very effective dust control measure, provided water runoff is controlled to avoid damage to nearby water resources from mud and dust.

3-74
The IBR Program continues to engage community members through its advisory groups, emails, newsletters, social media, and traditional media.

In adherence to the WSDOT right-of-way process, the IBR Program will minimize impacts to the extent feasible. The IBR Program is developing a construction communications plan that will use multiple tools, such as traveler information platforms, digital tools, and signs, that will help community members and businesses plan for construction impacts.

3-75
The IBR Program community engagement team has coordinated with various outreach teams at the City of Vancouver in the past. The IBR Program appreciates the willingness to collaborate and will continue to coordinate with the City of Vancouver for outreach going forward.

3-76
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

3-77
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Section 3.5, Neighborhoods and Communities, of the Draft and Final SEIS discusses the reasonably foreseeable effects to neighborhoods and communities including a potential increased risk of residential displacement as a result of potential changes in property values and costs.

3-78
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Section 3.5, Neighborhoods and Communities, of the Draft and Final SEIS discusses the reasonably foreseeable effects to neighborhoods and communities including a potential increased risk of residential displacement for transit-oriented development near light-rail stations.

3-79

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3-80

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The IBR Program is preparing a Community Benefits Plan to identify possible ways to implement the CBAG's recommendations. The intent of this comment will be considered through development of the Community Benefits Plan and design process.

3-81

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All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

3-82

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3-83

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The active transportation improvements described in the Draft and Final SEIS would provide north-south and east-west connections throughout the primary study area and connect to existing facilities outside of the primary study area. All Modified LPA bridge configuration design options would include a shared-use path, generally 24 feet wide, which would be designed to meet the standards of the Americans with Disabilities Act. The IBR Program will continue to coordinate with the Cities of Portland and Vancouver regarding the active transportation facilities and connections in their respective jurisdictions. For more information, see Design Standard Response F.12: Shared-Use Path Connections.

3-84

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accordance with 23 CFR Part 771.

All Modified LPA bridge configuration design options would include a shared-use path, up to 24 feet wide and designed to meet or exceed Americans with Disabilities Act standards. The design would also include other features, such as barriers, illumination, signing, and striping to enhance user experience, safety, comfort, and route directness. To prevent conflicts between path users traveling at varying speeds, the shared-use path on the bridge would provide separate spaces for people walking (or rolling) and biking. As described Section 3.1, Transportation, of the Draft and Final SEIS, the design elements of the path, such as barriers, separation, illumination, and drainage design, would provide buffer from vehicle traffic, noise, weather, and exposure to street debris and stormwater to provide a well-lit, attractive, and comfortable environment for all users. As design progresses, additional refinements and amenities, such as shaded areas and vista points, would be considered when feasible.

3-85

Ongoing, broad, and robust community engagement is critical to identifying a solution that balances differing regional perspectives and best serves the complex needs of the variety of users. The IBR Program's engagement efforts seek to provide ongoing opportunities for meaningful communication with bridge users, community organizations, residents on both sides of the river, businesses, neighborhood groups, and those residing within the 5-mile primary study area. Extensive public involvement efforts were undertaken as part of the Columbia River Crossing (CRC) Environmental Impact Statement process. The IBR Program public involvement efforts build on the work done during CRC by incorporating the feedback, best practices, and lessons learned from past work with new tools and opportunities. As the design work progresses, the IBR Program will continue to offer opportunities for community members to provide input. For more information, see Public Involvement Standard Response J.18: Incorporating Public Input.

The IBR Program has reviewed Attachment G. Many topics in Attachment G are addressed through the IBR Program's design and community engagement processes. For instance, all of the Modified LPA's proposed active transportation facilities would be designed to meet or exceed Americans with Disabilities Act (ADA) standards. Active transportation facilities would be designed to provide connections to transit stations. Accessible parking spaces would be provided in park-and-ride facilities. Outreach materials and public meetings are designed to be accessible by a wide range of users.

The IBR Program will consider the information in this attachment and other community feedback throughout the design process in coordination with the City of Vancouver.

3-86

The IBR Program is preparing a Community Benefits Plan to identify possible ways to implement the CBAG's recommendations. The intent of this comment will be considered through development of the Community Benefits Plan and design process.

3-87

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3-88

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social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

As noted in Section 3.5.3 of the Draft and Final SEIS, the IBR Program acknowledges the sovereignty of the tribes and has been conducting, and is committed to, government-to-government consultation with tribes on projects that may affect tribal rights and resources. The government-to-government consultation goals and process are documented in Appendix A, Agency and Tribal Coordination, to the Draft and Final SEIS.

3-89
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

Section 3.5.7 of the Final SEIS includes an IBR Program-specific measure to coordinate with local jurisdictions and organizations offering services to people experiencing unsheltered homelessness in areas directly affected by proposed construction activities.

3-90
Section 3.6.2 of the Final SEIS and Section 3.3 of the Utilities Technical Report have been updated to describe the City of Vancouver’s stormwater facilities.

3-91
As described in Section 3.6.4 of the Draft and Final SEIS and Section 4.2 of the Utilities Technical Report, there are several off-site stormwater systems that would require relocation and/or reconnection due to the Modified LPA. Existing systems that would require either relocation or reconnection will be identified as part of the design processes and will be indicated on the plans. IBR Program requirements will include a provision that the existing stormwater systems are to be maintained throughout the duration of construction.

3-92
Avoidance, minimization, and mitigation measures related to utility disruptions are listed in Section 3.6.6 of the Draft and Final SEIS and Chapter 7 of the Utilities Technical Report. IBR Program requirements will include this stated requirement.

3-93
The IBR Program held a preliminary meeting with the Vancouver Fire Department and Portland Fire Department to discuss the standards and processes that would be applied during the design and construction phases of the proposed Modified LPA. The IBR Program anticipates continued coordination with the fire departments and other emergency services as the IBR Program progresses through the design and construction phases.

3-94
The Utilities Technical Report has been revised as suggested throughout.

3-95
Section 7.2.2 in the Public Services Technical Report and Section 3.6.6 in the Final SEIS have been updated to include these additional measures.

3-96
Detailed design for utility protection and relocation has not been completed at the current state of Modified LPA development. As final designs progress, potential construction impacts to all utilities will be coordinated with the City of Vancouver and all utility owners.

3-97
As described in Section 7 of the Parks and Recreation Technical Report, the IBR Program will follow all applicable regulatory and IBR Program-specific mitigation requirements.

One mitigation measure has been revised to state, "Coordinate with Officials with Jurisdiction to restore park features, including landscaping to its original condition (or better) and select plants that are resilient or adaptive for new landscaping or select plants in accordance with an established restoration plan."

3-98
The IBR Program will follow applicable local code requirements for tree replacement planting as described in the previous response. While not specific to parkland mitigation, the Visual Quality Technical Report has been updated to include a long-term, regulatory measure to install new vegetation as soon as feasible, which will help address the intent of this comment.

3-99
The IBR Program will follow applicable local code requirements for tree survival and replacement.

3-100
The intent of the CBAG recommendations would be further considered as the IBR Program enters final design and permitting. Specific mitigation measures, including compensation or replacement, would depend on the resource impacted and the agency with ownership or jurisdiction over the resource. In some cases, off-site mitigation measures may not be feasible. The Final SEIS includes updated discussions of the projected impacts to parks-and-recreation resources for the Modified LPA, including properties subject to Section 4(f) or Section 6(f) requirements. The Final SEIS also describes the mitigation commitments that would be proposed to be included in the federal Record of Decision.

3-101
The IBR Program would require vibration monitoring to be performed at specific buildings and structures located within the vicinity of all construction areas. With oversight from the Oregon Department of Transportation (ODOT) and Washington State Department of Transportation (WSDOT), the contractor will perform vibration monitoring to ensure that monitored levels do not exceed thresholds established by WSDOT and ODOT. In general, the vibration monitoring location will be at the property closest to construction. If the closest property is not historic, a vibration monitoring location will be at the closest property, and a second vibration monitoring location will be required at the closest historic property. Additional information on vibration monitoring is in Section 3.11, Noise and Vibration, of the Draft and Final SEIS and the Noise and Vibration Technical Report.

The IBR Program is currently advancing designs to prepare for construction. As the design advances, locations within the primary study area where vibration would be anticipated due to specific construction activities will be identified. The contractor will be required to monitor vibration at these locations and provide control measures to prevent vibration from exceeding damage risk criteria established in the construction specifications and detailed in the construction vibration control and monitoring plans. The contractor would provide weekly monitoring data to the IBR Program after the end of each monitoring week. The IBR Program would make monitoring data available to the public during construction.

The commitment to vibration monitoring, as described in Attachment C of the Programmatic Agreement (PA), is sufficient to avoid or minimize adverse effects to the Post Hospital from vibration. Should adverse effects to the Post Hospital change based on additional information about design, or construction methods and delivery, the Federal Highway Administration and the Federal Transit Administration, in coordination with the IBR Program, will consult as outlined in the PA and consider the mitigation proposed in this comment.

3-102
The interactive map on the IBR Program's website has been updated as suggested.

3-103
The PA lays out the process the IBR Program will follow for identifying and evaluating cultural resources within potential expansions of the area of potential effects. See Section VI, Consultation Regarding Changes in Program Design and Construction Projects, of the PA. The Final draft PA has been included as an appendix to the Final SEIS. An executed, signed Final PA will be attached to the Amended Record of Decision.

3-104
The IBR Program would require vibration monitoring to be performed at specific buildings and structures located within the vicinity of all construction areas. With oversight from the Oregon Department of Transportation (ODOT) and Washington State Department of Transportation (WSDOT), the contractor will perform vibration monitoring to ensure that monitored levels do not exceed thresholds established by WSDOT and ODOT. In general, the vibration monitoring location will be at the property closest to construction. If the closest property is not historic, a vibration monitoring location will be at the closest property, and a second vibration monitoring location will be required at the closest historic property. Additional information on vibration monitoring is in Section 3.11, Noise and Vibration, of the Draft and Final SEIS and the Noise and Vibration Technical Report.

The IBR Program is currently advancing designs to prepare for construction. As the design advances, locations within the primary study area where vibration would be anticipated due to specific construction activities will be identified. The contractor will be required to monitor vibration at these locations and provide control measures to prevent vibration from exceeding damage risk criteria established in the construction specifications and detailed in the construction vibration control and monitoring plans. The contractor would provide weekly monitoring data to the IBR Program after the end of each monitoring week. The IBR Program would make monitoring data available to the public during construction.

The commitment to vibration monitoring, as described in Attachment C of the PA, is sufficient to avoid or minimize adverse effects to the Post Hospital from vibration. Should adverse effects to the Post Hospital change based on additional information about design, or construction methods and delivery, FHWA and FTA, in coordination with the IBR Program, will consult as outlined in the PA and consider the mitigation proposed in this comment. The Final draft PA has been included as an appendix to the Final SEIS. An executed, signed Final PA will be attached to the Amended Record of Decision.

3-105
The IBR Program would require vibration monitoring to be performed at specific buildings

and structures located within the vicinity of all construction areas. With oversight from the Oregon Department of Transportation (ODOT) and Washington State Department of Transportation (WSDOT), the contractor will perform vibration monitoring to ensure that monitored levels do not exceed thresholds established by WSDOT and ODOT. In general, the vibration monitoring location will be at the property closest to construction. If the closest property is not historic, a vibration monitoring location will be at the closest property, and a second vibration monitoring location will be required at the closest historic property. Additional information on vibration monitoring is in Section 3.11, Noise and Vibration, of the Draft and Final SEIS and the Noise and Vibration Technical Report.

The IBR Program is currently advancing designs to prepare for construction. As the design advances, locations within the primary study area where vibration would be anticipated due to specific construction activities will be identified. The contractor will be required to monitor vibration at these locations and provide control measures to prevent vibration from exceeding damage risk criteria established in the construction specifications and detailed in the construction vibration control and monitoring plans. The contractor would provide weekly monitoring data to the IBR Program after the end of each monitoring week. The IBR Program would make monitoring data available to the public during construction.

The IBR Program considers mitigation for adverse effects where it has nexus with the specific adverse effect to a historic property. Window and HVAC improvements have been included as treatment measures for the Normandy Apartments within Attachment C of the PA to mitigate for adverse noise effects that diminish the property's eligibility to be included in the National Register of Historic Places.

Vibration monitoring has been included as a treatment measure throughout the project area to mitigate for potential adverse vibratory effects.

3-106

Section 106 mitigation measures have been chosen based on Advisory Council on Historic Preservation guidance, which states: "In order to be appropriate, the negotiated and agreed-to mitigation measure should bear a reasonable relationship to the undertaking’s adverse effects or, more generally, the types of adverse effects or types of historic properties at issue." In addition, the mitigation proposed complies with 23 Code of Federal Regulations 771.105, which states: "The proposed mitigation represents a reasonable public expenditure after considering the impacts of the action and the benefits of the proposed mitigation measures." As such, the approach for determining the costs for Section 106 mitigation will be to create estimates based on the executed PA, which was prepared in consultation with consulting parties, including the City of Vancouver.

3-107

The PA lays out treatment measures for artist-commissioned pieces informed by the history and culture of the Program as well as interpretive panels located throughout the IBR Program area. Owing to constraints on the IBR Program timeline, the particulars of these measures will be developed through an Interpretation Program as defined in Attachment C of the PA. The Final draft PA has been included as an appendix to the Final SEIS. An executed, signed Final PA will be attached to the Amended Record of Decision.

3-108

The IBR Program has engaged in consultation with Section 106 Consulting Parties to draft the current suite of mitigation measures to resolve known adverse effects. These are documented in the Final draft Section 106 PA, which has been included as an appendix to the Final SEIS. An executed, signed Final PA will be attached to the Amended Record of Decision.

3-109

This request will be considered.

3-110

Section 4.2 of the Visual Quality Technical Report has been updated to note that the aesthetic features (i.e., material, color, and textures) would be determined during the final design phases. In Table 4-5 of the Visual Quality Technical Report, text was added to state that the IBR Program will continue to coordinate with the City of Vancouver regarding their Desired Outcomes for the Modified LPA, which has been attached to the technical report as Appendix C. Table 7-1 of the Visual Quality Technical Report identifies a long-term, Program-specific commitment to develop guidance for architectural elements of the proposed Modified LPA in consultation with local agencies, tribes, and the community.

3-111

The IBR Program intends to continue thoughtful and robust engagement opportunities with the general public, advisory groups, and local jurisdictions through the final design phases. In Section 7, Table 7-1, of the Visual Quality Technical Report, the IBR Program identifies a long-term, Program-specific commitment to develop guidance for architectural elements (retaining walls, bridge foundations, lighting, etc.) of the proposed Modified LPA in consultation with local agencies, tribes and the community.

3-112

Section 2.2 of the Visual Quality Technical Report has been updated to acknowledge that a variety of local, state, and federal agencies (with different laws, regulations, and policies) are actively involved in the IBR Program and that the IBR Program aims to balance the objectives of context sensitivity with the development of a consistent and unifying design theme.

3-113

Chapter 7 of the Visual Quality Technical Report has been reorganized and no longer

includes a reference to the Vancouver Design Review Committee. Section 3.4 of the Land Use Technical Report has also been updated to remove the reference to the Committee.

3-114
Chapter 7 of the Visual Quality Technical Report includes a long-term, Program-specific measure to coordinate with the City of Vancouver throughout the design and consider the City of Vancouver's Urban Design Desired Outcomes. It also includes a specific measure to coordinate lighting on I-5 and under structures with local jurisdictions.

3-115
Chapter 7 of the Visual Quality Technical Report has been updated to reflect the IBR Program's avoidance, minimization, and mitigation commitments for the proposed Modified LPA. This includes a long-term, regulatory measure to restore vegetation in accordance with applicable vegetation and tree mitigation requirements, install new vegetation as soon as feasible, and include plantings as visual screens as feasible.

3-116
Chapter 7 of the Visual Quality Technical Report has been updated to reflect the IBR Program's avoidance, minimization, and mitigation commitments for the proposed Modified LPA. This includes a long-term, IBR Program-specific measure to coordinate with the City of Vancouver and consider the City of Vancouver's Urban Design Desired Outcomes and the Guiding Principles for the Community Connector and Evergreen Station area.

3-117
Chapter 7 of the Visual Quality Technical Report has been updated to reflect the IBR Program's avoidance, minimization, and mitigation commitments for the proposed Modified LPA. This includes a long-term, IBR Program-specific measure to coordinate with the City of Vancouver; design the park-and-ride facilities to complement surrounding development to the extent feasible; and consider the City of Vancouver's design guidelines and principles.

3-118
Chapter 7 of the Visual Quality Technical Report has been updated to reflect the IBR Program's avoidance, minimization, and mitigation commitments for the proposed Modified LPA. This includes a long-term, IBR Program-specific measure to coordinate the relocation of the Boat of Discovery art installation with the City of Vancouver, WSDOT, and Port of Vancouver, and including consultation with the original artists and/or donors.

3-119
The IBR Program is preparing a Community Benefits Plan to identify possible ways to implement the CBAG's recommendations. The intent of this comment will be considered through development of the Community Benefits Plan and design process.

Additionally, Chapter 7 of the Visual Quality Technical Report has been updated to reflect the IBR Program's avoidance, minimization, and mitigation commitments for the proposed Modified LPA. This includes a long-term, IBR Program-specific measure to coordinate with the City of Vancouver and consider the City of Vancouver's design guidelines and principles.

3-120
Table 4-8 in Section 4.2.3.1 of the Visual Quality Technical Report has been updated to note that the scale of proposed parking structures would likely be larger than existing visual elements on the sites in downtown Vancouver and would likely have an adverse visual impact for some viewers.

3-121
Table 4-9 and Section 4.2.3.3 of the Visual Quality Technical Report have been updated to include language regarding the reasonably foreseeable effects to views from the multistory residential buildings in the downtown and waterfront areas of Vancouver.

3-122
Since it is not possible to assess every view within the Area of Visual Effect, the IBR Program identified a set of 43 Key Viewpoints (KVPs), which were reviewed by the City of Vancouver and other partner agency staff prior to publication of the Draft SEIS. The Visual Quality Technical Report includes a full list and a map of KVPs and all of the photographic simulations prepared. These KVPs were selected either because they represent a common or typical view from within the Area of Visual Effect or because they are a view of a defining feature of the land use, such as a notable natural feature or important structure. KVPs were also selected to represent locations that are most likely to have visual changes as a result of the proposed Modified LPA. Photosimulations were provided for select KVPs to illustrate visual impacts.

No additional KVPs were added to the Final SEIS; however, some may be added or updated as the Modified LPA advances through design and construction. The IBR Program will continue to coordinate with the City of Vancouver to understand visual impacts.

3-123
Chapter 7 of the Visual Quality Technical Report has been updated to include the suggested mitigation language for mitigation requirements. Architectural guidance and funding for long-term maintenance will be developed through final design.

3-124
The Health Analysis was submitted as a public comment on the Draft SEIS. The Health Analysis was a third-party effort conducted by the Washington State Department of Health, Oregon Health Authority, Clark County Public Health, Multnomah County Health Department, and Cowlitz Indian Tribe Health and Human Services. NEPA does not require the analysis of health effects for the IBR Program as those effects are not reasonably

foreseeable. Although not required as part of the NEPA process, the Health Analysis was prepared in response to requests from several of the IBR Program's partners, and the authors of the Health Analysis described their findings and recommendations with the IBR Program's advisory groups in 2025.

Section 3.10, Air Quality, of the Final SEIS has been updated to provide information on potential air pollution related to transportation.

3-125
As described in Section 3.10, Air Quality, of the Draft and Final SEIS, there were no impacts to air quality identified that required mitigation or monitoring. Text has been added to Section 3.10.2 of the Final SEIS to clarify which regulations were assumed in vehicle emissions modeling and to state the assumption that these standards would remain in effect throughout the analysis period. In addition to federal regulations on fuel efficiency and fuel emissions, the IBR Program partners are also subject to statewide goals and regulations that call for a reduction in vehicle miles traveled and vehicle emissions over time.

3-126
The Health Analysis was submitted as a public comment on the Draft SEIS. The Health Analysis was a third-party effort conducted by the Washington State Department of Health, Oregon Health Authority, Clark County Public Health, Multnomah County Health Department, and Cowlitz Indian Tribe Health and Human Services. NEPA does not require the analysis of health effects for the IBR Program as those effects are not reasonably foreseeable. Although not required as part of the NEPA process, the Health Analysis was prepared in response to requests from several of the IBR Program's partners, and the authors of the Health Analysis described their findings and recommendations with the IBR Program's advisory groups in 2025.

As described in Section 3.10.3, there is not sufficient information to credibly evaluate the potential health impacts from mobile source air toxics, and there are no established thresholds to identify when mitigation would be required.

3-127
As described in Section 3.10, Air Quality, of the Draft and Final SEIS, the Modified LPA would not result in long-term impacts to air quality that require mitigation or monitoring. The IBR Program will require contractors to implement dust- and noise-control measures to meet local ordinances and will continue to consider potential air quality impacts from construction of the proposed Modified LPA as more construction details are identified.

The design would consider the vehicular context, such as traffic, noise, and exposure to street debris, etc. to provide a well-lit, attractive, and comfortable environment for all users on active transportation facilities.

3-128
Section 3.10, Air Quality, of the Final SEIS has been updated to clarify that the air quality analysis presents air pollutant emissions in order to compare alternatives, but there are no federal or state standards to determine significance in areas designated as attainment. Section 3.10 of the Final SEIS also clarifies that air pollutant emissions cannot be compared to National Ambient Air Quality Standards, which are concentrations.

3-129
As described in Section 3.10.3, there is not sufficient information to credibly evaluate the potential health impacts from mobile source air toxics, and there are no established thresholds to identify when mitigation would be required.

The IBR Program will work with the City of Vancouver to investigate available best practices for monitoring air quality as the Modified LPA progresses through design.

3-130
Section 3.10.4 of the Draft SEIS states, "Locations of elevated emissions would likely occur directly next to the construction activities, staging areas, and material hauling routes. All design options of the Modified LPA are expected to have similar temporary construction effects."

Details about potential construction staging areas are not available at this stage. The IBR Program will consider the potential for air quality impacts as the potential location of staging areas are determined.

3-131
Chapter 7 of the Air Quality Technical Report and Section 3.10.6 of the Final SEIS have been updated to reflect the IBR Program's avoidance, minimization, and mitigation commitments. These commitments include requiring compliance with the current air quality measures and requirements of the contracting agency regarding minimizing air quality impacts in contract documents.

3-132
The Health Analysis was submitted as a public comment on the Draft SEIS. The Health Analysis was a third-party effort conducted by the Washington State Department of Health, Oregon Health Authority, Clark County Public Health, Multnomah County Health Department, and Cowlitz Indian Tribe Health and Human Services. NEPA does not require the analysis of health effects for the IBR Program as those effects are not reasonably foreseeable. Although not required as part of the NEPA process, the Health Analysis was prepared in response to requests from several of the IBR Program's partners, and the

authors of the Health Analysis described their findings and recommendations with the IBR Program's advisory groups in 2025.

As described in Section 3.10, Air Quality, of the Draft and Final SEIS, the analysis did not identify potential long-term reasonably foreseeable effects to air quality that would require mitigation or monitoring. The IBR Program will consider potential reasonably foreseeable air quality effects from construction activities as construction activities are scheduled.

3-133
The proposed improvements were reflected in the Draft SEIS design and traffic and air quality evaluations. Please refer to the Transportation Technical Report for the traffic analysis. The IBR Program will continue to address these considerations through final design.

3-134
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14154 - Unleashing American Energy and EO 14148 - Initial Rescissions of Harmful Executive Orders and Actions. Together, EO 14154 and EO 14148 revoked EO 13990 - Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021) and EO 14008 - Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations - "Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender." As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, FHWA and FTA will not include greenhouse gas (GHG) emissions and climate change analyses in the federal environmental review process, and any purported GHG emissions or climate change impacts will not be considered in the federal decision. Accordingly, no GHG emissions or climate change analyses are included in this Final SEIS.

FHWA and FTA's responses herein are limited to issues raised in the comment that do not implicate GHG emissions or climate change impacts. To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider and respond to aspects of the comment implicating GHG emissions or climate change, those responses are provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of any federal decision-making.

3-135
Design of potential noise walls will minimize impacts to buildings to the extent practicable.

3-136
All permitted future developments are required to be included in the noise analysis and have been included to date. The Library Square development was not included in the noise modeling because to date, no building permits for the site have been filed with the local planning or building departments. The IBR Program will perform a final feasibility analysis to account for any changes before moving to construction.

The potential for the Community Connector to act as a noise buffer will be considered during design.

3-137
Related sections have been updated for consistency. Noise and vibration from construction of the proposed Modified LPA will be further evaluated as additional construction details advance.

The regulatory requirements in Sections 5.1.2.1 and 7.9.2.1 have been revised to acknowledge that fragile buildings, which may be historic structures, are subject to a more stringent construction vibration level of 0.12 inches per second (in/sec) peak particle velocity (PPV). A criterion of 0.5 in/sec PPV applies to all other buildings.

3-138
The IBR Program will perform preconstruction conditions assessments at likely affected locations closer to construction. Construction specifications will provide contractors required steps to follow if and when monitoring limits are approached or exceeded.

3-139
Section 106 comments related to noise have been reviewed in coordination with the IBR Section 106 team to confirm consistent approaches on potential impact to historic structures.

3-140
The primary function of the shared-use path (SUP) is a transportation facility. The SUP would not include rest areas, benches, or areas of common human use. Therefore, it does not meet the definition of a noise-sensitive use and is not included in the traffic noise analysis.

While the noise and vibration analysis included in Section 3.11 of the Draft and Final SEIS focuses on noise and vibration resulting from roadways, transit facilities, and construction, design considerations include traveling conditions for SUP users, including shielding traffic noise experienced by pedestrians and cyclists. A qualitative analysis focusing on the anticipated difference in sound levels based on distance, shielding, and line of sight between highway noise and nearby noise receptors was provided to compare design options.

3-141
The Health Analysis was submitted as a public comment on the Draft SEIS. The Health Analysis was a third-party effort conducted by the Washington State Department of Health, Oregon Health Authority, Clark County Public Health, Multnomah County Health Department, and Cowlitz Indian Tribe Health and Human Services. NEPA does not require the analysis of health effects for the IBR Program as those effects are not reasonably foreseeable. Although not required as part of the NEPA process, the Health Analysis was prepared in response to requests from several of the IBR Program's partners, and the authors of the Health Analysis described their findings and recommendations with the IBR Program's advisory groups in 2025.

Recommendations related to noise (minimizing excessive noise, meeting state and local requirements, and monitoring construction) are included in mitigation measures in the Draft and Final SEIS.

3-142
Recommendations related to noise monitoring prior to and during construction have been updated in the Final SEIS.

3-143
Chapter 7 of the Energy Technical Report and Section 3.12.6 of the Final SEIS have been updated to reflect the IBR Program's avoidance, minimization, and mitigation commitments. These include an IBR Program-specific commitment to continue to consider advances in energy-reducing and/or energy-saving materials and methods.

3-144
Construction contracting requirements will be established as procurement for the proposed Modified LPA advances.

3-145
Thank you for your comment.

3-146
Within the primary study area of the Modified LPA, the drainage design would include collection and conveyance of runoff to water quality treatment facilities prior to discharge into the existing collection systems. Based on the current design of the Modified LPA, several existing storm sewers would need to be relocated based on conflicts.

The collection and conveyance of stormwater runoff from areas outside of, and adjacent to, the Modified LPA footprint would be maintained in the existing trunk systems; mixing of outside areas with those within the Modified LPA footprint would be limited to the extent possible.

Several existing trunk storm systems, including a 60-inch-diameter storm trunk, were assessed for capacity and determined to have adequate capacity for the proposed Modified LPA; however, relocation of portions of the trunks and connection for adjacent-area drainage would be necessary, and these are shown on the conceptual plans proposed for the Columbia River Bridges and Approach (CRBA) initial phase. The Modified LPA would likely require additional relocation of existing storm pipes and drainage connections north of the CRBA limits, which would be part of the final design in those locations.

The delineation for the existing storm system is complete and will be included as part of the Conceptual Hydraulics Report that will accompany the construction documents for the Columbia River bridges construction package. This note has been added to Section 3.14, Water Quality and Hydrology, of the Final SEIS and the associated Water Quality and Hydrology Technical Report. The IBR Program will coordinate with the City of Vancouver to confirm the contributing areas and appropriate treatment.

3-147
Within the city of Vancouver, the proposed stormwater management would rely on bioretention ponds that treat collected stormwater by means of infiltration through porous media. The treated waters would then be routed via perforated pipes offsite, eventually connecting with the existing stormwater trunkline system near the SR 14 interchange before being discharged to the Columbia River. The Modified LPA does not propose to infiltrate collected stormwater to the underlying aquifer. The IBR Program will develop the design to comply with applicable regulations and avoid impacting Critical Aquifer Recharge Areas.

3-148
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14154 - Unleashing American Energy and EO 14148 - Initial Rescissions of Harmful Executive Orders and Actions. Together, EO 14154 and EO 14148 revoked EO 13990 - Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021) and EO 14008 - Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations - "Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender." As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, FHWA and FTA will not include greenhouse gas (GHG) emissions and climate change analyses in the federal environmental review process, and any purported GHG emissions or climate change impacts will not be considered in the federal decision. Accordingly, no GHG emissions or climate change analyses are included in this Final SEIS.

FHWA and FTA's responses herein are limited to issues raised in the comment that do not

implicate GHG emissions or climate change impacts. To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider and respond to aspects of the comment implicating GHG emissions or climate change, those responses are provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of any federal decision-making.

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

3-149

Replacement trees would be installed consistent with the applicable regulatory requirements, including the City of Vancouver's Tree, Vegetation, and Soil Conservation ordinance (Vancouver Municipal Code [VMC} 20.770).

While not specific to ecosystem mitigation, the Visual Quality Technical Report has been updated to include a long-term, regulatory measure to install new vegetation as soon as feasible, which helps to address the intent of this comment.

3-150

Tree removal would be avoided and minimized to the extent practicable. Tree removal (when required) and installation of replacement trees will be conducted consistent with applicable regulatory requirements, including the City of Vancouver's Tree, Vegetation, and Soil Conservation ordinance (VMC 20.770).

3-151

Landscaping plans would be developed during final design, consistent with applicable state and local regulatory requirements and specifications. To the extent that these requirements and specifications allow, pollinator-friendly species would be incorporated. Many of the common flowering herbaceous plants and seed mixes that are likely to be installed do have pollinator-friendly characteristics.

Consideration of pollinator-friendly species has been added to the mitigation list in the Section 3.16, Ecosystems, of the Final SEIS and Ecosystems Technical Report.

3-152

The IBR Program is instituting an initiative where runoff from impervious surfaces within the IBR Program area would be handled by stormwater treatment facilities. The design of these facilities is currently underway with the intent that treatment would mitigate the infiltration of contaminants into the groundwater. During the proposed construction period, all work will be required to adhere to a stormwater pollution prevention plan (SWPPP) to minimize the risk of groundwater contamination. The IBR Program is working with the U.S. Environmental Protection Agency (EPA) and the City of Vancouver to ensure that sole-source aquifers will meet federal and local jurisdiction requirements to prevent infiltration of contaminants.

The SWPPP requirements are meant to mitigate construction-based runoff, limiting the infiltration of some contaminants into the groundwater.

The IBR Program will design and implement enhanced stormwater treatment facilities that would reduce the infiltration of contaminants to the shallow groundwater system. These stormwater treatment facilities in general direct stormwater to filter through a water quality medium and be collected below for discharge to a downstream conveyance system and ultimate discharge to the river.

With regard to deep foundation elements, the construction methodology assumed will employ materials with environmentally benign characteristics; in addition, the total volume of potential input is minimal to the aquifer.

The Final Troutdale Sole Source Aquifer Technical Report summarizes this information and is included as an appendix to the Geology and Groundwater Technical Report.

3-153

The Final SEIS has been revised to more closely reflect the statements made in the Geology and Groundwater Technical Report, which states that the area surrounding Burnt Bridge Creek is steep and prone to severe erosion and landslides. The map provided in Figure 3-11 in the Technical Report correctly identifies this area.

For analysis of the reasonably foreseeable effects from construction and operation of the proposed Modified LPA on soil and landslide hazards, see Section 3.4, Soil; Section 3.9, Geologic Hazards; Section 5.2.1, Geologic Hazards; and Chapter 7, Mitigation

Commitments.

3-154
National Fire Protection Association (NFPA) 502 has been added to Section 2.3, Relevant Laws and Regulations, of both the Public Services and Hazardous Materials technical reports.

3-155
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14154 - Unleashing American Energy and EO 14148 - Initial Rescissions of Harmful Executive Orders and Actions. Together, EO 14154 and EO 14148 revoked EO 13990 - Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021) and EO 14008 - Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations - "Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender." As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, FHWA and FTA will not include greenhouse gas (GHG) emissions and climate change analyses in the federal environmental review process, and any purported GHG emissions or climate change impacts will not be considered in the federal decision. Accordingly, no GHG emissions or climate change analyses are included in this Final SEIS.

FHWA and FTA's responses herein are limited to issues raised in the comment that do not implicate GHG emissions or climate change impacts. To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider and respond to aspects of the comment implicating GHG emissions or climate change, those responses are provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of any federal decision-making.

3-156
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3-159

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3-161

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comment implicating GHG emissions or climate change, those responses are provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of any federal decision-making.

3-162
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

Section 3.11, Noise and Vibration, of the Draft and Final SEIS, and the Noise and Vibration Technical Report, provides the noise and vibration analysis of the proposed Modified LPA. Section 3.11.6 of the Final SEIS provides the reasonable and feasible evaluation of noise walls and identifies measures to address noise and vibration impacts.

3-163
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

3-164
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Section 3.5.7 of the Final SEIS includes an IBR Program-specific measure to conduct public engagement and outreach, through a variety of methods, to help transportation users make informed travel choices when crossing the Columbia River during construction.

3-165
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply

to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

Section 3.8, Cultural Resources, of the Draft and Final SEIS provides the analysis of cultural resources, including archaeological resources, and identifies measures to address potential impacts to archaeological resources. Appendix A of the Draft and Final SEIS describes the agency and tribal coordination conducted by the IBR Program.

3-166

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

3-167

The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) have the authority to set toll rates and policies, including exemptions and discounts. OTC and WSTC would jointly establish toll rates and any applicable policies (e.g., variations based upon time of day) for the IBR Program. The OTC and WSTC would adopt toll rates, including exemptions and discounts, six to nine months before pre-completion tolling begins on the Interstate Bridge. Formal action will be needed by OTC and WSTC in order to implement rates and policies, including discounts and exemptions. It is anticipated that tolling would begin on the existing Interstate Bridge in 2028. For more information, see Tolling Standard Response L.24: Tolling Exemptions and Discounts.

3-168

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

The IBR Program has an extensive and broad outreach program that ensures all impacted communities are considered and engaged.

3-169

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis.

Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

3-170
To satisfy the Federal Lands to Parks (FLP) requirements at Marshall Park, the IBR Program will coordinate with the National Park Service and U.S. General Services Administration to transfer the FLP property in Marshall Park to FHWA, which then conveys the property to WSDOT through a federal public-benefit conveyance process.

To satisfy the FLP requirements at Old Apple Tree Park, the IBR Program will document concurrence from the City of Vancouver that the proposed shared-use path is consistent with the existing parks plan and that the IBR Program has completed coordination through the Section 4(f) consultation process. There is additional detail in Section 6.21 of the Final SEIS. Agreements are documented in the Official with Jurisdiction letter (Appendix Q to the Final SEIS).

3-171
The last bullet under Program-specific mitigation for temporary effects of the Aviation Technical Report (now part of Table 7-1) has been revised to state: "Conduct outreach before and during construction to provide information to pilots on findings or recommendations following the review by the Federal Aviation Administration (FAA) of FAA AC 70/7460-1M, including any temporary obstruction proposed by the contractors."

3-172
On February 19, 2025, CEQ issued a memorandum, Implementation of the National Environmental Policy Act, which acknowledged that the amendments to NEPA in the Fiscal Responsibility Act of 2023, known as the Building United States Infrastructure through Limited Delays and Efficient Reviews (BUILDER) Act of 2023, directed that EISs must analyze and disclose the "reasonably foreseeable environmental effects of the proposed agency action." CEQ encouraged Federal agencies to "analyze the reasonably foreseeable effects of the proposed action consistent with section 102 of NEPA, which does not employ the term 'cumulative effects;' [...and the agencies should consider] 'reasonably foreseeable' effects, regardless of whether or not those effects might be characterized as 'cumulative.'"

Further, since the publication of the Draft SEIS, the U.S. Supreme Court issued its decision in Seven County Infrastructure Coalition v. Eagle County, Colorado, which held the focus of NEPA is the project at hand, not other separate projects. 605 U.S. 168 (May 29, 2025). It also reinforced the "reasonably foreseeable" effects standard for measuring effects in NEPA, which was incorporated into the US DOT's NEPA implementing regulations at 23 CFR Part 771.

Accordingly, relying upon the NEPA requirements, as revised by the BUILDER Act of 2023, and 23 CFR Part 771, effective July 3, 2025, the Final SEIS analyzes reasonably foreseeable effects that result from the proposed action.* The IBR Program considers reasonably foreseeable effects to have a rational link to the IBR Program in terms of geographic and temporal proximity and must be sufficiently likely to occur. Reasonably foreseeable effects do not include effects that are speculative in nature or causally attenuated** from the IBR Program.

Reasonably foreseeable effects of the No-Build Alternative and Modified LPA on environmental and community resources are evaluated in the resource-specific sections of the Final SEIS (Section 3.1 through Section 3.22). The Final SEIS does not carry forward the former cumulative effects chapter of the Draft SEIS, Section 3.23. The introduction to Chapter 3 of the Final SEIS defines geographic proximity and temporal scope for the purposes of assessing reasonably foreseeable effects.

*The Final SEIS does not categorize the reasonably foreseeable effects of the proposed action based upon types of effects. As a result of the changes discussed in Chapter 3.00, FHWA, FTA and the IBR Program reviewed the documentation supporting the NEPA analysis to determine whether the effects that had previously been characterized as direct, indirect, and cumulative were reasonably foreseeable. The appendices supporting the Final SEIS, which contain the terms "direct" and "indirect" were included in this review. The appendices to the Final SEIS contain these terms because the terms were required under the CEQ regulations in effect at the time the appendices were prepared. Although the terms "direct" and "indirect" have not been removed from the appendices, FHWA, FTA and the IBR Program reviewed the effects characterized (or categorized) as indirect in the appendices to determine whether such effects are reasonably foreseeable. Also included in this review was the former cumulative effects section. To the extent any effects in the former cumulative effects section were determined to be reasonably foreseeable, they were included in the Final SEIS along with the discussion of other reasonably foreseeable effects.

**"Causally attenuated" in this context means effects that are remote in time or place, or are the result of a lengthy causal chain (meaning intervening variables such as other actions may contribute or cause an effect), thereby making it difficult to establish a sufficiently close connection between the proposed action and a particular environmental impact. Generally, an outcome or effect is causally attenuated if it cannot be directly attributed to one particular action, but rather may result from another action or series of actions.

3-173
The IBR Program concurs with the implementation of these measures, which will be based on the most current information obtained from the City of Vancouver and other agencies during preconstruction coordination. A sentence reflecting the first bullet has been added to

Section 3.4 of the Final SEIS and the Land Use Technical Report. The minimization/mitigation measures in the second and third bullet are reflected in appropriate sections of the Final SEIS and technical reports (e.g., Public Services), although different wording is used.

3-174
The IBR Program is preparing a Community Benefits Plan to identify possible ways to implement the CBAG's recommendations. The intent of this comment will be considered through development of the Community Benefits Plan and design process.

3-175
The IBR Program will continue coordination with the City of Vancouver to address these comments as design advances.

3-176
Your opinion on the design options has been taken into consideration. The IBR Program Recommended Design Options are identified in Chapter 2, Description of Alternatives, of the Final SEIS and Appendix K, Recommended Design Option Report, and are listed below. The selection of design options will occur in the Amended Record of Decision.

Bridge Configuration: Single-level fixed-span

Auxiliary Lanes: One auxiliary lane

C Street Ramps: With C Street ramps

I-5 Alignment: Centered in Downtown Vancouver

Park-and-Ride Options: Provide parking capacity to accommodate 1,270 vehicles dispersed among five park and rides in Vancouver along the light-rail alignment. Near the Waterfront Station, 570 parking spaces would be distributed among three park and rides at (1a) Columbia Way (below I-5), (1b) Columbia Street/State Route 14, and (1c) Columbia Street/Phil Arnold Way. Near the Evergreen Station, 700 parking spaces would be distributed among two park and rides at (2a) Library Square and (2b) Columbia Credit Union.

3-177
The I-5 Westward Shift design option was included in the Modified LPA in response to federal and state coordination. Chapter 2, Description of Alternatives, of the Final SEIS has been revised to clarify the reason.

3-178
The IBR Program has responded to both the City of Vancouver's Parking Advisory Committee and the Vancouver City Center Redevelopment Authority comment letters. The responses are available as part of the Final SEIS.

3-179
The Final SEIS evaluates all park-and-ride options proposed in the Draft SEIS and identifies the use of all five park-and-ride locations as the Recommended Design Option. Based on further design analysis, public comment received on the Draft SEIS and coordination with local agencies, the approach to providing parking capacity for LRT riders was adjusted to focus on dispersed parking across more facilities, including using all three sites previously identified near the Waterfront Station and both sites previously identified near the Evergreen Station. The IBR Program will continue coordinating with the Federal Transit Administration (FTA) as part of the New Starts Capital Investment Grant to understand the role of park and rides as part of the Modified LPA's transit element. As the IBR Program continues into final design and permitting, the IBR Program will continue to work with the FTA, City of Vancouver, C-TRAN, and TriMet to determine how many park-and-ride spaces are needed for the IBR Program with the goal of achieving a transit program that is competitive for federal funding and maintains effective access to transit, promote compatibility with local planning goals and plans for multiuse development, multimodal access, and attractive public spaces. This includes coordination with the City of Vancouver to understand existing parking supply in downtown Vancouver and how that might affect park-and-ride demand, possibly reducing the need to construct new parking facilities. Analysis of the IBR Program's parking needs and solutions (including the potential for shared parking for transit riders and public use, and for any necessary agreements) will continue through final design.

3-180
The IBR Recommended Design Option for park-and-rides reduced the assumed capacity of the Library Square site and also included the shared use of the other nearby parking facility previously identified in the Draft SEIS.

3-181
The Final SEIS evaluates all park-and-ride options proposed in the Draft SEIS and identifies the use of all five park-and-ride locations as the Recommended Design Option. Based on further design analysis, public comment received on the Draft SEIS and coordination with local agencies, the approach to providing parking capacity for LRT riders was adjusted to focus on dispersed parking across more facilities, including using all three sites previously identified near the Waterfront Station and both sites previously identified near the Evergreen Station. The IBR Program will continue coordinating with the Federal Transit Administration (FTA) as part of the New Starts Capital Investment Grant to understand the role of park and rides as part of the Modified LPA's transit element. As the IBR Program continues into final design and permitting, the IBR Program will continue to work with the FTA, City of

Vancouver, C-TRAN, and TriMet to determine how many park-and-ride spaces are needed for the IBR Program with the goal of achieving a transit program that is competitive for federal funding and maintains effective access to transit, promote compatibility with local planning goals and plans for multiuse development, multimodal access, and attractive public spaces. This includes coordination with the City of Vancouver to understand existing parking supply in downtown Vancouver and how that might affect park-and-ride demand, possibly reducing the need to construct new parking facilities. Analysis of the IBR Program's parking needs and solutions (including the potential for shared parking for transit riders and public use, and for any necessary agreements) will continue through final design.

Any new facilities will meet applicable city and state design standards.

3-182
The Final SEIS evaluates all park-and-ride options proposed in the Draft SEIS and identifies the use of all five park-and-ride locations as the Recommended Design Option. Based on further design analysis, public comment received on the Draft SEIS and coordination with local agencies, the approach to providing parking capacity for LRT riders was adjusted to focus on dispersed parking across more facilities, including using all three sites previously identified near the Waterfront Station and both sites previously identified near the Evergreen Station. The IBR Program will continue coordinating with the Federal Transit Administration (FTA) as part of the New Starts Capital Investment Grant to understand the role of park and rides as part of the Modified LPA's transit element. As the IBR Program continues into final design and permitting, the IBR Program will continue to work with the FTA, City of Vancouver, C-TRAN, and TriMet to determine how many park-and-ride spaces are needed for the IBR Program with the goal of achieving a transit program that is competitive for federal funding and maintains effective access to transit, promote compatibility with local planning goals and plans for multiuse development, multimodal access, and attractive public spaces. This includes coordination with the City of Vancouver to understand existing parking supply in downtown Vancouver and how that might affect park-and-ride demand, possibly reducing the need to construct new parking facilities. Analysis of the IBR Program's parking needs and solutions (including the potential for shared parking for transit riders and public use, and for any necessary agreements) will continue through final design.

3-183
Carpool and vanpool are included as additional TDM and TSM treatments in existing conditions (Section 3.10.1) and in mitigation for temporary reasonably foreseeable effects in the Transportation Technical Report. In terms of long-term reasonably foreseeable effects, the reduction in reliance on single-occupancy vehicle (SOV) trips that would be experienced with the Modified LPA does not necessitate any formal mitigation that would include the expansion of carpooling or shuttle services from park-and-ride lots outside of downtown Vancouver. This could be considered outside of the IBR Program.

3-184
The Final SEIS and Technical Reports have been updated to reflect the number of park and rides in the Modified LPA and Recommended Design Options.

3-185
The IBR Program Recommended Design Option is to retain the C Street ramps. The Draft and Final SEIS includes analysis of the performance of with and without the C Street ramps.

3-186
The IBR Program Recommended Design Option is to retain the C Street ramps. A set of proposed mitigation measures has been developed to address the intersection operations that would not meet mobility standards under the Without C Street Ramp design option. A description of potential mitigation measures is included in Section 3.1.6 in the Final SEIS and Chapter 7 of the Transportation Technical Report.

3-187
Your opinion on the design options has been taken into consideration. The IBR Program Recommended Design Options are identified in Chapter 2, Description of Alternatives, of the Final SEIS and Appendix K, Recommended Design Option Report, and are listed below. The selection of design options will occur in the Amended Record of Decision.

Bridge Configuration: Single-level fixed-span

Auxiliary Lanes: One auxiliary lane

C Street Ramps: With C Street ramps

I-5 Alignment: Centered in Downtown Vancouver

Park-and-Ride Options: Provide parking capacity to accommodate 1,270 vehicles dispersed among five park and rides in Vancouver along the light-rail alignment. Near the Waterfront Station, 570 parking spaces would be distributed among three park and rides at (1a) Columbia Way (below I-5), (1b) Columbia Street/State Route 14, and (1c) Columbia Street/Phil Arnold Way. Near the Evergreen Station, 700 parking spaces would be distributed among two park and rides at (2a) Library Square and (2b) Columbia Credit Union.

3-188
The IBR Program would incorporate the use of advanced technologies in its Intelligent

Transportation Systems design. The IBR Program will employ best management practices and continue to look for the best way to manage and optimize the system.

3-189
Chapter 2 of the Final SEIS has been edited to clarify.

3-190
The widths described in Chapter 2 of the SEIS are based on conceptual design. The IBR Program intent is that the Modified LPA would accommodate bus-on-shoulder service, freight movement, emergency access and incident response, and the use of the shoulders for drivers who need to pull over even with the two auxiliary-lane design option.

3-191
Section 3.3, Property Acquisitions and Displacements, of the Draft and Final SEIS provide tables with total acquisition needs for certain combinations of design options. Not every permutation of design options is included; instead, the section compares the combination of design options where differences in acquisitions would occur. The narrative describes how each of the design options would result in more or fewer acquisitions than the baseline of a single-level fixed-span bridge with one auxiliary lane, with C Street ramps, and a centered I-5.

There would be no difference in the number of parcels impacted under the one auxiliary lane design option compared to the two auxiliary lane design option. For any property determined to be acquired by the IBR Program, compensation will follow the Uniform Act, as amended, which dictates the process and compensation. If the Modified LPA's design alters the acquisition area, the IBR Program will notify property owners in advance.

Although there are no differences between the one-auxiliary-lane and two-auxiliary-lane design options for impacted parcels, there are some differences for WSDOT and City of Vancouver right-of-way impacts. The two-auxiliary-lane design option would have greater impacts to right of way in two locations: (1) the area north of the existing SR 14 to I-5 south on-ramp south of 5th Street, and (2) the area east of the existing I-5 north to SR 14 east ramp bordering Old Apple Tree Park.

3-192
Thank you for your comment.

Comments from The Historic Trust have been responded to and published with the Final SEIS.

3-193
Thank you for this attachment. Specific comments referencing the City of Vancouver's Desired Outcomes and Conditions of Approval for the Modified LPA and IBR commitments are addressed in the responses to previous comments in this letter.

3-194
Thank you for this attachment. Comments from the City of Vancouver Parking Advisory Committee and City of Vancouver City Center Redevelopment Authority have been responded to and published with the Final SEIS.

3-195
Thank you for this attachment. Comments in Attachment D have been responded to as part of this submission, except where the City of Vancouver noted that the comments were duplicative.

3-196
Thank you for this attachment. Specific comments referencing the Guiding principles for the Community Connector and Evergreen Station area are addressed above.

3-197
The Health Analysis was submitted as a public comment on the Draft SEIS. The Health Analysis was a third-party effort conducted by the Washington State Department of Health, Oregon Health Authority, Clark County Public Health, Multnomah County Health Department, and Cowlitz Indian Tribe Health and Human Services. NEPA does not require the analysis of health effects for the IBR Program as those effects are not reasonably foreseeable. Although not required as part of the NEPA process, the Health Analysis was prepared in response to requests from several of the IBR Program's partners, and the authors of the Health Analysis described their findings and recommendations with the IBR Program's advisory groups in 2025.

3-198
Thank you for this attachment. Many topics in Attachment G are addressed through the IBR Program's design and community engagement processes. For instance, all of the Modified LPA's active transportation facilities would be designed to meet or exceed ADA standards. Active transportation facilities are designed to provide connections to transit stations. Accessible parking spaces would be provided in park-and-ride facilities. Outreach materials and public meetings are designed to be accessible by a wide range of users.

The IBR Program will consider the information in this attachment and other community feedback throughout the design process in coordination with the City of Vancouver.

3-199
Thank you for this attachment. Specific comments referencing the geologic hazard maps are addressed above.

3-200
Thank you for this attachment. Specific comments referencing the fact sheets for Main Street Promise, Fourth Plain Safety and Mobility Project, and 29th and 33rd Streets Safety and Mobility Project are addressed above.

3-201
NFPA 502 has been added to Section 2.3, Relevant Laws and Regulations, of both the Public Services and Hazardous Materials technical reports.

3-202
The travel times reported in Section 4.3.4.3 of the Transportation Technical Report do not account for any potential travel-time savings from reduced crashes. The travel times reported are for typical peak period conditions and do not explicitly take isolated incidents (such as crashes) into account.

3-203
Under the peak period analysis, there would be no congestion in the northbound direction for the Modified LPA at the Mill Plain off-ramp without the C Street ramps. See Section 4.3.4 of the Transportation Technical
Report.

3-204
Bridge lifts are not allowed during peak periods for which travel times are summarized, so there is no additional delay as a result.

3-205
The proposed facility would accommodate a greater volume, and wider range of users and devices, than in the no-build condition. Section 4.1 of the Final SEIS has been updated to reflect this.

3-206
The IBR Program Recommended Design Option is to retain the C Street ramps. A set of proposed mitigation measures has been developed to address the intersection operations that do not meet mobility standards under the Without C Street Ramp design option. A description of potential mitigation measures is included in Section 3.1.6 in the Final SEIS and Chapter 7 of the TTR.

3-207
Daily and peak period volumes would both be impacted by variable-rate tolling and the presence of other multimodal improvements that are part of the Modified LPA. Specifically, during peak periods, the added capacity and travel time improvements on the I-5 bridges would result in increased vehicle volumes compared with the No-Build Alternative, even with a toll, because the amount of added travel time to divert to a congested facility on I-205 is high enough that this path is not as attractive for many trips that have destinations closer to I-5.

Vehicle volumes across the I-205 bridge in 2045 would be 3% lower as compared with the No-Build Alternative, in part because of variable-rate tolling and other multimodal improvements, such as the LRT extension to Evergreen Boulevard, that would shift trips to nonauto modes and result in overall lower volumes on both bridges in the Modified LPA.

3-208
The window for in-water debris removal is November 1 through February 28 for each year of construction. This has been clarified in Section 3.16 of the Final SEIS and Ecosystems Technical Report.

3-209
The Geology and Groundwater Technical Report and Section 3.17 in the Final SEIS have been updated to acknowledge the Wellhead Protection Areas that overlap the primary study area.

3-210
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FHWA and FTA's responses herein are limited to issues raised in the comment that do not implicate GHG emissions or climate change impacts. To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider and respond to aspects of the comment implicating GHG emissions or climate change, those responses are provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of any federal decision-making.

3-211
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3-214
This is an error in the Draft SEIS and has been updated in the Final SEIS. Site 2a for the proposed Evergreen Park and Ride could require the full acquisition of five properties adjacent to the Vancouver Community Library, including three properties currently used for parking and two vacant properties. Site 2b would use an existing parking garage.

A "full acquisition" means the purchase of all ownership interest in a parcel of land. A "partial acquisition" means the purchase of only a portion of a parcel of land, or limited rights to use a property, rather than acquiring the entire parcel. These terms have been added to the Final SEIS Glossary (Appendix I).

3-215
The Final SEIS has been revised to read, "Waterfront Site 1c is owned by the State of

Washington, so there would be no loss of property tax associated with that potential impact." Table 3.4-13 in the Final SEIS has been updated to reflect the correct site number.

3-216
This was a typo and has been updated in Section 3.4 of the Final SEIS and cross-checked for consistency in the Land Use Technical Report.

3-217
Section 3.6.2 of the Final SEIS has been revised to add Hudson Bay High School to the map.

3-218
Lumen Local and National are located within IBR Program area. Table 3.6-4 of the Final SEIS has been updated accordingly.

3-219
Section 4.3.4 of the Acquisitions Technical Report has been revised to include a description of the specific locations where the potential additional property acquisition would occur. The area of acquisition has been updated to 0.3 acres instead of 0.2 acres. The parcels that would require additional impact under the single-level bridge configuration design options are 502250000, 986049315, and 986049327. All three parcels are on the west side of the bridge between the Columbia River and W Columbia Way.

3-220
Section 4.3.4 of the Acquisitions Technical Report has been revised to remove inappropriate references to Hayden Island from park-and-ride impact descriptions.

3-221
Section 4.3.4 of the Acquisitions Technical Report has been revised to correct these terminology discrepancies.

3-222
Tables in Appendix A of the Acquisitions Technical Report have been revised to show the correct assessor parcel ID numbers.

3-223
There are no federal or state standards to determine if pollutant emissions are significant for areas designated as attaining all National Ambient Air Quality Standards. There are no standards or good/bad qualifiers to add to tables. Introductory text was added to Section 3.10 of the Final SEIS to explain why there are no standards for this pollutant emissions analysis, and the values are presented to compare alternatives.

3-224
As described in Section 3.10.3 of the Final SEIS, there is not sufficient information to credibly evaluate the potential health impacts at specific locations. The air quality analysis is based on pollutant emissions at the regional scale, and it is not possible with current information to estimate the impacts or benefits of shifting I-5 west.

3-225
As described in Section 3.10.3 of the Final SEIS, there is not sufficient information to credibly evaluate the potential health impacts at specific locations. The air quality analysis is based on pollutant emissions at the regional scale, and it is not possible with current information to estimate the impacts or benefits of shifting I-5 west. Therefore, reasonably foreseeable effects to populations due to shifting I-5 west were not quantified, and there is no mitigation to consider at this time.

3-226
The air quality analysis uses EPA's Motor Vehicle Emissions Simulator (MOVES) model version 3.1.0, which includes all emissions regulations and fuel economy regulations in place as of March 2021. EPA updates MOVES periodically as new regulations are adopted and new emission factor data are available. It is possible that emissions in 2045 could be higher or lower than those reported in the Draft SEIS, depending on the regulations in place at that time. Text has been added to Section 3.10.2 of the Final SEIS to clarify which regulations were assumed in vehicle emissions modeling and to state the assumption that these standards would remain in effect throughout the analysis period.

3-227
Section 3.10.4 of the Final SEIS qualitatively states that elevated emissions would likely occur directly next to construction staging areas.

3-228
All sections of the Final SEIS have been updated based on the Modified LPA and Recommended Design Options described in Chapter 2 of the Final SEIS.

3-229
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(23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

3-230

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3-231

On February 19, 2025, CEQ issued a memorandum, Implementation of the National Environmental Policy Act, which acknowledged that the amendments to NEPA in the Fiscal Responsibility Act of 2023, known as the Building United States Infrastructure through Limited Delays and Efficient Reviews (BUILDER) Act of 2023, directed that EISs must analyze and disclose the "reasonably foreseeable environmental effects of the proposed agency action." CEQ encouraged Federal agencies to "analyze the reasonably foreseeable effects of the proposed action consistent with section 102 of NEPA, which does not employ the term 'cumulative effects;' [...and the agencies should consider] 'reasonably foreseeable' effects, regardless of whether or not those effects might be characterized as 'cumulative.'"

Further, since the publication of the Draft SEIS, the U.S. Supreme Court issued its decision in Seven County Infrastructure Coalition v. Eagle County, Colorado, which held the focus of NEPA is the project at hand, not other separate projects. 605 U.S. 168 (May 29, 2025). It also reinforced the "reasonably foreseeable" effects standard for measuring effects in NEPA, which was incorporated into the US DOT's NEPA implementing regulations at 23 CFR Part 771.

Accordingly, relying upon the NEPA requirements, as revised by the BUILDER Act of 2023, and 23 CFR Part 771, effective July 3, 2025, the Final SEIS analyzes reasonably foreseeable effects that result from the proposed action.* The IBR Program considers reasonably foreseeable effects to have a rational link to the IBR Program in terms of geographic and temporal proximity and must be sufficiently likely to occur. Reasonably foreseeable effects do not include effects that are speculative in nature or causally attenuated** from the IBR Program.

Reasonably foreseeable effects of the No-Build Alternative and Modified LPA on environmental and community resources are evaluated in the resource-specific sections of the Final SEIS (Section 3.1 through Section 3.22). The Final SEIS does not carry forward the former cumulative effects chapter of the Draft SEIS, Section 3.23. The introduction to Chapter 3 of the Final SEIS defines geographic proximity and temporal scope for the purposes of assessing reasonably foreseeable effects.

*The Final SEIS does not categorize the reasonably foreseeable effects of the proposed action based upon types of effects. As a result of the changes discussed in Chapter 3.00, FHWA, FTA and the IBR Program reviewed the documentation supporting the NEPA analysis to determine whether the effects that had previously been characterized as direct, indirect, and cumulative were reasonably foreseeable. The appendices supporting the Final SEIS, which contain the terms "direct" and "indirect" were included in this review. The appendices to the Final SEIS contain these terms because the terms were required under the CEQ regulations in effect at the time the appendices were prepared. Although the terms "direct" and "indirect" have not been removed from the appendices, FHWA, FTA and the IBR Program reviewed the effects characterized (or categorized) as indirect in the appendices to determine whether such effects are reasonably foreseeable. Also included in this review was the former cumulative effects section. To the extent any effects in the former cumulative effects section were determined to be reasonably foreseeable, they were included in the Final SEIS along with the discussion of other reasonably foreseeable effects.

**"Causally attenuated" in this context means effects that are remote in time or place, or are the result of a lengthy causal chain (meaning intervening variables such as other actions may contribute or cause an effect), thereby making it difficult to establish a sufficiently close connection between the proposed action and a particular environmental impact. Generally, an outcome or effect is causally attenuated if it cannot be directly attributed to one particular action, but rather may result from another action or series of actions.

3-232

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Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

Section 3.4, Land Use and Economic Activity, of the Draft and Final SEIS and the Land Use Technical Report provide the assessment of reasonably foreseeable land use effects in downtown Vancouver from the Modified LPA.

3-248
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

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3-250
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Section 3.1, Transportation, of the Draft and Final SEIS provides the transportation analysis, including potential congestion on local streets, for the Modified LPA and its design options.

3-251
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply

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Section 3.1, Transportation, of the Draft and Final SEIS provides the transportation analysis, including local traffic impacts, for the Modified LPA and design options. Section 3.4, Land Use and Economic Activity, of the Draft and Final SEIS discusses potential displacements with the Modified LPA and its design options. The IBR Program Recommended Design Options, identified in Chapter 2 of the Final SEIS, include with C Street ramps and a centered I-5 alignment in downtown Vancouver.

3-252

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

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Section 3.7.4 of the Draft and Final SEIS, and the Parks and Recreation Technical Report, provides a discussion of reasonably foreseeable temporary effects to Arnada Park from the Modified LPA.

3-254

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

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Chapter 2, Description of Alternatives, of the Draft and Final SEIS provides the description of the Modified LPA and design options.

3-256

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

Section 3.5, Neighborhoods and Communities, of the Draft and Final SEIS provides a discussion of potential reasonably foreseeable effects to neighborhoods and communities from the Modified LPA.

3-257

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Section 3.10, Air Quality, of the Draft and Final SEIS provides the discussion of potential air quality reasonably foreseeable effects from the Modified LPA, and Section 3.11 provides the assessment of potential noise and vibration reasonably foreseeable effects.

3-259

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Section 3.11, Noise and Vibration, of the Draft and Final SEIS provides the assessment of potential noise and vibration reasonably foreseeable effects from the Modified LPA and the evaluation of noise walls.

3-260

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Chapter 2, Description of Alternatives, of the Draft and Final SEIS provides the description of the Modified LPA and design options.

3-264
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

3-265
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

The Purpose and Need statement for the IBR Program is provided in Chapter 1, Purpose and Need, of the Draft and Final SEIS. A Purpose and Need statement is required for projects complying with the National Environmental Policy Act and defines why a project has been initiated and what problem(s) it seeks to address. The statement serves as the basis for defining how project alternatives will be developed and evaluated. As detailed in Chapter 1, the six specific needs to be addressed by the IBR Program are: (1) growing travel demand and congestion; (2) impaired freight movement; (3) limited public transportation operation, connectivity, and reliability; (4) safety and vulnerability to incidents; (5) substandard bicycle and pedestrian facilities; and (6) seismic vulnerability.

To meet the Purpose and Need statement, the proposed Modified LPA would include transportation improvements for several modes of transportation (vehicles, freight, public transit, and active transportation) as well as improving the seismic resiliency of the river crossing.

3-266
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

3-267
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3-268
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

Section 2.2.7 of the Draft and Final SEIS describes the transit operating characteristics, including C-TRAN bus service, with the proposed Modified LPA.

3-269
Section 4.5 of the Transportation Technical Report discusses the difference in impacts between the fixed-span bridge configuration design options and the movable span bridge configuration design option. As discussed, the bridge openings and gate closures in the movable span bridge configuration design option would be up to 50% less than the No-Build Alternative due to the increase in vertical clearance. In addition, as summarized, there would be additional timing restrictions compared with current conditions, which would limit the potential impact the movable span would have on transportation.

The majority of the measures are daily data and peak period data, which would be similar between the fixed span and movable span bridge configuration design options, so the statement that the effects would be similar is accurate.

3-270
The Land Use Technical Report has been updated to better integrate the discussion of park and rides with the discussion on the Modified LPA's consistency with the Vancouver Comprehensive Plan.

3-271
Figure 3-19 in the Land Use Technical Report has been updated to extend the Historic Preservation Overlay along Main Street farther north to 11th street.

3-272
The Land Use Technical Report has been updated to include the 2009 approval of the Vancouver Waterfront Master Plan.

3-273
The list of current and pending development in the Land Use Technical Report has been updated to reflect the correct status of the proposed 103 Columbia Street development.

3-274
The Land Use Technical Report has been updated to include the correct addresses for recent and pending development in the city of Vancouver.

3-275
The Land Use Technical Report has been updated to remove references to the Hyatt Place project.

3-276
The Land Use Technical Report has been updated to add the Kirkland Renaissance Boardwalk at 101 and 111 SE Columbia Way to the list of current and pending development.

3-277
The Land Use Technical Report has been updated to incorporate the suggested edits into the project description for park-and-ride facilities.

3-278
Language referring to the Clark Park and Ride facility, which is no longer relevant to the IBR Program, has been removed from the Land Use Technical Report.

3-279
The Final SEIS evaluates all park-and-ride options proposed in the Draft SEIS and identifies the use of all five park-and-ride locations as the Recommended Design Option. Based on further design analysis, public comment received on the Draft SEIS and coordination with local agencies, the approach to providing parking capacity for LRT riders was adjusted to focus on dispersed parking across more facilities, including using all three sites previously identified near the Waterfront Station and both sites previously identified near the Evergreen Station. The IBR Program will continue coordinating with the Federal Transit Administration (FTA) as part of the New Starts Capital Investment Grant to understand the role of park and rides as part of the Modified LPA's transit element. As the IBR Program continues into final design and permitting, the IBR Program will continue to work with the FTA, City of Vancouver, C-TRAN, and TriMet to determine how many park-and-ride spaces are needed for the IBR Program with the goal of achieving a transit program that is competitive for federal funding and maintains effective access to transit, promote compatibility with local planning goals and plans for multiuse development, multimodal access, and attractive public spaces. This includes coordination with the City of Vancouver to understand existing parking supply in downtown Vancouver and how that might affect park-and-ride demand, possibly reducing the need to construct new parking facilities. Analysis of the IBR Program's parking needs and solutions (including the potential for shared parking for transit riders and public use, and for any necessary agreements) will continue through final design.

For the revised Land Use Technical Report, Sections 7.1 and 7.2 have been replaced with a single "Mitigation Commitments" table describing measures that could be considered for reducing potential effects reasonably foreseeable effects on land use.

Section 4.2.2.1 in the Land Use Technical Report has been updated to more clearly communicate how the IBR Program intends to incorporate shared use of existing developed parking capacity into its strategy for providing park-and-ride facilities.

3-280
This statement refers to the Draft SEIS. Section 3.2.1 of the Final SEIS was updated to align with this response to note that the SEIS includes analysis from the 2022 Preliminary Navigation Clearance Determination (PNCD) and 2025 Navigation Impact Report. An updated Navigation Impact Report has been published with the Final SEIS. The Modified LPA with Recommended Design Options identified in the Final SEIS are consistent with the PNCD issued by the USCG. The USCG will issue a final navigation clearance determination as part of the bridge permit after the NEPA Record of Decision has been issued and other federal permits have been obtained.

3-281
A reference to Appendix B has been added to the Section 3.5 of the Final SEIS. Appendix B, Public Involvement, of the SEIS provides information on how the IBR Program has engaged with the advisory groups as well as members of the public. The section of the appendix titled “Incorporating Community Feedback” includes information on specific aspects of the IBR Program that have incorporated input from the advisory groups as well as other IBR Program outreach efforts. The advisory groups have provided feedback on community engagement efforts, including suggestions on events to attend, groups to reach out to, and tools to consider. Regular updates and feedback from these groups will continue to help shape outreach efforts.

3-282
The referenced text on pages 4-14 and 4-15 has been updated to clarify that the Modified LPA with a centered I-5 design option would not result in any residential displacements, while the Modified LPA with the I-5 westward shift design option would displace the Normandy Apartments.

3-283
The analysis has been updated to clarify that activities within construction easements could have temporary reasonably foreseeable effects, such as detours, access changes, noise, and visual quality changes, that would reduce neighborhood cohesion and livability during the construction period.

3-284
A reference to Appendix B has been added to Section 3.5 of the Final SEIS. Appendix B, Public Involvement, of the SEIS provides information on how the IBR Program has engaged with the advisory groups as well as other members of the public. The section of the appendix titled “Incorporating Community Feedback” includes information on specific aspects of the IBR Program that have incorporated input from the advisory groups as well as other IBR Program outreach efforts. The advisory groups have provided feedback on community engagement efforts, including suggestions on events to attend, groups to reach out to, and tools to consider. Regular updates and feedback from these groups will continue to help shape outreach efforts.

3-285
Neighborhood Action Plan goals relevant to the Modified LPA were identified and evaluated as an important part of the analysis but do not form the sole basis for conclusions about Modified LPA impacts on neighborhood cohesion. As stated in the comment, the plans vary in age and not all neighborhoods have their own action plans. Consistency with neighborhood plan goals is one of six questions used to evaluate the Modified LPA's reasonably foreseeable effects on Neighborhoods and Communities. For more information on how the analysis was done, please see Chapter 2 of the Neighborhoods and Communities Technical Report.

3-286
The 12 units referenced apply to the residential equivalency calculation applied to the area of frequent outdoor human use at the apartment complex, since the units do not have individual outdoor use space. No revisions have been made.

3-287
The Noise Mitigation Summary in the Noise and Vibration Technical Report has been revised as suggested.

3-288
Recommendations related to noise (minimizing excessive noise, meeting state and local requirements, and monitoring construction) are included as mitigation measures in the Draft and Final SEIS. The IBR Program will continue to coordinate with the City of Vancouver on noise mitigation measures in accordance with ODOT and WSDOT policies.

3-289
The IBR Program revised the discussion of the proposed pedestrian overpass in Section 3.6.4 in the Parks and Recreation Tech Report to not specify a location for additional access.

3-290
Chapter 2 has been revised to address this comment.

3-291
The table has been updated. Note that sidewalk gaps remain and that this would appear to be outside of the primary study area.

3-292
Existing conditions for the SEIS analysis is 2019 as indicated throughout the documentation. Table 3-25 in the Transportation Technical Report reflects 2019 transit service, which did not include Mill Plain bus rapid transit. See Section 3.7.1 for clarification that Mill Plain opened in 2023 and is not included in the existing transit services.

3-293
The table has been updated.

3-294
This is programmed in the 2025-2028 Southwest Washington Regional Transportation Council Transportation Improvement Program as a Vancouver pavement preservation project (construction) with “Safety” and “Non-SOV” designations. See “W 4th Plain Boulevard – Mill Plain to Fruit Valley.”

3-295
The table has been updated.

3-296
The table has been updated to include a note about landscaping buffer.

3-297
Table 4-52 has been updated to reflect this option.

3-298
The Transportation Technical Report has been edited to remove the duplicative text.

3-299
Text has been adjusted in the Transportation Technical Report.

3-300
There are five additional water main crossings on I-5 ranging from 6 to 12 inches. The

definition of a critical water main was based on the size of a facility that could create a significant impact on Program schedule and budget. The Utilities Technical Report has been revised to provide clarity.

3-301
The Utilities Technical Report has been revised as suggested.

3-302
The Utilities Technical Report has been revised as suggested.

3-303
The Utilities Technical Report has been revised as suggested.

3-304
The IBR Program will coordinate notifications with emergency service providers as needed.

3-305
In the Visual Quality Technical Report, for each KVP in the landscape units (including KVP 17 and KVP 18), the text and tables preceding the degree-of-impact table with numeric scores provide the explanation of the visual compatibility of the proposed Modified LPA with the existing visual character, which is reflected in the scoring.

Additional description for the scores of KVP 17 and KVP 18 is included below; however, details were not added to the Technical Report because they would make the document more difficult to read. The descriptions provided below are copied from the IBR Ratings document, which was reviewed, coordinated, and approved in 2022 with ODOT and WSDOT. The IBR Program will continue to coordinate with the City of Vancouver to understand visual impacts.

KVP 17: “Most existing vegetation along the river banks would remain and the natural environment would be dominated by the water for this viewpoint. Most views of the southern shoreline are obscured by the existing bridge but the LPA bridges would be higher and offer more open views along the river but may block views of the west hills. Cultural elements mainly consist of elements associated with the waterfront trail and will remain. The mass and height of the LPA bridges would affect viewers but the removal of the existing bridges and lift towers would help to offset impacts.”

KVP 18: “Most existing vegetation along the riverbanks would remain and the natural environment would continue to be dominated by the water for this viewpoint. Some landscape and mitigation areas under the LPA bridges along the shoreline is expected. Most views of the southern shoreline and West Hills are obscured by the existing bridge, but the LPA bridges would be higher and offer more open views along the river. Cultural elements mainly consist of elements associated with the Waterfront Park and Trail which will remain. Cultural elements associated with the LPA bridges would likely be visible and would be important to the cultural environment. The LPA bridges would be very visible and the mass and height of the bridges would affect viewers but the removal of the existing bridges and lift towers would help to offset impacts.”

3-306
The sentence referenced in the comment (“Material, color, and textures…”) has been moved to the top of Section 4.2 of the Visual Quality Technical Report to apply to all landscape units.

Section 4.2 has also been updated to note that the aesthetic features (i.e., material, color, and textures) would be determined during the final design phases. Chapter 7 of the Visual Quality Technical Report has been updated to reflect the IBR Program's avoidance, minimization, and mitigation commitments for the proposed Modified LPA. This includes a long-term, IBR Program-specific measure to coordinate with the City of Vancouver and consider the City of Vancouver's Urban Design Desired Outcomes and the Guiding Principles for the Community Connector and Evergreen Station area.

3-307
Section 4.2.4.3 of the Visual Quality Technical Report has been revised to include a conclusion about the degree of natural harmony.

3-308
The IBR Program has refined its mitigation commitments, replacing the text referenced in the comment with a new commitment to develop guidance for architectural elements for the IBR Program area in consultation with local agencies, tribes, and the community.

3-309
Table 4-8 in Section 4.2.3.1 of the Visual Quality Technical Report has been corrected to state "Regal Cinemas" instead of "City Center 12 cinemas."

3-310
Table 4-8 in Section 4.2.3.1 of the Visual Quality Technical Report has been revised to clarify that the "future phase" refers to future design phases and to delete the reference to the Project Description in Chapter 1.

3-311
Table 4-8 in Section 4.2.3.1 of the Visual Quality Technical Report has been revised to reflect the project name provided in the comment.

3-312
As referenced in the comment, Section 4.2.4.3 already states that removal of the existing Interstate Bridge, which has been a distinctive part of the cultural environment, would

remove this character. For the Modified LPA, unified urban design elements would be beneficial to the cultural environment. Text has been added to this part of Section 4.2.4.3 to state that the IBR Program would continue to coordinate with the City of Vancouver regarding their desired outcomes for the Modified LPA (provided in Appendix C) and the Draft Guiding Principles for the Community Connector (provided in Appendix D), which include items related to urban design and place-making and design principles.

3-313
Table 4-7 in Section 4.2.2.4 of the Visual Quality Technical Report has been revised to lower the proposed natural harmony rating for KVP 19 to reflect that the bridge and helix ramp would be more visible. However, from KVP 19, the removal of the existing bridges, increased distance from the new bridges, height of the new bridges, and reduction in number of piers in the water are anticipated to offset the visual impacts associated with this ramp and the Modified LPA in the natural and cultural environments.

3-314
Section 2.2.3.2 of the Water Quality and Hydrology Technical Report has been revised to reflect this update.

3-315
Water quality treatment and flow control would be provided for Modified LPA-related runoff prior to discharge to Burnt Bridge Creek. The reference to the wetpond has been removed from Section 3.14 of the Final SEIS and the Water Quality and Hydrology Technical Report.

3-316
Section 3.15, Wetlands, of the Final SEIS has been revised to remove text that references Wetland B and the WSDOT Burnt Bridge Creek wetland complex since they are outside of the primary study area for the Modified LPA.

3-317
Thank you for your comment.

All of the City of Vancouver's comments incorporated into the letter have been responded to above.

Submission 4: City of Vancouver City Center Redevelopment Authority (November 14, 2024)

MEMORANDUM

TO: Interstate Bridge Replacement (IBR) Program Team

FROM: Patrick Quinton, Executive Director
City Center Redevelopment Authority

DATE: November 14, 2024

SUBJECT: CCRA Board Feedback on IBR Draft Supplemental Environmental Impact Statement (SEIS) Report

4-1 The Board of the City Center Redevelopment Authority ("CCRA"), a state-chartered public authority responsible for redevelopment within downtown Vancouver, has reviewed relevant sections of the Draft SEIS and received a briefing on the report from City of Vancouver ("City") staff on October 17, 2024. This memo summarizes the feedback provided by the Board during that meeting and in individual conversations with Board members since the meeting.

CCRA was formed in 2006 to lead the redevelopment of downtown Vancouver and is a separately chartered public agency under Washington State Law. CCRA's charter and bylaws state that the Board shall "…undertake, assist with and otherwise facilitate the redevelopment of property within the Vancouver City Center Vision ("VCCV") plan area." The CCRA charter grants the organization broad powers to achieve the redevelopment goals for downtown including the authority to acquire and sell property and initiate public private partnerships to undertake redevelopment projects.

Since the formation of CCRA in 2006, **downtown Vancouver has been transformed and attracted billions in new private investment**. CCRA has played an active role in this transformation through both advocacy and by serving as the lead public partner in strategic redevelopment sites such as Waterfront Gateway. CCRA will play an expanded role in downtown redevelopment in the future, particularly with high opportunity sites such as Library Square.

Toward that end, CCRA has begun planning for the next wave of downtown development by commissioning a Downtown Redevelopment Study ("Study") that will identify the high opportunity areas for future development that will catalyze the necessary investment to continue downtown Vancouver's transformation into a dense, walkable and accessible urban center. That study is explicitly incorporating in its analysis the current plans for a new bridge to help CCRA understand the redevelopment potential of the areas impacted by the IBR project, and its early findings inform our feedback in this memo.

CCRA feedback on the Draft SEIS focuses on three specific areas as described below: **Park and Ride, Urban Design and Traffic Impacts**.

4-2 **Park and Ride**

While the CCRA Board understands that Park and Ride facilities are often located near transit termini, the Board has always believed that **the location of Park and Ride facilities downtown runs counter to both best practices in real estate development and thoughtful transportation planning**. Park and Ride facilities in urban centers occupy valuable real estate that could provide more public benefit through housing and office development. In addition, the City's parking and transportation planning prioritizes improving mode split to and within downtown so the presence of additional public parking facilities that could induce more car trips will only make this work more challenging.

The City is nearing completion a new Downtown Parking Plan that includes an inventory of existing parking and will establish a plan for managing future growth downtown without increasing the public parking supply. The findings from that plan indicate that downtown has 14,000 parking spaces, most of which are significantly underutilized. A key conclusion from those findings is that the elements exist to implement a shared parking system throughout downtown that can meet the needs of existing and future users, including those who park downtown to access light rail. Because implementation of the new plan calls for the City to organize shared parking agreements with downtown property owners to unlock more the existing parking supply for public use, the CCRA Board is confident that a dispersed parking alternative will be available to meet the needs of anticipated park and ride users and therefore **requests that downtown Vancouver be spared from the addition of any new park and ride facilities**.

4-3 In the event the above request is not honored, the CCRA Board strongly advocates that the location and requirements for new Park and Ride facilities in downtown meet the criteria below:

- Avoid utilizing or constraining high opportunity redevelopment sites, including Waterfront Gateway and Library Square. These sites have already been identified in the Study as two of the last remaining opportunities for large mixed-use development with the potential for catalyzing further private development.
- Require that any new park and ride garage operate as a shared use facility that serves as many different types of parking users as possible. A shared use facility could minimize the impact on downtown by eliminating the need for new parking associated with development or to support retail.
- Employ pricing strategies that complement the City's demand driven pricing designed to discourage long term parking, increase turnover and encourage use of alternate forms of transportation.

4-4
- Utilize thoughtful urban design to maintain the human scale and pedestrian friendly feel of downtown Vancouver. Poorly designed parking structures near transit stations can hinder access for walking, biking and other alternative forms of mobility.

4-5 **Urban Design**

The construction of a new bridge will dramatically alter the environment near the I-5 roadway in downtown Vancouver. The new bridge and adjacent roadway will also create new spaces with the potential to add or detract from the human experience downtown. The CCRA Board is not alone in asking for the IBR to take great care in the design of new underpasses and other public spaces near highway infrastructure to create safe and inviting environments for people on foot, bike or other non-motorized transportation.

4-5 Spaces under freeways have historically been neglected wastelands viewed by the public as unsafe and detracting from the urban fabric. To counter this, communities across the US have employed innovative solutions to design and activate these historically uninviting spaces. The Board urges the IBR team to seek out best practices in designing, managing and activating these practices and include these recommendations in the final project design.

4-6 In addition to thoughtful design, governance of these spaces will also determine how they are activated and utilized. The CCRA Board advocates for local control of these new spaces and ongoing funding to allow for active management that is coordinated with other downtown uses and activities.

4-7 **Traffic Impact**

The CCRA Board remains concerned that the **IBR project will impact traffic patterns in a manner that negatively impacts downtown Vancouver**. In particular, we are concerned that the loss of one or both of the C Street Ramps will divert additional car traffic through downtown seeking access to I-5. While the Board appreciates the challenges associated with accommodating existing I-5 access in the new design, they do not believe that an appropriate tradeoff is to flood downtown Vancouver with additional traffic with no intention of stopping within downtown. Maintaining the existing access to downtown from I-5 is the best option for supporting for the future vision for downtown Vancouver.

4-8 The CCRA Board appreciates the opportunity to provide this feedback and strongly supports the IBR project and the transformative impact the project will have on Vancouver and SW Washington. The project is vital to the resilience of our transportation system, the economic future of our region, and Vancouver's emergence as a driver of growth for the State of Washington. The Board hopes that extreme care is taken in the planning and implementation of this project to protect the integrity of downtown Vancouver from the meaningless traffic, lifeless structures and unwelcoming spaces that have resulted from similar projects. The Board is committed to remaining engaged with the IBR team to help ensure that this project delivers the promised benefits for Vancouver and the region.

Response to Submission 4: City of Vancouver City Center Redevelopment Authority (November 14, 2024)

4-1
Thank you for your comment.

4-2
The park and rides in the Modified LPA would provide a public benefit as part of an essential public facility. Section 3.4, Land Use and Economic Activity, assessed the reasonably foreseeable effects of the Modified LPA and design options, including the park and rides. The Modified LPA with park and rides would increase downtown mode share for transit compared to No-Build Alternative and would work in conjunction with the entire multimodal program to maximize mobility. The downtown park-and-ride options in the Draft SEIS were defined in collaboration with the City of Vancouver and other program partners as part of development of the Modified LPA in May 2022.

For the Final SEIS, the recommended design option for park and rides applies a more dispersed approach across five locations, which would reduce the number of vehicles destined to single locations. See Chapter 2, Section 2.5.3 of the Final SEIS for further information on the process for identifying the Modified LPA and its components. The Transportation Technical Report has further detail on scenarios considered involving other parking solutions such as remote parking, but they resulted in lower ridership and reduced mobility benefits. The Modified LPA Briefing Book, which is on the IBR Program website (https://www.interstatebridge.org/media/vebbod4f/20220504_draft_ibr_lpa_briefing-book_remediated.pdf), also has further information on the evaluation of park and rides leading to the Modified LPA definition (IBR 2022a).

The new Downtown Parking Plan calls for implementation of a shared parking system, but such a system and implementing agreements are not currently in place or adopted by the City of Vancouver. No specific locations or facilities are ready to be committed to transit users. The downtown district is sizable, so longer walks or uncertainties about access to a specific site would discourage some riders, and proximity to the stations would remain an important factor. While the IBR Program would continue to coordinate with the City of Vancouver, the Final SEIS includes the recommendation for the five park and rides identified.

The Final SEIS continues to evaluate the park-and-ride options identified in the Draft SEIS, including a refined Modified LPA that distributes parking capacity across all of the previously identified facilities, one of which is an existing parking facility. This would help reduce vehicle trips compared to a single major facility at each light-rail station. In addition, the traffic analysis reported in Section 3.1, Transportation, identified no additional traffic impacts related to any of the park and rides. The primary traffic concern in downtown Vancouver would be related to traffic at the interstate access points, which involves much higher volumes than the park and rides would generate. Further, transit with easily accessible park and rides can be an effective means to capture and reduce vehicle trips across the bridge; they would not themselves induce additional trips.

Parking facilities would not be the only means for transit users to access the station. The proposed Modified LPA would also include connecting bus/bus rapid transit, active transportation, and express bus, in combination with light-rail, to maximize mobility and reduce auto trips. These supporting components to minimize transit vehicle access needs were developed during the development of the Modified LPA in 2022, as part of the collaborative process for a light-rail terminus at Evergreen Street, rather than at Clark College (the terminus for the previous CRC Project).

As the IBR Program continues into final design and permitting, it will continue to work with the Federal Transit Administration, City of Vancouver, C-TRAN, and TriMet to achieve a transit program that is competitive for federal funding and maintains effective access to transit while maximizing compatibility with downtown plans. This includes consideration of the City of Vancouver's recent parking study and related parking management planning efforts, and exploring further options for shared use parking arrangements that could reduce the total spaces needed for new park and rides.

4-3
The IBR Program will continue to work with the City of Vancouver, C-TRAN, and TriMet to avoid constraining potential developments as well as to identify solutions that maximize compatibility with the City of Vancouver's plans for downtown. The IBR Program will continue to collaborate with the City of Vancouver throughout the design and permitting process, and it would meet the City's applicable design approval and permitting requirements. The IBR Program also remains open to joint development opportunities, including transit-oriented developments at Library Square and the Gateway area, as well as shared use parking arrangements.

4-4
The IBR Program will coordinate with the City of Vancouver to consider relevant City design standards for park-and-ride facilities and best practices for urban design. This includes developing architectural design guidelines specific to the Modified LPA and its various elements including structures and landscaping.

4-5
As design progresses, the IBR Program will continue identifying ways to create safe and inviting environments for users of all modes, including design of roads and active transportation facilities under elevated structures. The IBR Program will also continue to coordinate with agency partners and the public through the design and construction phases of the proposed Modified LPA. Safety and maintenance plans for the Columbia River bridges would follow the approaches the Oregon and Washington State Departments of Transportation take today as they relate to unsheltered homeless communities. For more information, see Design Standard Response F.10: Areas Under Elevated Structures.

4-6
During final design and permitting, the IBR Program will continue to coordinate with the City of Vancouver on the development of new spaces, including allowed uses or activities and the maintenance and operations.

4-7
The IBR Program Recommended Design Option includes the retention of the C Street ramps. The Draft and Final SEIS include analysis of the performance of intersections with and without the C Street ramps. As summarized in the Draft and Final SEIS, the intersections would perform similar functions as they do today for the design option that retains the C Street ramps. For the Without C Street ramps design option, traffic would be rerouted to the Mill Plain interchange and result in worse traffic operations along the Mill Plain/15th Street corridors and impact the Mill Plain Interchange operations, including ramp operations and safety. The difference in traffic performance and safety, including at the Mill Plain interchange, is the main reason why the IBR Program Recommended Design Option includes the retention of the C Street ramps.

4-8
Thank you for your comment.

Submission 5: Clackamas County: Transportation & Development (November 15, 2024)

Comments

5-1 Hello,

Thank you for the chance to review, discuss, and comment on the Interstate Bridge Replacement (IBR) program Draft SEIS and the important work underway in our region with members of the program's technical project team. Please find below a few concerns and requests from our team:

5-2 * Near-term forecast not available: We are concerned that tolling the existing I-5 Interstate Bridge prior to delivering the full program of multimodal options could result in substantial levels of diversion from I-5 to I-205. We have reviewed the draft SEIS and did not see any analysis of a near-term forecast showing traffic patterns during pre-completion tolling or during construction impacts. We request that you provide this near-term analysis as part of the SEIS.

5-3 * I-205 Abernethy Bridge Tolling Assumptions: Traffic forecasting within the SEIS assumes that the I-205 Abernethy Bridge will be tolled. However, due to the Governor's actions in spring of 2024, it does not appear that the forecasting is currently in-line with the pause on tolling related to the I-205 Abernethy Bridge. We request that you provide data to show the traffic forecast if the Abernethy Bridge and I-205 remain untolled.

5-4 * Transit Financing Not Yet Secured: The travel forecasting assumes completion of new transit connections and increased service levels to absorb a large growth in transit person trips across the river. FTA Capital Investment Grant (CIG) funds have historically been the last funds secured. As such, there remains a risk in securing CIG funds to pay for the extension of light rail into Vancouver that the IBR Program assumes will absorb the large shift in person trips onto transit. We request that you provide data to show the traffic forecast if

5-5 the completion of the new transit connections and increased service levels are reduced or are not provided at the time of bridge construction.

Thank you,

Jeff Owen
Principal Planner, Transportation Planning
Clackamas County, Transportation & Development: Long Range Planning
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Response to Submission 5: Clackamas County: Transportation & Development (November 15, 2024)

5-1
Thank you for your comment.

5-2
While pre-completion tolling would be included on the Interstate Bridge during construction, the intent throughout construction is to maintain three through lanes of traffic in each direction of I-5 (accommodating personal vehicles, freight, and buses) during peak hours. Off-peak and weekend closures may be required during construction. Tolling is expected to be in place between the hours of 5 a.m. and 11 p.m., with no tolling between the hours of 11 p.m. and 5 a.m. The tolls would be higher during peak travel periods and lower at other times of day based on a schedule that is set by the Washington State Transportation Commission and the Oregon Transportation Commission. Potential diversion during construction has been documented in Section 5.11 in the Transportation Technical Report, noting that diversion could occur as a result of people trying to avoid pre-completion tolling or congestion from construction. As documented in Section 7.2.9 of the Transportation Technical Report, during construction, the IBR Program would evaluate diversion, and potential mitigation would be discussed with partner agencies to offset any effects to the extent possible.

5-3
As described in Transportation Standard Response M.36: Regional Travel Demand Model, the Oregon Metro/RTC RTDM (referred to as the Kate model for the 2018 RTP RTDM used in the IBR Program analysis) is developed, calibrated, maintained, and applied by Oregon Metro and RTC for the Portland/Vancouver Metropolitan Region, and is required to be used on multimodal transportation projects of regional significance (ODOT Analysis Procedure Manual Chapter 17), which includes the IBR Program. The 2018 RTP included the I-205 Toll Project in the Financially Constrained network. The I-205 Toll Project includes variable-rate tolls on the I-205 Abernethy Bridge as part of the project.

On March 11, 2024, the governor of Oregon paused additional work to implement tolls in the region, including tolls on the I-205 Abernethy Bridge, so that the Oregon Legislature could evaluate and provide clearer direction on tolling. Even with this direction, at this time the Oregon Department of Transportation has not taken action to remove the I-205 Abernethy Bridge project, including tolling, from the adopted 2018 or 2023 RTP. A high-level assessment of the I-205 Toll Project impact to traffic and revenue was conducted as part of IBR Program's Level 2 Traffic and Revenue Analysis to understand the impact to traffic on the I-5 Bridge. The Abernethy Bridge on I-205 is 17 miles south of the I-205 crossing of the Columbia River. Only a small share of trips this far south actually travel between Washington and Oregon. Excluding the I-205 Toll Project from a run of the travel demand model, the IBR Modified LPA was shown to have a likely negligible impact on Interstate Bridge traffic. Please refer to Section 4.3.2 of the Level 2 Traffic and Revenue Analysis at https://www.interstatebridge.org/media/sh2lube2/ibr_level-2_tr_report_final_remediated.pdf. This analysis determined that implementing the toll on a single bridge (IBR) instead of two bridges (IBR and I-205 Toll Project at the Abernethy Bridge in Oregon City) could attract

more traffic to I-205 due to lower costs on that path if the Abernethy Bridge was not tolled; however, through trips on I-205 only constitute 5% of total daily trips. As such, only a small percentage of trips would be impacted by this tolling difference.

5-4

The Modified LPA which would include light-rail transit (LRT), was developed in close coordination with federal, state, and local partners and was informed by extensive community input and data. When considering the specific needs of the high-capacity transit investment for the Modified LPA, LRT was advanced as the preferred transit mode. For more information, see Transportation Standard Response M.32: Light-Rail Extension.

The IBR Program received approval to enter into the project development phase, the first step of the multistep process of the Capital Investment Grant (CIG) New Starts process in September 2023. This approval was an important first step in securing Federal Transit Administration (FTA) grant funding but does not guarantee an award. The IBR Program is working closely with the FTA to meet the requirements to proceed through the engineering phase and ultimately obtain a full funding grant agreement (FFGA). Completing each step of the CIG process helps increase confidence that the IBR Program would successfully receive funding for transit by the end of the process. The IBR Program currently anticipates requesting entry into engineering, the next step in the CIG process, in August 2026. Award of the FFGA is currently projected to occur in 2028. The Final SEIS analysis assumes that the full multimodal Modified LPA would be in place by 2045, which is the future design year for the NEPA analysis. Individual components of the Modified LPA would be sequenced and have different construction timelines, but the Final SEIS includes the full build-out of the IBR Program. For these reasons, the Draft SEIS does not, and is not required to, provide traffic forecasting for a scenario where transit is not added to the system.

5-5

The Draft and Final SEIS analysis assumes that the full multimodal Modified LPA would be in place by 2045, which is the future design year for the NEPA analysis. Individual components of the proposed Modified LPA would be sequenced and have different construction timelines, but the Final SEIS includes the full buildout of the IBR Program.

Submission 6: Clark County Council (November 19, 2024)

CLARK COUNTY WASHINGTON
clark.wa.gov

CLARK COUNTY COUNCIL
Gary Medvigy, Chair
Glen Yung, Michelle Belkot, Karen Dill Bowerman, Sue Marshall

1300 Franklin Street
PO Box 5000
Vancouver, WA 98666-5000
564.397.2232

November 18, 2024
Interstate Bridge Replacement Program
500 Broadway, Suite 200
Vancouver, WA 98660

Interstate Bridge Replacement Program Officials and Staff,

6-1 The Clark County Council wishes to provide the following comment on the program's Draft Supplemental Environmental Impact Statement:

6-2 1. The council has concerns about the IBR project as currently proposed, particularly the planned inclusion of light rail and IBR's approach to tolling. The projected costs of the IBR have only gone up since the project began, and it is likely that actual costs will exceed the current projections. The Council requests the project do everything in its power to reduce costs to minimize the impact to taxpayers. Clark County residents have on multiple occasions voted down light rail and removing light rail would also significantly reduce the cost of the bridge, reducing the burden on taxpayers and those paying tolls to cross the Columbia River.

6-3 2. IBR staff should do everything possible to reduce commute times and should emphasize bridge capacity as well as lane capacity to the extent possible on both sides of the river to promote the free flow of traffic.

6-4 3. An improved process would compare various bridge design options to a pared down and least cost bridge replacement option rather than a No-Build alternative. The Council recognizes the need for a bridge replacement, but instead of a No-Build alternative the IBR project should consider a set of alternatives that both do and do not include light rail.

6-5 4. The IBR project should do everything it can to minimize disruption and displacement of current residents
6-6 and businesses; and to ensure that to the extent practicable the IBR hires and buys locally to mitigate the unavoidable economic disruptions that will come with a yearslong construction timeline.

6-7 5. While outside the scope of this project, the Council would like WSDOT to begin planning for future corridors across the Columbia River to meet the future demand. Two bridges are insufficient to meet the transportation needs that will arise from a growing population.

Sincerely,

Gary Medvigy
Council Chair, District 4

Glen Yung
Councilor, District 1

Michelle Belkot
Councilor, District 2

Karen Dill Bowerman
Councilor, District 3

For other formats, contact Clark County ADA Office / **Voice** 564.397.2282 **Relay** 711 or 800.833.6388 **Email** ADA@clark.wa.gov

Response to Submission 6: Clark County Council (November 19, 2024)

6-1
Thank you for your comment.

6-2
Past local votes related to aspects of the Columbia River Crossing (CRC) project occurred independently of the CRC project National Environmental Policy Act (NEPA) process. Although local advisory voting is a mechanism for local and state governmental entities to seek input from citizens, it is outside of the scope of the NEPA process and the analysis in the SEIS. Regional support for light-rail transit (LRT) and express bus service between Portland and Vancouver in the Modified LPA was provided by regional partner agencies acting as representative governments. Local elected officials and/or board members, acting on behalf of those they represent, endorsed the Modified LPA in 2022. In the past, Clark County voters were provided two opportunities to participate in voting on aspects of LRT in Vancouver. To the extent Clark County, or other state and local government entities previously sought input from citizens, the results of such voting would only impact those entities and is appropriately not considered as part of the required analyses conducted to comply with the NEPA process. For more information, see Public Involvement Standard Response J.19: Past Voting - Light-Rail Transit.

The Modified LPA which would include light-rail transit (LRT), was developed in close coordination with federal, state, and local partners and was informed by extensive community input and data. When considering the specific needs of the high-capacity transit investment for the Modified LPA, LRT was advanced as the preferred transit mode. For more information, see Transportation Standard Response M.32: Light-Rail Extension.

The Modified LPA, including all design options, would include new earthquake-resilient, multimodal Columbia River bridges; safety shoulders; auxiliary lanes; improvements to seven closely-spaced interchanges within the 5-mile primary study area; extension of light-rail transit from Portland to Vancouver; safe and accessible shared-use paths; and a new earthquake-resilient North Portland Harbor bridge. Each of these components would work together to address the transportation needs associated with the aging Interstate Bridge and ensure an effective, earthquake-resilient, multimodal corridor that improves safety and mobility for everyone. The first construction packages are anticipated to be the new Columbia River bridges and approaches. Subsequent construction packages would be sequenced throughout the Program area. Construction of other components of the Modified LPA would be sequenced during and after the construction of the new Columbia River bridges begins.

The most recent cost estimate (2026) ranged from $13.5 billion to $15.2 billion in year of expenditure dollars. This estimate included preliminary engineering and program

management, right-of-way acquisition, construction, various labor and material quantities, unit costs, and relevant additive factors. Taxes for current market conditions are also included, along with costs associated with the management of potential risks that could result in cost increases and opportunities for cost savings. The estimate increased from 2022 due to numerous factors such as: A national increase in construction costs for escalating materials, labor, and equipment prices; impacts of an extended construction schedule based on construction sequencing needs; cost and schedule risks; and updated pricing and materials quantities based on more detailed design. More detail on factors that contributed to the updated estimate are included on the website.

The IBR Program periodically makes updates to its cost estimate using the Cost Estimate Validation Process. This is a best practice the Program employs to ensure costs are examined from all angles, helping to identify potential cost increase risks and cost reduction opportunities. Cost estimates will be refined as the federal environmental review process progresses and the Program advances design of the Modified LPA.

Regarding the Council's suggestion that removing light-rail could reduce the burden on taxpayers and those paying tolls, it is currently anticipated that toll funding will be directed toward constructing the Columbia River bridges and approaches (the structures that connect the roadway to the bridge itself). Each state has limitations on how toll funding can be spent that prevent it from being used on construction of light-rail-specific Program elements. High-capacity transit also comes with unique funding sources from the Federal Transit Administration Capital Improvement Program. The IBR Program has entered the first step of this multistep grant process and anticipates being competitive in receiving approximately $1 billion in funding from this grant program.

6-3

The proposed Modified LPA is a package of multimodal improvements including highway, freight, public transit, and active transportation that are moving forward together to meet the Purpose and Need for the IBR Program. The Modified LPA, including all design options, would include three through lanes in each direction along I-5, similar to existing conditions, and would connect to existing through lanes at the north and south end of the primary study area. The Modified LPA would also include design options with one or two auxiliary lanes that would better accommodate increased vehicle trips by improving safety and operations across the Columbia River bridges. For more information, see Transportation Standard Response M.34: More Highway Lanes.

6-4

As described in Chapter 2, Description of Alternatives, of the Draft and Final SEIS, the IBR Program is a continuation of the Columbia River Crossing (CRC) project that was active from 2005 to 2014. The IBR Program is supplementing the CRC project's National Environmental Policy Act process. Substantial technical analyses were completed to support the development of the CRC project, including an extensive alternatives screening process. The screening process is described in Section 2.5, Development of the Modified LPA, of the Draft and Final SEIS. Additional information is also available in documents prepared for the CRC project, available at https://wsdot.wa.gov/accountability/ssb5806/alternative-development.htm (WSDOT 2026). Where appropriate, the IBR Program evaluated and reviewed alternatives that were dismissed as part of the CRC project to determine whether and to what extent they could meet the Purpose and Need statement of the IBR Program (see Chapter 1, Purpose and Need, of the Draft and Final SEIS, as well as Chapter 1 of the CRC Final EIS). The six transportation needs that the IBR Program is addressing are growing travel demand and congestion, impaired freight movement, limited public transportation, safety and vulnerability to incidents, substandard bicycle and pedestrian facilities, and seismic vulnerability.

For more information, see Alternatives Standard Response C.4: Previously Dismissed Alternatives.

The NEPA requires including a "no build" or "no action" alternative in an Environmental Impact Statement (EIS). The purpose of this alternative is to serve as a baseline for evaluating the impacts of the proposed action. As detailed in Chapter 1, Purpose and Need, of the Draft and Final SEIS, the IBR Program is a renewal of the previously suspended Columbia River Crossing (CRC) Project, which completed the NEPA process with a signed Record of Decision in 2011 and two NEPA reevaluations in 2012 and 2013. The SEIS supplements the NEPA environmental analysis and process of the CRC Project, which included an extensive alternatives screening process (detailed in the 2011 Final EIS). Many alternatives were considered that did not include light-rail transit. In 2021, the IBR Program worked with agency partners, including C-TRAN, Southwest Washington Regional Transportation Council, and the City of Vancouver to reevaluate the CRC's Locally Preferred Alternative (LPA). This process included an evaluation and screening of light-rail transit and bus rapid transit, as detailed in Appendix D, Design Option Development and Screening Report, of the Draft and Final SEIS. As detailed, light-rail transit was ultimately recommended for several reasons, including more competitive travel times. One of the six transportation needs in the Purpose and Need statement is to address "limited public transportation operation, connectivity, and reliability." Based on the outcome of the CRC alternatives screening process, the IBR Program design option screening evaluation (Appendix D of the Draft and Final SEIS), and extensive agency coordination and community outreach, light-rail transit has been selected as the preferred high-capacity transit mode for the IBR Program.

6-5

Avoidance, minimization, and mitigation commitments are outlined in Appendix M of the

Final SEIS, which describes all the short- and long-term commitments, timing, and responsible parties.

Program efforts to avoid, minimize, and mitigate reasonably foreseeable effects would continue through final design and construction.

6-6

As detailed in the Economics Technical Report, it is anticipated that construction of the proposed Modified LPA could result in positive economic effects through increased employment and spending during construction. Construction of a project of this magnitude would boost employment across the region. Employment related to construction of the Modified LPA would include both direct and secondary (supply chain and consumption) effects. For every $1 million invested, the region could expect 5.5 direct jobs and an additional 10.9 indirect jobs as a result (Economic Policy Institute 2019).

These secondary effects are typically spread across other industries, such as fabrication, transportation of materials, etc. Industries that would benefit include those that provide supplies and services to the construction industry and consumer goods to their workers. Indirect jobs include those that are supported by the demand that rely on the wage and salary income of both direct jobs and supplier jobs. For example, a job at a construction site also supports jobs in local restaurants, grocery stores, retail stores, and other commercial places where construction workers may spend their wages.

The IBR Program recognizes that a skilled workforce that is ready to meet the challenges of the future is critical to the Program's success, and it is taking steps to help support other regional efforts to ensure that the local workforce is ready to deliver IBR Program investments. Options are being considered for on-the-job training programs, setting hiring targets, and outreach and access to assistance to ensure that the local workforce is ready to participate in the IBR Program. While the specifics of this approach are still in development, the IBR Program has started working toward it by establishing an intern program, holding outreach events with contractors, and jointly holding events to provide support and assistance from workforce organizations.

Much of the construction materials used in the IBR Program are anticipated to be subject to the domestic preference requirement called Build America/Buy America. Each construction contract would specify its requirements.

6-7

As described in Chapter 2, Description of Alternatives, of the Draft and Final SEIS, the IBR Program is a continuation of the Columbia River Crossing (CRC) project that was active from 2005 to 2014. The IBR Program is supplementing the CRC project's National Environmental Policy Act process. Substantial technical analyses were completed to support the development of the CRC project, including an extensive alternatives screening process. The screening process is described in Section 2.5, Development of the Modified LPA, of the Draft and Final SEIS. Additional information is also available in documents prepared for the CRC project, available at https://wsdot.wa.gov/accountability/ssb5806/alternative-development.htm (WSDOT 2026). Where appropriate, the IBR Program evaluated and reviewed alternatives that were dismissed as part of the CRC project to determine whether and to what extent they could meet the Purpose and Need statement of the IBR Program (see Chapter 1, Purpose and Need, of the Draft and Final SEIS, as well as Chapter 1 of the CRC Final EIS). The six transportation needs that the IBR Program is addressing are growing travel demand and congestion, impaired freight movement, limited public transportation, safety and vulnerability to incidents, substandard bicycle and pedestrian facilities, and seismic vulnerability.

Adding a third or supplemental bridge to the Portland-Vancouver region will continue to be a valuable discussion within the region but, by itself, a third bridge would not address all six identified transportation problems in the IBR Program's Purpose and Need statement (listed above) and would therefore not alleviate the need for replacing the Interstate Bridge. For more information, see Alternatives Standard Response C.4.b: Previously Dismissed Alternatives (Third Bridge).

The Purpose and Need for the IBR Program, as described in Chapter 1, Purpose and Need, of the Draft and Final SEIS, is to address the needs identified in the IBR Program area. Additional bridges are outside the scope of the IBR Program, and requests to study new crossings should be directed to the metropolitan planning organizations.

Submission 7: Confederated Tribes of the Grand Ronde (November 8, 2024)

Comments

Hello IBR Team,

7-1 I'm pleased to submit comments on behalf of the Confederated Tribes of the Grand Ronde for the Interstate Bridge Replacement Supplemental Environmental Impact Statement.

Please see the attached Comment Letter, Cultural Context Statement, and Comment Matrix (as well as one combined document with all three for your review).

Thank you,

Jacqueline [Jackie] Brenner (she/her)
[redacted]
willamettepartnership.org
Sign up to receive our blog <https://willamettepartnership.org/blog/> and newsletter <https://willamettepartnership.org/blog/>
Connect with us on Twitter @Willamette_P <https://twitter.com/Willamette_P> and LinkedIn <https://www.linkedin.com/company/willamette-partnership>

The Confederated Tribes of the Grand Ronde Community of Oregon

Ceded Lands Department
Phone (503) 879-1316
1-800-422-0232

9615 Grand Ronde Road
Grand Ronde, OR 97347

November 15, 2024

Interstate Bridge Replacement (IBR) project
ATTN: Ms. Kassie Rippee
500 Broadway, Suite 200
Vancouver, WA 98660

via email to draftseis@interstatebridge.org

RE: Comments on Draft Supplemental Environmental Impact Statement (SEIS) for the IBR

Dear Ms. Rippee,

7-2 Thank you for the opportunity to comment on the IBR Draft SEIS, representing decades of information gathering and analysis for a highly impactful project in an extremely important and sensitive area of the Tribe's treaty and non-treaty homelands. Grand Ronde Tribal Council reserves the right to make and/or update any and all statements of Tribal policy or position on an ongoing basis. Staff from the Confederated Tribes of Grand Ronde (Grand Ronde or Tribe) submit these comments in the hopes that our conversations can continue in the spirit of partnership and due Tribal consultation. Please find the technical staff comments attached.

7-3 As an overarching comment on the document, it is unacceptably incomplete. Many, if not most, of the details of required mitigation measures are yet to be determined, and are described only vaguely in the Draft SEIS, if at all. An EIS needs to contain sufficient detail to inform and support the decision to be made, and so far we do not see that level of detail in the draft SEIS. For example, specifics regarding the wetland compensatory mitigation plan have not been provided, and the Tribe has not been given an opportunity to comment on the mitigation sites chosen (this opportunity was given in 2011 and the Tribe submitted comments). Consequently we reserve the right to update the Tribe's comments on an ongoing basis with no limitation. This right is additional to the Tribe's ongoing right to consult government-to-government on the IBR.

This lack of detail stands in stark contrast to the original "Columbia River Crossing" EIS of 2011, which is much more detailed and prescriptive by comparison. While we appreciate the detail and relative completeness of the original EIS, as well as the fact that each section of the new SEIS calls out the changes, we find several incongruencies between the two to be challenging for our informed review and comment. For example, in the 2011 EIS the mitigation sites were located and named, and their size and wetland type were provided; Grand Ronde relied on these and other details to inform its comments on the document. By comparison, the new SEIS contains little if any such detail regarding mitigation sites, so the Tribe does not know whether and what kinds of comments it will have. The final document must be sufficiently clear and definite for the IBR decision to have a reasonably certain basis, and at this point it is not clear to us.

7-4 Additionally, Grand Ronde submitted a cultural context statement to IBR per the agreement between IBR and the Tribe. We have yet to see this cultural context statement included in any draft of the SEIS, and its inclusion is specifically detailed and assured in the agreement. Statements of cultural context from Tribes give meaning, life, and necessary shape to an otherwise cold, amorphous, Western-science-centric analysis represented by the typical NEPA document. We expect the Grand Ronde cultural context statement, attached to these comments, to be included in the SEIS, and will consider its exclusion to be a violation of our agreement.

Umpqua • Molalla • Rogue River • Kalapuya • Chasta

7-5 Finally, while it is not a public document and thus not part of the IBR Draft SEIS, we are concerned about the separation of the Tribal Consultation Plan from the Draft Programmatic Agreement (PA), which greatly increases the uncertainty around the Tribal Consultation Plan's development. If it is left incomplete and/or unsigned, there is an ongoing danger that project staff turnover and other changes in circumstance will leave us "going back to square one" when it comes to defining Tribal consultation in the context of this large, complex, impactful project. Please provide a process description and timeline of when the first draft of the Tribal Consultation Plan is expected to be available for review and comment by the Tribe. Grand Ronde has already committed countless hours from its leadership and staff towards this much-needed bridge project, and it would be unacceptably wasteful for us to have to start all over yet again if the project experiences delays, staff changes, or other disruptions.

If you have any questions about these comments or would like to discuss them further, please feel free to contact me at 503-879-1316 or at michael.karnosh@grandronde.org. Once again, thank you for this opportunity.

hayu-masi (many thanks),

Michael Karnosh
Ceded Lands Manager

Cc: Stacia Hernandez, Tribal Council Chief of Staff
Bryan Langley, Assistant General Manager
Colby Drake, Natural Resources Department Manager
David Harrelson, Tribal Historic Preservation Officer
Briece Edwards, Manager, Tribal Historic Preservation Office

Attachments: CTGR technical staff comments on the IBR Draft SEIS
CTGR cultural context statement for inclusion in the IBR Draft SEIS

Home on Lower Columbia River:
A Grand Ronde Context Statement for the Interstate Bridge Replacement Program

Authored by:
Tribal Historic Preservation Office, Cultural Resources Department
Confederated Tribes of the Grand Ronde Community of Oregon

The lower reach of the Columbia River transected by the Interstate Bridge Replacement (IBR) Program and associated areas of potential effect (a.k.a. I-5 Bridge and surrounding landscape) has long been a multitribal locus, where peoples have traveled, fished, gathered, and carried out social, economic, and cultural life since the beginning of remembered time. The available record does little justice to the richness and complexity of traditional life in this place. Still, in every written account of the contact period and in the recollections of our elders and ancestors, one fact is abundantly clear: this reach is the traditional homeland of Chinookan people. This is not a matter of debate. Every published analysis of this river reach agrees on the key fact of Chinookan predominance of presence, residence, and stewardship along this reach of the river (e.g., Zenk et al. 2016; Boyd et al. 2015; Ellis 2015; Silverstein 1990; Saleeby 1983; Suphan 1974a, 1974b; Spier 1936; Berreman 1937; Hodge 1910; Gibbs 1854; see Map 1). Today, many of the descendants of these Chinookan communities are enrolled in the Confederated Tribes of Grand Ronde (CTGR).

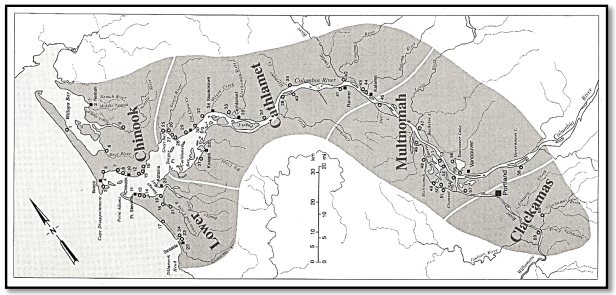
Along the lower Columbia, populations were large—some of the densest Native populations in what is today the United States.[1] The various Chinook communities that lined the banks of the Columbia River around today's IBR crossing had interconnected kinship networks and economies, as well as shared customs and beliefs. All of these communities spoke varieties of the Chinook language. As Franchère noted, the "Chinook language is spoken by all the native tribes from the river's mouth to the rapids" (Franchère 1967:121). They are therefore properly referred to as "Chinookan"—a term that emerged in the field of linguistics and is now widely used to encompass communities that spoke all the languages and dialects of the Chinook language family, including all of the communities along the Columbia River from the Wasco and Wishram Chinook around The Dalles to the Lower Chinook ("Chinook proper") and Clatsop people living at the ocean shore.[2] These peoples were prominent and powerful. A number of observers depict the Chinookan-speaking peoples as a relatively unified cultural and demographic entity along the river "from the mouth to the falls" (Franchère 1967:109–24; Ross 1849). Lee and Frost write, "These Indians of the lower country resemble each other in person and manners, and, with some slight exceptions, in dress also, and the exceptions must be *very slight*" (Lee and Frost 1844:101). Writers of the 1830s, such as George Simpson, assert that the Chinook were the most prominent people in the Northwest and occupied the entire Columbia River waterfront from the Cascades to the sea: "The Chinook tribe is the most powerful" (Simpson 1931:95–6). Father François Blanchet likewise explained that "The Chinooks are scattered along the Columbia from this fort [Vancouver] to the Pacific Ocean. Before the year 1830 they formed the most numerous as well as the richest nation of this entire part of the continent" (Blanchet and Demers 1956:18).[3]

Historical sources agree Chinookan peoples were skilled traders, often serving as the middlemen in trade networks centered on the lower Columbia River linking the outer coast to the Northwest interior (Boyd et al. 2015; Silverstein 1990; Ruby and Brown 1976; Ray 1938). As Hudson's Bay Company (HBC) Governor George Simpson noted "they are without exception the…most acute and finished bargain Makers I have fallen in with"—a claim echoed by almost every non-Native fur trader to work on the lower Columbia (Simpson 1931:96). A culturally-rooted preoccupation with, and expertise in, trade is widely reported in both historical and anthropological literatures.[4] Trade gatherings associated with the major villages on the Chinookan world brought together people from tribes throughout the region—not only for commerce, but for a variety of social events, competitive gaming, ceremonial activities, and other proceedings accompanying the exchange of goods (Ross 1849:90–1).

This reach of the lower Columbia was populated with large villages of longhouses, constructed of split cedar boards, that housed extended Chinookan families.These regional communities were remarkable for their large number of "fully sedentary villages" situated especially in areas of resource abundance and

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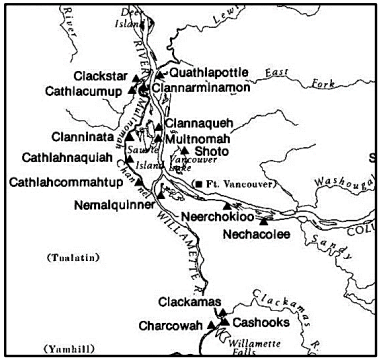
transportation access (Saleeby 1983).[5] Later sections of this statement detail those villages closest to the IBR, and the identity of their inhabitants. Also characteristic of Chinookan peoples were the numerous seasonal resource camps that served as temporary homes and processing sites for resource harvesters from these villages and beyond, infilling between the large permanent communities; thin evidence suggests such camps may have been found immediately within the IBR crossing, relating to camas harvests and other resource procurement (Kane 1859:187–88).[6] Also located in clearings along this reach were burial sites. Some sources hint at pre-contact burials on the northern end of the IBR, though the origins of this claim remain unclear (Talbot in Hine and Lettinville 1972:119).[7] With expert woodworking skills, the peoples of this reach produced large dugout cedar canoes that plied the lower Columbia and adjacent waterways, each capable of carrying large crews and freight, some even crossing the mouth of the Columbia to travel by sea.



Map 1: lower Columbia River Chinookan territories from Smithsonian's Handbook of North American Indians, Volume 7: Northwest Coast. The geographical extent of Band territories remains a subject of debate, but the overall extent of lower Columbia River Chinookan lands remains undisputed in both Grand Ronde and academic documentation.
Source: Silverstein 1990.

Chinookan peoples also tended to be exogamous, with a cultural preference for marrying outside of one's own community, particularly among elites and especially if this conferred trade advantages to the communities linked by the new union. A man of high standing might have numerous wives, ideally hailing from several different tribes so as to produce the widest spectrum of family alliances (Franchère 1967:117–19).[8] Chinookan communities also were generally patrilocal, with women usually moving to their husband's village at the time of marriage; the women marrying into a particular village might speak a variety of languages from their communities of origin, including but not limited to Chinook. Multilingual communities, with a female population of diverse origin, were probably the norm among the Chinookan speakers of this area. Chinookan peoples acquired slaves from throughout the region, sometimes through raiding, but also through the expenditure of their considerable trade wealth—often acquiring enslaved peoples from places as distant as Northern California (Deur 2012).[9]

Not only were resident peoples numerous on this reach of the Columbia River, but visiting tribes passed through almost constantly during peak resource harvesting times. As Duflot de Mofras observed, "During fine weather, Indian flotillas travel 300 to 400 miles to fish for salmon that swarm along this river and its tributaries" (Duflot de Mofras 1937:59). Many early authors, such as deSmet, make similar observations: "Indians linger on the Columbia as long as a salmon can be caught" (deSmet 1847:285). Peoples moved up and down the river to fish for salmon, sturgeon, eulachon, and other fish; to hunt elk, deer, waterfowl, and other game; and to gather wapato, camas, and other plant foods (Saleeby 1983). Most significantly, the IBR crossing was situated between the monumental salmon fishing stations of the Columbia Cascades and the vast quantities of wapato and other marsh and riverine resources found at the Willamette-Columbia confluence (Darby 2005). Studies of resource use and demographics suggest that the population of the Columbia River shoreline in this general area expanded dramatically during peak resource harvests at these locations—up to three or four times its annual baseline population. The population increase was especially pronounced in spring, when salmon runs were at their peak and camas was being harvested (Boyd and Hajda 1987; Saleeby 1983).[10] Downriver people from the outer coasts of Oregon and Washington, and beyond paddled each year past the IBR site en route to the salmon fishery at the Cascades,[11] while upriver people often moved downstream past the IBR site in search of game and marsh resources.[12] The IBR area was thus located close to permanent resident communities, overwhelmingly Chinookan at the time of contact, yet in an area attracting tribal peoples from throughout the wider region. At contact, then, other tribes clearly had connections to the IBR crossing, though Chinookan peoples were the stewards and hosts of place while all others were guests. Chinookan communities provided access to resources that were abundant and allowed entrée through these lands in all directions— within the bounds of protocols overseen by Chinookan chiefs and typically known and observed by regular visitors of many other Native nations.[13]



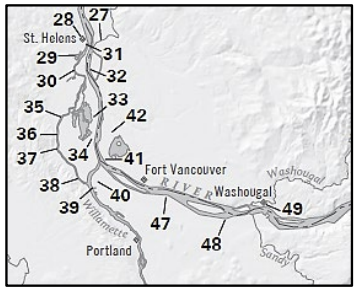
Map 2: Locations of Villages of the Portland Basin, with names largely from Lewis and Clark journals. Map indicates Fort Vancouver location adjacent to present north end of IBR.
Source: Boyd and Hajda 1987.

1. VILLAGES IN THE VICINITY OF THE IBR CROSSING

Some of the earliest writings about the lower Columbia River—including both the journals of the Vancouver expedition of 1792 and the Lewis and Clark journals of 1805–06— address the identity of villages close to the IBR crossing. The accounts of these expeditions suggest not only that the human population of this reach was dense, but the river was a locus that brought people on either side together as part of larger communities and did not serve as a divisional marker separating people, as is the case along the modern state border. These early accounts demonstrate that the IBR crossing sits at a convergence between the traditional lands of three constellations of interrelated Chinookan communities—what might be termed "Bands" of the Chinookan peoples. Specifically, the maps and written accounts in these journals make evident that the IBR sits roughly equidistant between three major villages: the village of Neerchokioo (Šáx̣latkš or "Cascades" Chinook) on the south bank of the Columbia, Nemalquinner (Multnomah Chinook) near the Willamette-Columbia confluence, and the Shoto villages (Chinookan, probably Multnomah) at Vancouver Lake (see Map 2; Deur 2012; Boyd 2011; Manby 1992:198–200; Moulton 1991; Boyd and Hajda 1987; Hajda 1984; Saleeby 1983; Barry 1926:404, 1927b; Coues 1897:248–49, 915 ff.).

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Beyond these early journals are many other sources that shed light on the identity of lower Columbia River villages. This subject has been a focus of several recent, thorough, and meticulous studies—assessing the full range of archival and published sources relating to the study area. Rather than reproduce the full literature review encompassed by those studies, we provide here a summary of the major findings from their results, published in peer reviewed books and journal articles (Zenk et al. 2016; Boyd et al. 2015; Ellis 2015; Boyd and Hajda 1987). While these sources exhibit minor variations, reflecting the emergence of new source materials and analyses over time, they are remarkably consistent on the details of settlement along this river reach—depicting the river as a place where multiple Chinookan communities converged in areas of overlapping Band interest.



Map 3: Detail of map showing all identified villages. The Interstate Bridge crosses the Columbia River immediately west of the point marked as "Fort Vancouver."
Source: Zenk et al. 2016:8

Most recent among these authoritative statements is the work of Zenk et al. (2016). On the basis of an exhaustive review of available archival and published records, they produced a list of verifiable villages. The list "represents but a small subset of the total number of Chinookan villages on record. Each was identified by visitors traveling the river when the village was still populated, and/or by two or more independent mentions in later sources, notably those citing the memories of Chinookan-speaking elders" (Zenk et al. 2016:12). Their analysis comports with that of Ellis (2015) on all but a few points relating to the spelling and pronunciation of village names. Their analysis demonstrates the documented villages within approximately 10 miles of the IBR crossing are all consistently identified as "Chinookan" villages, with linguistically Chinookan names. The villages identified through that process are shown in Map 3. Excluding numbered places more than 10 miles away from the IBR, they include:

Wapato Valley Villages	Upstreamers (šáxɬatkš—Shakhlatksh) Villages
33 - Clannahquah (Lewis & Clark—hereafter L&C)	47 - Neerchokioo (L&C) (gałałála Watlala)
34 - máɬnumax—Multnomah	48 - Nechakolee, Nechercokee (L&C)—poss. ničáqʷli
38 - Cathlacommahtup (L&C)	
39 - Nemalquinner (L&C)—poss. nimáɬx̌ʷinix	
40 - gałá wakšin—Gatlawakshin	
41 - gałá k'anasisi (wá k'anasisi)—Wakanasisi	

The geography of these villages suggests an area of intersecting, overlapping, territorial association of three Chinookan populations within the IBR crossing: the Cascades Chinooks (Šáxɬatkš Shakhlatksh), the Multnomah Chinooks ("Wapato Valley Chinooks") and those of the closely related Clackamas Chinooks. All have overlapping claims at what is today the IBR crossing, and the area can be understood as existing within a "communal range" shared by all three. As Berreman concluded of this reach, "[g]eographically this territory would seem to belong with that of the Multnomah or Clackamas, but the report of the explorers leads one to believe that it was claimed as hunting territory by the tribes at the Cascades; if indeed it was not a sort of communal range of several tribes for hunting and other food gathering" (Berreman 1937:18–19). Resource procurement sites sitting at intermediate places between villages in this reach, such as the camas patches, hunting sites, and potential fishing sites within the IBR footprint and immediately adjacent, were commonly utilized by members of all three Chinookan bands (Deur 2012; Boyd 2011; Hajda 1984; Saleeby 1983:52; Suphan 1974a, 1974b; Swanton 1953). In the following pages, we treat each Band separately, though these communities were significantly interrelated.

The Cascades Chinooks—Šáxɬatkš

The upriver Cascades homelands, where the Columbia River runs the gap through the Cascade Range along the Columbia Gorge. Within this range are the traditional homelands of people generally referred to as the Wasco, Wishram, White Salmon, Hood River and Cascades, proper. Typically, anthropologists and historians use the term "Cascades" to refer to the population at the time of early contact (1790s–1830s), applied most narrowly to those living in major villages ranging from the greater Wind River area to downstream from the Sandy River confluence. The Cascades people, proper, are usually designated as those living at the western end of these geological features, and are the population most relevant to the IBR crossing. In Chinook, they are among the people called "Šáxɬatkš" (Shakhlatksh) or "upstreamers"—referring to their upstream position relative to the many Chinookan peoples of the Columbia tidewater (Zenk et al. 2016:8; French and French 1998.).

The Cascades, proper, are often referred to as the Watlala—a term referenced, for example, in the ceded lands maps of the treaty period relating to the IBR crossing (1855). Following Lewis and Clark, many sources also refer to this population as "Shahala"—a derivation of the Chinookan "Šáxɬatkš."[14] Summarizing early sources, Hodge describes "Shahala" as "A name given by Lewis and Clark to the Chinookan tribes living on Columbia r. [sic] from Sauvies id. to the Cascades in Oregon. They estimated the number at 2,800, in 62 houses, and mention the following tribes: Neerchokioon, Clahclellah, Wahclellah, and Yehuh. Katlagakya was the native name for the Indians of this region" (Hodge 1910:519). In this interpretation, the village population of Neerchokioo, a short distance upstream from the IBR crossing, is identified as a distinct Shahala "tribe." Likewise, Barry designates the Neerchokioo and the Cath-lath-la-las as two distinct subpopulations of the "Sha-ha-la" (Barry 1927a:54). The classification of Neerchokioo village is significant, for it is depicted as the permanent village closest to the IBR in most written accounts, with one wooden house, 24 straw houses, and roughly 200 men occupying the site at the time of Lewis and Clark. By 1838, the Hudson's Bay Company was still identifying this as the village closest to their post at Fort Vancouver, occupied by the Cascades Chinook: "Cath-lal-thlalah Tribe—summer village columbia Cascades winter village Banks of the columbia opposite Vancouver" (HBC 1838).

In his detailed analysis of Oregon tribal distribution, Berreman places the Aboriginal territory of the "Cascade" or "Watlala" Indians in the immediate vicinity of the IBR (Berreman 1937:18–9).[15] Summarizing data from Frederick Hodge, Franz Boas, Leslie Spier, Edward Sapir, and the journals of Lewis and Clark, Berreman described the Cascade or "Watlala" Indians as including

> "*…all the villages from the mouth of the Willamette to and including the Cascades. This is the 'Shahala nation' of Lewis and Clark, most of the villages on the south bank, one eight miles and the other thirteen miles below the mouth of the Sandy River. The first consisted of one house and twenty-four temporary lodges. The lodges, they were informed, were occupied by 'relatives' of the occupants of the house, whose permanent homes were at the Cascades. They had come there only to hunt. Here were also 200 Skilloots probably on a trip up or down the river to trade. The second village was small, and reported as belonging to the 'Nechacokee,' [Neerchokioo] a band of the 'Echeloot nation,' which is the term by which they designated the Wasco and Wishram at the Dalles*" (Berreman 1937:18).

Other writers—e.g., Hodge (1910), Barry (1927a), and Hajda (1984)—confirm this interpretation of a largely contiguous Cascade occupation at least as far west as Neerchokioo, with traditional lands apparently

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extending at least as far westward as Hayden Island.[16] Hajda classifies Neerchokioo as being "Shahala" or Cascades in tribal affiliation, and "upper Chinookan" in language—the "furthest downriver Shahala village" (Hajda 1984:63, 119).[17] French and French identify Neerchokioo as an "Area of [Cascades] overlap with Multnomahs" and an outpost of Cascades settlement (French and French 1998).

Sources agree the Cascades people were a significant presence at the area of the IBR crossing, used this area seasonally for hunting and other subsistence tasks, and that they "covered considerable distances in their seasonal movements" in this area (Hajda 1984:67). The river islands in this reach, apparently including Hayden Island, served as campsites for Cascades peoples. When visiting Cascades people near present-day Bonneville in September 1843, Father Blanchet noted, "They leave the summer encampments and move to winter on the Vancouver islands [the river islands opposite and above Fort Vancouver], where the cold is less rigorous and hunting more abundant" (in Munnick 1972:A-13). This implies hunting territories on the adjacent riverbanks, placing Cascades people at the full extent of the IBR crossing. So too, the north bank of the IBR crossing appears to have been an anthropogenic prairie at contact, surrounded by forest—likely burned by Cascades and other Chinookan peoples to enhance camas and other plant species and to provide ideal hunting grounds. Accordingly, the north end of the crossing, the eventual site of Fort Vancouver was an open prairie at contact, called by the Chinookan term "Sketcu'txat"—also rendered "Skit-so-toho" and "Katchutequa"—implying a prairie (Strong 1959:33; Tolmie and Dawson 1884; Kane 1859:171).

One of the names frequently used in reference to the western bands of Cascades, Cathlathlala, appears in later HBC documents as one of the principal tribal groups living in the vicinity of Fort Vancouver in 1838 (Blanchet and Demers 1956:18; Ruby and Brown 1976:265; HBC 1838). Ethnographic sources are consistent in indicating that "Cath-lal-thlalah" were a population of Chinookan "Watlala," originally living "just below the cascades" of the Columbia River (Swanton 1953; Hodge 1910). Ross indicates they were the principal Cascades group (Ross 1849). Morse reported around 500 "Cathlathlas" living "60 m. from the mouth of the Wallaumut, on the E. side" shortly before the construction of Fort Vancouver (Morse 1822:368). Stuart refers to the Cath-lath-las as well, suggesting they lived east of the confluence of the Willamette and the Columbia: "a little farther up on an Easterly Branch live the Cath-lath-las of 80 men, and along the River" (Stuart 1935:33). Of them, Spier notes, "Three villages of theirs are known on the north bank, the lowest about half a mile below the upper Castle Rock. The location of settlements on the south bank is little known" (Spier 1936:21). They were probably among the Cascades people who occupied Neerchiokoo village, either seasonally or year-round.

The Multnomah Chinooks

The people conventionally designated as "Multnomah" occupied a dense constellation of villages from the Portland area downstream to a point below Lewis River, Washington. From the beginnings of the ethnographic and historical record for the Portland Basin, the Multnomah play a prominent role, and the Oregon county now occupied by much of Portland bears their name. The demographic core of the Multnomah people was on the island at the Willamette-Columbia convergence, an area now called Sauvie Island—but also "Wapato" or "Multnomah Island" historically. In the early 1840s, Parker wrote, "This island is about eighteen miles long, and five miles wide, formed by a part of the Multnomah, branching off about six miles up the main river, running in a westerly and north-westerly direction, and uniting with the Columbia eighteen miles below the main branch. The branch which flows around and forms the island, is about fifteen rods wide, and of sufficient depth for small shipping, most of the year" (Parker 1841:150).

In the heart of Multnomah territory—the mouth of the Multnomah Channel of the Willamette, Ross reported in early decades of the 19th century, "the Indians appeared very numerous in several villages" (Ross 1849:105).[18] The villages in and around Sauvie Island were large and may have been unusually sedentary due in part to abundant marsh resources—including the edible root, wapato—alongside riverine and upland resources available to most of their surrounding kin. The original name "Wapato Island" was "so called from a nutritive root [wapato] found in the small lakes in the interior, which is much sought for by Indians as an article of food" and was here found in concentrations unlike anywhere in the region (Parker 1841:150; Darby 2005).

While early sources associate the IBR crossing with Cascades and Clackamas Chinook communities, many writers associate the area with the Multnomah. Certain early 19th century observers identify Fort Vancouver as sitting amidst Multnomah traditional lands (Gairdner 1841: 255). Contemporary authors also frequently assert a Multnomah preeminence in this area, following the lead of the Smithsonian's Handbook of North American Indians, which places the crossing in the traditional territories of the Multnomah Chinook on grounds largely linguistic (Silverstein 1990). Lang, also reviewing the data on linguistic grounds, identifies the northern end of the crossing, at Fort Vancouver, as being in the Multnomah dialect area (Lang 2008:86). Complicating matters, Silverstein identifies Neerchokioo as "the easternmost non-Cascades village on the Columbia" (Silverstein 1990:534). He also interprets its original name as being ničáqʷli, or "stand of pines" in Multnomah Chinook. Simultaneously, it is important to note that Chief Kiesno (Cassino)—a prominent figure in Fort Vancouver trade through the period—is sometimes depicted as a Multnomah chief (Ray 1966:B-7; Spencer 1933).

The Clackamas Chinooks

The Clackamas are another Chinookan population identified in the ethnographic and historical literature. Their most prominent village sat on the confluence of the Clackamas and Willamette Rivers in what is now southeastern Portland—near the boundary between modern Gladstone and Oregon City. People identified as Clackamas occupied a constellation of villages and encampments along the lower Willamette River, perhaps the Columbia River near its Willamette River confluence, and adjacent inland areas in what is today east Portland and vicinity—including much of the Oregon County that now bears their name.

While depictions of Clackamas territory vary, early authors, such as George Gibbs, place the IBR in Clackamas territory (Gibbs 1877). In his overarching analysis of tribal distribution in the state of Washington, Leslie Spier agrees with this assessment (Spier 1936:21). Integrating additional data from Edward Curtis, Franz Boas, Frederick Hodge, and Michel LaFramboise, and Leslie Spier includes what would become the IBR program area within the Aboriginal territory of the Clackamas, which extended "on both sides of the Columbia roughly from Troutdale down to Kalama," but acknowledges the dividing line between Cascades and Clackamas areas was difficult to discern in this area (Spier 1936:21).[19] On the Washington side of the river, Spier identifies major "Clackamas" settlements both above and below the IBR crossing, noting they might be designated as lands of the Clackamas tribe, though "Possibly they should be given rank as [a] separate tribe" (Spier 1936:21). These separate populations included the "…Cathlapotle (Gã´Lap!ōlx, 'people of the Lewis [Nā´p!ōlx´] River')… on the lower part of the Lewis river ['for five miles above its mouth'] and on the southwest side of the Columbia river in Clarke county, Washington" and the "Gahlawashúgwal (wacu'Xwal), at Washougal, Washington" (Spier 1936:21). He also alludes to a population called "Wakanasisi on the north side (whose tribal name was Gã´L!akanasisi) nearly opposite the mouth of the Willamette"—clearly Chinookan, but with unclear Clackamas affiliation (Spier 1936:21). Still, some researchers have sought to define linguistic rather than 'tribal' boundaries, placing the IBR within the Clackamas dialect area of the larger Chinookan realm (Kardas 1971:212). Others imply the IBR area was in Clackamas traditional lands, including Ruby and Brown, who note that the Clackamas "occupied about twelve villages, which were located mainly on the south bank of the lower Columbia River downstream from present-day Troutdale, Oregon" (Ruby and Brown 1986:25).

A number of sources allude to the Washougal population some 10 miles upstream from the IBR crossing, at the confluence of the Washougal and Columbia Rivers (between modern-day Camas and Washougal, Washington). However, little consensus exists regarding their affiliation, and Spier is somewhat unique in assigning them to the Clackamas. Curtis alludes to a battle between men from Alaśhíkaśh at the "site of Vancouver, Washington" in coalition with the Waśhúhwal or "Washougal" Band of Chinooks against a village at the Columbia Cascades. However, the relevance of this statement is unclear (Curtis 1911b:38). Though often described as originating from a village near modern-day Kalama, Washington, as well as from a village close to the Willamette-Columbia River confluence, the famous Chief Kiesno was often identified as Clackamas (Saleeby 1983).

2. DISPLACEMENT AND RELOCATION ON THE LOWER COLUMBIA AFTER CONTACT

The lower Columbia River experienced some of the most dramatic episodes of epidemic disease and displacement of any place in the Pacific Northwest. Epidemic diseases arrived no later than the 18th century

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via early Spanish vessels and tribal trade networks spanning the North American continent (Boyd 1994). By 1792, the first non-Native ships crossed into the Columbia—the *Columbia Rediviva* captained by Robert Gray, immediately followed by the Vancouver expedition (Vancouver 1984; Gray 1941; Boit 1941). Lewis and Clark arrived 13 years later, providing the most detailed written accounts of this river reach prior to the arrival of fort-based fur traders (Moulton 1990, 1991). By 1811, the Pacific Fur Company established a fur trading post near the Columbia River mouth and by 1825, the HBC established Fort Vancouver—a preeminent locus of the 19th century fur trade—within mere steps of the IBR crossing. The resulting concentration of fur traders and ships exposed the peoples of this reach to the full effects of colonization, including new waves of epidemic disease. Chinookans continued to be central to the economies of this river reach, and disproportionately represented among the multiethnic fort community (Taylor and Erigero 1992; Blanchet 1878; Townsend 1839; HBC 1826). By 1830, a single infected individual aboard the fur trading vessel *Owyhee* at Fort Vancouver brought malaria, compounding the effects of earlier epidemics, and effectively decimating the Chinookan populations of the Portland Basin. By the end of the decade, less than 90% of the pre-contact population remained (Boyd 1999:231–61; Boyd 1990:135–48).

Entire villages of Multnomah, Clackamas, and Cascades peoples collapsed, and survivors regrouped in communities that often housed survivors from all three groups. The Cascade Chinook were among the few to retain sizable populations in the area, in part by taking in other Chinookans in the post-epidemic reconsolidation. As Hodge notes, "After the epidemic of 1829, the Watlala seem to have been the only remaining tribe, the remnants of the others probably having united under that name, though they commonly were called Cascades Indians by the whites" (Hodge 1910:922). In the early 1840s, accounts sometimes refer to a more or less cohesive "people at the Falls, the Dalles, and the Cascades, who are scattered along the banks of the Columbia from Fort Wallawalla to Fort Vancouver," apparently consisting of integrated surviving members of what were formally semiautonomous bands of Cascade Chinooks (Blanchet and Demers 1956:18; Ruby and Brown 1976:265).[20] Neerchokioo became a place where many Chinookans, from the Cascades but also from other communities, regrouped at this time. Chief Kiesno and some of his community's survivors, for example, were reportedly among tribal members reoccupying Neerchokioo village following the epidemics of the 1830s (Coues 1897:797–802).[21]

Northern tribes, formerly visitors but not permanent residents in this reach of the Columbia, became increasingly prominent, entering the vacuum created by the abrupt and apocalyptic decline of so many Chinookan communities. Among the tribes expanding along the Columbia were the Cowlitz, who spoke a Salish language without a direct linguistic relationship to Chinook. Pre-contact Cowlitz presence around the IBR crossing location, and their relationship with resident Chinookan peoples, has elicited ongoing debate.[22] Historical and anthropological sources consistently indicate the heart of Cowlitz traditional territory northwest of the IBR crossing, largely off the Columbia riverfront; early accounts indicate that they lived on the Cowlitz River a short distance upstream from its confluence with the Columbia River, with Chinookans occupying the confluence (Hajda 1984, Ray 1938, 1966; Curtis 1913; McChesney 1906; Scouler 1905; Ross 1849; Henry 1992; Franchère 1967:48–9). In a dissertation summarizing the recoverable span of Cowlitz history, Fitzpatrick summarized several of these studies identifying Cowlitz territory as being north of Lewis River, extending eastward from that point into the Cascade Range (Fitzpatrick 1986). Still, early journals do include numerous references to Cowlitz traveling the river in the vicinity of the IBR—especially to trade with Chinookans and the HBC and, following the 1830 epidemic, to participate in expanded resource harvests in places where Chinookans were in decline. They apparently also frequently passed through the area by land. For example, in 1830, George Simpson reported a Cowlitz population led by chief "Schannaway" (Scanewa) "whose track from the borders of Puget Sound strikes on the Columbia near to Bellevue Point" adjacent to Fort Vancouver (in Simpson 1931:86). Accounts of Columbia River tribes postdating the epidemics of the 1830s suggest the Cowlitz increasingly occupied the riverfront for the decade or two following these disruptions before being pushed back inland by non-Native settlement (Ray 1966).

In the wake of these epidemics, the Klickitat also became a regular presence in and around the IBR crossing. Closely related to the Yakama, the Klickitat originated just east of the Cascade Range and spoke a Sahaptin language. They had a reputation for high mobility—apparently aided by their early adoption of horses—and traditionally joined other tribes fishing on the Columbia Cascades in the vicinity of White Salmon River. Prior to the 1830 epidemic, they were seasonal visitors to the area. A mid-19th century account states, "The Click-a-tats are a large and powerful tribe, inhabiting the country east of the Cascade range. Great numbers of them, however, as soon as the snow melts from the mountains in the spring, come over to this side of the mountains, where they frequently spend the summer, trading and gambling with the different tribes, exchanging horses for money and hyagua—a shell they are fond of decorating themselves with" (Starling 1852:171). During the 1830s and 1840s, the Klickitat presence intensified, as they provided services to Fort Vancouver and early U.S. military operations, and took over certain roles in the fur trade formerly performed by Chinookan communities. An 1845 census compiled by Warre and Vavasour identifies Klickitat as the primary tribe in the vicinity of the Fort by that date, reflecting the dramatic demographic shifts of the preceding 15 years (Warre and Vavasour 1909).

Displaced by epidemics and encroaching settlement, Chinookan leaders were party to the January 1855 Willamette Valley Treaty negotiated by Joel Palmer. Affirming the primacy of Chinookan claims to this river reach, formal negotiations included representatives of the Portland Basin Chinookan bands—Clackamas, Clowewalla and



Map 4: Detail of map showing proposed ceded lands of the Wah-lal-la as recorded in treaty negotiations, January 1855.
Source: Bureau of Indian Affairs 1856

Watlala [Cascades], and Multnomah. The U.S. treaty delegation recorded the southern end of the IBR corridor as lands formally ceded by the "Wah-lal-la" Band – the Cascades Chinook (Map 4). Chinookans taking part in these negotiations also asserted claims on lands north of the river; however, territorial Governor Isaac Stevens refused to establish treaties with southwest Washington tribes, agreeing to settle claims north of the river at a later date. No treaty negotiation was later undertaken to settle Chinookan claims in those areas. The Willamette Valley Treaty therefore provided Portland Basin Chinookans with the only clear avenue for federal acknowledgment—most of the signatory communities being removed to Grand Ronde Agency in 1856. Many prominent Chinookan families, such as the surviving family of Kiesno, were part of this forced migration, becoming part of the Grand Ronde Agency and, ultimately, the Confederated Tribes of Grand Ronde Community of Oregon (Spencer 1933). Meanwhile, U.S. Treaty negotiators did not recognize Klickitat land claims south of the Columbia River. By spring of 1855, the Oregon Superintendent of Indian Affairs, Joel Palmer, initiated the forced return of Klickitats north of the river—most being sent to Yakama—though a small number remained with Cowlitz communities in Washington, or within the Siletz and Grand Ronde communities (O'Donnell 1991; Curtis 1911a:37—40).[23]

In spite of many restrictions, certain Grand Ronde families continued to maintain homes and carry out fishing on both sides of the river. A number of "off-reservation Indians" are reported in the Cascades traditional territories upstream from the IBR crossing through the 20th century—often members of the Grand Ronde tribal community and descendants of Willamette Valley Treaty signatories (Kenoyer et al. 2017). In spite of over two centuries of cataclysmic disruption, the Chinookan presence was never extinguished. To this day, the IBR corridor remains a place of profound importance to the Chinookan descendants and families of Grand Ronde.

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NOTES

[1] Tribal population on the middle and lower Columbia River is notoriously difficult to estimate, and was in flux even prior to any firsthand written accounts (Boyd 1999; Silverstein 1990; Kardas 1971:68-71). Any population estimates for this region prior to the 1850s should be viewed with skepticism, in light of seasonal mobility, the incompleteness of written surveys, and a host of other factors—and many estimates tend to be low. This being said, population densities were reportedly high, with almost unbroken settlement among some portions of the Columbia River shoreline (Simpson 1931).

[2] In the field of linguistics, the suffix "-an" is used to denote a family or subfamily of languages, consisting of several individual languages or dialects that are related—and also used to denote all of the ethnolinguistic groups who speak those languages as a unit; see Goddard and Sturtevant 2006. On the widespread and conventional use of the term "Chinookan" to refer to these many different communities of Chinook-speaking people based on their linguistic and cultural kinship, including the use of Chinook languages and dialects, see for example, Boyd et al. (2015); Zenk et al. (2016); Silverstein (1990), and Sapir (1926).

[3] Admittedly, many early writers used the term "Chinook" inexactly and without much attention to formal conventions—to denote any Indian of the region, or any Indian encountered on the Columbia River, for example (Boyd et al. 2015; Taylor 1974:119). Similarly, contemporary claims to "Chinook" affiliation are complex, sometimes denoting ties to the estuarine community of Chinooks or "Chinook, proper," enrollment in the federally unrecognized "Chinook Nation" with a membership descended from certain lower river populations, descent from Chinookan speakers of the larger Columbia River region, and so on (Hajda 1984; McChesney et al. 1906). Herbert Taylor lamented when attempting to summarize Chinook materials for the Indian Claims Commission:

> "The name Chinook has been widely and variously employed. Among other things, it denotes a warm wind, a game salmon and a *lingua franca* of the Northwest coast. It has also been used to denominate the people who lived on the north bank of the Columbia at its mouth, the people who lived along the lower Columbia generally, and the people who lived on the Columbia from the Dalles to its mouth. It has also been utilized as a name for a linguistic stock and as a generic term for Northwest coast Indian" (Taylor 1974:119).

The use of the term "Chinook" therefore requires some degree of clarification or qualification, and in this document, we are careful to distinguish which Chinookan communities are implied by the available written record.

[4] Verne Ray, for example, depicted trade as being fundamental to an understanding of Chinook social structure and organization, being key to dispute resolution and to the assignment of individual and group status:

> "[Trade] permitted them to exert a widespread influence of a sort which did not often lead to conflict. It resulted in both the group and many of its members becoming known and discussed over a wide area, whereas intervening peoples might be unknown and of no interest. It lead to a high contempt for groups that were "just poor people" (that is, had little to trade) and a consequent bolstering of their own self-confidence" (Ray 1938:99).

Intertribal and interregional relations also were defined by these trade relationships. Melville Jacobs noted:

> "The residents of poorer villages suffered from greater economic and social ambitions and traveled more often to localities of greater wealth, economic security and social prestige; the wealthier communities were almost always downstream or to the west. Along lower rivers or coastal rivers the larger food supply permitted populations denser in numbers, relatively wealthier in household goods, and enough satisfied with their own dignity and value to travel and marry within comparatively narrower radii" (Jacobs 1937:55-57).

[5] The lower Columbia River, both upstream and downstream from Fort Vancouver, was lined with numerous villages of this type:

> "In winter they live in villages, but in summer move about from place to place. Their houses are oblong, and built of broad, split cedar-planks, something in the European style, and covered with the bark of the same tree. They are sufficiently large and commodious to contain all the members of a numerous family, slaves included. At the top or ridge pole, an opening gives free passage to the smoke; they have one or more, according to the number of families in each. But I never saw more than four fires, or above eighty persons—slaves and all—in the largest house" (Ross 1849:98).

Similarly, HBC Governor George Simpson noted

> "From the Cascade Portage to the Coast they are collected into Villages of Ten to fifteen Houses and three or Four Families inhabiting the same House. They live in great comfort throughout the year, as Fish are taken at all Seasons, Roots abundant close to their Houses and Wood Animals are numerous so that they may have a variety of choice fare" (Simpson 1931:95-96).

[6] Speaking of the Fort Vancouver area, on the north end of the IBR crossing, Kane noted, "During the season the Chinooks are engaged in gathering camas and fishing, they live in lodges constructed by means of a few poles covered with mats made of rushes, which can be easily moved from place to place, but in the villages they build permanent huts of split cedar boards" (Kane 1859:187–88).

[7] Robert Hine and Savoie Lettinville, editors of the Theodore Talbot journals, make reference to a suggestion that "the post [Fort Vancouver] had been built on an Indian graveyard," though the source of their information is unclear (Talbot in Hine and Lettinville 1972:119). This would be consistent with general burial patterns in the area, however: burial sites were numerous in the Portland Basin and were often found in clearings in association with nearby human settlements, such as those villages described elsewhere in this document. While the lower Columbia River is known for its many burial islands, the number of available islands was almost surely insufficient to accommodate the large populations that existed in these constellations of large villages of the scale recorded at contact.

[8] As HBC Governor, George Simpson noted of the Chinooks, "in order to strengthen their commercial relations men of consequence or extensive traders have sometimes as many as half a Doz Wives selected from among the best Families of the Neighbouring tribes and each of those is entrusted with a small Outfit and sent on trading excursions to Her Friends & relatives and this is her constant employment" (Simpson 1931:98). Likewise, Parker noted that, "The wealth of the lower Indians is estimated by the number of wives, slaves, and canoes. Every Indian of any distinction takes as many wives as he is able to support, and his wealth is supposed to accord with the number" (Parker 1841:254–55).

Women held considerable decision-making authority within their communities and considerable influence over the economic fortunes of her household and community. Kardas, for example, noted that

> "The role of older women in governing Chinook society is well attested by the 19th Century writers, who also noted the high position held by native women in general. Not only did the

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> women play an important role as traders (both by producing marriage alliances with their relatives and by preparing and collecting foodstuffs traded, or owning the slaves that performed these tasks), but women also had a voice in governing the villages" (Kardas 1971:56).

[9] Head-flattening, carried out through the application of pressure on cradle boards in infancy, was the standard among free-born Chinooks and provided emblematic distinction from the population of slaves: "none but the wretched Slaves have round heads" (Simpson 1931:96). Comments on head-flattening along the lower Columbia are numerous (e.g., Ross 1849:99-100).

[10] In the written accounts of early observers, accounts of this travel throughout the region between productive resource sites abounds—especially in reference to fishing sites. Travel linked a number of salmon fishing stations that were visited in season, but also sites for harvesting eulachon, sturgeon, and other fish. Briefly summarizing the patterns of resource use found in the Portland Basin in the early 19th century, Morse noted:

> "About 40 miles from the mouth of the Columbia river is a famous smelt and sturgeon fishery. Also abundance of Wapatoe, a species of potatoe, an excellent substitute for the real potatoe. The smelts are taken from the middle of March to the middle of April, and at no other time. They are fat and of good flavor. The Indians dry and run a stick through a number of them and use them in the place of candles. When lighted at the top, they burn to the bottom, giving a clear and bright light" (Morse 1822:375).

Assessing reported population fluctuations in the Portland Basin, Boyd and Hajda conclude that

> "some villages in the Wappato Valley [between the Sandy and Kalama Rivers] were three or four times as large in early April, at the time of important fish runs, as they were in late November…. The most likely sources for spring-season visitors are the upstream, interior locations especially subject to resource deficiencies at that time of year. The movements and shared use of resources areas…would be made possible by the numerous interlocking social networks, which not only channeled the flow of goods but which also brought distant people together for a broad range of purposes. This social system, unfamiliar to Lewis and Clark and other early observers [was] larger and more diffuse than the usual units of ethnographic research…it probably made possible the support of larger populations defined on a regional basis than would otherwise have been the case" (Boyd and Hajda 1987:321).

Some sources mention "abandoned villages" in the region (e.g., Franchère 1967:49), though this evidence lends support to the suggestion that some of these villages were abandoned only seasonally, while residents engaged in social, economic, ceremonial, and subsistence tasks in other areas. Especially beginning in the 1830s, these references likely refer to places that have been abandoned due to epidemics and associated demographic contractions.

[11] Tribal groups of the ocean coast, such as Clatsops and Tillamooks, often visited en route to fishing and trading at the Cascades (Coues 1897:858, 879). At other times, wars were reported between the Clatsop and the Cascades people, also bringing coastal peoples into the Portland Basin (Coues 1897:793).

[12] As Suphan notes, "Roots were gathered largely along the flats of the Columbia, the cascades people going downstream for wappato to the sloughs and flats opposite Vancouver, Washington" (Suphan 1974b:48).

[13] Of the role of chiefs, Samuel Parker observed:

> "The government of the Indian nations is in the hands of chiefs, whose office is hereditary, or obtained by some special merit. Their only power is influence; and this in proportion to their wisdom, benevolence, and courage. They do not exercise authority by command, but influence by persuasion, stating what in their judgment they believe to be right, and for the greatest good of their tribe or nation, or of any family or community. The chiefs have no power of levying taxes, and they are so much in the habit of contributing their own property for individual or public good, that they are not generally wealthy. Their influence, however, is great; for they rarely express an opinion or desire, which is not readily assented to and followed. Any unreasonable dissent is subdued by the common voice of the people. Probably there is no government upon earth where there is so much personal and political freedom, and at the same time so little anarchy; and I can unhesitatingly say, that I have nowhere witnessed so much subordination, peace, friendship, and confidence, as exist among the Indians in the Oregon Territory. The day may be rued, when their order and harmony shall be interrupted by any instrumentality whatever" (Parker 1841:255).

On the basis of numerous accounts, all attesting to the same basic pattern of governance, Saleeby summarizes,
"The village formed the major social and political unit in Chinook society…. Each village had its own chief whose powers were advisory and judicial…and who had the power to appropriate the property of others for personal purposes" (Saleeby 1983:24).

[14] Hodge defines the Watlala as follows:

> "A division of the Chinookan family formerly living at the cascades of Columbia r. and, at least in later times, on Dog (now Hood) r. about halfway between the cascades and the Dalles, in Wasco co., Ore. Early writers mention several tribes at or near the cascades, but as the population of that region was very changeable from the fact of its being a much frequented fishing resort, and as many of the so-called tribes were merely villages, often of small size, it is now impossible to identify them with certainty" (Hodge 1910:922).

Hajda (1984) notes that "'Shahala' was a term used only by Lewis and Clark, applied to people based at the Cascades some of whom covered considerable distances in their seasonal movements. It comes from an expression meaning 'upriver' (cf. Jargon saxli, meaning 'up' or 'high'), and it was probably used in this sense as well as in reference to Cascades people" (Hajda 1984:67).

Barry differs somewhat from other accounts, reporting "Sha-ha-la" as a different population than "Wat-la-la"—designating the former as being in the area from Hood River to the Willamette and the latter as being in the area from Hood River to the Cascades (Barry 1927a:54).

[15] In his analysis of Washington tribal distribution, Spier notes of Cascades distribution,

> "The Cascades group (iłała´la, "lake people," or wała´lidE´lxam) were located on both sides of the Columbia at the Cascades, and on the north side downstream at least to Skamania and perhaps to Cape Horn [upstream from modern-day Washougal, Washington]. These are the Watlala mentioned by Lewis:wała´la, "lake," was evidently at the head of the Cascades. A village may have been there; at any rate, it marked their easternmost point. The Cath-lath-la-las or Cathleyacheyachs (the latter mentioned by Ross at the head of the Cascades people. Three villages of theirs are known on the north bank, the lowest about half a mile below the upper Castle Rock. The location of settlements on the south bank is little known" (Spier 1936:21).

[16] Edward Curtis recounts the Cascade villages as follows:

> "Gahlahishachk, those on the north bank of the Columbia at the cascades inhabiting the following villages:

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a. Wahlala, “Their Lake,” opposite Cascade Locks, Oregon.
b. Skamanyak, “Obstructed,” at the middle cascades.
c. Kihaiagilhum, “Middle Village,” a little below Skamanyak.
d. Kaiuchikhlqtih, at the lower cascades.
e. Kamigwaihat, “Upper Road,” a little below the former.” (Edward Curtis 1911b)

Suphan, meanwhile, interpreted Cascades villages as follows:

> “From the journals of Lewis and Clark we learn of three villages on the Washington shore at and about the cascades; these were Y-e-huh just above the rapids, Clah-clel-lah just below the rapids, and Wah-clel-lah at Beacon Rock a few miles above Skamania, Washington. Together these formed the explorers’ Sha-ha-la Nation. The economic activities of these Indians apparently led them downstream from the cascades rather than toward Hood River and the Dalles… “In subsequent years the Indians resident at the cascades are designated by a variety of terms: Cathlayackty, Thlameoyackoack, Cathleyacheeyachs, Cathlakaheckit, Cathlathlala; identification of one with another, or equation with Lewis and Clark’s villages, would at best be quite tenuous. It is evident, however, that one village was above the cascades on the north shore near Lakewood, Washington, at or near the site of the Yehuh village, while others were on the Oregon shore from about Cascade Locks to opposite Wind River” (Suphan 1974b:43-45).

[17] She also depicts this village as being just upstream from the much larger “Columbia Valley” villages which included Multnomahs and other Upper Chinookan speakers. Simultaneously, she appears to classify the population at Washougal, upstream from Neerchokioo, as being “Columbia Valley” in affiliation.

[18] Morse reported 500 “Mathlanobs” “At the upper end of the island above named, in the mouth of the Wallaumut” in the years immediately preceding the construction of Fort Vancouver (Morse 1822:368).

[19] Reviewing the full range of literatures available in his time, Spier described the Clackamas as follows:

> “This may be the collective name for a group of related tribes rather than a true tribal name. Properly the Clackamas were on Clackamas River in Oregon but both groups of them seem to have been on both sides of the Columbia roughly from Troutdale down to Kalama, where they adjoined the Kathlamet…. Linguistically Clackamas seems to be very close to Kathlamet, if not identical with it.” (Spier 1936:21)

[20] These integrated bands appear to have included the Cathlakaheckit, Cathlathlala, Cathlayackty, Clahclellah, Katlagakya, Yehuh, and possibly others (Blanchet and Demers 1956:18; Ruby and Brown 1976:265).

[21] Kiesno’s reported marriage to a Cascades woman may have allowed him to make this move readily; still, it is likely that he would have had access to this village site regardless as part of his chiefly position in Clackamas and/or Multnomah communities (Coues 1897:797–802).

[22] Hostile relations between the Cowlitz and certain Chinookan peoples appear to have been common at contact, though intermarriages were reported as well. Zenk et al. find evidence of “patterns of intergroup marriage that crossed both political and linguistic boundaries, resulting in extensive Chinookan-Salishan bilingualism on the lower river,” that may reflect increased integration in the wake of epidemic diseases, primarily in Cathlamet lands and downstream locations (Zenk et al. 2016:3–31).

[23] Historically, Klickitat-Cowlitz ties have been strong. After contact and increased intermarriage with Klickitat people from east of the Cascades, some Cowlitz communities apparently spoke a Sahaptin dialect instead of or in addition to their own Salish language (Ray 1966; Jacobs 1937). The Cowlitz speaking this dialect were sometimes designated as “Taidnapam.” Certain Cowlitz accounts suggest that this pattern of intermarriage predated European contact. Nonetheless, this connection clearly intensified following epidemics of the 1830s.

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	#	Chapter	Section	Pg #	Flagged Text	Formal Comment
7-6	1		Summary	S-3	See Comment	The Draft PA is mentioned in the summary as essentially guiding the consultation process, though the Tribal Consultation Plan that was to be appended to it is now going to be a standalone document. Please include what this document will be and if possible a timeline of when a draft is expected to be completed.
7-7	2		Summary	S-4	Supplemental EIS (SEIS) goal is to identify and disclose new adverse impacts and mitigation associated with changes in conditions that occurred since 2013 - all other decisions are from CRC.	The Draft SEIS is a supplemental EIS to the work completed in 2011 - and updated/edited in 2012 and 2013 - for the Columbia River Crossing (CRC) Project. We appreciate that each section calls out the changes from the prior report, but wanted to document the reversal of detail from the original document. The lack of detail compared to the original EIS is challenging to comment on. Specifics regarding the wetland compensatory mitigation plan, for example, have not been provided when in the 2011 EIS the sites were named, their size and wetland type were provided. Additionally, the tribe has previously flagged concerns around access to the mitigation site as part of the compensatory conditions since access will be lost if it is not public land. Comments were submitted regarding the sites chosen previously and this document does not offer that same opportunity. Therefore, Grand Ronde reserves the right to consult on the Project on an ongoing basis, and to make additional and/or updated comments beyond those contained in and attached to this letter as more information is available. The Grand Ronde TribalCouncil reserves the right to make and/or update any and all statements of Tribal policy or position on an ongoing basis due to the incomplete information provided at the time of the public comment and review period.
7-8	3		Summary	S-46	For unavoidable impacts to Vanport wetlands, increased mitigation ratios would be required because it is an existing wetland mitigation site.	There is no mention of what the increased mitigation ratio is due to the unavoidable impacts to the Vanport wetlands existing mitigation site in the Summary, Section 3.15, or the Wetlands and Other Waters Technical Report. It is hard to review for compliance or comment whether mitigation is appropriate without knowing the ratio being applied.
7-9	4		Summary	S-47	All pumps must employ a fish screen that meets the following specifications: – An automated cleaning device with a minimum effective surface area of 2.5 square feet per cubic foot per second and a nominal maximum approach velocity of 0.4 feet per second, or no automated cleaning device, a minimum effective surface area of 1 square foot per cubic foot per second and a nominal maximum approach rate of 0.2 feet per second; and – A round or square screen mesh that is no larger than 0.094 inches (2.38 millimeters [mm]) in the narrow dimension, or any other shape that is no larger than 0.069 inches (1.75 mm) in the narrow dimension; and – Each fish screen must be installed, operated, and maintained according to NOAA Fisheries fish screen criteria.	We appreciate that these specifications meet the pacific lamprey conservation best management practices (BMP) for fish passage and screening guidelines as they recommend under 2.5mm screen openings. The BMP is the smaller the better, because juvenile lamprey can be as small as 0.85 mm.
7-10	5		Summary	S-49	Where site conditions support vegetative growth, plant native vegetation indigenous to the location in areas temporarily disturbed by construction activities. Revegetation of construction easements and other areas would occur after the project is completed. Trees would be planted when consistent with highway safety standards. Riparian vegetation would be replanted with species native to geographic region. Planted vegetation would be maintained and monitored to meet regulatory permit requirements. For additional detail, consult ODOT Standard Specifications 01040.00 to 01040.90.	We support the use of indigenous plants in replanting the areas temporarily disturbed by construction activities. However, we'd like to comment that species from the Botanical Species of Interest (SOI) list be prioritized.
7-11	6		Table of Contents		See Comment	The Appendix list and lisit of Technical Reports are missing from the Table of Contents.
7-12	7	1 - Purpose and Need	Compliance w/ NEPA	1-7 - 9	Reviews the tribal engagement process	We respectfully request that the IBR project team work cooperatively with interested Tribes including Grand Ronde to finalize and memorialize the Tribal Consultation Plan. If it is left incomplete and unsigned, there is an ongoing danger that project staff turnover and other changes in circumstance will leave us "going back to square one" when it comes to defining Tribal consultation in the context of this large, complex, impactful project. Grand Ronde has already committed countless hours from its leadership and staff towards this much-needed bridge project, and it would be unacceptably wasteful for us to have to start all over yet again if the project experiences delays, staff changes, or other disruptions.
7-13	8	3 - Existing Conditions and Environmental Consequences	Context: Precontact	3.8.2	Cultural Context statement for Grand Ronde is completed. Note that this context statement was prepared to be a publically available document, and so should not be completely redacted from the Final EIS if included in the Archaeology Technical Report appendix.	The Cultural Context statement for Grand Ronde is completed and was provided to the IBR team for inclusion in the publically available SEIS. It is the expectation of the Tribe that the 10 page Cultural Context Statement be in the pubcally available SEIS in its entirety. Attached for convenience.

	#	Chapter	Section	Pg #	Flagged Text	Formal Comment
7-14	9	3 - Existing Conditions and Environmental Consequences	Context: Oregon	3.8.7	Image Canoe Island reference in Lewis and Clark Journals	Recommend updating section to reference the descriptive name of Hayden Island (Image Canoe Island) found in the Lewis and Clark Journals. "During the 19th century, Hayden Island was used by Native peoples and the Hudson's Bay Company (HBC). The Lewis and Clark Journals refer to Hayden Island as Image Canoe Island." (https://lewisandclarkjournals.unl.edu/search?places=Hayden%20%28Image%20Canoe%29%20Island)
7-15	10	3 - Existing Conditions and Environmental Consequences	Cultural Resources Identified	3.8 12	See comment	Recommend referencing earlier statement on pg 3.8.10 "In both the Oregon and Washington portions of the CRC APE, several locations were identified as having the potential for encountering deeply buried archaeological deposits. " Also recommend referring to the phased identification called for in the PA, particularly Attachment D: Archaeological Resources Identification, Monitoring, and Treatment Plan
7-16	11	3 - Existing Conditions and Environmental Consequences	14 - Water Quality and Hydrology	3.14 17	Work with the City of Portland to ensure flood storage compensation does not jeopardize threatened and endangered species and their habitat (revised Floodplain Development Code Chapter 24.50 Flood Hazard Areas).	Please include the review of jeopardizing SOI - not just T&E species - and their habitats in the flood storage compensation activities.
7-17	12	3 - Existing Conditions and Environmental Consequences	14 - Water Quality and Hydrology	3.14 19	Where site conditions support vegetative growth, plant native vegetation indigenous to the location in areas temporarily disturbed by construction activities. Revegetation of construction easements and other areas would occur after the project is completed. Trees would be planted when consistent with highway safety standards. Riparian vegetation would be replanted with species native to geographic region.	We support the use of indigenous plants in replanting the areas temporarily disturbed by construction activities. However, we'd like to comment that species from the Botanical Species of Interest (SOI) list be prioritized.
7-18	13	3 - Existing Conditions and Environmental Consequences	15 - Wetlands and Other Waters	3.15 14	In cooperation with federal, state, and local agencies, tribes, and conservation groups, identify agency-approved compensatory mitigation banks and potential permittee responsible mitigation (PRM) sites in both Oregon and Washington to fulfill the compensatory requirements for permanent, temporary, and indirect impacts.	Since the Compensatory Mitigation Plan has not been provided with the specific sites, their size, the mitigation ratios, or wetland types it is hard to comment if this process was appropriate and adequate at this point and therefore, Grand Ronde reserves the right to consult on the Project on an ongoing basis, and to make additional and/or updated comments beyond those contained in and attached to this letter as more information is available.
7-19	14	3 - Existing Conditions and Environmental Consequences	16 - Ecosystems	3.16 1	• Species of interest (SOI1) lists have been updated with input from federal, state, and local resource management agencies and tribal resource staff. SOI life history and habitat requirements have been updated to reflect changes in best available science. • Species' presence, associated habitat types, and baseline habitat conditions have been updated as applicable. • Supplemental field surveys have been conducted to validate or update baseline assumptions. • Federal, state, local, and tribal regulations and policies regarding ecosystem management, evaluation of effects, and compensatory mitigation have been updated.	The SOI list was stated to have been updated with input from federal, state, and local resource management agencies and tribal resource staff. Yet tribes are missing from the SOI list methodology development (See the Ecosystems Technical Report pg. 3-33) and several key tribal SOI are missing.
7-20	15	3 - Existing Conditions and Environmental Consequences	16 - Ecosystems	3.16 16	Botanical Specieal of Interest Potentially Occurring within the Primary Study Area	The Botanical Specieal of Interest Potentially Occurring within the Primary Study Area table does not include Wapato or Cattails referenced in the Ecosystems Technical Report on pg. 3-33.
7-21	16	3 - Existing Conditions and Environmental Consequences	17 - Geology and Groundwater	3.17 9	Conduct site-specific assessments of existing geologic hazards such as, but not limited to, faults, ancient landslides, steep cut slopes, non-seismic settlements, and soil liquefaction during design of the Modified LPA, as feasible. Site-specific assessments should include the use of geotechnical drilling, test pitting, material testing, geophysical techniques, subsurface displacement monitoring (inclinometers) and monitoring well installation, as feasible. Assessment would include recommended options for avoiding or mitigating geologic hazards.	Note that all ground-disturbing activities that occur during site-specific assessment (such as drilling or test pitting) need to follow an Inadvertant Discovery Plan. Staff of each firm involved in ground-disturbing activities need to be communicated with about and trained on the IDP protocols prior to being in the field.
7-22	17	3 - Existing Conditions and Environmental Consequences	20 - Environmental Justice	3.20 27	Several tribes have preemptions8 from tolling per treaties with the U.S. Government. For members of tribes with those preemptions, there would be no adverse effect from tolling. Several tribes consulting on IBR have requested exemption from tolling on the existing Interstate Bridge and future Columbia River bridges. The bi-state transportation committee made up of representatives of the Washington State and Oregon Transportation Commissions determines tolling exemptions or discounts and is considering a low-income toll program. In conclusion, tolling on the proposed Columbia River bridges would result in a disproportionately high and adverse effect on EJ populations.	CTGR wishes to be as broadly exempt as possible from any IBR tolling, and would need specific government to government consultation on any IBR tolling proposal, whereby the details of the Tribal exemption would be worked out.
	18	3 - Existing Conditions and Environmental Consequences	20 - Environmental Justice	3.20 40	Key commitments include at least a 50% discount on tolls for customers in Oregon or Washington whose household income is up to 200% of the federal poverty level and exemptions for federally recognized tribes and tribal government vehicles.	CTGR wishes to be as broadly exempt as possible from any IBR tolling, and would need specific government to government consultation on any IBR tolling proposal, whereby the details of the Tribal exemption would be worked out.
7-23	19	3 - Existing Conditions and Environmental Consequences	23 - Cumulative Effects	3.23 27	Species of Interest (SOI) is not a specific category of governmental or nongovernmental organization-designated species, but refers to native species identified through tribal, local, state, and federal coordination as having particular importance because of their regulatory status, rarity, and/or special habitat considerations. Examples of aquatic and terrestrial SOI species include those species listed under the federal Endangered Species Act, species with other federal regulatory protections (such as marine mammals, bald eagles, and migratory birds), species with special state regulatory status in Oregon or Washington, and other species that consulting tribes have identified as warranting particular focus.	Same comment as Ecosystems Technical Report comment below + Section 3.16 above
7-24	20	3 - Existing Conditions and Environmental Consequences	23 - Cumulative Effects	3.23 34	Unavoidable impacts to wetlands and other waters would be offset through one or more compensatory mitigation projects, which are currently being developed in coordination with federal, state, and local regulatory agencies, tribes, and community members. With mitigation, it is anticipated that the Modified LPA would result in a net beneficial effect on quality and ecological function of wetlands and waters.	Same comment as Section 3.15
7-25	21	3 - Existing Conditions and Environmental Consequences	23 - Cumulative Effects	3.23 36	Impacts to fish and wildlife species and their habitats would be avoided, minimized, and offset through compensatory mitigation, as required by compliance with federal, state, and local regulatory requirements. These mitigation measures would result in no net loss of habitat function. A compensatory mitigation approach is currently in development with federal, state, and local regulatory agencies; tribes; and community members.	Typically compensatory mitigation is planned on private lands and those proposed for this project so far have been private. Note that the CTGR request compensatory access to the mitigation banking sites as we are losing access to such wetlands on public lands and continued access should be considered as one of the compensatory measures.

	#	Chapter	Section	Pg #	Flagged Text	Formal Comment
7-26	22	Appendix A	Agency and Tribal Coordination	A-13	Consulting tribes will have the opportunity to identify issues of concern regarding the IBR Program's potential environmental or socioeconomic impacts; to participate in project meetings, open houses, and workshops; and will have the opportunity to review and provide comments on the project milestones and activities, including but not limited to: • Design options development and screening report • Tribal consultation plan • Draft SEIS methods, data reports, and technical reports • Section 106 documentation • Section 4(f) analysis • Biological assessment Consultation Activities to Date • Reinitiated consultation with the tribes in September 2020. • Conducted face-to-face and virtual meetings with each tribe as well as intertribal meetings. • Sent invitations to be participating tribes for the NEPA compliance process to 10 federally recognized tribes in November 2022. • The consulting tribes were given the opportunity to review the following products: – Methods and data reports – Design options development and screening report – Area of Potential Effects for Section 106 – Tribal consultation plan – All Draft SEIS technical reports – Draft research designs for archaeological discovery field investigations – Historic built environment baseline surveys – Historic built environment determinations of eligibility – Historic built environment findings of effects – IBR programmatic agreement – Section 4(f) analysis – Biological assessment	We respectfully request that the IBR project team work cooperatively with interested Tribes including Grand Ronde to finalize and memorialize the Tribal Consultation Plan. If it is left incomplete and unsigned, there is an ongoing danger that project staff turnover and other changes in circumstance will leave us "going back to square one" when it comes to defining Tribal consultation in the context of this large, complex, impactful project. Grand Ronde has already committed countless hours from its leadership and staff towards this much-needed bridge project, and it would be unacceptably wasteful for us to have to start all over yet again if the project experiences delays, staff changes, or other disruptions.
7-27	23	Technical Reports Attachment	Water Quality and Hydrology Technical Report		See Comment	Same comments as above comment for Section 3.14
7-28	24	Technical Reports Attachment	Wetlands and Other Waters Technical Report		See Comment	Same comments as above comment for Section 3.15
7-29	25	Technical Reports Attachment	Ecosystems Technical Report	3-33 2-1	Wapato (Sagittaria latifolia) and cattail (Typha latifolia), two herbaceous wetland plants with important cultural significance as traditional food, craft, and medicinal sources for several Native American tribes, have been documented within herbaceous wetlands in the study areas. The methods and analysis were designed to comply with NEPA and relevant federal, state, and local laws and builds on those developed for the CRC project. To address the potential environmental impacts associated with the Modified LPA, the methods used for this ecosystems analysis have been updated for the IBR Program to reflect changes in regulations and policy, data sources, and physical conditions, and as follows: • Compile an updated/current list of species of interest (SOI)9 from local, state, and federal resource and management agencies. • Review available geographic information system (GIS) data regarding species/habitat presence and baseline habitat condition. • Review and update as necessary SOI life-history and habitat requirements to reflect changes in best available science. • Conduct supplemental field surveys as necessary to validate or update baseline assumptions. • Review changes to local, state, and federal regulatory/policy regarding ecosystem management, evaluation of effects, and compensatory mitigation. • Discusses potential impacts on ecosystem resources with species experts, local resource managers, and agency biologists. 9 SOI is not a specific category of governmental or nongovernmental organization-designated species, but rather refers to native species identified through tribal, local, state, and federal coordination as locally important due to their regulatory status, rarity, and/or special habitat considerations.	Note that Wapato and Cattail are named in the Ecosystems Technical Report as Species of Interest (SOI) but did not make it to the Botanical SOI list. table. The SOI list was stated to have been updated with input from federal, state, and local resource management agencies and tribal resource staff. Yet tribes are missing from the SOI list methodology development (See the Ecosystems Technical Report pg. 3-33) and several key tribal SOI are missing. Once these species are added, the CTGR would like the Botanical SOI list in the relevant sections of the report mentioned in above comments.
7-30	26	Technical Reports Attachment	Geology and Groundwater Technical Report		See Comment	Same comments as above comment for Section 3.17
7-31	27	Technical Reports Attachment	Environmental Justice Technical Report		See Comment	Same comments as above comment for Section 3.20

Response to Submission 7: Confederated Tribes of the Grand Ronde (November 8, 2024)

7-1
Thank you for submittal of your comment letter, cultural context statement, and comment matrix.

7-2
Thank you for submitting your comments on the Draft Supplemental Environmental Impact Statement (SEIS) as part of ongoing consultation. Please see responses to individual comments.

7-3
The Home on Lower Columbia River: A Grand Ronde Context Statement for the Interstate Bridge Replacement Program geographic context statement, dated November 29, 2023, which was submitted to the IBR Program by the CTGR, has been included as an appendix to the Archaeological Technical Report. While the Archaeological Technical Report was not included as an attachment to the Draft SEIS because it contains sensitive information, the sensitive information within the report will be redacted and the report will be made available to the public as part of the Final SEIS. Since the context statement prepared by CTGR has been written to be a publicly available document, it will be included as written in the Final SEIS.

7-4
The IBR Program's Draft SEIS is a draft National Environmental Policy Act (NEPA) document, not a final NEPA document like the 2011 Columbia River Crossing (CRC) Environmental Impact Statement (EIS) and Record of Decision (ROD). A Draft EIS is published at an earlier stage in the NEPA process using the best available information at the time, although some information may not yet be finalized. The level of detail provided in the IBR Program's Draft SEIS was intended to provide the public and interested parties with the available information about the Modified Locally Preferred Alternative (LPA) and to inform the Program's identification of the IBR Program Recommended Design Options. The Final SEIS identifies the Program Recommended Design Options and provides additional details on the mitigation measures based on those decisions, similar to the Final EIS issued by the CRC Project in 2011. Wetland compensatory mitigation is discussed in Section 3.15.6 of the Final SEIS, and further details will be determined through the subsequent permitting process with the regulatory agencies. The IBR Program has shared information on habitat mitigation efforts and sought input from the Confederated Tribes of Grand Ronde (CTGR) through intertribal and interagency meetings beginning in 2021 as well as individual consultation efforts initiated in 2023. The IBR Program looks forward to continued consultation with the Tribe.

7-5
The Tribal Consultation Plan was developed by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), in coordination with the Oregon Department of Transportation (ODOT) and Washington Department of Transportation (WSDOT), and was initially shared with tribes for consultation in April 2023, with a subsequent document provided in October 2023.

Also in 2023, as part of the Section 106 process, the Program began consulting on the preparation of a Programmatic Agreement (PA). Consultation on the PA has progressed during 2024 to include stipulations that describe the processes by which Section 106 will continue after the PA is executed and through construction of the Program. This includes the processes by which input will be sought from consulting tribes, including the CTGR, on Section 106 matters. An executed, signed Final PA will be attached to the Amended Record of Decision.

For government-to-government consultation pertaining to issues outside the Section 106 process, the Program will continue to use the Tribal Consultation Plan consulted on in 2023, as well as ODOT, WSDOT, FHWA, and FTA tribal consultation best practices guidance. Consultation will continue with your Tribe on all areas of interest to you as the Program progresses, including updating the Tribal Consultation Plan as appropriate.

7-6
The Section 106 PA is the agreement that will guide the process by which FHWA and FTA consult with all consulting parties, including consulting tribes, for the purpose of Section 106 compliance. The Program is actively consulting with the Tribe on the PA. The Tribal Consultation Plan was initially shared with tribes for consultation in April 2023, and a subsequent version shared in October 2023 will apply for government-to-government consultation pertaining to issues outside the Section 106 process. The Final draft PA has been included as an appendix to the Final SEIS. An executed, signed Final PA will be attached to the Amended Record of Decision.

7-7
The IBR Program's Draft SEIS is a draft NEPA document, not a final NEPA document like the 2011 CRC EIS and ROD. A Draft EIS is published at an earlier stage in the NEPA process using the best available information at the time, although some information may not yet be finalized. The level of detail presented in the IBR Program's Draft SEIS is intended to provide the public and interested parties with the available information about the Modified LPA and to inform the Program's identification of the IBR Program Recommended Design Options. The Final SEIS identifies the Program Recommended Design Options and provides additional details on the mitigation measures based on those decisions, similar to the Final EIS issued by the CRC Project in 2011. Wetland compensatory mitigation is discussed in Section 3.15.6 of the Final SEIS, and additional details will be determined by the regulatory agencies during the permitting process. The IBR Program welcomes the continued consultation of the CTGR, particularly pertaining to issues of tribal access to wetland mitigation sites.

7-8
Increased mitigation ratios are not known at this time; they will be prescribed by the

regulatory agencies during the permitting process. For clarity, the Summary section text identified in the comment was revised in the Final SEIS to include the following: "Increased mitigation ratios are not known and would be dictated by the regulatory agencies during the permitting process."

7-9
Thank you for this comment and for confirming consistency with current best management practices for Pacific lamprey.

7-10
Section 3.16, Ecosystems, of the Draft and Final SEIS and the Ecosystems Technical Report identify certain species as "Species of Interest" (SOI). The Draft and Final SEIS and Ecosystems Technical Report evaluate the potential reasonably foreseeable effects of the Modified LPA to all species, not just those species identified as SOI. SOI is not a category of a government-regulated species or designation of a nongovernmental organization. Rather it refers to a subset of native species that were identified (through tribal, local, state, and federal coordination) as warranting specific evaluation due to regulatory status, rarity, and/or special habitat considerations. The SOI lists are not intended to represent a comprehensive list of all species in the ecosystems study area that are of particular cultural importance to tribes or that provide important ecological function. For clarification, this distinction has been added to the definition of SOI in Section 2 of the Ecosystems Technical Report and to Section 3.16, Ecosystems, of the Final SEIS.

7-11
The list of appendices has been added to the table of contents of the Final SEIS. The list of technical reports is included as Appendix H to both the Draft and Final SEIS.

7-12
The Tribal Consultation Plan, initially shared with tribes in a draft form for consultation in April 2023, with a subsequent version shared on October 19, 2023, is a guidance document, not an agreement document. As such, a process of signature or execution was not intended and is not required for implementation. FHWA, FTA, and the IBR Program are committed to continuing consultation, including updating the Tribal Consultation Plan as appropriate.

7-13
Context statements prepared by consulting tribes, including the Confederated Tribes of Grand Ronde, were included as Appendix B of the Archaeological Technical Report of the Draft SEIS. The context statements have been made available to the public in Appendix R of the Final SEIS.

7-14
Section 3.8.2 has been revised to incorporate this additional information.

7-15
Language in Section 3.8, Cultural Resources, of the Final SEIS that summarizes existing conditions for archaeological sites has been revised to acknowledge previous archaeological studies performed for the CRC project, including those that identified locations having the potential for encountering deeply buried archaeological deposits. While there is already language in this section stating that further studies will be performed through phased identification as allowed under Section 106 of the National Historic Preservation Act (36 Code of Federal Regulations 800.4(b)(2)) and would be stipulated in the Section 106 PA, this section has been revised to also specify applicability of Attachment D: Archeological Resources Identification, Monitoring, and Treatment Plan. The Final draft PA has been included as an appendix to the Final SEIS. An executed, signed Final PA will be attached to the Amended Record of Decision.

7-16
As written, this bullet was focused specifically on regulatory requirements related to the federal Endangered Species Act (ESA), so it necessarily focused on ESA-listed species and critical habitats. Section 3.16, Ecosystems, has been updated in the Final SEIS to clarify this distinction and also to acknowledge the need to avoid undue impacts to all species and habitats of interest.

7-17
Section 3.16, Ecosystems, of the Draft and Final SEIS and the Ecosystems Technical Report identify certain species as "Species of Interest" (SOI). The Draft and Final SEIS and Ecosystems Technical Report evaluate the potential reasonably foreseeable effects of the Modified LPA to all species, not just those species identified as SOI. SOI is not a category of a government-regulated species or designation of a nongovernmental organization. Rather it refers to a subset of native species that were identified (through tribal, local, state, and federal coordination) as warranting specific evaluation due to regulatory status, rarity, and/or special habitat considerations. The SOI lists are not intended to represent a comprehensive list of all species in the ecosystems study area that are of particular cultural importance to tribes or that provide important ecological function. For clarification, this distinction has been added to the definition of SOI in Section 2 of the Ecosystems Technical Report and to Section 3.16, Ecosystems, of the Final SEIS.

Thank you for expressing support for use of indigenous plants in replanting areas temporarily disturbed by construction.

7-18
The IBR Program welcomes the Tribe's ongoing consultation and looks forward to your comments when more information is available to share with you.

7-19
The Ecosystems Technical Report methodology has been updated to note tribal coordination in the development of the SOI list. A list of species that are culturally important to the CTGR and other tribes would be much more extensive than those on the SOI list that are referenced in the Draft SEIS and the Ecosystems Technical Report. A clarification has been added to the definition of SOI in Chapter 2 of the Ecosystems Technical Report that the SOI lists are not intended to represent a comprehensive list of all species that reside in the study area, that are of particular cultural importance to tribes, or that provide important ecological function.

7-20
Wapato and cattail are not specifically designated as SOI, but the Ecosystems Technical Report mentions these two species as having important cultural significance. The discussion of SOI has been updated in the Final SEIS and the Ecosystems Technical Report to clarify the definition of SOI and to make clear that it is not intended to represent a comprehensive list of all species that reside in the study area, that are of particular cultural importance to tribes, or that provide important ecological function.

7-21
Language acknowledging compliance with the Post Review Discovery Plan (PRDP), also known as an “IDP,” which is included as Attachment F of the Section 106 PA, has been incorporated into Section 3.17, Geology and Groundwater, Table 3.17-3, of the Final SEIS. Additionally, the contractor portion of the PRDP will be included as a contract condition for contracts involving ground disturbance. The Final draft PA has been included as an appendix to the Final SEIS. An executed, signed Final PA will be attached to the Amended Record of Decision.

7-22
The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) have the authority to set toll rates and policies, including exemptions and discounts. OTC and WSTC would jointly establish toll rates and any applicable policies (e.g., variations based upon time of day) for the IBR Program. The OTC and WSTC would adopt toll rates, including exemptions and discounts, six to nine months before pre-completion tolling begins on the Interstate Bridge. Formal action will be needed by OTC and WSTC in order to implement rates and policies, including discounts and exemptions. It is anticipated that tolling would begin on the existing Interstate Bridge in 2028. For more information, see Tolling Standard Response L.24: Tolling Exemptions and Discounts.

The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) will jointly set toll rates and policies for the IBR Program, including discounts or exemptions, such as tribal exemptions. It is anticipated that tolling would begin in 2028 on the existing Interstate Bridge, referred to as "pre-completion tolling," allowing time after receiving an Amended Record of Decision to hire a contractor, install tolling equipment, and conduct the rate-setting process. Toll rates, including discounts and exemptions, would be adopted approximately six to nine months before pre-completion tolling begins on the Interstate Bridge. Exemptions for specific trip types or purposes have not been identified yet. Formal action will be needed by OTC and WSTC in order to implement rates and policies, including discounts and exemptions.

Thank you for commenting regarding CTGR’s preference on tolling exemptions. Consultation invitations regarding tolling and tolling exemptions were extended to CTGR by the Transportation Commissions on May 29, 2024. The IBR Program will share CTGR's comment with the Transportation Commissions; however, please be advised that IBR, FHWA, and FTA are not the consulting authorized agencies for tolling and do not have a role in decision-making regarding toll exemptions. As such, the IBR Program, FHWA, and FTA cannot presume any toll exemptions will be issued, and the IBR Program must abide by toll rules and rates, including discounts and exemptions authorized by the Transportation Commissions. The CTGR will need to consult with the Transportation Commissions directly regarding tolling. The IBR Program looks forward to continuing direct consultation with CTGR on other matters.

7-23
Section 3.16, Ecosystems, of the Draft and Final SEIS and the Ecosystems Technical Report identify certain species as "Species of Interest" (SOI). The Draft and Final SEIS and Ecosystems Technical Report evaluate the potential reasonably foreseeable effects of the Modified LPA to all species, not just those species identified as SOI. SOI is not a category of a government-regulated species or designation of a nongovernmental organization. Rather it refers to a subset of native species that were identified (through tribal, local, state, and federal coordination) as warranting specific evaluation due to regulatory status, rarity, and/or special habitat considerations. The SOI lists are not intended to represent a comprehensive list of all species in the ecosystems study area that are of particular cultural importance to tribes or that provide important ecological function. For clarification, this distinction has been added to the definition of SOI in Section 2 of the Ecosystems Technical Report and to Section 3.16, Ecosystems, of the Final SEIS.

7-24
The IBR Program welcomes the Tribe's ongoing consultation and looks forward to your comments when more information is available to share with you.

7-25
The IBR Program recognizes the request for access to future ODOT/WSDOT- owned

mitigation sites and looks forward to coordinating with the CTGR on this request. However, the IBR Program does not have authority to grant access to privately owned mitigation banks. The IBR Program recommends that the CTGR contact the private bank sponsors directly pertaining to this request.

7-26
The Tribal Consultation Plan was initially shared with tribes in draft form for consultation in April 2023, and a subsequent version was shared on October 19, 2023. The Tribal Consultation Plan is a guidance document, not an agreement document. As such, a process of signature or execution was not intended and is not required for implementation. FHWA, FTA, and the IBR Program are committed to continuing consultation, including updating the Tribal Consultation Plan as appropriate.

7-27
Section 3.16, Ecosystems, of the Draft and Final SEIS and the Ecosystems Technical Report identify certain species as "Species of Interest" (SOI). The Draft and Final SEIS and Ecosystems Technical Report evaluate the potential reasonably foreseeable effects of the Modified LPA to all species, not just those species identified as SOI. SOI is not a category of a government-regulated species or designation of a nongovernmental organization. Rather it refers to a subset of native species that were identified (through tribal, local, state, and federal coordination) as warranting specific evaluation due to regulatory status, rarity, and/or special habitat considerations. The SOI lists are not intended to represent a comprehensive list of all species in the ecosystems study area that are of particular cultural importance to tribes or that provide important ecological function. For clarification, this distinction has been added to the definition of SOI in Section 2 of the Ecosystems Technical Report and to Section 3.16, Ecosystems, of the Final SEIS.

7-28
The IBR Program welcomes the Tribe's ongoing consultation and looks forward to your comments when more information is available to share with you.

7-29
Wapato and cattail are not specifically designated as SOI, but the Ecosystems Technical Report mentions these two species as having important cultural significance. The Ecosystems Technical Report methodology has been updated to note tribal coordination in the development of the SOI list. The discussion of SOI has been updated in Section 3.16, Ecosystems, of the Final SEIS and the Ecosystems Technical Report to clarify the definition of SOI and to make it clear that it is not intended to represent a comprehensive list of all species that reside in the study area that are of particular cultural importance to tribes or that provide important ecological function.

7-30
Language acknowledging compliance with the PRDP, also known as an “IDP,” which is included as Attachment F of the Section 106 PA, has been incorporated into Section 3.17, Geology and Groundwater, Table 3.17-3, of the Final SEIS. Additionally, the contractor portion of the PRDP will be included as a contract condition for contracts involving ground disturbance. The Final draft PA has been included as an appendix to the Final SEIS. An executed, signed Final PA will be attached to the Amended Record of Decision.

7-31
The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) have the authority to set toll rates and policies, including exemptions and discounts. OTC and WSTC would jointly establish toll rates and any applicable policies (e.g., variations based upon time of day) for the IBR Program. The OTC and WSTC would adopt toll rates, including exemptions and discounts, six to nine months before pre-completion tolling begins on the Interstate Bridge. Formal action will be needed by OTC and WSTC in order to implement rates and policies, including discounts and exemptions. It is anticipated that tolling would begin on the existing Interstate Bridge in 2028. For more information, see Tolling Standard Response L.24: Tolling Exemptions and Discounts.

The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) will jointly set toll rates and policies for the IBR Program, including discounts or exemptions, such as tribal exemptions. It is anticipated that tolling would begin in 2028 on the existing Interstate Bridge, referred to as "pre-completion tolling," allowing time after receiving an Amended Record of Decision to hire a contractor, install tolling equipment, and conduct the rate-setting process. Toll rates, including discounts and exemptions, would be adopted approximately six to nine months before pre-completion tolling begins on the Interstate Bridge. Exemptions for specific trip types or purposes have not been identified yet. Formal action will be needed by OTC and WSTC in order to implement rates and policies, including discounts and exemptions.

Thank you for commenting regarding CTGR’s preference on tolling exemptions. Consultation invitations regarding tolling and tolling exemptions have been extended to CTGR by the Transportation Commissions; to date, CTGR has not provided formal comment or engaged in consultation based on those invitations. The IBR Program will share CTGR's comment with the Transportation Commissions; however, please be advised that the IBR Program, FHWA, and FTA are not the consulting authorized agencies for tolling, and CTGR will need to consult with the Transportation Commissions directly regarding tolling. The IBR Program looks forward to continuing direct consultation with CTGR on other matters.

Submission 8: Cowlitz Indian Tribe (November 19, 2024)

COWLITZ INDIAN TRIBE

November 18, 2024

Greg Johnson, Program Administrator
Interstate Bridge Replacement Program
500 Broadway Street, Suite 200
Vancouver, WA 98660

SENT VIA EMAIL:
draftseis@interstatebridge.org

RE: Interstate Bridge Replacement Program Draft SEIS Tribal Comment

Dear Mr. Johnson:

8-1 Thank you for the opportunity to comment on the Interstate Bridge Replacement (IBR) Program's Draft Supplemental Environmental Impact Statement (Draft SEIS). The Draft SEIS evaluates impacts and alternatives of proposed bridge, transit, active transportation, and highway improvements within a 5-mile corridor of I-5 between Portland, Oregon, and Vancouver, Washington.

The Cowlitz Indian Tribe (Tribe) is a federally recognized Indian Tribe of southwest Washington and northern Oregon. As the IBR Program is aware, the IBR project footprint is located within the Tribe's aboriginal territory, which includes lands on both sides of the lower Columbia River. Since Time Immemorial, Cowlitz people have maintained a continuous presence in this area. The historic Cowlitz Trail, a traditional route for trade, transportation, and relationship-building, underlies much of what is now I-5 between the Columbia River and the southern reaches of Puget Sound. The Tribe's Reservation, home to Tribal enterprises and several government offices, is in nearby Ridgefield, Washington, a short drive on I-5 from the IBR project. The Tribe also has offices in Vancouver, Washington.

The IBR project will affect the Tribe's ancestral lands, natural and cultural resources, and self-determination and economic development initiatives. The Tribe appreciates the IBR team's coordination and consultation in development of the Draft SEIS. Overall, the Tribe supports the IBR Program's proposal to replace the aging I-5 bridge over the Columbia River with a safer, seismically resilient multimodal structure. However, the Tribe remains concerned about project-related impacts. It is critical that meaningful Tribal consultation continues to ensure there will be sufficient mitigation of adverse effects.

The Tribe wishes to submit the following specific comments on the Draft SEIS:

8-2 **1) 3.3 Property Acquisitions and Displacements / 3.3.3 Long-Term Benefits and Effects**

Fort Vancouver and the surrounding areas are of great historical and cultural importance to the Cowlitz Indian Tribe. The Cowlitz played a central role in the fur trade and controlled a trade route crucial to Fort Vancouver in the early 1800s; Cowlitz people historically lived in the area adjacent to Fort Vancouver and in the surrounding area. Figures 3.3-2 (p. 3.3-5) and 3.3-3 (p. 3.3-6) depict "Partial Acquistion" for the entirety of Fort Vancouver and the landing along the Columbia River (opposite SR-14 from the Fort itself). The Acquisitions Technical Report (Appendix Tables A4 and A5, p. A4-1 to A5-3) identifies permanent and temporary impacts to portions of parcel #38279914 at 1105 E 5th St, Vancouver, 98661 (Fort Vancouver National Historic Site), but does not indicate which areas will be impacted. The Draft Section 4(f) Evaluation provides additional context on use of the Fort Vancouver National Historic Site for the various Modified Locally Preferred Alternative (LPA) design options and anticipates that the proposed use would result in a greater than *de minimis* impact. As designs progress and more details become available, and there is further Tribal consultation, the Tribe will have more comments on this topic. For now, we remain concerned about potential adverse effects to cultural resources in and around Fort Vancouver and the Cowlitz Trail.

8-3 **2) 3.5 Neighborhoods and Equity / Terms and Definitions**

The Tribe is disappointed to see that Tribal Governments are included in the IBR Program's definition of "equity priority communities," i.e., those who have experienced discrimination based on identity or status (p. 3.5-1). Unlike other equity priority communities, federally recognized Tribes are sovereign nations, to whom the Federal Government owes a trust responsibility. Tribes have distinct political, legal, cultural, social, and economic interests that should not be overlooked or minimized (and that are not equivalent to impacts to equity priority communities) when examining environmental justice issues.

8-4 **3) 3.5 Neighborhoods and Equity / 3.5.4 Long-term Benefits and Effects**

The section on Tribal Government Consultation characterizes the government-to-government consultation process as one that "enables [T]ribal [G]overnments to understand the Program, ask questions, and participate in issue identification and solution strategies (…)" (p. 3.5-24). The Tribe recommends rephrasing this section for greater alignment with the guiding principles of Executive Order 13175 (65 FR 67249) and the Presidential Memorandum on Uniform Standards for Tribal Consultation (87 FR 74479). Meaningful consultation is a two-way exchange of information. It is designed to ensure that all applicable information is readily available to the parties involved, so they can strive for informed consensus on issues with Tribal implications.

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4) 3.8 Cultural Resources / 3.8.2 Existing Conditions

8-5 Figures 3.8-1 (p. 3.8-7), 3.8-3 (p. 3.8-18), and 3.8-4 (p. 3.8-23) show a gap in the Area of Potential Effects (APE) between the shipping lanes of the Columbia River and the northern riverbank along Fort Vancouver. There is no apparent rationale for this gap. The Tribe recommends that this stretch of shoreline be included in the APE so that direct or indirect effects on any cultural resources that lie within it can be adequately assessed.

8-6 The section on Cultural Resources Identified / Archaeological Sites (p. 3.8-12) references a set number of archaeological sites per state. The Tribe emphasizes that these are *currently documented* sites by the IBR Program. Further investigations and consultations with Tribes may reveal additional sites (as formal consultation with Tribes is ongoing under the National Historic Preservation Act Section 106).

8-7 The Draft SEIS must include a more robust and detailed statement regarding Tribal land occupation and other elements of Native American historical involvement prior to 1824 within (and in the vicinity of) the APE. The Tribe recommends that further discussion of Tribal involvement in trade and other activities at Fort Vancouver also be included (p. 3.8-10, "Washington" subheading). This additional description of Tribal historical connections is needed to more fully explain the historical context as the backdrop for the subsequent discussion of potential impacts to Tribal cultural resources, archeological and burial sites – particularly given the extent of affected cultural resources already identified within the APE.

5) 3.8 Cultural Resources / 3.8.3 Direct Effects

8-8 Table 3.8-9 (p. 3.8-37) states the following with regards to the Vancouver Barracks Post Hospital:

> *The Modified LPA could result in physical destruction or damage to the property. Vibratory effects from the replacement of the highway retaining wall and upgrades to the roadbed are expected to impact the Post Hospital, which is a contributing component of this district. Physical damage from vibration is anticipated due to the building's unreinforced masonry construction and proximity to construction activities (as close as 6 feet). Although the severity of potential damage from construction-related vibration cannot be readily evaluated in advance, a worst-case scenario assumes the potential for structural damage to the Post Hospital. Such damage would render the building unusable or result in its partial or complete collapse* (...).

Just as historic buildings can be damaged by construction-related vibration, so too can Tribal cultural resources. Most of Chapter 3.11 and the Noise and Vibration Technical Report focus on noise

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8-8 impacts to structures and associated mitigation measures. Tribes hold Indigenous Knowledge of cultural resources that may not be found in public records or archaeological databases. As the project advances and the Draft Programmatic Agreement concerning implementation of Section 106 of the National Historic Preservation Act is finalized, continued dialogue with Tribes will be essential for avoiding and minimizing impacts to sensitive cultural resources.

6) 3.16 Ecosystems / 3.16.2 Existing Conditions

8-9 Cowlitz people have always been stewards of the lower Columbia River Basin. The Tribe's culture and well-being depend upon clean water, abundant fish and wildlife, and a healthy, flourishing river ecosystem. The Tribe partners with federal, state, and local agencies, non-governmental organizations, and other Tribes across the basin to implement fish and wildlife habitat restoration projects and promote recovery of at-risk species.

8-10 The IBR project represents a major transportation infrastructure project in a key stretch of the Columbia River. It has a large physical footprint, a lengthy construction timeline (up to 15 years), and requires extensive in-water work spanning many years. It will involve temporary and permanent alteration of terrestrial and aquatic habitat, water quality effects, impacts associated with disturbance and noise, shading, flow path changes, predation pressure, and more. Many of the impacts are complex and difficult to quantify. Some could affect fish migration and foraging patterns as well as fishing opportunities.

8-11 Table 3.16-2 (p. 3.16-9 to 3.16-11) identifies "aquatic species of interest" that may occur within the study area. As the Tribe has previously shared with the IBR team, the Tribe is especially concerned about project-related impacts to anadromous fish (i.e., multiple salmonids, Pacific eulachon, Pacific and river lamprey, green and white sturgeon). Anadromous fish stocks across the basin are already struggling. All depend on healthy habitat in the lower Columbia River and estuary as they head out to sea and upon their return to freshwater. The IBR project will harm these culturally and ecologically significant fish species, underscoring the importance of a robust mitigation and conservation plan.

7) 3.16 Ecosystems / 3.16.3 Long-Term Benefits and Effects

8-12 According to Table 3.16-8 (p. 3.16-20), each of the proposed bridge configurations will have substantial ecosystem effects. A single-level movable span configuration with two auxiliary lanes has often been characterized in IBR Habitat Mitigation Workgroup meetings as a "worst-case scenario" since it would result in the greatest amount of benthic habitat impact, overwater shading (water surface shading and elevated deck shading), and impervious surface area. The Tribe favors a bridge design that will meet the project purpose/need with the least impact on natural and cultural

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8-12 resources. From the options presented to date, the Modified LPA with double-deck fixed-span bridge configuration and a single auxiliary lane appears to strike this balance. All the same, the Tribe recognizes that design components are still being developed, and that selection and further refinement of preferred options could affect the scope and scale of impacts, benefits, and mitigation measures.

8) 3.16 Ecosystems / 3.16.4 Temporary Effects

8-13 The Draft SEIS discusses in-water work timing for the IBR project. It states that impact pile driving would occur from September 15th to April 15th of each year, in-water debris removal with a bucket dredge would occur from November 1st to February 28th of each year, and that other in-water and overwater construction activities would be allowed year-round if they are conducted in compliance with permit conditions (p. 3.16-29).

In-water work windows are a useful tool for protecting fish and other aquatic life from disturbance, injury, and mortality, but they have limitations. Some species and life stages may be present year-round. Others may be poorly documented or have variable presence in an area. In either case, the Tribe's opinion is that general timing restrictions, as currently outlined, will not be adequate. Moreover, for the IBR project, the proposed in-water work timing represents a departure from standard in-water work windows in the lower Columbia River (see the Ecosystems Technical Report, p. 5-1 to 5-2). The timing was selected as a compromise between 1) extending the number of in-water work seasons and increasing project costs or 2) avoiding the most sensitive periods for some salmonids. The proposed "relaxed" in-water work timing for the IBR project will lead to even more impacts to anadromous fish.

Pacific eulachon and chum salmon are among focal species for the Cowlitz Indian Tribe. The Tribe is very concerned that their typical peak run timing fully overlaps the selected IBR in-water work windows for impact pile driving and in-water debris removal. Federally threatened eulachon are broadcast spawners whose eggs adhere to sandy substrate. They spawn in the mainstem and several tributaries below Bonneville Dam, often reaching peak tributary abundance in February. Federally threatened chum salmon spawn in the mainstem just upstream of the I-205 bridge, typically from November to December. Due to their small size at outmigration, young chum salmon may be especially vulnerable to in-water work effects.

The Tribe mentions these examples to reiterate the importance of a robust mitigation and conservation plan. The plan should provide clear benefits to fish stocks that may be adversely affected by the IBR project.

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9) 3.16 Ecosystems / 3.16.6 Potential Avoidance, Minimization, and Mitigation Measures

8-14 The Draft SEIS includes few specifics on compensatory mitigation plans. The Tribe supports the IBR Program's efforts to adhere to the mitigation sequence (i.e., designing the project in ways that first avoid, minimize, rectify, and reduce impacts to natural resources to the greatest extent practicable). For unavoidable impacts, the Tribe does not object to the IBR Program's proposal to prioritize purchase of credits from area mitigation banks in both Oregon and Washington to satisfy regulatory requirements.

8-15 Regardless of the mitigation mechanism selected, the Tribe urges the IBR Program to adopt a mitigation framework that adheres to the precautionary principle, maintains habitat functions and values, and ensures that compensation is high enough to buffer against risk of mitigation failure or underperformance. This will be especially important as climate change exerts increasing effects on natural systems, including mitigation sites. The Tribe also recommends effectiveness monitoring and adaptive management components to ensure that performance standards are met on the ground.

8-16 The Ecosystems Technical Report contemplates net benefits to some ecosystem resources from compensatory mitigation and alludes to the IBR Program's conservation initiative, or what the Tribe understands as a commitment by the IBR Program to provide "conservation uplift" to species and habitat types impacted by the project; this initiative would go beyond compensatory mitigation required by federal, state, and local regulatory agencies. The Tribe looks forward to receiving more details on this initiative. The Tribe would like to see a suite of projects funded and implemented that directly benefit aquatic species of concern to Tribes.

10) Ecosystems Technical Report / 7. Proposed Mitigation for Adverse Effects

8-17 Section 7 of the Ecosystems Technical Report identifies regulatory requirements and best management practices for avoiding and minimizing project-related effects on ecosystem resources. The Tribe recommends addressing invasive species prevention and response in this section. There is a reference to cleaning and inspecting equipment for noxious weeds on p. 7-3, which is appropriate, but the Tribe is also concerned about other invasive plants, animals, soil residue or debris that could harbor pests or pathogens. Invasive species pose serious threats to Columbia River ecosystems and economies, and preventing their spread is the best approach for avoiding their many costs and impacts.

8-18 Thank you for considering the Tribe's comments, and for including them in the public record of comments on the Draft SEIS. The Tribe looks forward to further coordination and consultation with the IBR team. Collaborating on ways to avoid, minimize, and mitigate project-related impacts before they arise will be critical for successful outcomes. For questions concerning this letter, please

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8-18 contact James Gordon, Tribal Historic Preservation Officer, and Christina Donehower, Natural Resources Policy Analyst. James can be reached at jgordon@cowlitz.org or (360) 957-3004, and Christina can be reached at cdonehower@cowlitz.org or (360) 506-1848.

Sincerely,

COWLITZ INDIAN TRIBE

Bill Iyall (Nov 18, 2024 15:51 PST)

William B. Iyall, P.E.
Tribal Chairman

CC: Kassandra Rippee, Tribal Liaison, IBR Program
Hayli Reff, Cultural Resources Program Manager, IBR Program
Chris Regan, Environmental Manager, IBR Program

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Response to Submission 8: Cowlitz Indian Tribe (November 19, 2024)

8-1
Thank you for your comment.

8-2
Thank you for your request to better understand the specific locations where permanent and temporary impacts would occur to portions of Parcel 38279914 at 1105 E 5th Street, Vancouver, WA 98661 (Fort Vancouver National Historic Site), which is included in the Vancouver National Historic Reserve. Figure B-4, which is included in Appendix B of the Acquisitions Technical Report, shows locations at the Fort Vancouver National Historic Site where the Modified LPA would result in partial acquisition or temporary construction easement. In addition, Figure 3.7-3 in Section 3.7, Parks and Recreation, shows additional detail regarding permanent and temporary impacts in this parcel.

Consultation with the Cowlitz Indian Tribe will continue as the Modified LPA design progresses and more detail about the locations of impacts and opportunities for avoidance and minimization of impacts are known, including those related to Fort Vancouver and the Cowlitz Trail. Section 106 consultation will be conducted with the Tribe through the processes outlined in the Programmatic Agreement (PA), particularly those related to archaeological investigations, evaluations, assessment of effects, and resolution of adverse effects (Stipulation V); consultation regarding changes in program design and construction projects (Stipulation VI); historic properties of religious and cultural significance to the Tribes (Stipulation VII); post-review discoveries (Stipulation VIII); and treatment of human remains (Stipulation IX).

For Section 4(f), the IBR Program will consult with you in cases where the Section 106 process identifies new historic properties eligible for the National Register of Historic Places (NRHP), which are Section 4(f) historic sites, or in cases where new design information requires reassessment of findings of effects for known NRHP-eligible historic properties and subsequent reevaluation under Section 4(f). The Final draft PA has been included as an appendix to the Final SEIS. An executed, signed Final Programmatic Agreement will be attached to the Amended Record of Decision.

8-3
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental

Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

As noted in Section 3.5, Neighborhoods and Communities, of the Draft and Final SEIS, the IBR Program acknowledges the sovereignty of the tribes and has been conducting, and is committed to, government-to-government consultation with tribes on projects that may affect tribal rights and resources. The government-to-government consultation goals and process are documented in Appendix A, Agency and Tribal Coordination, of the Draft and Final SEIS.

8-4
Section 3.5, Neighborhoods and Communities, of the Final SEIS has been revised to include language consistent with the IBR Program Tribal Consultation Plan, which the Cowlitz Indian Tribe has reviewed. The added language in Section 3.5.3 has been rephrased to: "This process enables FHWA [Federal Highway Administration], FTA [Federal Transit Administration], the IBR Program team, and the consulting tribes to engage in an open and meaningful exchange of information about and to ensure tribal input is considered during the decision-making process."

8-5
Thank you for this input. However, the IBR Program does not anticipate any Modified LPA activities in this location that would represent the potential to affect historic properties, if present. This area is also not within 100 feet of the primary study area; therefore, it is not included in the area of potential effects (APE) buffer, as described in Section 3.8.2. As such, no change has been made to the APE to include the area requested.

8-6
Language has been added to the referenced section to clarify: "Further studies will be performed through phased identification, and associated consultation with tribes and other consulting parties, as allowed under Section 106 of the National Historic Preservation Act (36 CFR [Code of Federal Regulations] 800.4 (b)(2)). This process is stipulated in the Section 106 PA, and will be conducted in compliance with processes specified in the Archaeological Resources Identification, Monitoring, and Treatment Plan (Attachment D of the Section 106 PA)." The Final draft PA has been included as an appendix to the Final SEIS. An executed, signed Final PA will be attached to the Amended Record of Decision.

8-7
The Cowlitz Indian Tribe: Geographic Context Statement, dated November 7, 2023, which was submitted to the IBR Program by the Cowlitz Indian Tribe, has been included as an appendix to the Archaeological Technical Report. While the Archaeological Technical Report was not included as an attachment to the Draft SEIS because it contains sensitive information, the sensitive information within the report will be redacted and the report will be made available to the public as part of the Final SEIS. Since the context statement prepared by Cowlitz Indian Tribe has been written to be a publicly available document, it will be included as written in the Final SEIS.

8-8
Thank you for your comment.

Thank you for expressing your concern regarding the potential for construction-related vibration to affect tribal cultural resources. The Section 106 PA includes Stipulation VII, Historic Properties of Religious and Cultural Significance to the Tribes, which outlines processes for continued consultation; identification of tribal cultural resources; assessment of effects to those resources; and resolution of new adverse effects. This will include continued consultation with the Cowlitz Indian Tribe as well as other consulting parties. If tribal cultural resources are identified in the APE, and the nature of those resources is such that vibration monitoring is appropriate, the process described in Attachment C to avoid or minimize potentially adverse vibratory effects to those resources would apply. The Final draft PA has been included as an appendix to the Final SEIS. An executed, signed Final PA will be attached to the Amended Record of Decision.

8-9
Thank you for your comment.

8-10
Section 3.16, Ecosystems, of the Draft and Final SEIS and Ecosystems Technical Report include an analysis of each of these temporary and permanent reasonably foreseeable effects of the Modified LPA and describe the mitigation actions to which the IBR Program is committing to offset these effects. The IBR Program looks forward to continuing consultation regarding mitigation for impacts to fish, fish populations, and fishing opportunities with the Cowlitz Indian Tribe.

8-11
Section 3.16, Ecosystems, of the Draft and Final SEIS and Ecosystems Technical Report include an analysis of the Modified LPA's potential impacts to each of these species and describe the mitigation actions to which the IBR Program is committing to control, minimize, and offset these impacts. The proposed Modified LPA would be designed to avoid, minimize, rectify, and reduce impacts to aquatic species and their habitats (as well as other sensitive ecosystem resources, such as wetlands and terrestrial habitats) to the extent practicable. It is anticipated that the Modified LPA would result in some unavoidable impacts that would require compensation. Compensatory mitigation plans will be prepared for unavoidable impacts to aquatic species and their habitats to demonstrate that the Modified

LPA would result in “no net loss” of function of these resources. The IBR Program looks forward to continuing consultation regarding habitat mitigation opportunities with the Cowlitz Indian Tribe.

8-12
Chapter 2, Description of Alternatives, of the Final SEIS has been updated to identify the IBR Program Recommended Design Options, which are based on feedback received during the public comment period, government-to-government consultation, and a comparison of technical and environmental impacts and benefits. Section 3.16, Ecosystems, describes the mitigation to which the IBR Program is committing to control, minimize, and offset unavoidable impacts. While the double-deck fixed-span bridge configuration design option would have a smaller footprint, the single-level fixed-span bridge configuration design option is identified as the IBR Program Recommended Design Option because it balances a greater range of competing priorities technical considerations, notable differences in environmental impacts and benefits, and feedback received during the Draft SEIS public comment period.

8-13
Section 3.16, Ecosystems, of the Final SEIS and Ecosystems Technical Report have been revised to use the terminology "proposed" when referring to the in-water work timing to acknowledge that in-water work timing approvals will ultimately be established in regulatory permits/approvals for the IBR Program, including the National Oceanic and Atmospheric Administration’s biological opinion. The IBR Program understands that with this comment, the Cowlitz Indian Tribe is not suggesting a change to the proposed in-water work timing but is instead pointing out the need for a robust compensatory mitigation and conservation plan. The Final SEIS and Ecosystems Technical Report include an analysis of the impacts from construction of the Modified LPA within the proposed work windows and describe the mitigation actions that the IBR Program has committed to offset these impacts. Compensatory mitigation plans will be prepared for unavoidable impacts to the aquatic species and habitats that will be affected to demonstrate that the Modified LPA will result in “no net loss” of function of these resources. The IBR Program looks forward to continuing consultation and coordination regarding habitat mitigation and conservation opportunities with the Cowlitz Indian Tribe.

8-14
Section 3.16, Ecosystems, of the Final SEIS includes additional information regarding the anticipated approach to compensatory mitigation. The IBR Program looks forward to continuing consultation and coordination regarding habitat mitigation and conservation opportunities with the Cowlitz Indian Tribe.

8-15
The regulations that define compensatory mitigation requirements in Oregon and Washington are based on a framework that requires demonstration of no net loss of functions and values. These frameworks include requirements for specific goals and objectives, measurable performance standards, long-term monitoring, and adaptive management programs designed to account for uncertainties. These factors will be addressed in the compensatory mitigation plans that are developed for the Modified LPA.

8-16
The IBR Program has engaged in a multiyear effort to develop a compensatory mitigation and conservation approach for the Modified LPA. One of the goals established through this planning effort was to meet regulatory requirements and result in a net benefit to the species and habitats that have been disproportionally affected as a result of historic and current human activities within the primary study area. We look forward to continued consultation and coordination on this matter.

8-17
This mitigation measure has been updated in the Final SEIS to include an expanded list of elements that would be inspected for and prohibited on equipment deploying to the site, including "noxious weeds, or other invasive plants and animals." Expanding this provision to include "soil residues or debris that could harbor pests or pathogens" would be impracticable, as these terms are too broad and would be unenforceable.

8-18
Thank you for your comments and continued collaboration.

Submission 9: Marie Gluesenkamp Perez, Member of Congress (October 29, 2024)

MARIE GLUESENKAMP PEREZ
3RD DISTRICT, WASHINGTON

COMMITTEE ON AGRICULTURE
SUBCOMMITTEE ON FORESTRY
SUBCOMMITTEE ON COMMODITY MARKETS, DIGITAL ASSETS, AND RURAL DEVELOPMENT

COMMITTEE ON SMALL BUSINESS
RANKING MEMBER, SUBCOMMITTEE ON RURAL DEVELOPMENT, ENERGY, AND SUPPLY CHAINS
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October 29, 2024

Gregory C. Johnson
Program Administrator
Interstate Bridge Replacement Program
500 East Broadway, Suite 200
Vancouver, WA 98660

Dear Administrator Johnson,

9-1 I am writing to submit public comment for the Draft Environmental Impact Statement for the I-5 Bridge Replacement.

I urge the Interstate Bridge Replacement Program leadership to prioritize Southwest Washington bridge users' concerns in the final project design. My neighbors, the people I talk to, share concerns about the cost of the project, the addition of bells and whistles, how potential tolling could impact their family budget, and the need for additional vehicular capacity. In my home county, Skamania County, around 80 percent of employed people who live in the county commute outside of the county for work. Light rail and bus rapid transit will not be options for

9-2 my neighbors and people that live outside of the urban core. I strongly urge the Interstate Bridge Replacement Program Leadership to conduct outreach to rural communities and make sure their voices are heard during this process. Those of us who live in rural Southwest Washington also rely on and use the I-5 Bridge and we deserve to be able to get to work on time, not miss Little League games, and be with our families.

9-3 There is no option for not replacing the I-5 Bridge. The I-5 Bridge is ranked one of the worst truck bottlenecks in Washington and Oregon and over $132 million worth of freight crossed the I-5 Bridge daily in 2020. I have fought tooth and nail to bring back $2.1 billion of federal funding for the I-5 Bridge Replacement to strengthen our local economy, honor the trades, and keep drivers, commuters, and truckers safe and on the move.

9-3 We need a bridge that reflects our values. When reviewing the public comments, I hope you take into consideration that those most impacted might have the toughest time weighing in. Thank you for your consideration of this request.

Sincerely,



Marie Gluesenkamp Perez
Member of Congress

Response to Submission 9: Marie Gluesenkamp Perez, Member of Congress (October 29, 2024)

9-1

The Oregon Transportation Commission (OTC) and the Washington State Transportation Commission (WSTC) have the authority to set toll rates and policies, including exemptions and discounts. OTC and WSTC would jointly establish toll rates and any applicable policies (e.g., variations based upon time of day) for the IBR Program. The OTC and WSTC would adopt toll rates, including exemptions and discounts, six to nine months before pre-completion tolling begins on the Interstate Bridge. Formal action will be needed by OTC and WSTC in order to implement rates and policies, including discounts and exemptions. It is anticipated that tolling would begin on the existing Interstate Bridge in 2028. For more information, see Tolling Standard Response L.24: Tolling Exemptions and Discounts.

The proposed Modified LPA is a package of multimodal improvements including highway, freight, public transit, and active transportation that are moving forward together to meet the Purpose and Need for the IBR Program. The Modified LPA, including all design options, would include three through lanes in each direction along I-5, similar to existing conditions, and would connect to existing through lanes at the north and south end of the primary study area. The Modified LPA would also include design options with one or two auxiliary lanes that would better accommodate increased vehicle trips by improving safety and operations across the Columbia River bridges. For more information, see Transportation Standard Response M.34: More Highway Lanes.

The Modified LPA, including all design options, would include new earthquake-resilient, multimodal Columbia River bridges; safety shoulders; auxiliary lanes; improvements to seven closely-spaced interchanges within the 5-mile primary study area; extension of light-rail transit from Portland to Vancouver; safe and accessible shared-use paths; and a new earthquake-resilient North Portland Harbor bridge. Each of these components would work together to address the transportation needs associated with the aging Interstate Bridge and ensure an effective, earthquake-resilient, multimodal corridor that improves safety and mobility for everyone. The first construction packages are anticipated to be the new Columbia River bridges and approaches. Subsequent construction packages would be sequenced throughout the Program area. Construction of other components of the Modified LPA would be sequenced during and after the construction of the new Columbia River bridges begins.

The most recent cost estimate (2026) ranged from $13.5 billion to $15.2 billion in year of expenditure dollars. This estimate included preliminary engineering and program management, right-of-way acquisition, construction, various labor and material quantities, unit costs, and relevant additive factors. Taxes for current market conditions are also included, along with costs associated with the management of potential risks that could result in cost increases and opportunities for cost savings. The estimate increased from 2022 due to numerous factors such as: A national increase in construction costs for escalating materials, labor, and equipment prices; impacts of an extended construction schedule based on construction sequencing needs; cost and schedule risks; and updated pricing and materials quantities based on more detailed design. More detail on factors that contributed to the updated estimate are included on the website.

The IBR Program periodically makes updates to its cost estimate using the Cost Estimate Validation Process. This is a best practice the Program employs to ensure costs are examined from all angles, helping to identify potential cost increase risks and cost reduction opportunities. Cost estimates will be refined as the federal environmental review process progresses and the Program advances design of the Modified LPA.

Transit investments that are part of the proposed Modified LPA would integrate with the existing transit in the region to enhance access across Clark County by providing connections to light-rail. Economic activity and access to jobs across the region is supported by this network of transit investments. Improved transit system connections increase access to health care, education, and recreation across Clark County, including rural and transit-dependent residents. As described in the Transportation Technical Report, it is expected that between 60% and 75% of light-rail ridership at the stations in Vancouver would come from the Vine and other bus service transfers. These transfers could come from anywhere that C-TRAN currently serves.

9-2

Once constructed, all elements of the Modified LPA would help address the transportation issues identified in the primary study area: congestion, safety, impaired freight mobility, earthquake resilience, limited public transportation, and inadequate bike and pedestrian facilities. Reliability and safety through the corridor would improve and allow families to get home and to sports games. It would also provide travelers with more options for crossing the river that do not currently exist today.

As engagement was conducted to develop the proposed Modified LPA, the IBR Program strived to balance different regional perspectives in identifying investments that best serve the complex needs of the bridge's variety of users, including rural communities. Regular users of the existing bridge include freight, commuters, travelers accessing recreational opportunities, and those traveling through the region. The IBR Program used multiple strategies to ensure broad outreach to capture a variety of users. To reach a large set of regular bridge users, mailers were sent to over 91,000 addresses near I-5 and the primary study area. Knowing that people travel from multiple locations on both sides of the river, a billboard was placed adjacent to I-5 near the bridge to inform travelers of the public comment period.

To ensure that additional audiences were captured, the IBR Program also reached out to

community organizations, business organizations, and neighborhood associations on both sides of the river, which resulted in the Program participating in and providing 53 briefings and presentations with more than 500 total attendees about the opportunity to comment during the comment period. While briefings were offered more broadly, not all organizations or jurisdictions responded to these offers.

Notifications and outreach were conducted to a variety of organizations that cover rural areas of Southwest Washington, which is included in a list below. During the public comment period, a freight forum was also held to provide a Draft SEIS briefing to the regional freight industry, which included representatives from the Port of Longview, the Washington Trucking Association, Pacific Northwest Waterways Association, the Port of Camas-Washougal, and various freight logistics companies.

Other efforts to reach a broad array of communities in the lead-up to and during the public comment period included an advertising and marketing campaign with advertisements in 12 print and digital publications and eight radio stations. Outlets on the Washington side of the river included The Columbian, The Ridgefield Reflector, Vancouver Business Journal, KXRW, and KBMS, while Oregon outlets included The Oregonian, 98.7 The Bull, and KXL 101, which are accessed by readers and listeners on both sides of the river, including those in rural Southwest Washington. Ads were also placed on C-TRAN buses, which provide service across Clark County, including in rural areas. The ad campaign is estimated to have reached more than 3.2 million people in the region. Social media advertising tools were also used on a variety of platforms, reaching over 370,000 people.

All these efforts led to the IBR Program receiving 3,618 comment submissions across the region, with 86% of submitters providing their ZIP codes. Of those comments, the IBR Program was able to identify that 25% of submissions came from Clark County overall and that close to 9% of submissions were provided by residents of rural areas of Southwest Washington, including ZIP codes that encompass areas such as Longview, Woodland, La Center, Battle Ground, Brush Prairie, Yacolt, Washougal, and Skamania.

For more information on previous engagement efforts by the IBR Program in recent years, Appendix B of the Draft and Final SEIS documents the public involvement conducted by the IBR Program.

As the design work progresses, the IBR Program will continue to offer opportunities for community members to provide input for consideration on elements of design, such as safety improvements, architecture, elements of I-5, street connections, active transportation investments, and transit elements. The IBR Program encourages the community to sign up to receive updates and stay informed of any future opportunities to weigh in.

Organizations and business groups* that include rural area membership in Washington contacted about the Draft SEIS public comment period include the following:
AgForestry Leadership Program
Associated Builders &Contractors –Western Washington
Association of Washington Businesses
Association of Washington Cities
Building Industry of Clark County
Columbia River Pilots
Cowlitz Economic Development Council
Cowlitz-Wahkiakum Central Labor Council
Cowlitz-Wahkiakum Council of Governments
Iron Workers District Council of the Pacific Northwest
East Vancouver Business Association
Kelso-Longview Chamber of Commerce
Military Officers Association of America –Columbia River Chapter
Skamania Chamber of Commerce
Skamania Economic Development Council
Southwest Washington Central Labor Council
Southwest Washington Contractors Association
Washington Cattlemen's Association
Washington Contract Loggers Association
Washington Public Ports Association
Washington State Association of Counties
Washington State Dairy Federation
Washington State Freight Mobility Strategic Investment Board
Washington State Labor Council
Washington State Potato Commission
Washington State Tree Fruit Association
Clark County Veterans Assistance Center
American Association of Retired People –Oregon and SW Washington

*Note that this list is not exhaustive of the outreach that was conducted.

9-3

The Draft SEIS document is a complex and comprehensive document and a federal requirement under the National Environmental Policy Act. To ensure broader public access and understanding, the IBR Program also published a summary of the Draft SEIS that shared the key findings from the Draft SEIS and technical reports. Additionally, the IBR Program provided high-level descriptions of some of the transportation, community, and environmental findings in the Draft SEIS on the website and through presentations in the community. To bring awareness of the opportunity to provide public comment on the Draft SEIS, the IBR Program implemented multiple strategies and communications tactics to reach the Portland-Vancouver metropolitan area leading up to and during the public comment period. The document was made available in different locations and formats, has a search function to quickly find keywords, was reviewed and made clearer and easier to read, and was translated to enhance usability for all audiences. For more information, see Public Involvement Standard Response J.16: Draft SEIS Accessibility.

Submission 10: Monica Tubberville, CITY OF VANCOUVER (October 23, 2024)

Comments

10-1 NA

Response to Submission 10: Monica Tubberville, CITY OF VANCOUVER (October 23, 2024)

10-1

Thank you for your comment.

Submission 11: Oregon Department of Fish and Wildlife (November 18, 2024)

Oregon
Tina Kotek, Governor

Department of Fish and Wildlife
Northwest Region
17330 SE Evelyn St
Clackamas, Or. 97015
Phone: 971-673-6000
Fax: 971-673-6070

November 18, 2024

Interstate Bridge Replacement Program
Attn: Draft SEIS Public Comment
500 Broad, Suite 200
Vancouver, WA 98660

RE: ODFW Comments on the Draft Supplemental Environmental Impact Statement for the Interstate Bridge Replacement Project

11-1 The Oregon Department of Fish and Wildlife (ODFW) appreciates the opportunity to review the Interstate Bridge Replacement's (IBR) Draft Supplemental Environmental Impact Statement (SEIS) proposal to replace the existing Columbia River crossing on Interstate 5 between Portland, Oregon and Vancouver, Washington. It is policy of the State of Oregon to manage fish and wildlife to prevent the serious depletion of indigenous species and to provide the optimum recreational and aesthetic benefits for present and future generations of the citizens of this state[1]. In accordance with our mission, ODFW offers the following comments and suggestions.

General Comments

Impacts to Columbia River native fish species: Implementation of the IBR project, which is proposed to occur over a 10-year period has the potential to severely impact fish populations occupying the entire Columbia River basin. This includes the potential to affect the survival of hundreds of millions of adult and juvenile fish species which must traverse the myriads of construction activities and structures to fulfill their life history requirements. Fish avoidance of near surface overwater structures in conjunction with areas of avoidance from underwater noise, due to pile driving, has the potential to narrow the river corridor and place fish species at increased risk of predation from predators, including those using near surface temporary over water structures.

11-2 *Predation:*

The SEIS lacks a sufficient analysis of potential predation impacts on salmonids. Discussion on predation impacts is mostly limited to a sole paragraph on avian predation, which theorizes the cross-sectional area of the river is large so impacts will be nominal. The cross-sectional area of the Columbia River at the project site will be truncated, at times severely, due to project activities and structures.

[1]ORS 496 012, ORS 506 109

11-2 There is little to no discussion on piscine predation associated with over water structures or discussion on potential pinniped predation. The state of knowledge on Columbia River salmonid predation has grown extensively since Columbia River Crossing planning in the early-2010s and is a subject of state and federal recovery plans as well as the Columbia Basin Collaborative, where actions direct cooperators to seek funding and implement management measures to reduce salmonid predation. Salmonid predation will be the number one impact associated with the IBR as currently planned. Best management practices for salmonid predation are limited to caps on temporary piles and directional lighting on the new bridge. ODFW encourages the IBR team to develop robust avoidance and minimization measures to reduce the predation impacts for permanent and temporary structures which will occur due to the IBR as well as implement conservation actions aimed at reducing salmonid predation.

11-3 *In-Water Work Timing:* The in-water work period (IWWP) selected for this project was developed during a year long process for the Columbia River Crossing (CRC) project. As part of former President Barak Obama's Executive Order, Improving Performance of Federal Permitting and Review of Infrastructure Projects (March 2012), the CRC project landed on the former President's "We Can't Wait Initiative". This order proceeded former President George Bush's Executive Order 13274 (August 2008), which gave the bridge replacement project a "National Priority Status". These orders were partially directed at permitting agencies to reduce the project timeline, which led to the negotiated IWWP (September 15-April 15th), which is six weeks outside of the ODFW preferred IWWP (November 1-February 28). The constraints due to the executive order are less relevant as the duration of the project has doubled. This negotiated IWWP was carried forward by the IBR and identified as the preferred IWWP. Future variance requests to the negotiated IWWP will be evaluated in a manner that reflects the project is outside of the ODFW preferred IWWP by six weeks. Variance recommendations will be considered under ODFW's Fish and Wildlife Habitat Mitigation Policy[2] to avoid, minimize and mitigate for new project impacts.

11-4 **SEIS Specific Comments:**

3.16.1 Changes or New Information Since 2013 p.3-16-1

It is Oregon's policy "to prevent the serious depletion of any indigenous species[1]". The Oregon Administrative Rules (OARs) for threatened and endangered species[3] are intended to help implement this policy. However, recovering species when their populations are severely depleted can be difficult and expensive. To provide a positive, proactive approach to species conservation, a "sensitive" species classification was created under Oregon's Sensitive Species Rule[3]. There are two fish species found on ODFW's Sensitive Species List and not included under the IBR Species of Interest (SOI).

[2]https://www.dfw.state.or.us/habitat/mitigation_policy.asp
[3]OAR 635 100

11-4 Middle Columbia River Chinook and Southwest Washington Distinct Population Segment (DPS) steelhead, which are part of ODFW's Lower Columbia River (LCR) Species Management Unit (SMU) for steelhead, are not included and ODFW recommends they be included as a SOI in the SEIS.

11-5 *Table 3.16-1. Comparison of CRC LPA Effects and IBR Modified LPA Effects Temporary Impacts to Aquatic Habitats During Construction*

The IBR program proposes a 1.04-acre credit for benthic habitat restoration from removal of the existing I5 bridge elements under the permanent benthic habitat impact calculations. ODFW is concerned regarding the timing of the removal and the anticipated habitat benefits. Once construction of the new I5 bridge starts, removal of the existing I5 bridge will occur approximately eight years later. Benefits from removal of the former bridge will not be realized in a timely manner. Therefore, ODFW recommends this be considered as temporary impacts under the calculation tables, as benthic habitat benefits will not be realized for 2-3 generations of salmonids.

11-6 *Overwater Shading Impacts p.3-16-23 (permanent)*

The bridges shaft caps will be a permanent structure in the water. The shaft caps are 20' thick with the top near the OHWM elevation. The overall impact to benthic habitat due to shading from these structures may be minimal but the opportunity to harbor piscine, avian and pinniped predators will exist for the lifetime of the bridge. Salmonid predators perching, nesting, hauling out and using in the light/dark contrast will affect the way salmonids use the aquatic habitat in the vicinity of the shaft caps for the life of the bridge. ODFW recommends investigating options for shaft cap design which reduces the ability of salmonid predators to use the shaft caps as predation points.

Avian (Bird) Predation 3-16-26

Avian predation research on Columbia River salmonids has occurred for over two decades. Recent research is showing avian predation is much higher that described five years ago. As Columbia River managers have sought to reduce predation on salmonids through avian predator and habitat management, unintended consequences have occurred. There are currently 500 pairs of Double Crested Cormorants (DCC) nesting in the freshwater zone below Bonneville Dam, 80 percent of those cormorants are nesting in the vicinity of the Sandy River Delta. Bonneville Power Administration and partners are currently investigating options to manage cormorants and their nesting habitat at the Sandy River Delta. ODFW recommends considering bridge design options which are least compatible with perching and nesting of DCC's or adding design features which reduce the ability of perching and nesting.

11-7 *In-Water Work Timing p3-16-29 (Temporary Effects)*

ODFW recommends revisions to verbiage in the SEIS regarding the preferred windows or preferred IWWP and replaced with the negotiated window or negotiated IWWP. "Between 2005 and 2011, a set of project-specific in-water work timing restrictions were developed for the CRC LPA through extensive coordination with regulatory agencies, tribal partners, and other interested parties[4]". The CRC negotiated IWWP is now considered the preferred IWWP by the IBR. In-water work timing negotiations were driven by executive order from former President of the United States to ensure a viable project from a fiscal standpoint which was given as a five-year period. That constraint is less relevant as the project is now projected to last 10 years. ODFW concurs with the negotiated IWWP for the IBR project, given the projected time frame for completion. Future variance requests for in-water work outside of the negotiated in-water work period will be evaluated against ODFW's preferred IWWP and under the context of ODFW's Fish and Wildlife Habitat Mitigation Policy[2].

11-8 *Avian Predation (Temporary Impacts) p.3-16-33*

ODFW recommends the Avian Predation section, associated with temporary overwater structures be renamed and further analyzed. The new section analyzed should be renamed Salmonid Predation. The extensive amounts of near surface overwater structures have the potential to harbor avian, piscine and pinniped predators. Celedoinia et al (2008[5]) showed that salmonids will avoid and move around overwater structures. Salmonids will swim towards deeper water to migrate around the structure, and this may increase fish predation (Nowak and Quinn 2002[6], Fresh et al 2001[7]).

11-9 "Impact pile driving during construction of the Modified LPA would result in noise levels that would temporarily exceed these injury and disturbance thresholds within portions of the Columbia River and North Portland Harbor, and exposed fish may have an increase in lethal and sublethal injuries. The extent of the injury would depend on several factors, including the size of the fish, duration of exposure, proximity to the source (the pile being driven), and size of the pile[4]". Underwater noise impacts can be thought of as a bullseye target with the center the lethal zone, further out, the zone of injury, and the outer layer the zone of avoidance.

Salmonids which are avoiding overwater structures and avoiding zones of disturbance associated with underwater noise due to impact pile driving, maybe at elevated mortality risk as they seek potential passage gaps to feed, rear, and migrate through the project area. These gaps would concentrate salmonids where they could be subject to elevated levels of predation by piscine, avian and pinniped predators using overwater structures as ambush points. ODFW recommends further analysis of these potential impacts which could be beneficial in the development of appropriate avoidance and minimization measures to reduce predation impacts.

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[4]Interstate Bridge Replacement Project, Supplemental Environmental Impact Statement 2024

[5]Celedonia, M.T., Tabor, R.A., Sanders, S., Lantz, D.S. and I. Grettenberger. 2008. Movement and habitat use of Chinook salmon smolts and two predatory fishes in Lake Washington and the Lake Washington ship canal. U.S. Fish and Wildlife Service, 2007-2005 Acoustic Tracking Studies. 116 p.

[6]Nowak, G.M., and T.P. Quinn. 2002. Diel and seasonal patterns of horizontal and vertical movements of telemetered cutthroat trout in Lake Washington, Washington. Transactions of the American Fisheries Society 131:452-462.

[7]Fresh, K.L, Williams, B. W., Wyllie-Echeverria, S., and T. Wyllie-Echeverria. 2001. Mitigating impacts of overwater floats on eelgrass Zostera marina L. in Puget Sound, Washington. In Puget Sound Water Quality Action Team. 2002.

Proceedings of the 2001 Puget Sound Research Conference. T. Droscher, editor. Puget Sound Water Quality Action Team. Olympia, Washington.

11-10

3.16.6 Potential Avoidance, Minimization, and Mitigation Measures
Long-Term Effects p. 3-13-36

Shaft caps represent a permanent long-term negative impact to salmonids from predation. ODFW recommends investigating the shape for the top of the shaft cap to prevent avian predator nesting as well as a haul-out for sea lions. If the flat top of the shaft cap could be constructed in a conical shape with the sides at least 25 percent slope, then this would eliminate nesting and haul-out spaces for avian and pinniped predators.

11-11

Temporary Effects
General Measures and Conditions p. 3-16-37

Salmonid predation associated with overwater structures represents the greatest threat from temporary structures. ODFW recommends the IBR team develop a suite of avoidance, minimization and mitigation measures which will improve salmonid survival through and adjacent to the project area. Some examples could include:

- Estimating salmonid avoidance of overwater structures and avoidance due to under water noise co-occurring and managing construction sequencing to maximize pathway size through the construction zone.
- Conduct a continuous avian and pinniped hazing program within the project construction zone for the duration of the project to reduce salmonid predation.
- Consider new bridge design elements which minimize avian predator nesting habitat as larger efforts to manage avian predators in the Columbia River estuary occurs and birds re-distribute.
- Conduct conservation and mitigation activities which reduce salmonid predation associated with overwater structures. A few examples could include, contributing to passive dissuasion efforts of DCC nesting habitat at the Troutdale Towers, removal of derelict piles in the vicinity of nesting colonies and removal of derelict boats from the Columbia River or North Portland Harbor.

11-12

Program Specific Mitigation p 3-16-41

ODFW appreciates the work that the IBR team has developed for mitigation plans at the Columbia Bottomlands and would recommend that terrestrial impacts as well as partial mitigation for aquatic impacts occur at this location.

11-13

ODFW's Fish and Wildlife Habitat Mitigation Policy[2] was developed to further the Wildlife and the Food Fish Management Policies for the State of Oregon through the application of consistent goals and standards to mitigate impacts to fish and wildlife habitat caused by land and water development actions. ODFW determined the habitat category within the project area is Habitat Category 3 which is considered essential habitat but not limited. The mitigation goal for Habitat Category 3 is no net loss of either habitat quality or quality. Acceptable mitigation approaches are to avoid impacts through alternatives to the proposed action, or if impacts are unavoidable to

11-13

mitigate these effects through reliable in-kind, in-proximity mitigation to achieve no net loss of pre-development habitat quality or quantity.

In proximity habitat mitigation refers to mitigation measures within or in proximity to the area affected by to development action. In proximity also means within the same home range or watershed of the species or populations being impacted by the development. A partial list of species impacted by the IBR is found within the SEIS. There are numerous populations extending from Canada and Idaho down to the lower Columbia River. Several of these populations will benefit from actions taken within the Scappoose Bottomlands but not all populations affected by the IBR project will benefit from restoration at this location approximately 6 miles from the mainstem Columbia River. ODFW recommends the IBR team to seek additional mitigation opportunities nearer to the mainstem Columbia River which will benefit all impacted populations from the IBR project.

11-14

Ecosystems p.3-23-35
Fish, Wildlife, and Vegetation
Effects from Past, Present, and Reasonably Foreseeable Future Actions

ODFW recognizes three actions in the reasonably foreseeable future in which the IBR project could impact. The Columbia Basin Collaborative is a group of six sovereigns working collaboratively to improve salmonid survival throughout the Columbia Basin. The group has prioritized short term actions to improve salmonid survival as the lag effects of restoration and dam removal actions occur later into the future. One of the short-term actions is dissuasion of avian predator nesting habitat at the Troutdale Towers near the mouth of the Sandy River, which has several hundred nesting cormorants. Research has shown that DCC's will re-distribute and possibly target the new Interstate Bridge as potential nesting habitat.

11-15

The Wallowa Lake Dam and Sockeye re-introduction project has begun. Funds to restore fish passage and screen irrigation diversions are in place. A sockeye broodstock program has started at Bonneville Hatchery and the first releases occurred in 2024. This broodstock will be the future source of re-introduction into Wallowa Lake. While this project is outside of the project area, juvenile and adult fish from this program will be migrating through the project area in the time the IBR is in construction.

11-16

Mirror Lake near Rooster Rock in the Columbia Gorge has been an area subject to previous restoration and research[8]. Following restoration, a pit tag array was in place. From 2014 – 2019, salmon originating from throughout the Columbia River Basin were detected at the Horsetail array. Species originating from the mid-Columbia Basin included Chinook, coho, and steelhead. Species originating from the upper Columbia Basin included Chinook, coho, sockeye, and steelhead.

[8]Sol, Sean & Hanson, Amanda & Marcoe, Keith & Johnson, Lyndal. (2018). Juvenile Salmonid Assemblages at the Mirror Lake Complex in the Lower Columbia River before and after a Culvert Modification. North American Journal of Fisheries Management. 39. 10.1002/nafm.10249.

11-16

Coho was the only species originating from the Yakima Basin, and Chinook, coho, sockeye, and steelhead from the Snake River Basin were detected. Research also showed that rearing fish from out of the basin only used the lower half of Mirror Lake. This site is a former side channel to the Columbia River and the upstream end is blocked by I84. In early 2024, the Lower Columbia Estuary Partnership received permission to proceed from Oregon State Parks and the Oregon Department of Transportation as well as a grant from the Oregon Watershed Enhancement Board to design a project which would perforate I84 and allow flow to return to the former side channel. This site is known to be used by all Columbia River salmonids, located in a reach of the Columbia River with limited rearing opportunity and could be a mitigation site for the IBR.

ODFW appreciates the opportunity to comment on this proposal and look forward to additional conversation and opportunity to protect Oregon's fish, wildlife and habitat. If you need any additional information, please contact me at 971 673-6021

Sincerely,

Jim Brick
Implementation Coordinator, LCR Conservation and Recovery Plan
Oregon Department of Fish and Wildlife

Response to Submission 11: Oregon Department of Fish and Wildlife (November 18, 2024)

11-1
Thank you for this comment and for the engagement of the Oregon Department of Fish and Wildlife (ODFW) on the IBR Program. Effects associated with predation resulting from fish avoidance of near-surface overwater structures and underwater noise are described and discussed in Sections 3.16.3 and 3.16.4 of the Draft SEIS and in the Ecosystems Technical Report. As discussed in more detail in subsequent responses to comments, the Final SEIS and Ecosystems Technical Report include a supplemental analysis of these potential effects to respond to the comments received from ODFW and others on the Draft SEIS.

11-2
Section 3.16, Ecosystems, of the Final SEIS and Ecosystems Technical Report have been updated with an expanded discussion of the potential effects of avian, piscine, and pinniped predation and the measures that would be implemented to avoid and minimize the potential for, and extent of, these effects. These measures include commitments to install deterrents on temporary work structures to deter perching by piscivorous birds; a commitment to monitor and manage temporary work structures to not allow for extensive perching by piscivorous birds, including during periods of nonuse; a commitment to install directional lighting on the new bridge to address avian, piscine, and pinniped predation; and a commitment to coordinate with ODFW during final bridge design for recommendations to reduce the potential for and/or extent of pinniped and avian perching on the shaft caps and avian nesting and perching on the replacement bridge structure. These recommendations would be evaluated for feasibility and be incorporated as practicable.

11-3
The IBR Program understands that ODFW does not object to the proposed in-water work timing and notes that requests for future extensions or variances during construction will follow standard work window guidance for existing permits and approvals.

11-4
Section 3.16, Ecosystems, of the Final SEIS and Ecosystems Technical Report have been updated to include these additional species populations and identify their sensitive status in Oregon.

11-5
Section 3.16, Ecosystems, of the Final SEIS and Ecosystems Technical Report have been updated to acknowledge the impacts associated with the period of time during which the proposed new Columbia River bridges are being constructed and the existing Interstate Bridge has not yet been removed. These impacts are not specifically identified as temporary impacts in the calculations tables (which are focused on temporary structures). The introduction to Section 5 of the Ecosystems Technical Report has been updated to specifically include a description of this impact, and it will be factored into the impacts and credit calculations for purposes of quantifying compensatory mitigation offsets in compensatory mitigation plans.

11-6
Section 3.16, Ecosystems, of the Final SEIS and Ecosystems Technical Report have been updated with an expanded discussion of the potential reasonably foreseeable effects of avian, piscine, and pinniped predation and with additional measures that would be implemented to avoid and minimize the potential for, and extent of, these effects. The measures include commitments to install appropriate deterrents on temporary work structures to deter perching by piscivorous birds (specific deterrents will be identified in coordination with ODFW and the Washington Department of Fish and Wildlife); a commitment to monitor and manage temporary work structures to not allow for extensive perching by piscivorous birds, including during periods of nonuse; a commitment to install directional lighting on the new bridge to address avian, piscine, and pinniped predation; and a commitment to coordinate with ODFW during final bridge design for recommendations to reduce the potential for and/or extent of pinniped and avian perching on the shaft caps and avian nesting and perching on the replacement bridge structure. These recommendations would be evaluated for feasibility and be incorporated as practicable.

11-7
Section 3.16, Ecosystems, of the Final SEIS and Ecosystems Technical Report have been revised to use the terminology "proposed" when referring to the in-water work timing to acknowledge that in-water work timing approvals will be established in the permits issued by the regulatory agencies. The IBR Program understands that ODFW does not object to the proposed in-water work timing and notes that requests for future extensions or variances during construction will follow standard work window guidance for existing permits and approvals.

11-8
Section 3.16.4 of the Final SEIS and the corresponding sections of the Ecosystems Technical Report have been updated with an expanded discussion of the potential reasonably foreseeable effects of avian, piscine, and pinniped predation and the additional measures that would be implemented to avoid and minimize the potential for, and extent of, these effects. The titles of these sections of the Final SEIS and Ecosystems Technical Report have also been updated to more broadly address predation from avian, piscine, and pinniped sources. The updated titles are Changes to Predation Pressure in Sections 3.16.3 and 3.16.4.

11-9
Section 3.16, Ecosystems, of the Final SEIS and the Ecosystem Technical Report include analysis of impacts associated with underwater noise during impact pile driving, including the potential for avoidance behavior leading to potential exposure to increased predation pressure. While the potential for injury and behavioral modification related to impact pile driving does exist, the Final SEIS, Ecosystems Technical Report, and Biological Opinion of the National Oceanic and Atmospheric Administration (NOAA) identify the avoidance and minimization commitments that will be implemented to avoid and minimize these effects to the extent practicable. Impact pile driving would primarily occur during the installation of temporary work structures. Piles would be vibrated in to the extent practicable, and impact driving would be used only to finish driving piles or to proof bearing capacity. Bubble curtains would be employed to attenuate underwater noise, and a hydroacoustic monitoring program would be conducted to confirm underwater noise levels and bubble curtain effectiveness. These impact minimization measures will be requirements of the NOAA Biological Opinion and will become required conditions of applicable regulatory permits.

11-10
The IBR Program will coordinate with ODFW during final bridge design for recommendations to reduce the potential for and/or extent of pinniped and avian perching on the shaft caps. These recommendations would be evaluated for feasibility and be incorporated as practicable.

11-11
Section 3.16, Ecosystems, of the Final SEIS has been updated to document additional measures that would be implemented to avoid and minimize the potential for, and extent of, impacts to juvenile salmonids from avian, piscine, and pinniped predation associated with overwater structures. Managing construction sequencing in the manner suggested would be impracticable due to the implications for the construction schedule and the potential to introduce delays that could result in a longer construction duration and greater exposure. A formal pinniped hazing program would be inconsistent with the Marine Mammal Protection Act permit that will be issued by NOAA Fisheries. However, the construction activities will generate noise and disturbance that will likely result in pinnipeds avoiding the area during construction. Avian hazing will be conducted consistent with applicable Migratory Bird Treaty Act permits and guidelines. Temporary structures will have appropriate deterrents and will be actively managed to not allow for extensive perching by piscivorous birds, including during periods of nonuse. The IBR Program will coordinate with ODFW during final bridge design for recommendations to reduce the potential for and/or extent of pinniped and avian perching on the shaft caps and avian nesting and perching on the replacement bridge structure. These recommendations would be evaluated for feasibility and be incorporated as practicable.

11-12
Section 3.16, Ecosystems of the Final SEIS has been updated to include additional information on the anticipated approach to compensatory mitigation. The Columbia Bottomlands site is an advance mitigation site being designed and permitted by the Oregon Department of Transportation (ODOT). The IBR Program currently envisions using advance mitigation credits from this site to offset impacts to wetlands (terrestrial) and aquatic habitats in the state of Oregon. However, the IBR Program is continuing to evaluate opportunities for compensatory mitigation, including various potential permittee-responsible mitigation activities. Compensatory mitigation plans will be developed to accompany permit applications in Oregon and Washington.

11-13
The Columbia River is important to aquatic species for habitat and migration; however, the specific areas where bridge footings or other structures would be placed provide limited habitat function. The mainstem Columbia River in the vicinity of the project area is also specifically excluded from the designation of "Essential Salmonid Habitat," which is a designation established (and regularly updated and adjusted) by the Oregon Department of State Lands with input from ODFW. Given the relatively modified condition of the specific habitats that would be affected in this developed reach of the mainstem, it may be more appropriate to characterize these aquatic habitats as Category 4 habitats. The terrestrial habitats within the ecosystems study area are heavily degraded and neither essential nor limited and are recommended to be considered Category 6 habitat. The IBR Program will coordinate with ODFW and other agencies during the permitting for the Modified LPA to establish a compensatory mitigation that achieves no net loss of function for all affected species. The Final SEIS has been updated to include additional information regarding the anticipated approach to compensatory mitigation. The Columbia Bottomlands site is an advance mitigation site being designed and permitted by ODOT, and the IBR Program currently envisions using advance mitigation credits from this site to offset impacts to wetlands and aquatic habitats in the state of Oregon. However, the IBR Program is also still evaluating opportunities for compensatory mitigation, including various potential permittee-responsible mitigation activities. Compensatory mitigation plans will ultimately be developed for each regulatory permit application.

11-14
Section 3.16, Ecosystems, of the Final SEIS and the Ecosystems Technical Report include a discussion of the ongoing restoration efforts in the Columbia River mainstem and in other affected watersheds.

11-15
Thank you for your comment.

The discussion of sockeye salmon has been updated to include discussion of the Wallowa Lake Dam and sockeye reintroduction project.

11-16
The Mirror Lake site was explored as a potential site for compensatory mitigation activities. Section 3.16.6 of the Final SEIS includes additional information regarding the IBR Program's proposed compensatory mitigation approach.

Submission 12: Port of Camas-Washougal (November 18, 2024)

THE PORT
CAMAS–WASHOUGAL

November 18, 2024

Program Administrator Greg Johnson
Interstate Bridge Replacement Program
500 Broadway St, Ste 200
Vancouver, WA 98660

RE: Port of Camas-Washougal comments on the Interstate Bridge Replacement Program Draft Supplemental Environmental Impact Statement

Administrator Johnson:

12-1 The Port of Camas-Washougal (Port) appreciates the momentous work that has been accomplished to reach this point and to advance the efforts of successfully completing the Interstate Bridge Replacement Program (IBRP). This letter is to acknowledge the Port's support for plans outlined in the Draft Supplemental Environmental Impact Statement (SEIS) regarding replacing the I-5 bridge and improving its five-mile influence area.

The I-5 bridge and five-mile influence area is a major commerce corridor for the Pacific Northwest. We support the comprehensive multi-modal program design that would accommodate an additional 66,000 person-trips and 32,000 vehicle-trips through the corridor each day by 2045, while reducing accidents and backups. The proposal makes improvements by adding safety shoulders, a dedicated public transit lane, active transportation and auxiliary merge lanes. It also makes river navigation safer and protects ecosystems through modern stormwater management.

12-2 The Port supports working towards advancing this project to a Final SEIS with the following considerations:

- **Design** – The Port requests that, whether the project adopts one or two auxiliary lanes in each direction, that the project team considers design that reduces congestion time and length and provide adequate shoulders on both sides and other safety measures should not be compromised. Consideration should also be made to connect to SR-14 that adequately supports safe vehicular and freight movement to east Clark County.

12-3
- **Environmental** – The port supports the additional focus on Climate Changes listed in the Draft SEIS.
- **Maximize Workforce Development** – The Port appreciates the efforts to date to inform and prepare contractors for the requirements and workforce demands of this program, with an emphasis on equitable outcomes for historically disadvantaged communities. We look forward to supporting the project team through construction.

We appreciate the efforts of all involved in planning, design and funding of this critical transportation facility expected to last a century.

Sincerely,

Trang K. Lam, CEO

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Phone: (360) 835-2196 ~ Fax: (360) 835-2197
Email: info@portcw.com ~ Website: www.portcw.com

Response to Submission 12: Port of Camas-Washougal (November 18, 2024)

12-1
Thank you for your comment and support.

12-2
The IBR Program Recommended Design Option is one auxiliary lane. The Draft and Final SEIS include analysis of the performance of the one- and two-auxiliary-lane design options. As requested by the Port of Camas-Washougal, design refinements to reduce congestion time and length as well as safety shoulders would be considered during final design. In addition, the SR 14 connections would be designed to support safe vehicular and freight movements.

12-3
Thank you for your comment.

Submission 13: Port of Portland (November 15, 2024)

Port of Portland

November 15, 2024

IBR Program Draft SEIS
c/o Chris Regan
500 Broadway Street, Suite 200
Vancouver, WA 98660

RE: Comments on Draft Supplemental Environmental Impact Statement

Dear Mr. Regan:

13-1 The Port of Portland's (Port) mission is to build shared prosperity for the region through trade, travel, and economic development. Everything the Port does is tied to the efficient movement of people and goods – and there is no more urgent or significant improvement to our state and regional transportation system than the replacement of the functionally obsolete I-5 Bridge.

As a local partner agency, the Port supports the Modified Locally Preferred Alternative (MLPA). In the context of that support, the Port appreciates the opportunity to offer the following comments on the Draft Supplemental Environmental Impact Statement (SEIS).

13-2 **Freight Mobility: Marine Drive Interchange and Hayden Island**
As the front door to the Rivergate Industrial District, the Marine Drive interchange is critical to the Port and our tenants. Today, this interchange is often backed up, creating unsafe queuing and delays in freight movement. The Port has previously noted that the Transportation Technical Report confirms the proposed design of the Marine Drive interchange is not expected to meet AM or PM peak hour performance standards under 2045 conditions. The Port strongly recommends additional study and alternative design options to ensure optimal freight access to and from Rivergate and the Port's marine terminals. Similarly, the Port would like additional information on how the proposed design accommodates over-dimensional freight and how freight mobility concerns will be accommodated during the estimated (up to) eight-year construction period.

Given its warehousing and light industrial land uses, Hayden Island's intersections must also be designed with freight access in mind. However, the proposed grades, vertical clearances, and turning radii appear to be a challenging configuration. The Port recommends that in the final SEIS, the IBR Program further confirm truck maneuverability between Hayden Island and points south via I-5. In particular, the system of three conceptual roundabouts must be tested for viability.

13-3 **Access to PDX and I-205 Traffic Diversion During Construction and Tolling**
I-205 is the primary route to and from Portland International Airport (PDX). The number of annual travelers at PDX is forecasted to grow from 18 million passengers in 2024 to over 35 million passengers in 2045. Table 4-5 in the Transportation Technical Report notes that the I-205 bridge's daily traffic will increase from 169,600 to 220,000 (No Build) or 216,000 (MLPA) in 2045.

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13-3 Given these forecasts, the Port recommends providing additional information on plans to mitigate the impacts of growing traffic volumes on I-205.

13-4 Moreover, the Transportation Technical Report (Section 5.11) indicates "Diversion could occur during construction as people try to avoid pre-completion tolling or congestion from construction impacts. Depending on the origin and destination of the trip, this could increase travel times, modify the time of day a trip is made, or potentially change the route or mode that is chosen." However, there was no additional analysis of the anticipated construction diversion impacts to the I-205 Bridge. Similarly, the Transportation Technical Report (Section 4.11.3) notes "Reductions on I-5 were the result of diversion to the I-205 Glenn Jackson Bridge as well as increased transit use" but there is no specific description of the extent of the diversion. The Port recommends providing additional information on the proposed mitigation measures to minimize diversion impacts on the I-205 Bridge because of construction and tolling.

13-5 **River Traffic Closures and Restrictions**
The Draft SEIS indicates that restrictions on or closures to river traffic would be communicated in advance, enabling river users to accommodate their schedules, tug and barge configurations, requirements for assist tugs, shipping marine freight by other modes (e.g., truck, rail), use of different vessels with lower vertical clearance, and other options during construction activities that disrupt navigation and enable the U.S. Army Corps of Engineers (USACE) to fulfill its navigation missions. The Port encourages the IBR team to coordinate with the USACE to match river traffic closures or restrictions with annual upstream dam lock closures to limit impacts on river users. Considerations such as the annual freshet (high-water events) when navigation can be more challenging, and during the busy period following the harvest when more frequent tows are employed to move product to market, should be considered when scheduling any potential closures or restrictions.

Clarifications
13-6 The Port would like to clarify and/or correct several statements made in the Draft SEIS:

- *Section 3.2.2 Existing Conditions: "The upriver end of this section of the channel, known as the Columbia and Lower Willamette, is just downriver from the existing Interstate Bridge."*
  - The Lower Columbia River and the Lower Willamette River are separate Federal Navigation Channel projects.
- *3.2.2 Existing Conditions: "Between the Interstate Bridge and the Celilo Falls BNSF Railway Bridge 95 miles to the east, many shoreline land uses are dependent on the Columbia River. Today, the Columbia River shoreline is often identified by local jurisdictions as a resource to be leveraged for river-dependent uses such as recreational, environmental, habitat, or economical purposes than with industrial marine, water-dependent uses."*
  - The Columbia River is designated by the US Department of Transportation Maritime Administration as M-84 which is a part of their Marine Highway program – see US DOT Marine Highway M-84.

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13-6

- *3.2.2 Existing Conditions: "North Portland Harbor supports marinas of floating homes and primarily noncommercial boats. North Portland Harbor does not include a designated navigation channel."*
  - The North Portland Harbor does have a Federal Navigation Channel – see USACE federal navigation channel operations and maintenance dredging.
- *3.2.2 Existing Conditions: "Farther west (downstream), large ocean-going cargo ships use North Portland Harbor to reach Port of Portland Terminal 6. However, they cannot travel farther upstream due to the depth of the waterway."*
  - The Oregon Slough (20-foot-deep channel) was authorized by the Rivers and Harbors Act of 25 July 1912. While larger cargo vessels cannot transit past the BNSF railroad bridge, smaller ocean-going capable vessels such as tugs can transit to the Diversified Marine facility located adjacent to the current I-5 bridge.

13-7

Bridge Design
Finally, regarding the bridge design, the Port supports the fixed span option.

The Port would like to reiterate its support for the MLPA as well as the importance of the Interstate Bridge Replacement project to the efficient movement of people and goods and economy of our state and region. Thank you for your consideration and the opportunity to comment.

Respectfully,

Dan Eisenbeis
Regional Affairs Manager

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Response to Submission 13: Port of Portland (November 15, 2024)

13-1
Thank you for your comment.

Please see responses to specific comments in this letter.

13-2
The proposed geometry of the I-5/Marine Drive interchange in the Modified Locally Preferred Alternative (LPA) has been updated in the Final SEIS to address potential operational deficiencies compared with the No-Build Alternative. Additional changes may be made as the design process progresses. All intersection controls, including roundabouts, are considered placeholders in the Draft and Final SEIS, as the IBR Program will finalize the intersection control at each intersection during the final design phase.

All geometric design will be in accordance with Oregon Department of Transportation (ODOT) and Federal Highway Administration standards and, where applicable, local agency standards. Coordination will continue with the Port to accommodate overdimensional cargo at critical intersections and over the proposed new Columbia River bridges as feasible.

Maintenance of traffic during construction will be developed in collaboration with the ODOT Statewide Mobility Program to minimize disruptions or limitations to freight mobility. The IBR Program will continue to coordinate with the Port and freight industry during the design and construction phases, including regarding the mobility of overdimensional freight and design vehicles at critical intersections.

13-3
Total daily vehicle volumes crossing the Columbia River would be reduced by approximately 3% under the Modified LPA compared with the No-Build Alternative, resulting in fewer vehicle crossings on both bridges. Along with tolling, high-capacity transit investments in the Modified LPA would contribute to a higher number of transit trips crossing the Columbia River. The Modified LPA would reduce volumes on I-205 as compared with the No-Build Alternative due to improvements on I-5 as well as shifts in travel patterns to transit and active transportation. Text has been added to the Section 3.1 of the Final SEIS and Transportation Technical Report to summarize these points on tolling diversion and construction impacts.

13-4
The following text has been added to Section 5.11 of the Transportation Technical Report (TTR) to address this comment and comments from other agencies and organizations: "Tolling the Interstate Bridge is proposed to be implemented in two different timeframes: during construction and after the new bridges are complete. The first timeframe, referred to as 'pre-completion tolling,' is proposed to start on the existing Interstate Bridge while the construction of the replacement bridge is underway. Pre-completion tolling will help manage traffic demand through the corridor and generate revenue to fund construction and pay for facility operations and maintenance. During the pre-completion tolling period while the new

bridges are under construction, the existing Interstate Bridge is assumed to be tolled from 5 a.m. to 11 p.m. and operate toll-free between 11 p.m. and 5 a.m. During the hours when tolling is in place, tolls would vary by time of day, with higher rates during peak travel periods and lower rates at other times of day based on a set schedule. Final toll rates and policies (e.g., whether there would be differences in toll rates for different vehicle types, toll discounts) would be set by the Washington State Transportation Commission and the Oregon Transportation Commission. Diversion to I-205 or to other facilities in the primary study area could occur during construction as people try to avoid pre-completion tolling or congestion from construction impacts. Depending on the origin and destination of the trip, this could temporarily increase travel times, modify the time of day a trip is made, or potentially change the route or mode that is chosen."

Potential mitigation and strategies are identified in Section 7, Avoidance, Minimization, and Mitigation Measures, of the TTR.

13-5

The IBR Program will work with the U.S. Army Corps of Engineers and the U.S. Coast Guard to coordinate navigation channel restrictions and closures during construction with dam lock closures and consider seasonal factors, such as the spring freshet (high-water, high-velocity conditions) and annual agricultural harvests (transport of high freight volume), to the extent practicable. Please see Section 3.2.6, Avoidance, Minimization, and Mitigation Measures, which addresses reasonably foreseeable construction-related effects to navigation.

13-6

Section 3.2, Navigation, of the Final SEIS has been updated as appropriate in response to this comment.

13-7

Thank you for your comments and support and for sharing your opinion on the design options. Information about the IBR Program Recommended Design Options can be found in Chapter 2, Description of Alternatives, of the Final SEIS.

Submission 14: Port of Vancouver USA (November 15, 2024)

Port of Vancouver USA

November 15th, 2024

Interstate Bridge Replacement Program
Attn: Greg Johnson, Program Administrator
500 Broadway, Suite 200
Vancouver, WA 98660

RE: Port of Vancouver USA Comments on the Interstate Bridge Replacement Program Draft Supplemental Environmental Impact Statement

Administrator Johnson,

14-1 Congratulations on the milestone of releasing the Supplemental Draft Environmental Impact Statement for public comment. The Port of Vancouver USA appreciates the tremendous work that has been done to reach this point and to advance the efforts to successfully complete the Interstate Bridge Replacement Program (IBRP).

The purpose of this letter is to acknowledge the Port of Vancouver USA's support for advancing the project to a Final Supplemental Environmental Impact Statement (FSEIS), to assess the IBRP's response to the twelve conditions listed in the Port's Resolution 3-2022, to support the Modified Locally Preferred Alternative (MLPA), and to express the port's initial preferences and considerations as the program moves toward final design.

In its 2022 resolution supporting the MLPA, the port included twelve conditions of approval that needed to be addressed as the project team moved to the release of the SDEIS. The following is an assessment of each of the conditions and the response from the project team to date:

14-2

1. Study the performance of both one and two auxiliary lanes to identify a final design which maximizes safety and efficiency of freight and general-purpose traffic through the bridge influence area, including but not limited to consideration of High, Wide, and Heavy freight needs.

    a. The project team studied the performance of both one and two auxiliary lanes throughout the program area. The port requests that, if the project only includes one auxiliary lane in each direction, to consider design, technological and other methods to reduce the congestion time and length, particularly for the northbound lanes, and to do the same for potential safety improvements. Whether one or two auxiliary lanes are selected, adequate shoulders on both sides and other safety measures must not be compromised.

14-2

14-3

2. Provide adequate safety shoulders on both sides of the freeway for both Northbound and Southbound lanes to maximize safety, sufficient emergency access, and reliability through the corridor.

    a. This condition has been met and needs to be maintained throughout the final design process.

3. Accommodate High, Wide, Heavy, and Long (up to 80 meters) freight movements at the Mill Plain Interchange and provide unencumbered connections to key trade routes for the region.

    a. The project team has worked with the port on these issues and the port requests continued coordination to ensure that high, wide and heavy cargo can safely move through this project area. The port specifically requests that the Mill Plain Interchange accommodate northbound turns from Mill Plain to I-5 of at least 100 meters (turning radius) to accommodate wind farm shipments (I-5 to SR-500 to I-205). Additionally, new bridges should accommodate high wide and heavy freight and as such any toll gantries should be at least 25 feet above the roadway allowing for freight to move under them.

14-4

4. Compliment and support the goals and actions listed in the Port of Vancouver's Climate Action Plan Project in Greenhouse Gas (GHG) reduction efforts. Minimize idling of freight and general-purpose traffic.

    a. The port supports the additional focus on Climate Change listed in Section 3.19 of the SDEIS. Consider including the Port of Vancouver's Climate Action Plan (https://www.portvanusa.com/environmental-services/climate-action-plan/) in the Final Environmental Impact Statement (FEIS) as further evidence of strong political support for climate action and established citywide policies to address the impacts of climate change for their communities.
    b. Ensure the final design improves capacity for freight and reduces freight and general –purpose traffic congestion to minimize the environmental impacts of idling.

14-5

5. Include a high-capacity transit station near Terminal 1 with multimodal access, designed and operated in a manner which maximizes safety and accessibility.

    a. The port supports the work that has been done to date to include a High-Capacity Transit Station near the Vancouver Waterfront while avoiding or minimizing direct impacts to the port's Terminal 1 properties. We look forward to working with the IBRP team to advance a design that is safe, accessible, and maximizes multi-modal opportunities for commuters and other users of the facility.

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14-6

6. Continue to solicit feedback from the port and Terminal 1 stakeholders to ensure the final design compliments and avoids negative impacts to existing and proposed developments on that site.

    a. The port appreciates the focus on avoiding or mitigating impacts to the Terminal 1 Master-Planned Development adjacent to the project area. The port team will continue to work with the IBR team and contractors to advance a design that respects the following:

        i. Impacts to the newly developed office towers should be avoided. Access to the building hosting thousands of jobs must be maintained throughout construction of the IBRP. The port appreciates the commitments from the project to establish a hotline for noise complaints as well as vibration monitoring throughout the project (Section 3.11). Specifically, the port anticipates the following parcels will be impacted:
            1. Office Towers at T1 Combined Lot 7 - 330 W Columbia Way, Vancouver, WA; APN: 986049316 (land)/986067459 (building) (construction complete)
            2. AC by Marriott Hotel at T1 Lot 3 - 333 W Columbia Way, Vancouver, WA; APN: 986049313 (land)/986061511 (Bldg) (construction complete)
            3. Tract H at Terminal 1 - No Situs Address; APN: 986049326 used as walkways for Vancouver Waterfront, serving AC by Marriott Hotel and Port's adjacent parcel T1 Lot 4 (255 W Columbia Way, Vancouver, WA; APN: 48843000)
            4. T1 Adj Lot 1 currently under development/leased by BOZ Port Block 1 Owner LLC - 440 W Columbia Way, Vancouver, WA; APN: 986049311 (land)/986067977 (building)
            5. Other port-owned parcels at Terminal 1 are likely to be impacted as well.

        ii. Design elements of the project should improve multi-modal accessibility to the Terminal 1 and Vancouver Waterfront sites.

        iii. Park and rides should be minimized or located to avoid additional congestion and safety issues for those accessing Terminal 1 and waterfront areas.

        iv. The IBRP should be designed to ensure that the Terminal 1 vision of public access, affordability and enjoyment can be maintained through the viable construction of a Public Market and associated infrastructure at the site. Specifically, east access to the site, continuation of the Renaissance Trail and required parking is essential for the success of the Public Market.

14-7

        v. Impacts from Pier 7 should be minimized. Unavoidable impacts to the dock or associated infrastructure must be fully mitigated, and the port must be adequately compensated for such impacts. The IBR Right of Way and Agreements Team should work to identify a mutually agreeable solution as a top priority as the port is moving forward with contracting for the dock replacement project in December of 2024.

14-7

        vi. In-water structures should be placed and designed as to minimize dock footprint impacts and negative impacts to the visual aesthetic from Terminal 1 users as well as to avoid negative impacts to river cruise and similar anticipated water users of the Terminal 1 Dock.

        vii. The port's in-water assets must be protected from river debris during and after construction.

        viii. The IBR team must work with the port to redesign the area known as the East Portal to ensure no loss of function and to address the mutual needs of both parties at that location. The IBR team will be responsible for the relocation of the Boat of Discovery art installation in the East Portal area.

        ix. The IBRP design including Piers 8, 7.5 and 7 and corresponding superstructure should avoid or minimize impacts to Terminal 1 Lot 5 (211 W Columbia Way, Vancouver, WA; APN 986049314) and Terminal 1 Lot 6 (No Situs Address; APN 986049315) and ensure east access is maintained during and after construction.

        x. Pier configuration and design should maximize access to and through the Terminal 1 site and should minimize visual impacts to users of the site.

14-8

7. Design elements must encourage and accommodate additional small to mid-size Columbia River cruise activity at or near Terminal 1.

    a. Although the current range of design options does not directly prohibit river cruise or similar activity at Terminal 1, the port requests that the IBR team work to limit the intrusion of pier structures (particularly Pier 7) into the North Barge Channel.

14-9

8. The shared use path (SUP) should be designed in a way that allows for convenient access to Terminal 1 and the surrounding waterfront areas.

    a. The port appreciates the conversations that have happened to date between the IBR team and the port's Terminal 1 team. The port requests to work with the IBR team to advance an SUP design that does not hinder eastern access to the Terminal 1 site and provides a safe and efficient opportunity for multi-modal access to and through the project area.

14-10

9. Design and redevelop open spaces that are created or disturbed by the IBR program in consultation with the Port of Vancouver and the City of Vancouver in a manner which emphasizes connectivity with the adjacent developments and uses that complement the character of the surrounding area.

    a. The port requests to fully participate in the work to repurpose and redevelop newly created areas because of the IBR program. The area on the north bank of the

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14-10

Columbia River should remain connected and safe spaces that the public can access and enjoy should be preserved. Access should be maintained to connect the waterfront during construction to the extent possible to minimize economic impacts and traffic disruptions.

14-11

10. Continue to engage the business and freight communities on a regular basis to provide feedback in critical areas such as auxiliary lane configuration, grade, turning radii, and other elements associated with freight and commerce.

    a. The port has been pleased with freight engagement to date and looks forward to working with the IBR team to ensure the continued facilitation of High, Wide, and Heavy freight movement through the project area.

        i. Specifically, the following elements are critical to the success of this effort:
            1. Safety shoulders of at least 12 feet on both sides for both directions of traffic
            2. Grades not exceeding 4% on the main profile
            3. Turning radii of at least 100 meters NB from the Mill Plain interchange
            4. Height clearances of at least 20 feet under the Mill Plain interchange and throughout the project area.
            5. Toll gantries need to have at least 25 feet of clearance

14-12

11. Maximize workforce development opportunities including but not limited to apprenticeship utilization through collaboration with regional workforce partners.

    a. The port appreciates the work that has been done to date to inform and prepare contractors for the requirements and workforce demands of this program, with an emphasis on equitable outcomes for historically disadvantaged communities. We look forward to working with the team to assist in these efforts through final design and construction.

14-13

12. The Port of Vancouver strongly encourages tolling structures and systems that do not disproportionately impact freight or inhibit regional access to jobs on either side of the Columbia River.

    a. The port will continue to monitor the Joint Oregon and Washington Transportation Commission's work on tolling this project to advocate for toll rates on freight with multipliers that are fair and consistent with regional rate structures.

14-14

Additional considerations

Beyond the twelve conditions listed in the port's resolution supporting the Modified Locally Preferred Alternative, the port has the following comments in review of the Supplemental Draft Environmental Impact Statement:

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14-14

Executive Summary

The port appreciates the community outreach that has been done to date, particularly the focus on equity and inclusion of a broad range of stakeholders in meaningful discussions.

For the three bridge configurations studied, the port supports advancing either a single level or double deck configuration, noting that there are tradeoffs between freight optimization and potential impacts to the Terminal 1 site. The port does not support moving forward with a moveable span configuration as the benefits would be minimal to river commerce, while missing a key benefit of removing the only stoplight on Interstate 5 between Canada and Mexico.

The port supports advancing a design of high-capacity transit stations at Evergreen and near the Vancouver Waterfront. Park and ride locations should be avoided or limited to those necessary to ensure adequate ridership. Avoid generating unnecessary congestion in Vancouver's downtown core during peak periods.

The port does not support continuing to advance the westward shift option as the impacts to businesses and property owners outweighs the benefits.

The port strongly supports maintaining the C-Street Ramps in any final design to protect the performance of Mill Plain as the primary freight route and to improve access to the Terminal 1 sites and downtown Vancouver generally.

14-15

Significant performance improvements are realized between the "No Build" scenario, the zero auxiliary lane, and both additional auxiliary lane options. As the project moves forward in the design process, the port requests to better understand what options are available to the IBR team to improve performance of a single auxiliary lane scenario, particularly for Northbound traffic nearing the interstate bridge during the PM peak period.

14-16

The port appreciates the coordination with the construction industry to ensure workforce readiness and to minimize impacts to job losses in the project area during and after construction (S-56 Summary).

Chapter 1: Purpose and Need

The port concurs that the six areas of need identified in Chapter 1, Purpose and Need, continue to be significant challenges for our region. This includes growing travel demand and congestion, impaired freight movement, limited public transportation operations, connections, and reliability, safety and vulnerability to incidents, substandard bicycle and pedestrian facilities, and seismic vulnerabilities. Additionally, the port agrees that the current context requires an even more emphasized focus on equity and climate change impacts.

For the port, these challenges impact our ability to remain globally competitive as a gateway for project cargo, including high, wide, heavy and long shipments that are critical to our regional

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14-16 and national economies. Additionally, the Columbia-Snake River system remains vulnerable to a seismic event which would devastate commerce flow stretching far into the midwestern United States. Finally, access to the port's Terminal 1 and the Vancouver Waterfront project is hindered by the historical impacts of Interstate 5 projects, creating an opportunity to reconnect key points in our community and improve access for all to this revived location.

14-17 **Chapter 2: Description of Alternatives**

See previous comments on the port's preferences related to the various alternatives considered in this chapter.

14-18 **Chapter 3: Existing Conditions and Environmental Consequences**

3.1-15 – Transit design should complement the investments that C-TRAN has made since the Columbia River Crossing project and should create regional transit connections that do not negatively impact transit ridership on existing C-TRAN routes to and from downtown Vancouver. The port supports continued express bus service from Vancouver to Portland.

3.1-31 – The port concurs with the assessment of anticipated increases in freight traffic through the project area. Specifically, that "by 2045, trucks will comprise almost 15% of total trips across the new Columbia River bridges, which is an increase of 50% in truck traffic compared to 2019. This means that freight truck traffic would grow more quickly than general traffic under all alternatives and design options."

3.1-42 – "Co-locating the shared-use path with the proposed Waterfront Station to provide additional elevator access down to Columbia Street/Columbia Way is a potential design solution that is being considered." The port requests to continue working with the IBR design team to identify a solution for both the shared use path and the waterfront station platforms that is both safe and accessible.

3.1-46 – The port appreciates efforts to minimize impacts to freight mobility throughout the project and will work with the IBR team to coordinate or amplify messaging to the freight community regarding necessary closures or detours related to the MLPA projects.

14-19 **3.2-6** – River Navigation and Clearances – The economic competitiveness of the port is dependent upon a successful river economy, including the transit of cargo upriver by barge as far as Lewiston, Idaho. The port appreciates the additional horizontal clearances that this project will provide and acknowledges adequate clearances for the types of vessels currently interacting with Columbia River ports. The port stresses the importance of working closely with river economy stakeholders throughout construction to avoid or minimize any disruption to river commerce. Additionally, the port commits to work with river users listed in Table 3.2-3 to identify downriver solutions that may be needed to accommodate the varying needs of Marine Industrial Contractors.

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14-19 Additionally, the port would like to further understand any impacts of shifting the North Barge Channel relocation may have on Terminal 1 related to river cruise or other vessels docking at that location.

3.2-18 – The port supports efforts to ensure continued safe passage of dredging vessels and equipment during and after construction.

14-20 **3.3-6** – The port will work with the IBR team to identify updates to the existing conditions at Terminal 1 to ensure the anticipated Temporary Construction Easements and Partial Acquisitions showing in Figure 3.3-3 (Detail of Property Acquisitions in Downtown Vancouver) still apply, particularly as there are now existing office towers on the northern portion of Terminal 1, known as Combined Lot 7 [330 W Columbia Way, Vancouver, WA; APN: 986049316 (land) and 986067459 (building)]. In addition, the Port's tenant who leases Lots 5 (211 W Columbia Way, Vancouver, WA; APN 986049314) and a portion of Lot 6 (No Situs Address; APN 986049315), as those lots are currently configured, has plans underway to develop those parcels. In addition, the port has already constructed Vancouver Landing improvements adjacent to the AC by Marriott Hotel and extending to the west to Esther Street [501 W Columbia Way, Vancouver, WA (APN 502240000) and 103 Quayside Pl Unit IRR, Vancouver, WA (APN 5022450000, amongst other lots], and the port is currently constructing its replacement Terminal 1 dock [spanning across the following parcels: 103 Quayside Pl, Vancouver, WA (APN 502245000); No Situs Address (APN 502246000); and 100 Columbia St, Vancouver, WA (APN 502250000)], which will be the home of the Port's Public Market. Also, the project must avoid any disruptions to not only the BNSF mainline, but also the port-managed rail facilities that begin at this location.

3.3-13 – Staging and Casting Areas - While staging opportunities for IBRP are no longer available at Terminal 1, the port will work with the IBR team or contractor to determine if any other port sites with barge and/or rail access that would be suitable for pre-casting of concrete segments for construction of the bridges and ramps. The same applies for uses such as material or equipment storage, stockpiling soils, or providing employee parking or temporary construction offices. We currently have several pending business opportunities for our vacant properties, so those opportunities may affect the location of such available staging, casting, and other temporary use areas.

14-21 **3.4-29 –** The port appreciates the recognition of the Port of Vancouver Waterfront Development Master Plan and the vision for the Columbia River waterfront that is consistent with the port's mission to provide economic benefit to the community through leadership, stewardship, and partnership in maritime-related development. While the plan accounts for the Interstate Bridge replacement and its alignment relative to adjacent development, the port acknowledges that potential alignments have changed since the Columbia River Crossing project that must be addressed fully through the agreements process to ensure that the viability of the Terminal 1 project is not negatively impacted.

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14-22 **3.4-34** – Reduce or eliminate impacts to Marine Cargo Transport through strong coordination and phasing which ensures continuous access through the project area throughout the construction period.

3.4-35 – Confirm that no long-term economic impacts to rail traffic operations would be anticipated because of the Modified LPA for Port of Vancouver USA owned and managed rail facilities in addition to BNSF.

3.4-41 – The port commits to work with the IBR team to minimize temporary impacts to the BNSF and Port of Vancouver Railway lines and service frequency as well as to identify ways to minimize delays for commercial freight vehicles during construction.

3.4-41 – Ensure robust and consistent outreach to Terminal 1 businesses and building owners affected by construction and use assistance programs to help mitigate potential negative construction-related effects.

14-23 **3.5-30** - Neighborhoods and Equity – The project should consider the significant number of new residential and commercial users at the Vancouver Waterfront and Terminal 1 locations. These residents and users should be included in the program-specific mitigation measures listed in the SDEIS. The MLPA projects will increase multimodal access to the site, but the project must address the specific needs of these new users during and after construction.

14-24 **3.6-14 –** Utilities and Public Services – The port commits to coordinate with the IBR team to ensure that utilities serving the Terminal 1 site are not impacted by construction and to minimize any disruption to businesses because of any required utility relocations or temporary outages.

14-25 **3.7-4 -** Parks and Recreation – The port appreciates the mention of benefits to the Vancouver Landing project at Terminal 1 and will work with the IBR team to avoid any negative impacts at this site during and after construction. The port requests to work with the IBR team and other stakeholders to identify a final design that improves the safety and connectivity of the Renaissance Trail and provides better access and wayfinding to the Fort Vancouver National Historic Site from the Vancouver Waterfront.

14-26 **3.9-11** – Visual Quality – The port recognizes that the "single-level fixed-span configurations would have a slimmer vertical profile and would grant viewers in proximity or beneath the Columbia River bridges along the Vancouver waterfront with more expansive and unobstructed views below bridge decks and between piers." In any configuration, final design should maximize the visual quality of high traffic areas and community gather places, such as Terminal 1 and the Vancouver Waterfront. The port requests to align Pier 7 to improve the eastern viewshed from the Terminal 1 dock and Public Market building.

The design of Pier 7 and its foundation needs to be coordinated with the construction of the east dock to ensure both structural and seismic integrity, maintenance of function, and aesthetic appeal.

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14-26 Generally, the port prefers the extradosed design option for the interstate bridge structure purely for the visual appeal from the Terminal 1 location. In any scenario, bridge type should consider the visual impacts for those on either side of the river.

14-27 **3.9-28** – North Bank - The area underneath the bridge at the Vancouver Waterfront should be designed to be safe and secure for bicycle and pedestrian traffic as that area will connect the waterfront with the rest of the bike-ped trail headed east parallel to SR-14.

14-28 **3.10-13** - Air Quality – The project should result in air quality in the adjacent area that is the same or better than existing conditions. Monitoring should occur to ensure that construction-related air quality impacts remain at acceptable levels as the Terminal 1 site is now an active job and retail center.

14-29 **3.11-18** - Noise and Vibrations – Ensure that noise impacts at points DT-030, DT-031, and DT-032 are equal to or better than the No Build scenario and implement measures such as sound walls where feasible to further mitigate for noise impacts at the Terminal 1 site, particularly for newly adjacent commercial and retail employees as well visitors to this location.

14-30 **3.14-13** - Water Quality and Hydrology – Coordinate with the port team to ensure stormwater management best practices are used, specifically for those projects affecting port properties.

14-31 **3.16-2 – Table 3.16-1** – "CRC LPA included removal of a portion of the existing dock at the Port of Vancouver's Terminal 1, which is not part of the Modified LPA." – While the dock that existed during the CRC LPA is no longer there, this statement should be updated to reflect any potential impacts to the new dock structure and mitigation for any related impacts to water-surface level overwater shading. The Port is currently constructing bank improvements for the replacement dock, and construction of the replacement dock itself will be underway during 2025 (No Situs Address; APN 502246000 and 502250000).

3.16-40 - Ecosystems – The port commits to work with the IBR team to implement Fish Salvage Best Management Practices for those elements adjacent to and associated with the Terminal 1 location. The port's dock replacement project has been designed to improve fish habitat at the site and those benefits must be maintained throughout the project period.

14-32 **3.17-8** - Geology and Groundwater – The port's current and planned development at Terminal 1 is, and will continue to be, built to current seismic safety standards, including ground stabilization efforts to reduce the impacts of liquefaction.

3.17-9 – Groundwater Resources – The port requests to work with the IBR team to identify proper mitigation and replacement for the impacts to the area at Terminal 1 known as the East Portal, which was planned to have positive impacts to stormwater at that site but will likely be impacted by the MLPA projects.

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14-33

3.20-45 – Environmental Justice – The port supports efforts to avoid negative impacts to EJ populations and to mitigate where necessary. The port will work with the IBR team to support mitigation efforts that could include port properties or programs.

14-34

3.23-1-3 - Cumulative Effects – Recent and planned development at the Vancouver Waterfront must be taken into full consideration as the IBR Program advances. The Terminal 1 site now includes a redeveloped Vancouver Landing site [103 Quayside Pl Unit IRR, Vancouver, WA (APN 502245000); 501 W Columbia Way, Vancouver, WA (APN 502240000); No Situs Addresses (APN 986049325, 986049324, and 986049323)], an AC by Marriott Hotel (Lot 3; 333 W Columbia Way, Vancouver, WA; APN 986049313), two office towers adjacent to the project area (Combined Lot 7; 330 W Columbia Way, Vancouver, WA; APN 986049316 (land) and 986067459 (buildings), and additional residential construction now under construction (Adjusted Lot 1; 440 W Columbia Way, Vancouver, WA; APN 986049311 (land) and 986067977 (building). Additionally, in the next few years, the port anticipates additional residential, retail and commercial development occurring at the Terminal 1 site [Lot 5 (211 W Columbia Way, Vancouver, WA; APN 986049314) and Lot 6 (No Situs Address; APN 986049315).

"Changes in the project footprint necessitated by changed conditions resulting in shifting the light-rail transit alignment, modifying interchange designs, and adding bridge configuration options." – The shift in the project footprint will likely impact existing port properties and leaseholds. The port will work with the IBR team to ensure that impacts are avoided where possible and sufficiently mitigated as warranted.

The port appreciates the recognition of the significant investment in the West Vancouver Freight Access Project (WVFA) and will work with the IBR team to avoid impacts to rail traffic entering and exiting port properties.

"Terminal 1 would be a mixed-use development with a hotel, office and retail space, outdoor gathering areas, and a public marketplace. Terminal 1 would also complete a missing segment of the Vancouver Waterfront Renaissance Trail, connecting the existing trail at the Vancouver waterfront to the existing Columbia River Renaissance Trail east of Terminal 1. Some elements have been constructed, including an outdoor amphitheater. Construction of other features is underway, with an anticipated completion date of 2027." – The port will continue to update the IBR project team on timelines and key milestones for the development of Terminal 1. The replacement of the Terminal 1 dock will begin in 2025 and both the construction of a Public Market, the extension of the Renaissance Trail, as well as the development of Blocks 5/6 are anticipated to occur prior to, or in the same timeframe as the construction of the MLPA.

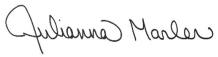
3.23-8 Cumulative Effects / Navigation – "Temporary cumulative effects on navigation would occur during construction of other reasonably foreseeable future actions, as addressed in Section 3.23.4." – The IBR team should seek to align any potential construction related restrictions to navigation through the project area with planned lock closures to minimize disruption to the river economy.

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14-35

Thank you for your work to advance the IBR Program and for your consideration of our requests. We look forward to working with you and your team to advance the project to Final Design.

Sincerely,



Julianna Marler, CEO

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Response to Submission 14: Port of Vancouver USA (November 15, 2024)

14-1
Please see responses to specific comments in the rest of the letter.

14-2
The IBR Program Recommended Design Option regarding auxiliary lanes is one auxiliary lane. The Draft and Final SEIS include analysis of the performance and safety of one- and two-auxiliary-lane designs. Design refinements to reduce congestion time and length as well as safety improvements will be considered during final design. Adequate shoulders and safety measures would be provided regardless of the selected design option.

14-3
The IBR Program appreciates the continued coordination with the Port of Vancouver. Adequate shoulders and safety measures would be provided regardless of the selected design option. The IBR Program will follow federal and state design and safety standards and will continue to work with the Port and the broader freight community to optimize opportunities to accommodate high, wide, and heavy loads.

14-4
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14154 - Unleashing American Energy and EO 14148 - Initial Rescissions of Harmful Executive Orders and Actions. Together, EO 14154 and EO 14148 revoked EO 13990 - Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021) and EO 14008 - Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations - "Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender." As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, FHWA and FTA will not include greenhouse gas (GHG) emissions and climate change analyses in the federal environmental review process, and any purported GHG emissions or climate change impacts will not be considered in the federal decision. Accordingly, no GHG emissions or climate change analyses are included in this Final SEIS.

FHWA and FTA's responses herein are limited to issues raised in the comment that do not implicate GHG emissions or climate change impacts. To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider and respond to aspects of the comment implicating GHG emissions or climate change, those responses are provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of any federal decision-making.

The proposed Modified LPA would relieve congestion and reduce vehicle idling with improved traffic flow and transit service. Reduced vehicle volumes and vehicle idling would reduce emissions of air pollutants (see Section 3.10.3) and energy consumption (see Section 3.12.3) from vehicles using the roadway.

14-5
The Modified LPA would include a high-capacity transit station near Terminal 1. The IBR Program will continue to coordinate with the Port of Vancouver during final design and construction.

14-6
IBR Program efforts to avoid, minimize, and mitigate impacts, including to Terminal 1 and the specified parcels, will continue through final design and construction. The IBR Program will continue to work with the Port of Vancouver and the City of Vancouver to provide active transportation and local street network connections to the IBR Program area and to address design issues around park and rides and multimodal accessibility.

14-7
The IBR Program will continue to work with the Port of Vancouver and the City of Vancouver to address these considerations, including impacts on the piers, Terminal 1, the Port's in-water assets, and the East Portal area. If it is determined that all or a portion of a property is necessary for the proposed Modified LPA, property owners will be contacted well in advance of any construction activity, in accordance with federal requirements described in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

Section 7 of the Visual Quality Technical Report has been updated to address the Boat of Discovery.

14-8
The IBR Program will continue to work with the Port of Vancouver and City of Vancouver to address cruise activity at or near Terminal 1 and limit the intrusion of pier structures into the North Barge Channel.

14-9
The IBR Program will continue to work with the Port of Vancouver and City of Vancouver on the shared-use path design and access to Terminal 1.

14-10
The IBR Program will continue to work with the Port of Vancouver and City of Vancouver on open spaces created or disturbed by the Modified LPA, including on the north bank of the Columbia River, and to maintain access to the waterfront during construction as feasible.

14-11
The IBR Program will continue to work with the Port of Vancouver and City of Vancouver to engage the business and freight communities on design elements through final design,

including addressing high, wide, and heavy freight movement through the primary study area.

14-12
The IBR Program recognizes that a skilled workforce that is ready to meet the challenges of the future is critical to the IBR Program's success, so the IBR Program is taking steps to help support other regional efforts to ensure that the local workforce is ready to deliver the proposed Modified LPA. Options are being considered for on-the-job training programs, setting hiring targets and outreach, and access to assistance to ensure that the local workforce is ready to participate in the IBR Program. While the specifics of this approach are still in development, the IBR Program has started working toward some pieces of it, such as establishing an intern program, holding outreach events with contractors, and jointly holding events to ensure access to support and assistance from workforce organizations. The IBR Program will continue to coordinate with the Port of Vancouver on workforce development.

14-13
The Interstate Bridge is part of a critical north-south freight route connecting the states of Washington, Oregon, and California, as well as Canada and Mexico. Toll revenue provides a vital funding source for capital costs, operations, and maintenance for the replacement bridge.

Truck toll-rate policies for the Columbia River bridges would be jointly determined by the two state transportation commissions.

14-14
Your opinion on the design options has been taken into consideration. The IBR Program Recommended Design Options are identified in Chapter 2, Description of Alternatives, of the Final SEIS and Appendix K, Recommended Design Option Report, and are listed below. The selection of design options will occur in the Amended Record of Decision.

Bridge Configuration: Single-level fixed-span

Auxiliary Lanes: One auxiliary lane

C Street Ramps: With C Street ramps

I-5 Alignment: Centered in Downtown Vancouver

Park-and-Ride Options: Provide parking capacity to accommodate 1,270 vehicles dispersed among five park and rides in Vancouver along the light-rail alignment. Near the Waterfront Station, 570 parking spaces would be distributed among three park and rides at (1a) Columbia Way (below I-5), (1b) Columbia Street/State Route 14, and (1c) Columbia Street/Phil Arnold Way. Near the Evergreen Station, 700 parking spaces would be distributed among two park and rides at (2a) Library Square and (2b) Columbia Credit Union.

14-15
Design refinements will continue during final design to address this comment. The IBR Program will continue to work with the Port of Vancouver during final design and construction.

14-16
Thank you for your comment.

14-17
Please see responses to the previous comments.

14-18
Transit investments that are part of the proposed Modified LPA are expected to strengthen the links between existing systems to improve connectivity within the communities. Providing two types of transit on the replacement bridge gives travelers options for how they take their trip and maximizes transit capacity to accommodate cross-river transit trips. The IBR Program looks forward to your offer for continued support and coordination on all the items listed in this comment.

14-19
The IBR Program will coordinate with the U.S. Coast Guard Captain of the Port during construction so that all river users will be kept apprised of changes to navigation channels, horizontal and vertical clearances, and other navigation aids. The Final SEIS outlines mitigation commitments for impacts to river users during construction that address vessel passage windows, auxiliary tug usage, and staging/sequencing to minimize impacts to river traffic during construction. The IBR Program will also continue coordinating with the Port of Vancouver regarding the location of the North Barge Channel; the proposed location is not anticipated to have any impacts on Terminal 1 as it relates to river cruise or alternate vessels docking at that location.

The IBR Program agrees that safety during construction is a priority. The U.S. Coast Guard bridge permit will outline requirements for safety and maintaining river traffic during construction.

14-20
The IBR Program team will continue coordination with the City and the Port to ensure that the proposed Modified LPA is compatible with existing and planned City and Port activities. The IBR Program will also work with the Port of Vancouver and BNSF Railway to minimize

any railway disruptions and avoid extended periods of closure.
Thank you for the information about staging and casting areas. Conversations on this topic will occur closer to the construction phase.

14-21
The IBR Program will continue to coordinate with the Port of Vancouver throughout the design phase and the agreements process so that impacts to the Terminal 1 project are minimized to the greatest extent practicable.

14-22
The new Columbia River bridges would be constructed prior to the demolition of the existing Interstate Bridge. Three through lanes of traffic in each direction of I-5 (accommodating personal vehicles, freight, and buses) would be maintained during peak hours. Off-peak and weekend closures could be required during construction. The public would receive notification about restrictions, intermittent closures, and detours for highway, local roadway, transit, and active transportation users. A Workzone Transportation Management Plan would be developed during subsequent design and construction phases to develop the strategy for managing work zone impacts from the Modified LPA. For more information, see Construction Approach Standard Response E.7: Construction Traffic.

The IBR Program team will continue coordination with the City and the Port of Vancouver to ensure that impacts to access are minimized. It is anticipated that rail facilities owned and managed by the Port would be impacted similarly to BNSF Railway facilities; no long-term economic impacts to rail traffic operations are anticipated as a result of the Modified LPA. The Final SEIS has been updated to clarify rail facilities as appropriate. The IBR Program will coordinate with the Port to conduct outreach to Terminal 1 businesses and building owners affected by construction to communicate impacts ahead of time. The IBR Program will work with the Port and businesses around closures, access needs, and detour routes during construction as appropriate.

14-23
The Vancouver Waterfront and Terminal 1 locations are in the Esther Short neighborhood, which is in the primary study area and included in the Neighborhoods and Communities analysis in the Draft and Final SEIS. The demographic information used for the analysis has been updated in the Final SEIS with data from the most recent American Community Survey available at the time (U.S. Census Bureau, 2019-2023) and, therefore, better reflects the new residents in the area. The mitigation measures in the Final SEIS would apply to all residents in the Esther Short neighborhood. The reasonably foreseeable effects of the Modified LPA on commercial land uses in this area, including at the Vancouver Waterfront and Terminal 1 developments, along with mitigation for those effects, are discussed in Section 3.4, Land Use and Economic Activity, of the Draft and Final SEIS and in the Land Use and Economics Technical Reports.

14-24
The IBR Program will continue to coordinate with the Port of Vancouver to avoid, minimize, and mitigate any impacts to utilities or public services from construction.

14-25
The IBR Program will continue to coordinate with the Port of Vancouver and City of Vancouver on recreational safety, connectivity, and access.

14-26
Your opinion on the design options has been taken into consideration. The IBR Program Recommended Design Options are identified in Chapter 2, Description of Alternatives, of the Final SEIS and Appendix K, Recommended Design Option Report, and are listed below. The selection of design options will occur in the Amended Record of Decision.

Bridge Configuration: Single-level fixed-span

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C Street Ramps: With C Street ramps

I-5 Alignment: Centered in Downtown Vancouver

Park-and-Ride Options: Provide parking capacity to accommodate 1,270 vehicles dispersed among five park and rides in Vancouver along the light-rail alignment. Near the Waterfront Station, 570 parking spaces would be distributed among three park and rides at (1a) Columbia Way (below I-5), (1b) Columbia Street/State Route 14, and (1c) Columbia Street/Phil Arnold Way. Near the Evergreen Station, 700 parking spaces would be distributed among two park and rides at (2a) Library Square and (2b) Columbia Credit Union.

The IBR Program will continue to coordinate with the Port regarding the Terminal 1 project and impacts from Pier 7, including structural, functional, and visual effects. Seismic and structural integrity needs to be maintained for both the terminal development and the bridge pier. The Pier 7 location cannot shift north or south because of the required navigation channel widths and buffers. The IBR Program is open to looking at potential design enhancements around the pier to increase aesthetic appeal and enhance views without impacting river navigation and river hydrology.

14-27
As design progresses, the IBR Program will continue identifying ways to create safe and inviting environments for users of all modes, including design of roads and active

transportation facilities under elevated structures. The IBR Program will also continue to coordinate with agency partners and the public through the design and construction phases of the proposed Modified LPA. Safety and maintenance plans for the Columbia River bridges would follow the approaches the Oregon and Washington State Departments of Transportation take today as they relate to unsheltered homeless communities. For more information, see Design Standard Response F.10: Areas Under Elevated Structures.

The IBR Program will design active transportation facilities in compliance with local regulations and agency standards and guidelines, including those regarding safety and security of areas under elevated structures.

14-28
As described in Section 3.10, Air Quality, of the Draft and Final SEIS, the Modified LPA would not result in long-term reasonably foreseeable effects to air quality that require mitigation or monitoring. The IBR Program will require that contractors implement dust- and noise-control measures to meet local ordinances and will continue to consider potential reasonably foreseeable air quality effects from construction of the Modified LPA as more construction details are identified.

14-29
The three modeled sites represent two trail locations (Vancouver Waterfront Trail and Waterfront Renaissance Trail) and one outdoor area outside the hotel (AC Hotel Vancouver Waterfront). These sites were analyzed for potential noise impacts using the Federal Highway Administration's 23 Code of Federal Regulations 772 and the Washington State Department of Transportation's Noise Policy. Future noise-level predictions under the Modified LPA at DT-030, DT-031, and DT-032 would be between 1 and 8 dBA below future No-Build noise levels and would be below noise-impact thresholds at these locations; therefore, no mitigation was evaluated or proposed for implementation in this area.

14-30
The IBR Program will continue to coordinate with the Port of Vancouver on stormwater management best practices.

14-31
The Final SEIS has been updated to accurately reflect the current state of the Port's activities at the Terminal 1 dock, including the associated fish habitat improvements, and to appropriately characterize reasonably foreseeable effects to the structure from the Modified LPA. The IBR Program acknowledges the Port's commitment to coordination during fish-salvage activities conducted adjacent to, and associated with, the Terminal 1 locations. A statement has been added to the Final SEIS to document that the fish habitat improvements associated with the Port's dock replacement project will be maintained, to the extent practicable, through avoidance and minimization measures or be appropriately offset through compensatory mitigation.

14-32
The IBR Program will continue to coordinate with the Port of Vancouver on seismic safety, groundwater management, and stormwater management.

14-33
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

14-34
On February 19, 2025, CEQ issued a memorandum, Implementation of the National Environmental Policy Act, which acknowledged that the amendments to NEPA in the Fiscal Responsibility Act of 2023, known as the Building United States Infrastructure through Limited Delays and Efficient Reviews (BUILDER) Act of 2023, directed that EISs must analyze and disclose the "reasonably foreseeable environmental effects of the proposed agency action." CEQ encouraged Federal agencies to "analyze the reasonably foreseeable effects of the proposed action consistent with section 102 of NEPA, which does not employ the term 'cumulative effects;' [...and the agencies should consider] 'reasonably foreseeable' effects, regardless of whether or not those effects might be characterized as 'cumulative.'"

Further, since the publication of the Draft SEIS, the U.S. Supreme Court issued its decision in Seven County Infrastructure Coalition v. Eagle County, Colorado, which held the focus of NEPA is the project at hand, not other separate projects. 605 U.S. 168 (May 29, 2025). It also reinforced the "reasonably foreseeable" effects standard for measuring effects in NEPA, which was incorporated into the US DOT's NEPA implementing regulations at 23 CFR Part 771.

Accordingly, relying upon the NEPA requirements, as revised by the BUILDER Act of 2023, and 23 CFR Part 771, effective July 3, 2025, the Final SEIS analyzes reasonably foreseeable effects that result from the proposed action.* The IBR Program considers reasonably foreseeable effects to have a rational link to the IBR Program in terms of geographic and temporal proximity and must be sufficiently likely to occur. Reasonably foreseeable effects do not include effects that are speculative in nature or causally attenuated** from the IBR Program.

Reasonably foreseeable effects of the No-Build Alternative and Modified LPA on environmental and community resources are evaluated in the resource-specific sections of the Final SEIS (Section 3.1 through Section 3.22). The Final SEIS does not carry forward the former cumulative effects chapter of the Draft SEIS, Section 3.23. The introduction to Chapter 3 of the Final SEIS defines geographic proximity and temporal scope for the purposes of assessing reasonably foreseeable effects.

*The Final SEIS does not categorize the reasonably foreseeable effects of the proposed action based upon types of effects. As a result of the changes discussed in Chapter 3.00, FHWA, FTA and the IBR Program reviewed the documentation supporting the NEPA analysis to determine whether the effects that had previously been characterized as direct, indirect, and cumulative were reasonably foreseeable. The appendices supporting the Final SEIS, which contain the terms "direct" and "indirect" were included in this review. The appendices to the Final SEIS contain these terms because the terms were required under the CEQ regulations in effect at the time the appendices were prepared. Although the terms "direct" and "indirect" have not been removed from the appendices, FHWA, FTA and the IBR Program reviewed the effects characterized (or categorized) as indirect in the appendices to determine whether such effects are reasonably foreseeable. Also included in this review was the former cumulative effects section. To the extent any effects in the former cumulative effects section were determined to be reasonably foreseeable, they were included in the Final SEIS along with the discussion of other reasonably foreseeable effects.

**"Causally attenuated" in this context means effects that are remote in time or place, or are the result of a lengthy causal chain (meaning intervening variables such as other actions may contribute or cause an effect), thereby making it difficult to establish a sufficiently close connection between the proposed action and a particular environmental impact. Generally, an outcome or effect is causally attenuated if it cannot be directly attributed to one particular action, but rather may result from another action or series of actions.

The IBR Program will continue to coordinate with the Port of Vancouver regarding ongoing and planned construction at Terminal 1 and other development at the Vancouver waterfront, including rail and river navigation impacts.

14-35

Thank you for your comments and continued collaboration.

Submission 15: U.S. Department of the Interior (November 18, 2024)

United States Department of the Interior
OFFICE OF THE SECRETARY
Office of Environmental Policy and Compliance
911 NE 11th Avenue, Suite 661
Portland, Oregon 97232

IN REPLY REFER TO:
ER24/0411
4111

November 18, 2024

Chris Regan, IBR Program Environmental Manager
IBR Program Draft SEIS
500 Broadway Street, Suite 200
Vancouver, WA 98660

Dear Mr. Regan,

15-1 The U.S. Department of the Interior (Department), through the National Park Service (NPS) and the U.S. Geological Survey (USGS), has reviewed the draft Supplemental Environmental Impact Statement (SEIS) for the IBR Program I-5 crossing of the Columbia River at Vancouver, Washington. The Department offers the following comments for use in developing the final SEIS for this project.

15-2 The Columbia River Crossing Project (CRC) Locally Preferred Alternative (LPA) was updated to form the Modified LPA in 2022, including a new pair of Columbia River bridges built west of the existing bridge and including light-rail transit extension of the Metropolitan Area Express (MAX) line. The modified LPA includes three bridge configurations -- double-deck truss bridges with fixed spans, single-level bridges with fixed spans, and single-level bridges with movable spans. It also includes one and two auxiliary lane design options. The single-level bridge options will consider either a girder, extradosed, or finback bridges. In addition, there is an option to shift the I-5 mainline up to 40 feet westward in downtown Vancouver between the Washington State Route 14 (SR-14) and Mill Plain Boulevard, and an option to eliminate the existing C Street ramp in downtown Vancouver.

15-3 As a cooperating agency, NPS is committed to their work with IBR representatives over the years on the IBR and previously on the CRC. As recognized in the previous FEIS and ROD for the CRC project and as presented in this SEIS, all configurations and options will have significant adverse impacts to Fort Vancouver National Historic Site (FOVA) and the Vancouver National Historic Reserve (VNHR). It is critically important to address ways to avoid, minimize, or mitigate the baseline effects to these historic properties and park while addressing the cumulative effects of the numerous options that may be implemented. We recommend that these mitigations and cumulative effects be clearly described in the final SEIS.

Section 4(f) Comments

15-4 The NPS appreciates the detail contained in the 4(f) evaluation within the draft SEIS. We agree with the findings that the project will constitute a use of FOVA and the VNHR. We concur that FOVA and the VNHR are nationally significant properties with greater significance as a whole than as individually eligible historic properties, and that FOVA is a nationally significant unit of the National Park System. The NPS prefers the option of shifting the replacement crossing alignment west and removing the C Street ramp to reduce harm to FOVA and the VNHR; however, we do recognize that this option may not be feasible or cost-effective. While we are unable to concur that the LPA and the modified LPA is a *de minimus* action, we would be able to concur with an action that shifts the replacement crossing to an intermediate alignment that would lessen some of the direct impacts on FOVA and the VNHR.

15-5 Of the three bridge configurations, the single level bridge with girder design reduces the visual effects of all the options and maintains cleaner lines and symmetry. The extradosed and finback single level and double deck truss bridge options will introduce disruptive features on the viewshed that will diminish the integrity of setting and feeling of FOVA and the VNHR.

Fort Vancouver National Historic Site and the Vancouver National Historic Reserve

15-6 The draft SEIS correctly identifies that FOVA was congressionally designated a National Monument in 1948 and then expanded in 1961 to a National Historic Site. In 1966, FOVA was listed in the National Register of Historic Places. The NPS Organic Act of 1916, and the enabling legislation for FOVA, requires preservation and conservation of its natural, historical, and recreational resources therein, for the enjoyment of current and future generations. The draft SEIS also correctly identifies that the U.S. Congress created the VNHR in 1996, including properties affiliated with FOVA, including Officer's Row, the West Vancouver Barracks, and Old Apple Tree Park. Over one million visitors come to FOVA and the VNHR each year to learn about the history of the Pacific Northwest region, and their importance as nationally significant, cultural and heritage sites for which losses cannot be easily mitigated.

15-7 We recommend that the SEIS clearly acknowledge that adverse effects to FOVA and the VNHR will not change to any significant degree with any of the prospective changes in methods or delivery, although shifting the replacement crossing to the west and eliminating the C Street ramp would reduce some of the direct impacts to the historic properties and park. While use of the single level bridge with girder design will partially reduce the visual impacts, the project on the whole will adversely affect FOVA and the VNHR. The NPS objects to any design change that would increase direct effects to these properties. We also recommend for environmental analysis in the SEIS to address the loss of integrity of setting and feelings associated with the new bridges and how it would impact the ability of descendant communities, including Native American Tribes and Native Hawaiian Organizations, and the public, to fully engage with the location of the Fort Vancouver Village. The NPS encourages the FHWA and FTA to address in the SEIS increased noise and loss of visibility of key landscape features associated with the IBR, including installation of sound mitigation and identification of gathering places and interpretation to address the loss of access to nationally significant spaces that are of high significance and sacred to Indigenous communities.

15-8 We anticipate that construction-related physical damage through ground disturbance will occur to FOVA and the VNHR, especially through damage to the Fort Vancouver Village. Sites associated with the Fort Vancouver Village, 45CL163 and 45CL300, are highly sensitive.

15-8 Physical damage would cause permanent damage and destruction of historic places with Native American, Native Hawaiian, and other cultural associations. Resolution of adverse effects associated with this damage should reflect the significance of the site under multiple National Register criteria, including Criteria A and D. We recommend for the resolution of adverse effects to address the cultural significance of the remains of houses, structures, belongings, and heirlooms to Indigenous communities and the long-term cultural trauma and dysphoria associated with cumulative impacts to the site. The NPS encourages FHWA and FTA to clearly state in the SEIS that any direct damage that cannot be avoided should be addressed through consultation and should develop a data recovery plan to mitigate the effects to these properties. The data recovery plan would address the need to appropriately curate the information and belongings from these sites. Identification of a replacement cultural space, exhibit planning, might be considered to appropriately interpret these belongings and their past and present cultural context for the benefit of descendant communities, including Native American Tribes and Native Hawaiian Organizations, as well as better understanding by the public, fitting their high level of national significance.

15-9 The NPS supports restoration of historic landscape elements including the Fort Vancouver allée and including the surrounding landscape of the Village and prairie extending from 5th Street at I-5 along the eastern edge of I-5 to State Route 14 and then extending east of the Vancouver Land Bridge and south of the Pearson Field runway to the eastern edge of the project. We encourage plantings appropriate to the Fort Vancouver cultural landscape including restoration of its native prairie, and vegetation of exposed soil created by the project using native vegetation indigenous to the disturbed locations.

15-10 We agree that construction impacts, including vibration, could result in the physical destruction of the Post Hospital rendering it unusable or in partial or total collapse. There might be vibration impacts to the NCO Family Quarters within the Vancouver Barracks Historic District, part of the VNHR. We, therefore, recommend seismic rehabilitation of the Post Hospital and other buildings that might be adversely affected by construction vibration. In addition, the NPS encourages the FHWA and FTA to prepare a seismic monitoring plan for both the Post Hospital and the NCO Family Quarters to ensure that construction impacts will not damage these contributing buildings.

15-11 Auditory impacts associated with the IBR will diminish the integrity of contributing buildings and sites on the west side of Officer's Row and elsewhere in the VNHR. Noise abatement in these areas such as sound barriers and landscaping for aesthetic purposes could mitigate traffic noise and lessen the adverse auditory effects associated with the diminishment of integrity of setting and feeling of the VNHR.

Text-specific comments:

15-12 • Page 3.8-27, third bullet: Replace "Heritage" with "Historic"

15-13 • Page 4-53, first paragraph after "Passive Recreational Activities and Features, second sentence: Replace "immediately north of the HBC Kanaka Village" with "immediately north of the Fort site reconstruction".

15-14 • Page 4-53, last paragraph, second sentence: Replace text from the CRC project with "Construction of two of the village houses is complete and another house and landscape reconstruction is planned".

Section 6(f) Comments

15-15 The proposed Interstate Bridge Replacement Program previously noted potential impacts to sites in Portland, Oregon and Vancouver, Washington which have been assisted by the Land and Water Conservation Fund (LWCF). The State of Oregon and the State of Washington partner with the National Park Service to fund assist the listed sites. Please continue to consult with the state partners for any potential impacts, whether temporary or permanent. State coordinators may team up for coordinated response, otherwise please coordinate with each state.

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Project Impacts:
- City of Portland, Oregon, 41-001568, East Delta Park
- City of Vancouver, Washington, 53-00682 Burnt Bridge Creek Trail, Phase 2

(NOTE: 53-00595 Burnt Bridge Creek Acquisition may not be impacted.)

Potential Disturbance to a USGS Streamgage

15-16 The USGS operates streamgages along streams throughout the United States to collect water quantity and quality data for a variety of purposes. Continuous operation of USGS) streamgages is essential for our stakeholders. These streamgages have permanent infrastructure and are vulnerable to disruption when nearby construction or dredging occurs in the vicinity of them. The USGS maintains an active stream gage within the project area of the proposed I-5 crossing on the Columbia River at Vancouver, WA.

USGS Station Number	USGS Station Name	USGS Site Status	State	County
14144700	Columbia River at Vancouver, WA	Current	WA	Clark

15-16

The Oregon Water Science Center should be contacted and given sufficient advanced notice before construction near this active USGS streamgage. Efforts should be made to both preserve the streamgage and minimize impacts to the data collected at the site.

15-17

The NPS looks forward to continuing their participation as a cooperating agency for the IBR project, and their work with the FHWA and FTA towards a resolution of the IBR project's adverse effects to FOVA and the VNHR. For questions regarding Fort Vancouver National Historic Site or Vancouver National Historic Reserve, please contact Tracy Fortmann (tracy_fortmann@nps.gov). For questions regarding LWCF, please contact Andrea Messam (andrea_messam@nps.gov). Streamgage questions should be directed to Jon Janowicz (jjanowicz@usgs.gov). If you have any other questions or concerns, please don't hesitate to contact me at allison_hall@ios.doi.gov.

We appreciate the opportunity to comment.

Sincerely,

T. Allison Hall
Regional Environmental Officer

5

Response to Submission 15: U.S. Department of the Interior (November 18, 2024)

15-1
Thank you for your comment.

15-2
Thank you for summarizing key design components of the IBR Program.

15-3
On February 19, 2025, CEQ issued a memorandum, Implementation of the National Environmental Policy Act, which acknowledged that the amendments to NEPA in the Fiscal Responsibility Act of 2023, known as the Building United States Infrastructure through Limited Delays and Efficient Reviews (BUILDER) Act of 2023, directed that EISs must analyze and disclose the "reasonably foreseeable environmental effects of the proposed agency action." CEQ encouraged Federal agencies to "analyze the reasonably foreseeable effects of the proposed action consistent with section 102 of NEPA, which does not employ the term 'cumulative effects;' [...and the agencies should consider] 'reasonably foreseeable' effects, regardless of whether or not those effects might be characterized as 'cumulative.'"

Further, since the publication of the Draft SEIS, the U.S. Supreme Court issued its decision in Seven County Infrastructure Coalition v. Eagle County, Colorado, which held the focus of NEPA is the project at hand, not other separate projects. 605 U.S. 168 (May 29, 2025). It also reinforced the "reasonably foreseeable" effects standard for measuring effects in NEPA, which was incorporated into the US DOT's NEPA implementing regulations at 23 CFR Part 771.

Accordingly, relying upon the NEPA requirements, as revised by the BUILDER Act of 2023, and 23 CFR Part 771, effective July 3, 2025, the Final SEIS analyzes reasonably foreseeable effects that result from the proposed action.* The IBR Program considers reasonably foreseeable effects to have a rational link to the IBR Program in terms of geographic and temporal proximity and must be sufficiently likely to occur. Reasonably foreseeable effects do not include effects that are speculative in nature or causally attenuated** from the IBR Program.

Reasonably foreseeable effects of the No-Build Alternative and Modified LPA on environmental and community resources are evaluated in the resource-specific sections of the Final SEIS (Section 3.1 through Section 3.22). The Final SEIS does not carry forward the former cumulative effects chapter of the Draft SEIS, Section 3.23. The introduction to Chapter 3 of the Final SEIS defines geographic proximity and temporal scope for the purposes of assessing reasonably foreseeable effects.

*The Final SEIS does not categorize the reasonably foreseeable effects of the proposed action based upon types of effects. As a result of the changes discussed in Chapter 3.00, FHWA, FTA and the IBR Program reviewed the documentation supporting the NEPA analysis to determine whether the effects that had previously been characterized as direct, indirect, and cumulative were reasonably foreseeable. The appendices supporting the Final

SEIS, which contain the terms "direct" and "indirect" were included in this review. The appendices to the Final SEIS contain these terms because the terms were required under the CEQ regulations in effect at the time the appendices were prepared. Although the terms "direct" and "indirect" have not been removed from the appendices, FHWA, FTA and the IBR Program reviewed the effects characterized (or categorized) as indirect in the appendices to determine whether such effects are reasonably foreseeable. Also included in this review was the former cumulative effects section. To the extent any effects in the former cumulative effects section were determined to be reasonably foreseeable, they were included in the Final SEIS along with the discussion of other reasonably foreseeable effects.

**"Causally attenuated" in this context means effects that are remote in time or place, or are the result of a lengthy causal chain (meaning intervening variables such as other actions may contribute or cause an effect), thereby making it difficult to establish a sufficiently close connection between the proposed action and a particular environmental impact. Generally, an outcome or effect is causally attenuated if it cannot be directly attributed to one particular action, but rather may result from another action or series of actions.

Avoidance, minimization, and mitigation commitments are outlined in Appendix M of the Final SEIS, which describes all the short- and long-term commitments, timing, and responsible parties.

In addition, the Final draft Section 106 Programmatic Agreement (PA) has been included as an appendix to the Final Supplemental Environmental Impact Statement (SEIS). The PA includes measures to resolve known adverse effects to historic properties, including adverse effects to the four historic districts and one historic site of the Vancouver National Historic Reserve (VNHR): the VNHR Historic District, the Officers Row Historic District, the Pearson Field Historic District, the Vancouver Barracks Historic District, and the Fort Vancouver National Historic Site (FOVA).

The PA also includes the process for identifying measures to resolve adverse effects to National Register-eligible archaeological sites within the VNHR. Identification of these measures, in consultation with the National Park Service (NPS) and other consulting parties, will occur after the execution of the PA when detailed Program design information becomes available. An executed, signed Final Programmatic Agreement will be attached to the Amended Record of Decision.

15-4
Thank you for expressing your preferences. The Section 4(f) Evaluation in Chapter 4 of the Draft and Final SEIS documents that the Modified LPA would have a greater than de minimis impact to the FOVA and VNHR. The Section 4(f) Evaluation in the Final SEIS also documents that there is no feasible and prudent alternative to the use of the Section 4(f) property and, considering the balancing of effects on all resources, that the IBR Program Recommended Design Options (Modified LPA with Single-Level Fixed Span Configuration, One Auxiliary Lane, C Street Ramps, Centered I-5) is the alternative with the least overall harm. A replacement crossing at an intermediate alignment is not among the Modified LPA options being considered for the proposed action. As such, additional analysis of this option has not been included in the Final SEIS.

15-5
Your opinion on the design options has been taken into consideration. The IBR Program Recommended Design Options are identified in Chapter 2, Description of Alternatives, of the Final SEIS and Appendix K, Recommended Design Option Report, and are listed below. The selection of design options will occur in the Amended Record of Decision.

Bridge Configuration: Single-level fixed-span

Auxiliary Lanes: One auxiliary lane

C Street Ramps: With C Street ramps

I-5 Alignment: Centered in Downtown Vancouver

Park-and-Ride Options: Provide parking capacity to accommodate 1,270 vehicles dispersed among five park and rides in Vancouver along the light-rail alignment. Near the Waterfront Station, 570 parking spaces would be distributed among three park and rides at (1a) Columbia Way (below I-5), (1b) Columbia Street/State Route 14, and (1c) Columbia Street/Phil Arnold Way. Near the Evergreen Station, 700 parking spaces would be distributed among two park and rides at (2a) Library Square and (2b) Columbia Credit Union.

15-6
Thank you for confirming the accuracy of the Draft SEIS characterization of the FOVA and VNHR.

15-7
The IBR Program will continue to prioritize avoidance and minimization of additional impacts from design changes or new information about construction methods or delivery that may occur after the National Environmental Policy Act (NEPA) Amended Record of Decision. However, the IBR Program cannot commit to no future change in impacts, given that the Modified LPA design will continue to progress. If changes in design or construction methods and delivery occur, or new information arises, the NEPA process allows for post-decision reevaluation. Further, the Section 106 PA includes stipulations that outline processes for

continued consultation; area of potential effects amendment; post-PA execution phased identification of historic properties, assessment of effects, and resolution of adverse effects; training; inadvertent discovery; archaeological monitoring; treatment of historic built environment resources, archaeological resources, historic cemeteries, and human remains; and other administrative stipulations. Implementation of the Section 106 PA will provide opportunities for public and consulting-party comment on future assessment of impacts.

Table 3.8-9, found in Section 3.8, Cultural Resources, of the Draft and Final SEIS, addresses the Section 106 effects finding, including a finding of adverse effect for the VNHR Historic District, the Officers Row Historic District, the Pearson Field Historic District, the Vancouver Barracks Historic District, and the FOVA, under all options considered in the Modified LPA. Detailed analysis of integrity of feeling and association can be found in the Historic Built Environment Technical Report attachment, which includes a Finding of Effect form for the contributing components of the VNHR. As a Section 106 consulting party, NPS had opportunities to provide input on the finding of effects, including review and comment on the Finding of Effect form.

The Final draft Section 106 PA, which has been attached to the Final SEIS, includes mitigation to resolve adverse effects to the VNHR, including the VNHR Historic District, the Officers Row Historic District, the Pearson Field Historic District, the Vancouver Barracks Historic District, and the FOVA. An executed, signed Final PA will be attached to the Amended Record of Decision. As a Section 106 consulting party, NPS provided input during the consultation process, which informed the development of these mitigation measures.

In addition, the Draft and Final SEIS include analysis of reasonably foreseeable noise and visual effects in Section 3.11, Noise and Vibration, and Section 3.9, Visual Quality, including commitments to avoid, minimize, and mitigate those impacts.

15-8

Section 3.8, Cultural Resources, of the Draft SEIS acknowledged that while archaeological studies were previously performed for the Columbia River Crossing project, additional studies are in progress to verify known archaeological resource presence and dimensions and to identify unrecorded terrestrial and marine archaeological sites. Moreover, further studies will be performed through phased identification as allowed under Section 106 of the National Historic Preservation Act (36 Code of Federal Regulations 800.4 (b)(2)).

In addition, the Final draft Section 106 PA, which has been included as an attachment to the Final SEIS, acknowledges that the effects of the Program on properties listed in and determined eligible for listing in the National Register of Historic Places (NRHP), herein referred to as historic properties, cannot be fully determined prior to approval of the Program, and the Program will have an adverse effect on historic properties. Attachment D to the PA is the Archaeological Resources Identification, Monitoring, and Treatment Plan (ARIMTP). The ARIMTP was developed in consultation with tribes and NPS, among others. Findings of effect for archaeological resources and mitigation measures will be conducted and consulted after the PA is executed. An executed, signed Final PA will be attached to the Amended Record of Decision.

Section 3.8.6 of the Final SEIS has been revised to clearly state that any adverse effects identified to archaeological resources will be resolved through the process outlined in Stipulation V of the PA and processes detailed in PA Attachment D of the ARIMTP.

PA Stipulation V specifies that if adverse effects to NRHP-eligible archaeological sites cannot be feasibly avoided, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) will determine if data recovery is an appropriate measure to resolve adverse effects on NRHP-eligible archaeological sites, in coordination with the Washington State Department of Transportation (WSDOT) and Oregon Department of Transportation (ODOT) (as applicable) and in consultation with the Washington State Department of Archaeology and Historic Preservation and Oregon State Historic Preservation Office (as applicable), NPS (regarding VNHR), the tribes, and other consulting parties. If it is determined through consultation that data recovery is an appropriate measure to resolve adverse effects, WSDOT and ODOT (as applicable) will prepare a data recovery plan consistent with the standards and guidelines listed in Attachment D and following the data recovery methods in Section D-III.B of Attachment D. A data recovery plan will be prepared for each adversely affected archaeological site or for a group of sites. In addition, Attachment D-VII.B addresses curation.

In addition, as PA Stipulation V indicates, if adverse effects cannot be avoided and data recovery is not determined appropriate through the consultation process, other mitigation approaches will be considered for resolving adverse effects to NRHP-eligible archaeological sites if appropriate. If FHWA and FTA determine, through consultation, that the use of other mitigation is appropriate, WSDOT and ODOT, as applicable, shall prepare site-specific mitigation plans, using other mitigation approaches, for each adversely affected archaeological site or group of sites. Based on consultation, measures to resolve adverse effects to adversely affected NRHP-eligible archaeological sites will reflect the significance of the site under multiple National Register Criteria and significance associations as applicable.

15-9

The Final draft Section 106 PA, which has been attached to the Final SEIS, includes restoration of the Fort Vancouver allée as mitigation to resolve adverse effects to the VNHR (including the VNHR Historic District, the Officers Row Historic District, the Pearson Field Historic District, the Vancouver Barracks Historic District, and the FOVA). An executed, signed Final PA will be attached to the Amended Record of Decision. The mitigation measures identified in the Final SEIS include provisions regarding the restoration of areas temporarily disturbed during construction. All temporarily disturbed areas will be reseeded or revegetated consistent with plant species indigenous to the location and consistent with applicable federal, state, and local regulatory requirements.

15-10
The IBR Program would require vibration monitoring to be performed at specific buildings and structures located within the vicinity of all construction areas. With oversight from the Oregon Department of Transportation (ODOT) and Washington State Department of Transportation (WSDOT), the contractor will perform vibration monitoring to ensure that monitored levels do not exceed thresholds established by WSDOT and ODOT. In general, the vibration monitoring location will be at the property closest to construction. If the closest property is not historic, a vibration monitoring location will be at the closest property, and a second vibration monitoring location will be required at the closest historic property. Additional information on vibration monitoring is in Section 3.11, Noise and Vibration, of the Draft and Final SEIS and the Noise and Vibration Technical Report.

The IBR Program is currently advancing designs to prepare for construction. As the design advances, locations within the primary study area where vibration would be anticipated due to specific construction activities will be identified. The contractor will be required to monitor vibration at these locations and provide control measures to prevent vibration from exceeding damage risk criteria established in the construction specifications and detailed in the construction vibration control and monitoring plans. The contractor would provide weekly monitoring data to the IBR Program after the end of each monitoring week. The IBR Program would make monitoring data available to the public during construction.

15-11
Table 3.8-8 in Section 3.8, Cultural Resources, in the Draft and Final SEIS describes adverse effects from noise on the Officers Row Historic District. The evaluation of all noise impacts and measures to mitigate noise impacts has been included in IBR Program considerations. The noise analysis is described in Section 3.11, Noise and Vibration, of the Draft and Final SEIS. As described in Section 3.11.3, noise mitigation was evaluated for the west side of Officers Row and the portion of the VNHR near I-5 and within the noise study area. Noise Wall 11A described and displayed in Section 3.11.3 is planned to replace the existing noise wall in this area.

15-12
This revision has been incorporated.

15-13
This revision has been incorporated.

15-14
This revision has been incorporated.

15-15
The IBR Program will continue to consult with state partners for any potential impacts to sites in Washington and Oregon that have been assisted by the Land and Water Conservation Fund.

15-16
Since the existing Interstate Bridge will ultimately be removed, this streamgage will need to be relocated. In addition, construction activity will be occurring near the gage for much of the in-water construction period. The IBR Program will coordinate with the U.S. Geological Survey Oregon Water Science Center office prior to commencement of in-water construction activities to determine whether the existing streamgage should be relocated for the duration of the in-water construction period and to establish a permanent location for the streamgage. A description of the relocation has been added to Section 3.14.6 of the Final SEIS and to Section 7 of the Water Quality and Hydrology Technical Report.

15-17
Thank you for your comments and continued collaboration.

Submission 16: U.S. Environmental Protection Agency Region 10 (November 18, 2024)

REGION 10
SEATTLE, WA 98101

November 18, 2024

IBR Program Draft SEIS
c/o Chris Regan, IBR Program Environmental Manager
500 Broadway Street, Suite 200
Vancouver, WA 98660

Dear Chris Regan:

16-1

The U.S. Environmental Protection Agency has reviewed Federal Highway Administration and Federal Transit Administration's September 2024 Draft Supplemental Environmental Impact Statement for the Interstate Bridge Replacement Program (CEQ Number 20240163, EPA Project Number 05-052-FHW). The EPA has conducted its review pursuant to the National Environmental Policy Act and our review authority under Section 309 of the Clean Air Act. The CAA Section 309 role is unique to the EPA and requires the EPA to review and comment publicly on any proposed federal action subject to NEPA's environmental impact statement requirement.

The DSEIS evaluates the potential environmental impacts associated with the proposed Interstate Bridge Replacement Program which updates and supplements the Interstate 5 (I-5) Columbia River Crossing project originally approved in 2011 and later discontinued in 2014. The DSEIS focuses on a 5-mile corridor that includes bridge, transit, active transportation, and highway improvements to address safety and mobility in the I-5 corridor between Portland, Oregon and Vancouver, Washington. The DSEIS assesses a No Build Alternative and a Modified Locally Preferred Alternative with several design options, including: a new pair of Columbia River bridges (single-level, fixed span; double-deck fixed span, or single-level movable span); improvements to the I-5 mainline and seven interchanges, as well as related enhancements to the local street network; extension of light rail from the Expo Center in Portland to Evergreen Boulevard in Vancouver, along with associated transit improvements, including transit stations and options for park and ride locations in Vancouver; one or two auxiliary lane(s) in each direction and safety shoulders on the bridge; improvements for people who walk, bike, and roll throughout the program area; and variable rate tolling for motorists using the river crossing as a demand management and financing tool.

As a Cooperating Agency, the EPA provided comments on an Administrative Draft SEIS in October 2023 and has worked with the federal and state transportation agencies to incorporate our recommendations into the NEPA analysis. The EPA appreciates that several of our administrative comments have been addressed, including recommendations on estimating greenhouse gas emissions (GHGs) and monetizing the climate damages using the social cost of GHGs.

16-1

After reviewing the DSEIS, the EPA has identified environmental quality concerns about potential project impacts to communities with environmental justice concerns and is providing recommendations to improve the assessment and environmental outcome of the proposed action. The EPA also provides recommendations for the Final SEIS to clarify National Pollutant Discharge Elimination System permitting requirements. These FSEIS recommendations are further discussed in the enclosed Detailed Comments.

Thank you for the opportunity to review the DSEIS for this project. If you have questions about this review, please contact me at 206-553-2117 or at sturges.susan@epa.gov.

Sincerely,

SUSAN STURGES
Digitally signed by SUSAN STURGES
Date: 2024.11.18 13:42:20 -08'00'

Susan Sturges, Acting Manager
NEPA Branch

cc: Thomas Goldstein, PE, IBR Program Oversight Manager, Federal Highway Administration
Jeffery Horton, General Engineer, Federal Transit Administration

Enclosure

U.S. EPA Detailed Comments on the
Interstate Bridge Replacement Program DSEIS
Multnomah County, Oregon and Clark County, Washington
November 2024

16-2

Environmental Justice (EJ)
The EPA acknowledges that the DSEIS identifies, analyzes, and addresses disproportionate impacts to communities with EJ concerns which is consistent with Executive Order 14096 *Revitalizing Our Nation's Commitment to EJ for All*. The EPA notes that the analysis to identify communities with EJ concerns includes meaningfully greater analysis and identifies "high priority" EJ areas based on low-income and minority populations that are two times greater than the average region.[1]

The DSEIS determines that disproportionate and adverse impacts would occur even after mitigation from both long-term effects and effects during construction and states that additional EJ analysis and public engagement to refine potential impacts and gather public input on mitigation measures is necessary.[2] The Council on Environmental Quality's EJ Guidance under NEPA directs agencies to give heighten attention to alternatives, mitigation strategies, monitoring needs, and preferences expressed by the affected community.[3] The EPA recommends the FSEIS:

- Detail the additional planned outreach and include how input from impacted communities informed mitigation measures and the selection of the preferred alternative.
- As construction phasing plans are further developed, ensure that potentially affected communities are meaningfully engaged to identify and assess any additional concerns and impacts (e.g., environmental, public health, safety, etc.) and to inform mitigation measures and plans. This will help ascertain direct, indirect, and cumulative effects from any potential simultaneous or prolonged/sequential construction projects are minimized to neighboring communities and sensitive receptors.

16-3

National Pollutant Discharge Elimination System (NPDES) – Specific Comments
The EPA recommends the FSEIS and Water Quality and Hydrology Technical Report (technical report) clarify the following key NPDES terms, requirements, and/or permits that are referenced throughout the DSEIS and the technical report:

- The documents indicate that the state Departments of Transportation construction stormwater manuals will be followed.[4] The EPA recommends clarifying that the controlling regulatory authority for construction stormwater will be each state's construction stormwater general permit.

[1] DSEIS, page 3-20.4.
[2] DSEIS, page 3-20.47.
[3] CEQ EJ Guidance, page 20. https://www.epa.gov/sites/default/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf. Accessed 10/16/2024.
[4] For example, see: DSEIS, page 3.14-18, Section 3.14.6 Potential Avoidance, Minimization, and Compensatory Mitigation Measures, Temporary Effects, Regulatory Requirements, Site Erosion/Sediment Control Measures.

16-3

- The term "Temporary Erosion and Sediment Control Plan (TESCP)" is used throughout both documents.[5] Because neither state uses this term within their construction stormwater permit, the EPA suggests clarifying that this term refers to the actual stormwater general permit plans that are required. The EPA notes that the Oregon 1200-CA stormwater general permit requires an "Erosion and Sediment Control Plan." The Washington construction stormwater general permit requires a "Stormwater Pollution Prevention Plan."
- Regarding the technical report statement "WSDOT has a NPDES Construction General Stormwater Permit to cover all WSDOT construction activities…"[6] The EPA notes that this statement is not accurate. WSDOT does not have its own construction general stormwater permit with the state of Washington and would apply for and obtain coverage under Washington's Construction Stormwater General NPDES Permit. The EPA recommends correcting the statement accordingly.
- WSDOT's Municipal Separate Storm Sewer System (MS4) permit is not included in the Washington state water quality regulations list.[7] The City of Vancouver's MS4 permit may also be applicable. The EPA recommends adding WSDOT's MS4 permit to this list of water quality regulations that apply to the IBR program in the state of Washington. The EPA also suggests listing the City of Vancouver's MS4 permit here. The EPA notes that the report includes Oregon Department of Transportation (ODOT) and City of Portland's MS4 permits in the Oregon list.
- The Gresham Group MS4 permit is not included in the Oregon state water quality regulations list.[8] The EPA notes that Oregon Department of Environmental Quality's MS4 permit for Gresham Group includes the Cities of Gresham and Fairview. The EPA suggests adding ODEQ's MS4 permit for Gresham Group to this list, as the projects appear to be within those areas.

[5] For example, see: DSEIS, multiple pages, begin page 3.14-15, Section 3.14 Water Quality and Hydrology; also see DSEIS Water Quality and Hydrology Technical Report, page 2-9, Section 2.2.2.2 Oregon.
[6] DSEIS Water Quality and Hydrology Technical Report, page 2-7, Section 2.2.2.1 Washington, Washington Administrative Code (WAC). 2021 "Dept of Transportation" WAC 68; similarly, see also page 8-1, Section 8.1.1. National Pollutant Discharge Elimination System.
[7] DSEIS Water Quality and Hydrology Technical Report, page 2-7, Section 2.2.2.1 Washington.
[8] DSEIS Water Quality and Hydrology Technical Report, page 2-9, Section 2.2.2.2 Oregon.

Response to Submission 16: U.S. Environmental Protection Agency Region 10 (November 18, 2024)

16-1
Thank you for your comment.

Please see the responses to the detailed comments in the rest of this letter.

16-2
Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

16-3
The Water Quality and Hydrology Technical Report has been updated with the recommended corrections, clarifications, and references.

Submission 17: Urban Flood Safety and Water Quality District (November 19, 2024)

November 18, 2024

Interstate Bridge Replacement Program
Attn: Draft SEIS Public Comment
500 Broadway, Suite 200
Vancouver, WA 98660

Dear Interstate Bridge Replacement Program Team:

17-1 Thank you for your continued coordination with the staff of the Urban Flood Safety and Water Quality District. The Urban Flood Safety and Water Quality District (UFSWQD) operates the flood safety system along the Columbia River and Columbia Slough from North Portland to Troutdale. In addition to managing flood water through our internal conveyance system and pumps, we also manage 27-miles of federally authorized levees. Our system protects the jobs and livelihoods of nearly 60,000 employees and 8,000 residents.

17-2 In reviewing the Interstate Bridge Replacement Program (IBR Program) Draft SEIS, we appreciate your consideration of the levee system and the need to maintain its flood safety function. As noted in the document, we need adequate vertical clearances for operations, maintenance, and flood fighting. Additionally, we appreciate the note regarding consideration of bridge footings and other elements on the geotechnical performance of the levees and subsurface levee foundations. In any design advanced for the IBR Program, we must ensure that levee performance and operability is not reduced.

17-3 We have a handful of priorities that we must emphasize, recognizing they are largely considered in the Draft SEIS:

- While 408 permissions must be attained from the US Army Corps of Engineers to make alterations to a federal flood safety project, we request you consider designs that improve our access to the levees within your project area. We appreciate your continued coordination on the 408 permissions and overall design intersections with the levee system.

17-4
- Ensure all components of the flood safety system (e.g., primary levees and cross-levees) that are constructed or modified by the IBR Program are built to federal flood safety standards. This includes the remediation of the cross-levee that was damaged by the construction of the southbound I-5 / Marine Drive offramp in the 1990s.

17-5
- We appreciate your note about ensuring that the "IBR Program's design efforts consider the timing and scope of the PMLS project and the FSCR proposed modifications". We want to emphasize that important point. To the maximum extent possible, please coordinate construction timing of levee and bridge projects to minimize the impact on surrounding communities.

17-6
- As the designs of many of our flood safety projects consider multi-benefit opportunities to enhance the natural environment, recreation, and non-motorized travel, we encourage the IBR Program to also look for opportunities to support broader community goals. Specifically, we encourage coordination with the development of the 40-Mile Loop trail system.

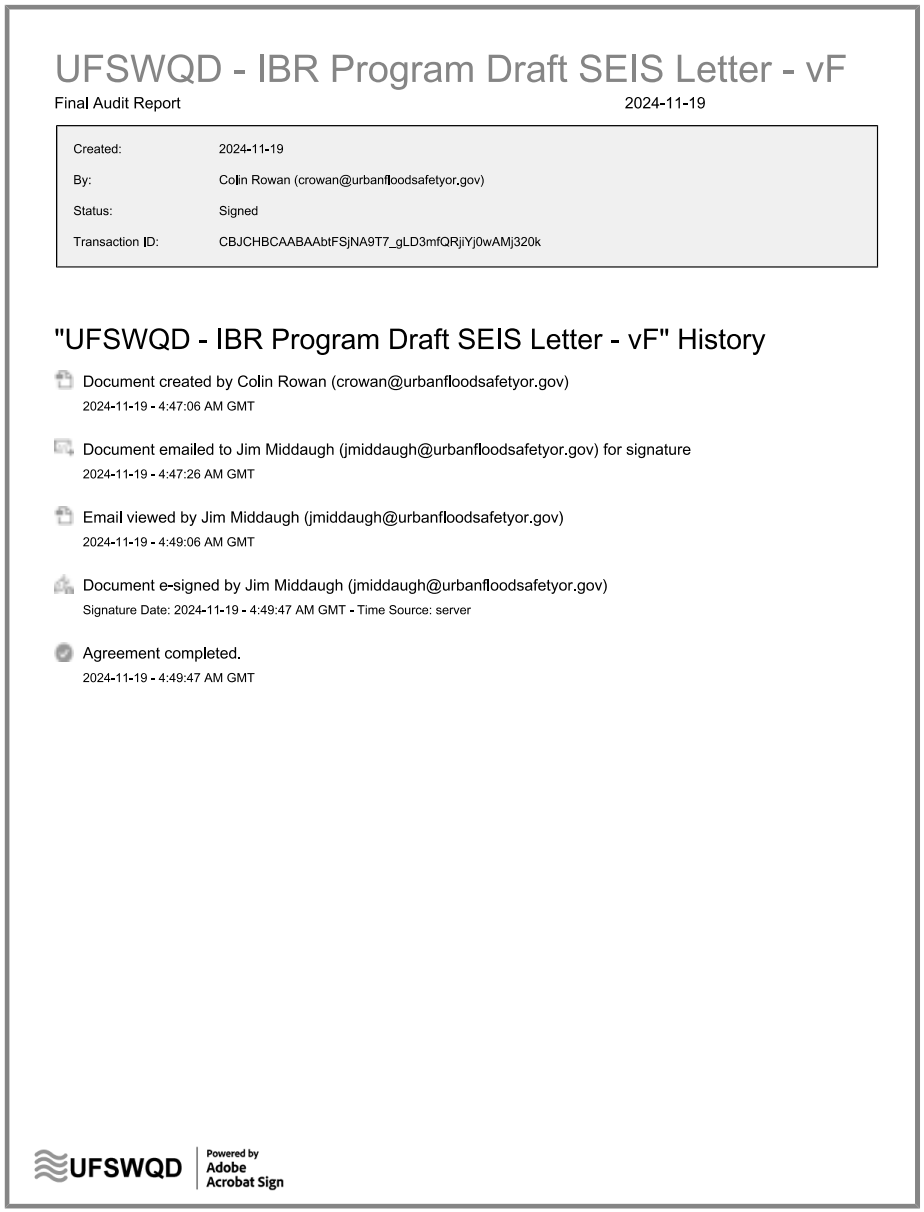
17-7 We look forward to our continued coordination and communication. Please do not hesitate to reach out to me or members of my team on any of the above topics or anything else related to our region's flood safety system.

Sincerely,

Jim Middaugh (Nov 18, 2024 20:49 PST)
Jim Middaugh
Executive Director
Urban Flood Safety and Water Quality District

UFSWQD
Urban Flood Safety and Water Quality District
1880 NE Elrod Drive, Portland, Oregon 97211
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UFSWQD - IBR Program Draft SEIS Letter - vF

Final Audit Report 2024-11-19

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Response to Submission 17: Urban Flood Safety and Water Quality District (November 19, 2024)

17-1
The IBR Program appreciates your comments and time to ensure that the two infrastructure programs are coordinated. Please see responses to specific comments below.

17-2
Through the design process, the IBR Program will continue to consider the levee system and the need to maintain its flood safety function.

17-3
Through the design process, the IBR Program will continue to consider access to the levees within the primary study area.

17-4
IBR Program would design and build components of the flood safety system in compliance with applicable agency standards, including U.S. Army Corps of Engineers and Urban Flood Safety and Water Quality District (UFSWQD) standards. This would include areas along the cross-levee associated with the Marine Drive interchange. The IBR Program will also continue to work with UFSWQD to identify necessary remediations.

17-5
The IBR Program will continue to consider the timing and would coordinate the projects to minimize effects to the surrounding communities.

17-6
As described in Section 4.8.2.4 of the Transportation Technical Report: "In North Portland, the Modified LPA [Locally Preferred Alternative] would provide active transportation access to the arterial bridge via a network of shared-use paths. The circuitous path network that winds through the interchange today would be replaced entirely with new, simplified path connections offering more direct, clearer navigation for path users. West of I-5, the shared-use path would travel west to an at-grade crossing of the light-rail tracks and connect to the existing Marine Drive Trail (part of the 40-Mile Loop) along North Portland Harbor. This path would also provide an important connection under Marine Drive to the Expo Center light-rail station." The IBR Program would continue to coordinate with other Program sponsors when their plans for completing the trail system are identified.

17-7
The IBR Program appreciates your comments and continued collaboration.

Submission 18: Washington Department of Fish and Wildlife Fish Program (November 18, 2024)

18-1

Interstate 5 Bridge Project: WDFW Fish program Comments and Recommendations

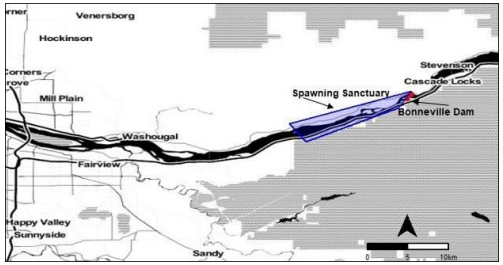
We appreciate the opportunity to provide comments on this project and its anticipated effects on fish and fisheries in the mainstem Columbia River. We have organized our comments below into two categories of impact: fish behavior/Ecological function and fisheries.

Fish Behavior/Ecological Function

- We understand that juvenile lamprey surveys have been conducted in the project site to better understand the density of lamprey. Is there a plan to monitor for densities during and after the project as well to understand how/if lamprey recolonize the area/respond to this disturbance?

18-2

- We have established a spawning ground sanctuary for sturgeon in the Lower Columbia River during the May-August spawning window. The project area doesn't appear to overlap directly, but potential effects of the work could include sediment covering egg mats, dissuasion of adults away from spawning areas due to noise/other disturbances, as well as egg reabsorption due to stress.



18-3

- Eulachon typically run from December-April with a peak in February-March (?). Any increased sediment, noise, vibration etc., could alter the migration patterns of adults heading to the Cowlitz/Lewis River to spawn

18-4

- Salmon and steelhead in the system run throughout the year and any increased sediment, noise, vibration etc., could alter the migration patterns of adults and increase stress levels. For those running in the summer months, this alternation in migration/increased stress may be more problematic due to warmer water temperatures. Likewise, anadromous lampreys are migrating through the project area much of the year. Lampreys tend to be nocturnal, so construction activities occurring at night (increased noise, vibrations, light etc.) could alter or delay migration.

18-5

- Could the temporary structures installed to do this work provide an increase in haul-out areas for pinnipeds or landing areas for birds and thus result in more predation on fish?

18-6

- **Recommendation:** Install PIT tag arrays (salmon and steelhead, lamprey, sturgeon and acoustic arrays (sturgeon) on the bridge pillars to monitor fish movement in this section of the river before, during and after the project takes place (e.g., BACI design).
- **Recommendation:** For eulachon, expand/use our plankton tow data to inform presence/absence of eulachon larvae in key sections of the project area (?).
- **Recommendation:** Conduct observations of predator movement into the area associated with the placement of temporary project structures.

18-7

Fisheries

- Commercial fishers fish in the project area for salmon using drift gillnets from August till October depending on the year, and for eulachon in the winter-spring. Any increase in debris could cause damage to nets and impact their ability to successfully catch fish.
- Changes in fish movement can alter the ability of all fishers to catch fish regardless of gear.
- **Recommendation:** Provide periodic outreach to the fishing community on project progress/milestones, particularly when large pieces of debris or may be dislodged or large volumes of sediment may be released.
- **Recommendation:** Consider if a "gear-repair fund" could be instituted to replace damaged commercial fishing gear and/or ensure all dislodged large debris is captured and removed by the project team.

Response to Submission 18: Washington Department of Fish and Wildlife Fish Program (November 18, 2024)

18-1
Thank you for this comment and engagement on the IBR Program. In 2024, the IBR Program contracted with the U.S. Fish and Wildlife Service to conduct sampling of larval lamprey in the Columbia River mainstem. The results of that sampling are summarized in Section 3.16, Ecosystems, of the Final SEIS and the Ecosystems Technical Report. The surveys indicated that larval lamprey presence and habitat suitability were low. An additional survey was conducted in the summer of 2025, and the results of that survey are expected to be published by the USFWS in 2026. Lamprey surveys beyond the 2025 survey are not planned at this time.

18-2
Potential effects on white sturgeon from the Modified LPA are described in Section 3.16, Ecosystems, of the Final SEIS. No effects to habitat suitability or sturgeon behavior would occur within the spawning sanctuary, the downstream end of which is located approximately 25 river miles upstream of the location of the Interstate Bridge.

18-3
Section 3.16, Ecosystems, of the Final SEIS and Ecosystems Technical Report include an assessment of eulachon run timing and presence and the potential construction-related effects that may occur. These effects are unlikely to affect eulachon entering or leaving the Cowlitz or Lewis River systems, as these rivers enter the Columbia River far below the downstream extent of anticipated turbidity, noise, vibration, or other construction-related effects.

18-4
Section 3.16, Ecosystems, of the Final SEIS and Ecosystems Technical Report include an assessment of salmon and steelhead presence and the potential construction-related effects that may occur as a result of the Modified LPA (including behavioral effects, such as altered or delayed migration) and a suite of avoidance and minimization measures aimed at reducing the potential for such effects. The avoidance and minimization measures include water quality monitoring, using a bubble curtain during impact pile driving, and hydroacoustic monitoring. Some nighttime work would likely occur, but the majority of activities that may result in elevated turbidity or underwater noise would be conducted during daylight hours.

18-5
Section 3.16, Ecosystems, of the Final SEIS has been updated to include additional analysis of the potential reasonably foreseeable effects to juvenile salmonids from avian and pinniped predation associated with overwater structures. The Final SEIS and Ecosystems Technical Report also document additional measures that would be implemented to avoid and minimize the potential for, and extent of, these effects.

18-6
Section 3.16, Ecosystems, of the Final SEIS has been updated to document additional measures that would be implemented to avoid and minimize the potential for, and extent of, impacts to aquatic species associated with the Modified LPA. The installation of PIT tag arrays was evaluated but deemed impracticable. The proposed schedule for design, permitting, and construction of the bridges is such that data that would be collected would not likely be available in time to influence design or construction activities. The data would be useful as a long-term monitoring measure but would typically not be considered a compensatory mitigation activity. The IBR Program is open to further discussion with the Washington Department of Fish and Wildlife regarding the conservation benefit of collecting such data to inform future projects. The Final SEIS makes conservative assumptions regarding the potential presence of eulachon larvae, so additional data would not change conclusions. Both the IBR Program and construction contractors will have multiple staff conducting biological and other environmental monitoring tasks during construction of the proposed bridges, including during installation of the temporary work structures. Marine mammal monitors will be collecting data regarding pinniped presence. Other monitors will be collecting water quality data and hydroacoustic data. Each of these monitoring crews will also be maintaining notes on other biological activity, including the presence of predatory bird species.

18-7
Construction associated with the proposed Modified LPA would require extensive coordination and communication with mariners and other river users with regard to maintaining navigation safety. The IBR Program will provide the public with updates on construction activities. Construction would be conducted consistent with water quality permit standards and is unlikely to require dislodging of large pieces of debris or sediment. Damage to commercial fishing gear or other personal property is not anticipated but would be the responsibility of the contractors conducting the work. All construction debris would be required to be contained, captured, and disposed of in a permitted location.

Submission 19: Washington Recreation and Conservation Office (RCO) (November 6, 2024)

Comments

19-1 WA Recreation and Conservation Office (RCO) staff reviewed the Draft SEIS Section 4(f) and the Parks and Recreation Technical Report and found that no state or federally funded sites would be impacted by the bridge replacement project.

Response to Submission 19: Washington Recreation and Conservation Office (RCO) (November 6, 2024)

19-1
Thank you for your comment.

Submission 20: Washington State Department of Ecology, Southwest Regional Office (November 18, 2024)

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Southwest Region Office
PO Box 47775, Olympia, WA 98504-7775 • 360-407-6300

November 18, 2024

Chris Regan, SEPA Contact
WA State Department of Transportation
Southwest Region
11018 Northeast 51st Circle
Vancouver, WA 98668-1709

20-1

Dear Chris Regan:

Thank you for the opportunity to comment on the draft environmental impact statement for the Interstate Bridge Replacement Program Project as proposed by WSDOT, FHWA, FTA. The Department of Ecology (Ecology) reviewed the environmental checklist and has the following comment(s):

SHORELANDS & ENVIRONMENTAL ASSISTANCE: Penny Kelley, [redacted]

1. Section 2.2.2.1 WAC 2002. National Pollution Discharge Elimination System Permit Program, WAC 173-220; reference is made to Section 401 water quality certifications in relation to the NPDES permit program. We recommend removing reference to Section 401 because it is not related to WAC 173-220 (the heading for this section under 2.2.2.1). Instead, we recommend clarifying that the program operates under state laws as part of the NPDES program created under Section 402 of the Clean Water Act. Section 401 is addressed in section 8.2.1 of the SEIS technical report and does not need to be included here.

20-2

2. Section 8.2.3 Wetland/Waters Removal-Fill Permits: The information provided in this section is not accurate. When reviewing impacts to waters of the state (including wetlands) for 401 water quality certifications, an official request must be submitted to the department. The Joint Aquatic Resource Permits Application can be included as supporting documentation to the request but is not the official request. We recommend updating this section with the following change:

   In Washington, when reviewing impacts to wetlands or waters under Section 401 of the CWA, a request for a Section 401 Certification must be submitted to Department of Ecology. A pre-filing meeting request must be submitted to Ecology 30 days prior to sending the official request for a Section 401 Certification. Both forms for these requests can be obtained through the Department of Ecology, as well as information on what supporting documentation should be included. A permit application is also submitted to the USACE prior to submitting the official request for a 401 Certification.

20-3

3. Under 7.1.1 Regulatory Requirements, the fourth bullet contains information that appears to be incorrect and a possible typo. Construction and Municipal stormwater permit requirements are not issued through CWA Section 401 but CWA Section 402. We suggest changing 401 to 402.

20-4

SOLID WASTE MANAGEMENT: Derek Rockett [redacted]

All grading and filling of land must utilize only clean fill. All other materials may be considered solid waste and permit approval may be required from your local jurisdictional health department prior to filling. All removed debris resulting from this project must be disposed of at an approved site. Contact the local jurisdictional health department or Department of Ecology for proper management of these materials.

20-5

TOXICS CLEANUP: Sam Meng [redacted]

Within 0.25 mile from the project area, there are three cleanup sites including Lahti Property Site (Cleanup Site ID: 11477), Aeon Apartment II Site (Cleanup Site ID: 17045), and Vancouver Port of Red Lion Hotel (Cleanup Site ID: 2033). The sites are awaiting cleanup.

To search and access information about these sites see https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-sites. If contamination is suspected, discovered, or occurs during construction, testing of the potentially contaminated media must be conducted. If contamination of soil or groundwater is readily apparent, or is revealed by sampling, the Department of Ecology must be notified. To notify Ecology, contact the Environmental Report Tracking System Coordinator at the Southwest Regional Office at (360) 407-6300. For assistance and information about subsequent cleanup and to identify the type of testing that will be required, contact Sam Meng with the Toxics Cleanup Program at the Southwest Regional Office at [redacted].

20-6

TOXICS CLEANUP: Sandy Smith [redacted]

If contamination is discovered or occurs during elodea removal, testing of the potentially contaminated media must be conducted. If contamination of soil, sediment, or water is readily apparent, or is revealed by testing, the Department of Ecology must be notified. Contact the Environmental Report Tracking System Coordinator at the Southwest Regional Office at (360) 407-6300. For assistance and information about subsequent cleanup and to identify the type of testing that will be required, contact Sandy Smith with the Toxics Cleanup Program at the Southwest Regional Office at [redacted].

Ecology's comments are based upon information provided by the lead agency. As such, they may not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

If you have any questions or would like to respond to these comments, please contact the appropriate reviewing staff listed above.

Department of Ecology
Southwest Regional Office

Chris Regan
November 18, 2024
Page 3

(JKT:202404445)

cc: Penny Kelley, SEA
Derek Rockett, SWM
Sam Meng, TCP

Response to Submission 20: Washington State Department of Ecology, Southwest Regional Office (November 18, 2024)

20-1
Section 2.2.2.1 of the Water Quality and Hydrology Technical Report has been updated to remove the mention of Section 401 and clarify the reference to the National Pollutant Discharge Elimination System Permit Program (Washington Administrative Code [WAC] 173-220) per this comment.

20-2
The Water Quality and Hydrology Technical Report has been updated to clarify state review processes as part of Section 401 Clean Water Act requirements per this comment.

20-3
Chapter 7 of the Water Quality and Hydrology Technical Report has been updated to correct the error, changing Section 401 to Section 402. Please note that the list of bullet points now appears in a table format. The text is updated in the table. The same edit was applied to the mitigation table in Section 3.14.6 of the Final SEIS.

20-4
As noted in Section 2.3.2.2 of the Hazardous Materials Technical Report, the IBR Program will adhere to Washington State Solid Waste Regulations (2018 WAC 173-350) and Dangerous Waste Regulations (2020 WAC 173-303).

20-5
Sites 11477 and 2033 were evaluated in the hazardous materials analysis in the Draft SEIS. Site 17045 (Aeon Apartments II) was reviewed for impacts as part of the analysis for the Final SEIS, along with other sites in the Washington State Department of Ecology (Ecology) databases. The IBR Program has completed due diligence for these sites and other potentially contaminated sites proposed for acquisition, in accordance with Federal Transit Administration and Federal Highway Administration guidance. If contamination is suspected, discovered, or occurs during construction, the IBR Program will follow all Ecology requirements for testing and notification.

20-6
There are no identified elodea populations in the primary study area and vicinity. Should elodea be identified during construction, the IBR Program would follow approved procedures as outlined in the comment.

Submission 21: Washington State Department of Health, Oregon Health Authority, Clark County Public Health, Multnomah County Health Department, and the Cowlitz Indian Tribe Health and Human Services (November 15, 2024)

Comments

Thomas Goldstein, PE, IBR Program Oversight Manager, Federal Highway Administration
Jeffrey L. Horton, PE, Regional Engineer, Federal Transit Administration
Chris Regan, IBR Environmental Manager, Interstate Bridge Replacement

RE: Health Analysis of Interstate Bridge Replacement Program Draft Supplemental Environmental Impact Statement EIS #20240163

Dear Mr. Goldstein, Mr. Horton, and Mr. Regan,

21-1

Thank you for the opportunity to comment on the Interstate Bridge Replacement (IBR) Program Draft Supplemental Environmental Impact Statement (DSEIS). In late 2023 IBR Program partners requested that an independent health impact assessment (HIA) be prepared to understand the Program's potential effects on community health and well-being.

The Washington State Department of Health, Oregon Health Authority, Clark County Public Health, Multnomah County Health Department and Cowlitz Indian Tribe Health and Human Services recognized the importance of the bridge replacement program to advancing health, equity and environmental justice in the region and in early 2024 agreed to work collaboratively to respond to this request. Our agencies further agreed to the IBR Program's request to complete an analysis for submission as a comment to the IBR Program's DSEIS. To meet this goal, our agencies have conducted a modified health analysis relying on literature review, existing data, and public health best practices, as the timing would not allow completion of a full HIA.

As one of the largest infrastructure projects in the region, the IBR Program provides tremendous opportunity to positively impact residents' health and advance environmental justice and equity. We believe incorporating public health as a core value of the IBR Program now and throughout its decade-long design and construction is vital to achieving these shared priorities.

The attached Interstate Bridge Replacement Program Health Analysis includes evidence-based information about potential health impacts related to air quality, transportation and active transportation, climate change and health, noise, social determinants of health, and water quality. It concludes with detailed recommendations that we encourage the IBR Program to consider implementing to improve health through design, construction, and the lifetime of the project.

We appreciate the opportunity to provide this analysis as a formal comment to the DSEIS. The contributing agencies and governments may have additional comments for the IBR Program. We are ready to continue to support the important work to ensure the equitable distribution of the transportation, economic, disaster resilience and other benefits of replacing the Interstate Bridge between Oregon and Washington.

Sincerely,

Lauren Jenks	André Ourso	William Iyall	Dr. Alan Melnick	Andrea Hamberg
Assistant Secretary, Environmental Public Health	*Administrator, Center for Health Protection, Public Health Division*	*Tribal Chairperson*	*Public Health Director and Clark County Health Officer*	*Interim Public Health Director*
Washington State Department of Health	**Oregon Health Authority**	**Cowlitz Indian Tribe**	**Clark County Public Health**	**Multnomah County Health Department**

Interstate Bridge Replacement Program **Health Analysis**

Prepared by:
Washington State Department of Health
Clark County Public Health
Cowlitz Indian Tribe Health and Human Services
Oregon Health Authority
Multnomah County Health Department

November 15, 2024

DOH 334-565 November 2024
To request this document in another format, call 1-800-525-0127. Deaf or hard of hearing customers, please call 711 (Washington Relay) or email doh.information@doh.wa.gov.

Acknowledgements

Health analysis working group members who contributed to this report:

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Washington State Department of Health
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Jessica Marcinkevage
Julie Fox
Kendall Billig
Kyle Yomogida

These health agencies formed a health analysis working group and began meeting in January 2024. This report will refer to that group as "the working group", and use "we" and "our" to discuss our analysis and recommendations throughout.

We would especially like to thank the colleagues from all working group agencies who contributed their subject matter expertise and thoughtful review to this report.

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Glossary

Acronyms

ACS	American Community Survey (U.S. Census Bureau)
BIPOC	Black, Indigenous, and people of color
CDC	United States Centers for Disease Control and Prevention
DOT	United States Department of Transportation
DSEIS	Draft supplemental environmental impact statement
EJ	Environmental justice
EJI	Environmental Justice Index (CDC)
EPA	United States Environmental Protection Agency
FHWA	United States Federal Highway Administration
FTA	United States Federal Transit Administration
GHG	Greenhouse gas
HIA	Health impact assessment
I-5	Interstate 5
IBR	Interstate bridge replacement program
LPA	Locally preferred alternative
LRT	Light-rail transit
MOVES	MOtor Vehicle Emissions Simulator (EPA)
MSAT	Mobile source air toxics
NBA	No-Build Alternative
NEPA	National Environmental Policy Act
ODOT	Oregon Department of Transportation
OHA	Oregon Health Authority
PM	Particulate matter
SVI	Social Vulnerability Index (CDC)
USACE	United States Army Corps of Engineers
VMT	Vehicle miles traveled
WADOH	Washington State Department of Health
WHO	World Health Organization
WSDOT	Washington State Department of Transportation

Definitions

Our working group definitions:

This report discusses “built environment”, “cumulative health impacts”, “environmental health”, “environmental justice”, and “health equity”. The working group of agencies that conducted the health analysis agreed upon the following definitions of those terms to guide our work.

Built Environment

The CDC describes the built environment as "the physical makeup of where we live, learn, work, and play. It involves homes, schools, businesses, streets and sidewalks, open spaces, and transportation options. The built environment can influence overall community health and individual behaviors such as physical activity and healthy eating."[1] An estimated 20% of premature mortality could be prevented through changes to the built environment.[2]

Built environment features can directly affect a community's health through exposures that residents cannot avoid, such as poor air quality or heat exposure. They can also positively or negatively affect the health decisions that are available to residents, such as access to healthy food and healthcare services, which encourage physical activity and reduce stress. The World Health Organization explains how "cities can – and should – promote health through the reduction of air pollution, noise and urban heat islands, the promotion of active and healthy lifestyles, the provision of available – and affordable – healthy food, climate action, and proper housing conditions, waste management and sanitation, among others. In a nutshell, cities will be used in the way we design them."[3]

Cumulative Health Impacts

Cumulative health impacts refer to the combined effect of many factors that influence individual, community, and environmental health. Environmental factors can interact with individual and social factors, and the built environment, to make a person more susceptible to health impacts such as age, genetics, underlying or chronic health conditions, and structural racism.[4,5]

Cumulative health impacts also refer to inequities that are often layered on one another that create disproportionate harm to individuals and communities. Health disparities can be exacerbated by environmental factors, inequities exist in environmental exposures on the individual and community levels, biological and genetic factors determine and can modify impacts of environmental exposures, and social vulnerabilities "may amplify the effects of environmental hazards".[5]

Environmental Health

Environmental health "centers on the relationship between people and their environment".[6] As a public health practice, environmental health aims to prevent and reduce exposures to hazards and risks through protecting "air, water, soil and food".[6–8]

Environmental Justice

The American Public Health Association defines environmental justice as "the idea that all people and communities have the right to live and thrive in safe, healthy environments, and with equal environmental protections and meaningful involvement of these actions."[9] Washington and Oregon have both expanded on that definition to state that environmental justice also includes protection from disproportionate environmental and health impacts.[10,11] Finally, both states include equitable distributions of resources and benefits, in addition to the elimination of harm.[10,12]

To promote environmental justice, you must identify and remedy environmental injustice.

Health Equity

Health equity is the opportunity for everyone "to attain their highest level of health".[13,14] Both the Washington State Department of Health and Oregon Health Authority encourage health equity and that a person's health and well-being are "not disadvantaged by their races, ethnicity, language, disability, age, gender, gender identity, sexual orientation, social class, intersection among these communities, or other socially determined circumstances".[15] Getting to health equity requires undoing inequity and "requires attention to the root causes of health issues and a focus on the communities that are more affected".[16]

IBR Program definitions:

This report also discusses terms defined by the IBR Program, including "equity priority communities", and the "modified locally preferred alternative". The definitions of those terms by the IBR Program are below. We accessed the definition of "equity priority communities" in the IBR Program Equity Framework at https://www.interstatebridge.org/media/1ggih5ae/ibr_equity-framework-final-update-feb-2024_remediated.pdf. We accessed the definition of "modified locally preferred alternative" on the IBR Program website at https://www.interstatebridge.org/nextsteps.

Equity Priority Communities[17]

The Interstate Bridge Replacement Program Equity Framework defines "Equity Priority Communities" or "historically underserved communities" as "Communities, populations, and individuals who have been historically excluded from transportation decision-making, systematically discriminated against, and experience social, economic, and health disparities. These terms are used interchangeably in this document. It is important to note that broad terms such as these change over time, by geography, and perspective. Given That the IBR program spans two states and diverse populations, we acknowledge that there is no right answer and that these terms may evolve over the course of the program in response to local preferences and other factors.
IBR Program Equity Priority Communities include:

- BIPOC: People who identify as Black, Native American and Alaska Native, Native Hawaiian and Pacific Islander, Central and South American Indigenous, Asian, Latin American, Hispanic, and/or one or more non-white races or marginalized ethic groups.
- People living with disabilities: People who have a physical or mental impairment that substantially limits one or more major life activities, people who have a history or record of such an impairment, or a person who is perceived by others as having such an impairment.
- Tribal Governments: (Federally Recognized Tribes) are sovereign nations as recognized by the United States Government, and consultation with federally recognized tribes occurs through a government-to-government consultation process separate and distinct from public and community outreach and comment.
- Communities with Limited English Proficiency: Groups with individuals who indicate that they speak English less than "very well" on the census.
- Persons with lower income: Individuals or households with income below 200 percent of the federal poverty level.
- Individuals and families experiencing houselessness: Individuals and families lacking or in need of a house or home.

- Immigrants and refugees: Immigrants are people born outside of the United States, and refugees are people who have left their country of origin due to persecution or fear of persecution due to race, religion, nationality, political opinion, or membership in a particular social group.
- Young people: Individuals 24 years old or younger.
- Older Adults: Individuals 65 years old or older."[17]

Modified Locally Preferred Alternative[18]

According to the IBR Program website, "The Modified Locally Preferred Alternative (LPA) refers to an agreed upon set of components that will be further evaluated through the environmental review process. It is NOT the replacement bridge's final design but rather a key milestone setting the program's direction as we start to test and evaluate plans for a replacement multimodal river crossing system. Elements of the Modified LPA under analysis include:

- A new pair of Columbia River bridges built west of the existing bridge. Three bridge configuration options are under consideration: single-level fixed-span, double-deck fixed-span, and single-level movable-span.
- Improvements to the I-5 mainline and seven interchanges, north and south of the Columbia River, including options with or without C Street ramps and I-5 alignment options in downtown Vancouver, as well as related enhancements to the local street network.
- Extension of light rail from the Expo Center in Portland to Evergreen Boulevard in Vancouver, along with associated transit improvements, including transit stations at Hayden Island, Vancouver Waterfront, and near Evergreen Boulevard and options for park and ride locations in Vancouver.
- One or two auxiliary lane(s) in each direction and safety shoulders on the bridge.
- A variety of improvements for people who walk, bike and roll throughout the program area.
- Variable rate tolling for motorists using the river crossing as a demand management and financing tool.

What we learn from the review process, and corresponding environmental studies, will determine how we move forward, and necessary work to avoid, minimize or mitigate negative effects to our environment. This process will include opportunities for review and public comment and will inform the design refinements and decisions."[18]

Executive Summary

Prepared by: Washington State Department of Health, Clark County Public Health, Cowlitz Indian Tribe Health and Human Services, Oregon Health Authority, Multnomah County Health Department

Interstate Bridge Replacement Program Overview & Public Comment Information

The Interstate Bridge Replacement (IBR) Program will be one of the largest infrastructure projects in the region for a generation. Because of this scale, it provides tremendous opportunity to positively impact health and advance environmental justice and equity.

The project underwent an evaluation through the National Environmental Policy Act (NEPA) to assess potential impacts. From September 20 to November 18, 2024, the IBR Program held a public comment period on its Draft Supplemental Environmental Impact Statement (DSEIS), a series of draft documents that cover topics studied under the environmental review.

Health Analysis Overview

As part of the planning and implementation of the IBR Program, regional partners requested that a health impact assessment (HIA) be included to understand the project's effects on community health and well-being. State and local health departments in Oregon and Washington, joined by a representative from Cowlitz Indian Tribe Health and Human Services, began meeting in early 2024 to collaborate to complete this request. Time constraints limited the scope of the HIA, and a modified health analysis relying on literature review, existing data, and public health best practices was drafted. The health agencies reviewed readily available information and select DSEIS technical reports to examine the potential health effects of the Modified Locally Preferred Alternative (LPA) – including environmental justice and health equity concerns. The health analysis assesses potential health impacts of the Modified LPA and does not propose an alternative.

The Health Analysis was submitted as a public comment to the IBR Program before the end of the public comment period in November 2024. This summary highlights key takeaways for each topic area and an overview of the project recommendations that were submitted to the IBR Program. The *Recommendations* section of the Health Analysis includes additional detail and implementation suggestions.

For more information about the health analysis, contact EHAssessment@doh.wa.gov.

Topic Areas

The Health Analysis identifies six topic areas of public health interest related to the program. Each topic area is represented by an icon. An icon or multiple icons accompany each of our recommendations to indicate which topic area and associate health outcomes could be improved by implementation of the recommendation:

- Air quality
- Climate change and health
- Transportation & active transportation
- Social determinants of health
- Noise
- Water quality

Key Takeaways

To reduce negative health impacts of the IBR Program, we recommend decision-makers design, construct, and maintain a program that prioritizes human health and safety, ecological health, and environmental justice. There are a number of places throughout the DSEIS where there is insufficient information to determine health impacts. There are also many decisions to be made for the final SEIS, design decisions, and local decisions that could change the assessment of the project having either a positive, negative, or neutral impact to health. We encourage keeping public health partners, community, and Tribal representation at the table in decision-making for the Program.

There is **sufficient evidence** in the DSEIS for the following potential health impacts of the Modified LPA:

- **Potential protective elements and positive health impacts**
  - **Transportation and active transportation:** The extension of light rail services and addition of enhanced pedestrian and bike facilities will likely increase physical activity and improve health. Expanding design and policy decisions that encourage people to walk, roll, bike, or use transit, rather than drive, would increase health benefits.
  - **Access**: Bringing the bridge, and auxiliary connections, up to or exceeding standards under the Americans with Disabilities Act (ADA) would improve access for all. Using inclusive or universal design, which centers around older adults, people with disabilities, and children, would increase benefits.
  - **Heat**: Providing shade and cooling for bridge users, especially active transportation users, could provide protection from heat-related health outcomes.
  - **Employment:** The project would drive a temporary increase in construction-related employment. Increased access to light rail and transit services could increase access to jobs and other essential services. Increasing contracting for Disadvantaged Business Enterprises, Minority Business Enterprises, Women Business Enterprises, and Small Business Enterprises would increase equitable distribution of these benefits.
  - **Access**: The Modified LPA includes plans to expand connections between active transportation networks, trails, and parks. Increased access to greenspace would have a positive impact on health.
  - **Water quality**: Improvements to stormwater infrastructure would have positive health impacts on water quality, and the health of the ecosystem.
  - **Safety:** Replacement of the existing I-5 bridge will result in a structure with greater seismic resilience, minimize the risk of a bridge collapse during an earthquake, and support safety, regional travel, and access to essential services.

- **Potential harmful elements and negative health impacts**
  - **Air quality:** Given the existing high traffic volumes along the I-5 interstate bridge, people who live nearby are subjected to greater concentrations of air toxics and are at risk of experiencing additional air quality burdens. The DSEIS estimates a 33% increase in VMT under the Modified LPA by 2045 and increase in freight traffic volumes, which could increase particulate matter and negatively impact air quality.
  - **Transportation and active transportation:** Transit access to jobs for BIPOC residents, immigrants and refugees, and people under the age of 25 did not increase as much as it did for white, non-Hispanic residents. This indicates disparities would continue to remain, likely reinforcing disparities in opportunities for physical activity.
  - **Tolling**: Tolling would have a disproportionate impact on low-income community members and could negatively impact access to essential services like health care and culturally specific health care.

  - **Access**: The IBR Program could negatively impact access to traditional cultural activities, culturally specific health care, and access to ancestral lands for American Indian and Alaska Native communities.
  - **Access:** Construction delays on roads, delays to bus routes and light rail service, and closures of sidewalks and active transportation paths may negatively impact access to homes, jobs, schools, health care facilities, and other essential destinations. These impacts may be greater for those that do not have car access.
  - **Noise**: The Modified LPA would approach or exceed noise abatement criteria at 65 locations in Portland and 135 locations in Vancouver, including Discovery Middle School. Children and their learning comprehension are particularly affected by noise. The DSEIS describes higher levels of noise and vibration will negatively and disproportionately impact communities identified as equity priority communities.
  - **Displacement**: The IBR Program will acquire land displacing 43 homes and could also displace houseless residents in the project area. Between 32-35 businesses and 600-742 employees could be impacted due to property acquisitions. Equity priority communities of East Columbia, Rockwood, Esther Short, and Rose Village would be disproportionately impacted.

There is **insufficient evidence** for several topic areas to determine potential health impacts of the Modified LPA.

- **Climate change and health:** The DSEIS anticipates the Modified LPA will reduce greenhouse gas emissions (GHG) compared to the No-Build Alternative. Construction of the Modified LPA will produce GHG emissions. Several climate-related hazards are projected to impact the region throughout the construction and operation of the Interstate Bridge, including heat, wildfire smoke, severe weather and flooding. The health effects of climate change are not equally distributed, and several communities are disproportionately affected by climate change - including IBR Equity Priority communities. More information is needed about how the Program will mitigate climate change impacts to Equity Priority Communities and what protective elements for health and climate justice will be included in final design and construction plans.
- **Air quality:** Due to the large geographic area used to conduct the air quality analysis, and the statement in the DSEIS that localized health impacts due to air quality cannot be reliably quantified, more information is needed to reliably assess air quality impacts. This is the basis of our recommendation for air quality monitoring and further air quality assessment, including dispersion modeling. Air dispersion modeling incorporates data appropriate for analyzing potential health impacts on a local scale.
- **Road safety:** The DSEIS states that crashes will increase by 15% under the Modified LPA, mainly due to estimated increases in traffic volumes. The DSEIS does not provide clear information about how crash frequency would change by travel mode, crash type, severity, location, or for environmental justice communities. There is insufficient evidence in the DSEIS to conclude to what degree severe injury and fatalities would be reduced for active transportation users.
- **Fugitive dust**: There is insufficient information about mitigation plans for fugitive dust during construction and how that could impact air quality and water quality.
- **Water quality**: There is insufficient information in the DSEIS regarding a plan to sample and analyze hazardous sediments and toxic contamination prior to in-water work.

Topic Areas Summary

Air quality + health concerns + potential project impacts

- Transportation is a significant contributor to air pollution-related illness and premature death. Emissions from vehicles, including carbon monoxide, nitrogen oxides, and particulate matter, can lead to respiratory, cardiovascular, neurodegenerative, and metabolic diseases, as well as cancer and reproductive issues.
- The DSEIS projects that the Modified LPA would result in a 33% increase in vehicle miles traveled (VMT) by 2045 compared to the 2015 baseline. Despite the expected increases in VMT, the DSEIS predicts that vehicular emissions will decrease compared to the 2015 baseline. The DSEIS estimates this using modeling from EPA's MOVES model, which assumes that emissions will decrease due to the 2007 EPA Control of Hazardous Air Pollutants from Mobile Sources. This modeling was run on a geographic scale (including Clark, Multnomah, Clackamas, and Washington counties) that is too large to understand local health and environmental impacts in the project area.
- The DSEIS states that concentration of air toxics from mobile sources would likely be more pronounced on road segments where traffic would increase under the Modified LPA compared to the No-Build Alternative due to diversion to avoid tolls. However, many of these road segments were not included in the air quality analysis.
- Modified LPA policy decisions which minimize mobile sources of air toxics during the operation of the project and design elements which mitigate the coinciding health impacts, like green infrastructure and indoor air filtration, would reduce potential public health burdens.

Transportation and active transportation + health concerns + potential project impacts

- Physical activity improves a wide range of health outcomes across the lifespan. Transportation planning and design features influence the opportunities available to community members to be physically active by walking, biking, or using transit.
- Project construction may create travel barriers or delays to essential destinations, regardless of mode.
- The extension of the light rail line and addition of enhanced walking and bike facilities will likely increase physical activity and support improved community health.
- Traffic volumes are projected to increase under the Modified LPA. Design and policy options that encourage more people to walk, bike, or use transit, rather than drive, would yield additional health benefits through increased physical activity.
- The DSEIS projects that the Modified LPA will result in a 15% increase in crashes on the freeway network and negligible change in crash frequency on the local road network. No information is provided on projected changes in crash type or severity.
- Tolls have the potential to further encourage mode shift to transit. This could improve health outcomes related to physical activity and air quality. However, tolls could also have a disproportionate impact on low-income community members.

Noise + health concerns + potential project impacts

- Harmful traffic noise levels can contribute to chronic and cardiovascular disease, disturb sleep, and reduce cognitive functioning. Older adults, shift workers, and people with preexisting sleep disorders are more sensitive to noise-induced sleep disturbance, and children are particularly sensitive to noise-induced health effects and learning disruptions.
- The Modified LPA would approach or exceed noise abatement criteria at 65 locations in Portland and 135 locations in Vancouver, including residences, offices, and one school. Noise walls are the only proposed noise mitigation for the project.
- Noise monitoring during construction, and re-examination of noise mitigation would yield greater protection from harmful noise exposure for community members in the project area.

Climate change and health + health concerns + potential project impacts

- Climate change is associated with many adverse health outcomes, including but not limited to heat-related illness, respiratory illness, cardiovascular failure, adverse perinatal outcomes, mental health impacts, injury, and death. The health impacts of climate change are not equal, and several populations are disproportionately affected.
- The DSEIS *Climate Change Technical Report* projects several climate change scenarios with impacts in the region over the project period, including higher temperatures and more extremely hot days, more fires and severe smoke, changes in precipitation, and increased risks of flooding.
- Workers, pedestrians, bicyclists, transit users, and adjacent communities may be exposed to heat, wildfire smoke or poor air quality, and other severe weather events during bridge construction and operation.
- Modified LPA design and construction operations that prioritize reducing the urban heat island effect, increasing shade and respite from heat, mitigating flooding risks, and planning for heat, wildfire smoke, and other severe weather and climate (flooding, extreme precipitation) events could improve resiliency and yield more protection from climate change-related illness and injury in the project area.
- The DSEIS *Climate Change Technical Report* anticipates the Modified LPA would result in a reduction of greenhouse gas emissions compared to the No-Build Alternative.

Social determinants of health + health concerns + potential project impacts

- The construction and operation of the Interstate bridge replacement will influence other factors that affect health, including housing, income, employment, and access to greenspace and health care.
- The IBR Program could negatively impact access to traditional cultural activities, culturally specific health care, and access to ancestral lands for American Indian and Alaska Native communities.
- The Modified LPA requires the acquisition of land that would displace 43 homes. Construction could also displace houseless community members residing in the project area.
- The Modified LPA will have varied economic impacts. Between 32-35 businesses and 600-742 employees are projected to be impacted due to property acquisitions required for construction. The project will also drive a temporary increase in construction-related employment while the bridge is being built.
- The IBR Program will comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act to provide relocation assistance to displaced residents and businesses. Additional supports to lessen the emotional impact of displacement for all, like investments to support homeless individual relocation, workers affected by business displacement, and the return of displaced individuals or businesses, could support greater health and well-being.

Water quality + health concerns + potential project impacts

- Safe and clean water is essential for the health of humans, animals and the entire ecosystem. Impacts to the health of the Columbia River and surrounding waterways, including the Troutdale Aquifer, could not be more consequential.
- Construction, specifically in-water construction, will have impacts on turbidity of the water, and can disturb hazardous sediments and toxic contamination. There are already waterways in the project area with pollutants that have required monitoring.
- Fugitive dust from construction and demolition can settle into the water and impact water quality. Climate change and drought can increase concentrations of contaminants in water.
- The IBR Program will implement stormwater infrastructure which will help improve water quality. Continuing to adapt to emerging issues such as 6PPD contamination, which is lethal for salmon, could positively impact water quality and ecosystem health.
- The DSEIS *Water Quality Technical Report* and the DSEIS *Hazardous Materials Technical Report* discuss the need to sample and analyze the levels of hazardous sediments and toxic contamination, but no plan to conduct sampling or report on the results prior to in-water work.

Recommendations

Prioritize sustainability, transparency, communication and health for the lifetime of the project

1. Institute accessible systems for real-time two-way communication about project design and construction impacts to keep community members informed of project impacts, and the program informed of community impacts.
2. Prioritize health in program policies and decision-making throughout the lifetime of the program by incorporating regular engagement with community members, health department staff, and Tribal governments.

Provide additional information and modeling to better understand potential health impacts

3. Compile and release to the public more information about demolition plans for the current bridge infrastructure, including potential air quality, noise, and water quality impacts.
4. Expand information about potential air quality, safety, and connectivity impacts of design and construction.
5. Compile and release to the public additional information about potential air quality, safety, and connectivity impacts of tolling-related traffic diversion through neighborhoods.
6. Develop and release to the public a detailed sampling and analysis plan of riverbed sediment including potential contaminants, hazardous sediments, and toxics.

Design with health and equity in mind

7. Design active transportation (bike lanes, sidewalks, and multi-use trails) and public transportation that is accessible to all to improve air quality and physical activity.
8. Design safety features to reduce injury for active transportation users and vehicle users.
9. Improve greenspace and tree canopy cover to improve air and water quality, provide shade, and increase natural spaces.
10. Design with sustainable materials and standards to reduce greenhouse gas emissions.
11. Prioritize resilience to extreme weather events, climate change, and seismic events to improve safety.
12. Maintain and improve good air and water quality in the project area to protect physical and mental health.
13. Minimize noise in the project area to protect nearby neighbors and populations disproportionately affected by noise.
14. Improve connectivity and community cohesion to promote access to community and essential services.
15. Center equity and focus on local businesses in contracting to improve economic opportunities for underrepresented groups.
16. Minimize home and business loss, and proactively support displaced residents, businesses, and employees.

Construct with health and equity in mind

17. Meet and exceed, where possible, state and local requirements for noise, air quality, and water quality to protect the health of workers, community members, and the ecosystem.
18. Design and mark routes during construction to protect pedestrians and active transportation users from injury and environmental exposures.
19. Maintain community connectivity through reliable access to transit, neighborhood services, and regular transportation routes.
20. Protect workers and community members on high-risk days for high heat and poor air quality events.
21. Establish systems for continuous monitoring for noise and air quality during and after program construction, ensuring that pre-construction conditions are measured as a baseline.
22. Implement workforce development and support programs to develop and retain a diverse workforce.

Introduction

The Interstate Bridge Replacement Program is going to be one of the largest infrastructure projects in the region for a generation. The opportunity to create a piece of infrastructure that connects two thriving communities, that has the opportunity to positively influence health, and to center environmental justice and equity cannot be overstated.

Health Impact Assessments

Health impact assessments (HIA) have been used around the world to help decision makers better understand impacts of proposed project, policies, and plans in a multidisciplinary process. They can help draw connections and demonstrate how "non-health sectors' activities play a major role in determining health outcomes."[19] Historically, they have focused on "ensuring threats to human health are considered as part of regulatory [processes]" but have since expanded to include additional information about environmental health, health equity, and social determinants of health.[19] Many have pointed to health impact assessments to fill the gap in federal processes such as the National Environmental Protection Act (NEPA) that do not explicitly require the assessment of human health impacts of proposed projects.[20] "Those concerned with health equity have [identified] HIA as an intervention that can address health inequities in policy development and planning, that is, before inequalities come about."[19]

Health impact assessments comprise a systematic, yet flexible, process that follows a standard six steps of screening, scoping, assessment, recommendations, reporting, and monitoring & evaluation. It also involves robust community engagement at every step of the process. Community engagement and feedback from partners "has consistently been described as a core element of HIA practice and should be considered essential to it."[21(p46)]

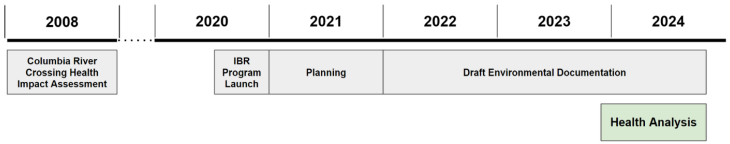
Introduction to Interstate Bridge Replacement Program & Health Analysis

When the state and local government partners sponsoring the Interstate Bridge Replacement (IBR) Program identified a Modified Locally Preferred Alternative (LPA) to replace the Interstate 5 bridge between Oregon and Washington states, several partners requested a Health Impact Assessment (HIA). An HIA had previously been conducted in 2008 during the Columbia River Crossing program.[22] (Accessible at https://www.pewtrusts.org/~/media/Assets/2008/06/HIAReport15ColumbiaRiverCrossing.pdf.)

In late 2023 the IBR Program contacted public health authorities to request that they prepare an HIA. The Washington State Department of Health, which houses an HIA program, agreed to convene the Oregon Health Authority, Clark County Public Health, and Multnomah County Health Department to develop a feasible approach to assessing bridge replacement's health impacts.

These health agencies formed a health analysis working group and began meeting in January 2024 (Figure 1). This report will refer to that group as "the working group", and use "we" and "our" to discuss our analysis and recommendations throughout.

Figure 1. High-level IBR Program and health analysis timeline



Using guidelines from the Society of Practitioners of Health Impact Assessments (SOPHIA), the working group concluded that timeline constraints did not allow for preparation of a comprehensive HIA. Health Impact Assessments require considerable time, resources, and include full community engagement at each step of the process. We estimate that an HIA would take at least two years to complete for a project of this magnitude. However, recognizing the potentially significant environmental and health impacts this project will have, the health agencies decided to prepare a Health Analysis of the IBR Program.

The Health Analysis is based heavily on standards and processes for an HIA, incorporating publicly available information and previous studies already underway for the IBR Program. Table 1 displays our adapted health analysis approach compared to a comprehensive HIA. Washington Department of Health and Oregon Health Authority followed their respective state policies and offered formal consultation to federally recognized Native American Tribes for the Health Analysis independent of IBR Program Tribal consultation. The Cowlitz Indian Tribe Health and Human Services joined as a member of the working group in April 2024. The working group completed the health analysis independently from the IBR program and we are submitting this report as a public comment on the Draft Supplement Environmental Impact Statement.

Table 1. Comparison of traditional health impact assessment and health analysis of IBR Program

Health Impact Assessment Step	Comprehensive Health Impact Assessment	Adapted Health Analysis Approach used to assess IBR Program Modified LPA
Screening	Determining feasibility and value-add of assessment for decision-making process.	The assessment was requested by the IBR Program and local partners.
Scoping	Create a work plan, key impacts to study, and determine methods for engagement and assessment.	• Health impacts identified through literature review • Community engagement not feasible within timeline
Assessment	Establish existing conditions for a baseline profile and evaluate the magnitude and direction of potential impacts.	• Emphasis on effects of Modified LPA versus no build alternative • Impacts evaluated using NEPA technical documents, systematic reviews, and existing data
Recommendations	Develop recommendations to improve health and mitigate harm.	Informed by assessment findings and priorities previously identified by project advisory groups
Reporting	Communicate results.	Posted an executive summary 10/15 on Washington DOH website. Submitting a full health analysis report to IBR Program as public comment.
Monitoring and Evaluation	Track how the assessment influences the decision-making process, if information is used, and if health outcomes improve.	Recommendations include continued integration of public health staff into ongoing IBR Program operations to support implementation and monitoring.

The goals of the Health Analysis are to:

- Identify health impacts of the IBR Program as detailed by the DSEIS.
- Provide and support adoption of evidence-based recommendations to support positive health impacts, reduce health disparities, and mitigate harm
- Leverage existing community engagement and advisory opportunities for Clark County, Multnomah County and the IBR program to incorporate community voice in decision-making
- Incorporate local health data into ongoing efforts to map and address equity and climate priorities for the IBR program.
- Engage public health and tribal partners for future decision-making phases of the IBR program

Health Analysis Methods

The working group completed the health analysis in three phases: scoping, assessment, and recommendations, detailed below. Additional details about our methods, including data sources, are available in Appendix A.

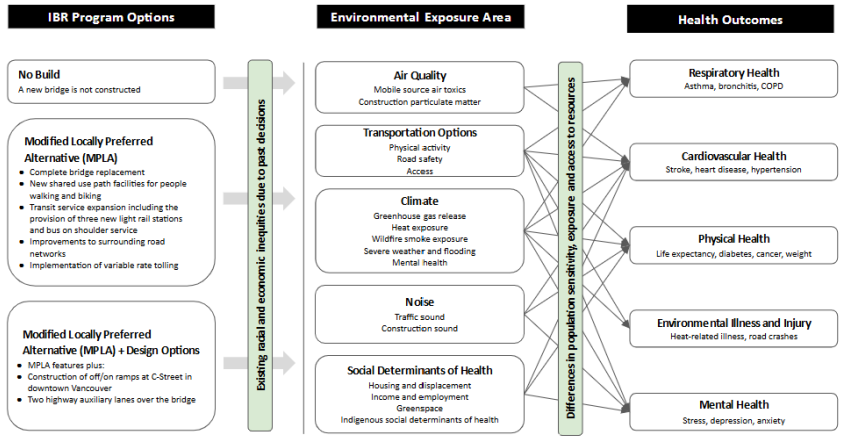
Scoping

The working group selected priority topic areas for assessment per SOPHIA guidelines for scoping. The topics include **air quality, transportation and active transportation, climate change and health, noise, social determinants of health, and water quality**.

As public health professionals, it is our mission to protect and enhance the health of the people in our states and counties. This health analysis assesses potential health impacts of the Modified LPA and does not propose an alternative.

Figure 2 outlines a health pathway diagram that links IBR program elements, focus exposure areas within the health analysis, and related health outcomes. The diagram emphasizes the role of past decisions in creating present health inequities, and how differences in population sensitivity and access to resources similarly influences prevalence of diseases and injury amongst different groups.

Figure 2. IBR Program Health Analysis Health Pathway Diagram



Assessment

The working group reviewed readily available information to examine the potential health effects of the Modified LPA – including environmental justice and health equity concerns. The following sources informed potential outcomes in each topic area:

- **Literature review.** The working group established a baseline of knowledge on each topic area from a scan of peer-reviewed literature, relying on systematic reviews and meta-analysis as a benchmark for strong evidence.
- **Readily available public data.** The working group used primarily the CDC Environmental Justice Index, CDC PLACES, CDC Social Vulnerability Index, and Census data to contextualize local health and environmental justice conditions. The working group chose these data sources based on the following factors: a) widely used and best available evidence-base from authoritative bodies that incorporate validation and rigorous review in publication, b) publicly available and readily accessible, c) comparable across Oregon and Washington, d) include data indicators that are commonly used in health analysis topic areas, and e) when possible, are place-specific and include data by census tract.
- **Draft DSEIS technical reports.** The working group reviewed select draft technical reports from the DSEIS prepared in February 2024 and cross-checked details with the DSEIS published in September 2024.
- **IBR Program Advisory Group Presentations.** Throughout the assessment stage, the working group attended the IBR Equity Advisory Group, Community Benefits Advisory Group, and Community Advisory Group meetings in July and August 2024 to present an overview of the health analysis. This provided an opportunity for the working group to ground the scope of the health analysis topic areas and for IBR advisory group members to highlight health priorities. The working group also presented an overview of the health analysis to the IBR Program Manager Group in May 2024.
- **IBR Program Site Visit.** The working group attended a half-day site tour with IBR program staff in July 2024 to visit key locations in Clark and Multnomah counties that would be affected by the Modified LPA and discuss potential effects.
- **Documentation from IBR Program Advisory Groups.** The health analysis honors the previous work that community members have contributed to the project, and uplifts recommendations documented in notes from previous meetings.

The DSEIS analysis considers IBR effects in three scenarios: 1) No-Build Alternative (no new bridge constructed) 2) Construction Modified LPA, and 3) Construction of the Modified LPA with design options incorporated that include C-Street ramps and two auxiliary lanes across the bridge (Table 2). The health analysis considers health effects from implementation between these three scenarios as data allows.

Table 2. Interstate Bridge Replacement Program implementation options

No-Build Alternative	Modified LPA	Modified LPA Design Options
No new bridge constructed	• Complete bridge replacement • New shared use path facilities for people walking and biking • Transit service expansion including the provision of three new light rail stations and bus on shoulder service • Improvements to surrounding road networks • Implementation of variable rate tolling	• Modified LPA elements plus: • Construction of off/on ramps at C-Street in downtown Vancouver • Two highway auxiliary lanes over the bridge

Recommendations

The assessment informed evidence-based recommendations for the IBR Program and state and local agencies sponsoring the bridge replacement to take into consideration in constructing the new bridge and associated interchange replacements. This health analysis assesses potential health impacts of the Modified LPA and does not propose an alternative.

To reduce negative health impacts and maximize health benefits of the IBR Program, we recommend decision makers design, construct, and maintain a program that prioritizes human health and safety, ecological health, and environmental justice.

Limitations

The most important limitation to note is that this version of the analysis is based on information available to local health agencies as of August 2024, primarily from the DSEIS. In many cases, the DSEIS does not include sufficient information to determine the magnitude, severity, or distribution of potential health impacts. For some pathways, a slight error in foundational assumptions about the project or quantitative models could reverse the *direction* of impacts (i.e., a health harm versus a health benefit).

The working group completed this health analysis on an accelerated timeline, making our best effort to assess potential health and health equity impacts of the IBR program in the time available (February – September 2024, with the first requested deadline of May 2024). We reviewed select technical reports to identify potential environmental health and health equity concerns and develop evidence-based recommendations for the Program.

The working group consulted subject matter experts from across our agencies to develop this report, but given the timeline, the working group had limited opportunity for extensive review. We welcome feedback and external review.

Further, we were unable to engage community fully in this process. While we received thoughtful feedback from community members and local representatives from the IBR Advisory Groups, we did not involve community at each step of the health analysis process, as is best practice for HIA. Our recommendations reflect a need for continued and enhanced community engagement by the IBR Program.

Our assessment of health topics and potential project impacts is based on literature review, readily available existing data, and review of draft DSEIS technical reports. We were unable to model potential health impacts. Our recommendations reflect a need for detailed modeling to better understand how air quality, transportation, and noise impacts by the IBR Program may affect communities.

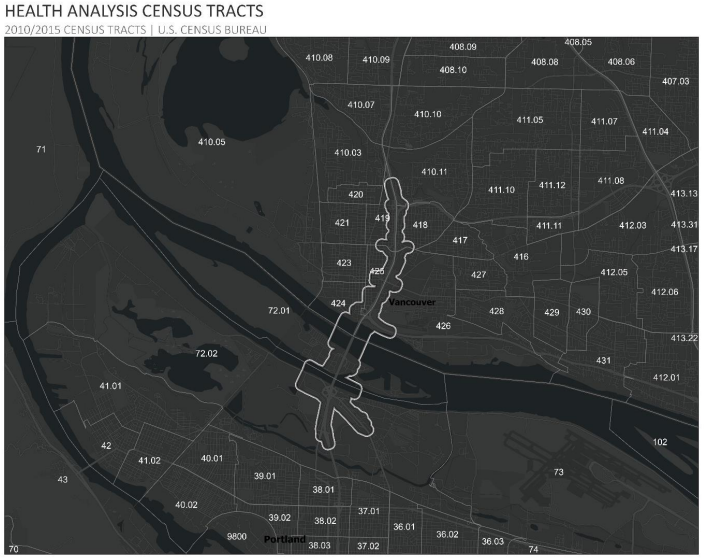
Some readily available existing data sources used in this assessment were only available by region, county, or census tract. Therefore, we were unable to draw more specific conclusions for some topics about communities most impacted and potential health impacts on a more granular scale (e.g., block or block group level).

Project Area Context

Geography

In this analysis, the IBR Project Area was defined as census tracts that overlap with the IBR Project boundaries, which include census tracts 410.11, 418, 419, 424, 425, and 426 in Washington, and 72.01 and 72.02 in Oregon (Figure 3, 2010/2015 Census). When census tract-level data was available, we summarized/averaged estimates for these 8 census tracts in the IBR Project Area to compare to Clark and Multnomah counties overall. Some data utilized the 2020 Census and is denoted in this report. Data available at the county-level only is also included.

Figure 3. Census tracts included in the project area and health analysis



Demographics and Social Factors

Tables 3 and 4 include demographic and socioeconomic data for the IBR Study Area, compared with Clark and Multnomah counties.

Table 3. Demographics in IBR Study Area, Clark County, and Multnomah County. Source: CDC EJI[23]

Indicator	IBR Study Area	Clark County	Multnomah County
Population	26,611	504,091	808,098
Percent CoC	26%	22%	29%
Percent <17	14%	24%	18%
Percent 65+	18%	15%	13%
Percent w disability	20%	13%	12%
Percent with limited English proficiency (LEP)	1.4%	2.6%	4.1%

Table 4. Socioeconomic factors in IBR Study Area, Clark County, and Multnomah County. Source: CDC EJI[23]

Indicator	IBR Study Area	Clark County	Multnomah County
Percent below 200% poverty	33%	25%	28%
Percent households that make less than 75K	34%	28%	33%
Percent who are uninsured	7.4%	5.9%	6.5%
Percent unemployment	5.3%	4.8%	4.8%

Health Outcomes

Table 5 includes select health topics and outcomes related to health analysis topic areas, and compares these estimates in the IBR Study Area to Clark and Multnomah counties overall.

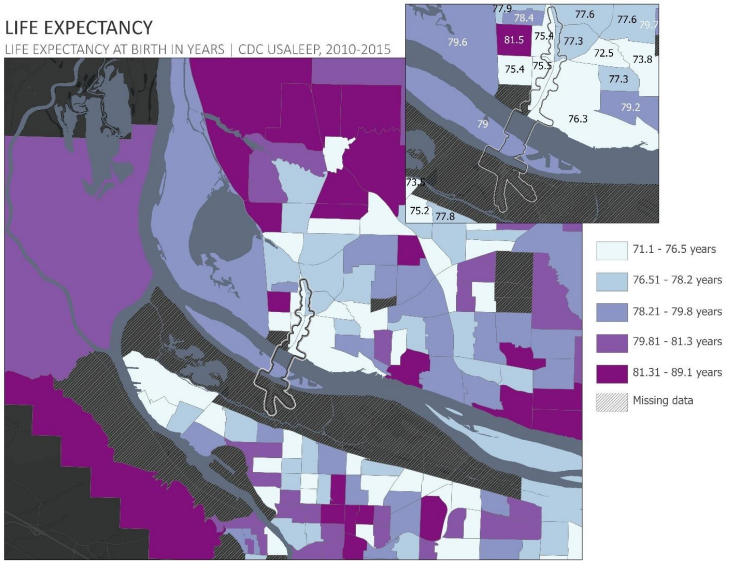
Table 5. Health Indicators* Related to Health Analysis Topic Areas in IBR Study Area, Clark County, and Multnomah County. Sources: CDC EJI+[23], CDC PLACES^[24]

Indicator	IBR Study Area Average Crude Prevalence (%)	Clark County Average Crude Prevalence (%)	Multnomah County Average Crude Prevalence (%)
Physical Inactivity^	18.7%	17.2%	17.1%
Asthma+	10%	10%	11%
High Blood Pressure+	30%	29%	26%
Cancer+	6.9%	6.7%	6.1%
Reported Poor Mental Health+	14%	13%	14%
Diabetes+	9.8%	8.8%	8.4%

*Estimates are crude – meaning they do not account for age

Life expectancy at birth is an indicator of mortality widely used in public health. Figure 4 displays life expectancy at birth estimates from 2010-2015 by census tract surrounding the IBR project area.[25] Life expectancy data for census tracts 424 and 72.02 are missing from this dataset. Figure 4 shows life expectancy in census tracts that overlap with the IBR project area are in the middle-to-lower ranges among life expectancy in Clark and Multnomah counties. Census tract 72.01 has the highest life expectancy in the IBR project area, at 79 years, while census tracts 419 and 425 are within the lower range around 75 years.

Figure 4. Life Expectancy at Birth (years) around IBR Project Area



Environmental Justice Context

Redlining, the discriminatory practice of lending based on a neighborhood desirability score largely dependent on race and income, was used in Portland in the 1930s.[26,27] There is evidence that banks continued with this practice through the 1990s, and redlining reinforced disparities in intergenerational wealth in Multnomah County.[28] Parts of the Kenton neighborhood, in the southern part of the IBR Program study area, were classified as "definitely declining" on maps created by the Home Owners Loan Corporation in the 1930s.[28] A similar map was not created for Vancouver, though the Racial Restrictive Covenants Project identified several properties that had racial restrictions in neighborhoods in the project area: West Minnehaha, Lincoln, Rose Village, and Central Park.[29] There is a significant association with the neighborhood desirability score (A [best] - D [hazardous]) and pedestrian fatalities, the result of decades of underinvestment in infrastructure.[30]

Those racist housing practices contributed to Portland's Black community primarily residing in the Albina neighborhood.[31] Vanport, developed as a temporary neighborhood to house shipyard workers and families, was also one of Portland's most diverse neighborhoods. Both Albina and Vanport serve as examples of built environment decision making disproportionately harming communities of color and low-income communities. The Columbia River flooded Vanport in 1948, displacing more than 18,000 residents, a third of whom were Black. Many relocated to Albina in the absence of other options in a heavily segregated Portland. The construction of I-5 and the Memorial Coliseum in the 1950s through '70s displaced hundreds of Abina families and bisected the neighborhood, cutting off connections from East to West.[31,32]

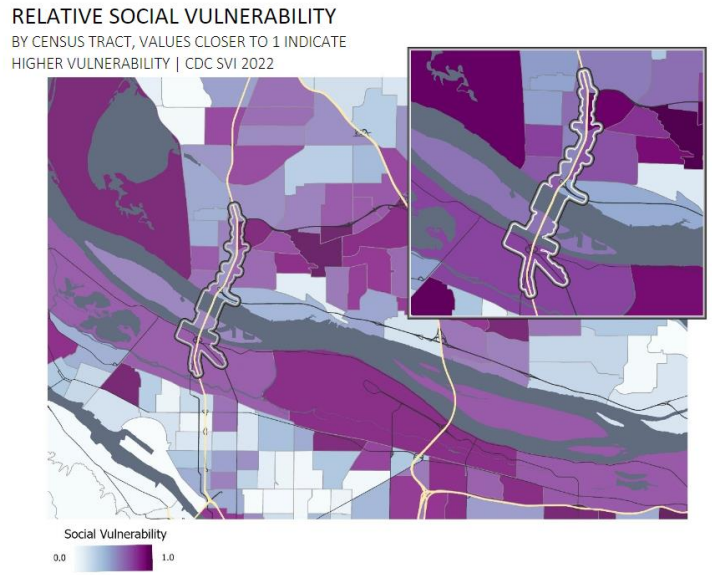
While Albina is outside of the IBR Program area, lessons from these harmful built environment decisions of the past remain relevant and valuable to decisions that will shape this once-in-a-generation project. The IBR Program has the potential to either further harm or mitigate additional harm by equitably distributing benefits to residents across the program area.

CDC's Social Vulnerability Index (SVI)(Figure 5) "indicates the relative vulnerability of every U.S. census tract".[33] This metric accounts for 16 different demographic factors, including poverty status, educational attainment, and racial and ethnic minority status. This index includes factors similar to those considered in the IBR Program's definition of "equity priority communities," though it does contain more information on housing-related indicators. The full list of variables includes socioeconomic status (below 150% poverty, unemployed, housing cost burden, no high school diploma, no health insurance), household characteristics (aged 65 and older, aged 17 and younger, civilian with a disability, single-parent households, English Language Proficiency), racial and ethnic minority status, and housing type and transportation (multi-unit structures, mobile homes, crowding, no vehicle, group quarters).

A note on language

In census and other federal or state data, racial and ethnic demographic data often are reported in lumped groups, using terms like "minority populations." Even the acronym "BIPOC" reflects a grouping of multiple different racial and ethnic identities that are unique. Use of the phrase "minority populations" throughout this report is reflective of language in our source material, including DSEIS documents and census data.

Figure 5: Relative social vulnerability in program area based on CDC Social Vulnerability Index. Source: CDC SVI 2022[33]



Notably, all but one of the census tracts that fall within IBR's defined project area are contained in the most vulnerable half of census tracts in their respective states. Census tract 418, containing the Rose Village neighborhood of Vancouver, is the census tract with the highest overall relative vulnerability anywhere in the project area.

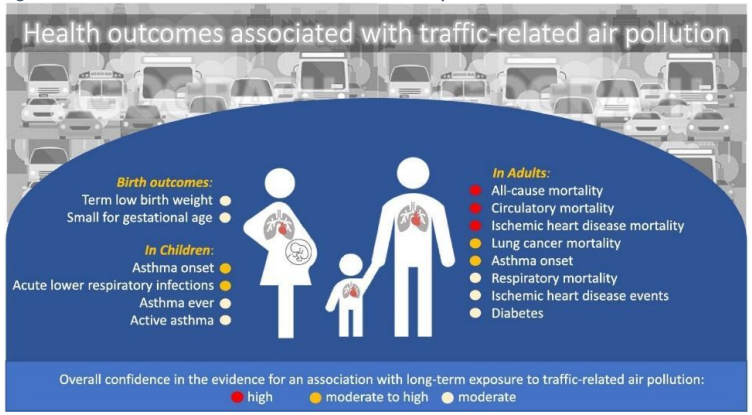
Assessment

Air Quality

Literature Review

Transportation is a significant contributor to air pollution-related illness and premature death. Emissions from vehicles include carbon monoxide, nitrogen oxides, and particulate matter. Exposure to traffic-related air pollution can lead to respiratory, cardiovascular, neurodegenerative, and metabolic diseases, as well as cancer and reproductive issues.[34–36] On-road diesel vehicles are a major source of these pollutants and have been shown to have the largest contribution to the health burdens of traffic-related $PM_{2.5}$ and ozone pollution.[37] The health impacts of carbonaceous traffic-related air pollutants, such as particulate matter (e.g., PM 2.5) and volatile organic compounds, are a particular concern in urban areas.[38] Road traffic pollutants like nitrogen dioxide, carbon monoxide, and elemental carbons can also have detrimental effects on human health and the environment.[39,40]

Figure 6. Health outcomes associated with traffic-related air pollution



Source: Boogaard et. Al., 2022[40]

Exposure to traffic-related air pollution has negative health impacts on children, adults, and pregnant people.[40] Higher rates of asthma exacerbation and onset in both children and adults are associated with exposure to traffic-related air pollution. [40] The CDC estimates that asthma costs the United States roughly $80 billion a year due to medical costs, days missed from school and work, and deaths.[41] These pollutants also increase risk of all-cause mortality, circulatory mortality, lung cancer mortality, and ischemic heart disease mortality.[40] Additionally, poor air quality is associated with respiratory issues, heart attacks, absences from work and school, lung cancer, and declines in cognitive development for children.[42,43]

The use of electric and hybrid fuel vehicles and transportation demand policies can help mitigate health concerns associated with traffic-related air pollution in areas where they are used.[44,45] However, TRAP reductions associated with electric and hybrid fuel vehicles may not be distributed evenly, as research suggests that relative reductions in TRAPs are lower for disadvantaged communities than in non-disadvantaged communities due substantially higher baseline concentrations.[46] Despite advancements in emission reduction technologies, the total number of vehicle miles traveled (VMT) and number of vehicles on roads continue to increase around the world, potentially counteracting any potential benefits resulting from emission reduction advancements.[36,47] Instead, researchers have estimated that prioritizing improvements to public transit, freight policies and passenger car efficiency, along with shifting away from single occupancy vehicles, could result in the removal of an estimated 2.8 GT of greenhouse gases from cities around the world by 2050.[36,48]

Local Context

While traffic-related air pollution in the project area is a concern, it is one of many sources that impacts the air quality for residents. The IBR Program includes areas proximate to the Port of Vancouver, Pearson Field, Portland International Airport, BNSF railway terminal, and active railways. As climate change contributes to increasing average maximum and minimum temperatures throughout Oregon and Washington[49], the physical and mental health impacts of poor air quality will continue to increase. Wildfires occurring more frequently and for longer durations will exacerbate poor air quality in the region. *(For more information about climate change and health, see the Climate and Health section.)*

Combining the impact of existing sources of air pollution in the Program area, as well as the increasing days of poor air quality from wildfires, contributes to the cumulative health impacts on an individual and community.

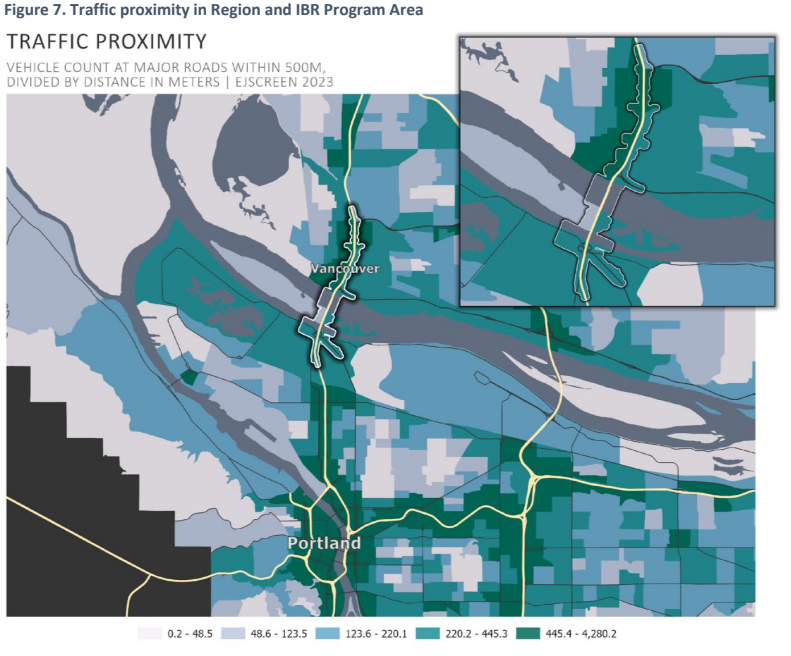
Within the IBR project area, 10% of adults have asthma, 30% have high blood pressure, 14% are children, and 18% are over 65 years old (Tables 3 & 5).[23] According to the Washington State Department of Ecology, Vancouver is identified as "overburdened and experiences high levels of PM2.5".[50] These baseline health conditions of residents in the project area could be further impacted negatively by poor air quality. The average estimated cancer risk from mobile sources of air toxics in the IBR study area is 2.6 cases per million (Table 6).

Table 6. Cancer Risk from Mobile Sources of Air Toxics (Modeled Estimates in Cases per Million). Source: EPA 2020 AirToxScreen[51]

IBR Study Area	Clark County	Multnomah County
2.6 (1.9 - 4.2)	2.0 (0.4 - 3.1)	3.4 (0.4 - 5.7)

The I-5 interstate bridge is an existing contributor to poor air quality, making it a public health hazard for those who live nearby. The air quality analysis presented in the *DSEIS Air Quality Technical Report* suggests that there would not be significant differences in air quality impacts between the Modified Locally Preferred Alternative (LPA) and the No-Build Alternative (NBA) scenarios.[52] However, the air quality analysis in the DSEIS uses a large study area composed of Clackamas, Clark, Multnomah, and Washington counties. Due to this large study area and lack of modeling at a smaller geographic level, it is unclear whether the Modified LPA and NBA scenarios will contribute to improved or worsened local air quality conditions within the project area. Given the existing high traffic volumes along the I-5 interstate bridge, people who live nearby are subjected to greater concentrations of air toxics and are at risk of experiencing additional air quality burdens given the expected 33% increase in VMT under the Modified LPA by 2045.

Figure 7. Traffic proximity in Region and IBR Program Area



Potential Project Impacts

Project Design

The DSEIS states that concentration of air toxics from mobile sources would likely be more pronounced on road segments where traffic volumes would increase under the Modified LPA compared to the No Build Alternative due to diversion to avoid tolls. However, many of these road segments were not included in the air quality analysis conducted by the IBR team. These streets where traffic volumes are projected to increase due to diversion are not easily identified in the DSEIS. The DSEIS states that their analysis of localized health impacts due to air quality changes cannot reliably quantify the duration and magnitude of project-specific increases in air toxics and related health impacts due to uncertainties in the available data. This gap in the data is the basis for a recommendation for more detailed air quality modeling and monitoring in the project area.

Project Construction and Demolition

Construction of the Modified LPA would generate heightened amounts of particulate matter including dust from demolition and preparation and emissions from trucks and construction equipment. The DSEIS *Air Quality Technical Report* describes increase in particulate matter "in the form of fugitive dust, (from demolition, ground clearing and preparation, grading, stockpiling of materials, on-site movement of equipment, and transportation of construction materials), as well as exhaust emissions from material delivery trucks, construction equipment, and workers' private vehicles".[52(p5-1)] It also states that "elevated emissions would likely occur immediately adjacent to the construction activities, staging areas, and material hauling routes".[52(p5-1)] Furthermore, air quality impacts from construction would result in long-term exposure as construction activities would occur during a 9- to 15-year period. At this phase of the planning process, the IBR Program has not developed detailed construction sequencing plans.

There is insufficient information in the DSEIS to show how much of an increase in particulate matter and fugitive dust will contribute to negative impacts on air quality. A comparison is made between this project and the Dan Ryan Expressway in Chicago, where air quality monitoring was done prior to and during construction. It was found with that project, that "the number of times the project action levels were exceeded was low".[52(p5-2)] While a comparison can be helpful, there are still concerns and more clear information needed regarding this project about the specific air quality impacts. Additionally, the DSEIS references the construction of the Dan Ryan Expressway from January 2005 through October 2007, which is a significantly smaller time frame of construction than the IBR Program.[52(p5-2)]

Due to the increased risk from air pollution to children and older adults, construction plans should be made to mitigate impacts to the schools, elder care facilities, and health care facilities. Construction staging and idling vehicles should not occur near those sites. Changes in traffic volume and proximity to residents could change an area from a low pollution area to a high pollution area and increase health risks. A detailed construction plan should also include traffic diversion information and assess the risk of current low traffic areas of becoming high traffic areas during construction. Residents should be made aware of all construction activity, duration, and mitigation measures being taken. Our recommendations reflect the need for more detailed information about air quality impacts and mitigation during construction.

As noted above, demolition will contribute to fugitive dust and negatively impact air quality. An additional concern in addition to the amount of particulate matter released from demolition is the content of the fugitive dust. The DSEIS *Air Quality Technical Report* describes that other than compliance with the EPA's National Ambient Air Quality Standards, there are no specific air quality regulations "governing emission of lead from demolition activities during construction" and that "control of potential lead emission is addressed in the construction contracts".[52(p2-8)] The DSEIS *Hazardous Materials Technical Report* states that the existing Interstate Bridge, and any other structures, that contain lead or asbestos will go through proper abatement prior to demolition.[53(p5-11)] Due to the potential public health, worker health, and ecological impacts of lead dust getting into the air, and settling on soil or water surfaces, more information about mitigation and lead abatement would help assess the likelihood of exposure.

Long-Term Impacts

The DSEIS projects that the Modified LPA would result in a 33% increase in vehicle miles traveled (VMT) by 2045 compared to the 2015 baseline.[52] Despite projected increases in VMT for both the NBA and Modified LPA, the EPA's Motor Vehicle Emissions Simulator (MOVES) model used in the DSEIS resulted in expected reductions in mobile source air toxics (MSAT) emissions by 2045 largely due to incorporation of emission reduction standards from the 2007 EPA Control of Hazardous Air Pollutants from Mobile Sources. This 2007 ruling from the EPA set annual standards for reducing MSATs. Beginning in 2011, the EPA requires fuel refiners and importers to meet benzene reduction stands and vehicle manufacturers to meet non-methane hydrocarbon exhaust emissions standards.[54] The MOVES model used in the DSEIS assumes that fuel and vehicle standards set by this 2007 EPA ruling will be met in 2045, resulting in substantial MSAT reductions compared to existing conditions primarily due to use of cleaner fuels and engines rather than design differences between the NBA and Modified LPA. These assumptions included in the MOVES model, combined with the large geographic scale of this analysis and its output in tons per year, does not provide adequate information for determining possible health impacts associated with the Modified LPA.

According to the DSEIS *Transportation Chapter*, "approximately 14,000 heavy and medium trucks crossed the Interstate Bridge on an average weekday in 2019, accounting for approximately 10% of all bridge traffic".[55(p3.1-8)] Additionally, the Washington State Freight System Plan anticipates that "forecasted truck vehicle miles traveled on the various interstates are expected to increase by 67 percent from 2022 to 2050".[56(p48)] An increase in freight traffic volumes could increase air quality related health concerns, especially for people walking, biking, and rolling on active transportation paths in the vicinity of traffic and freight emissions, housed and unhoused people living nearby, and future housing developments.

From the analysis performed in the DSEIS, the IBR Program concludes that emissions under the No-Build Alternative and the Modified LPA are expected to be substantially lower than emissions under existing conditions. The model predicting emissions in 2045, however, shows negligible difference in predicted emissions the NBA and Modified LPA. These expected decreases in emissions for the Modified LPA also rely on meeting the mode share targets included in the analysis (e.g., people choosing to commute via ride light rail instead of single-occupancy vehicles. The air quality analysis presented in the DSEIS is limited to a select number of road segments within the project area and evaluates air quality impacts for the area as a whole, rather than by each segment.

Environmental Justice & Health Equity

According to the DSEIS, the IBR Program focus area includes five healthcare facilities, six schools, and six assisted living facilities, all of which contain people who are especially susceptible to the health impacts of poor air quality.

While research suggests that the ambient concentrations of air toxics exceed cancer risk benchmarks throughout the country, BIPOC communities and people with lower income experience a disproportionate risk of exposure to these air toxics. This is a result of historic and ongoing sociopolitical factors like residential segregation, uneven industrial development, and neighborhood disinvestment.[57,58]

Research suggests that poor air quality often has a disproportionate health impact for low-income populations and BIPOC communities.[59] Disparities in traffic-related air pollution exposure are larger by race/ethnicity than income and disproportionate to contributions to overall pollution concentrations between different racial/ethnic populations.[36] Uneven tree canopy and vegetative cover further exacerbate the inequitable burden of air pollution and its impact on cardiorespiratory health. Tree canopy and vegetation have been shown to reduce respiratory difficulties[60] by controlling the flow and distribution of air pollutants.[61]

Transportation and Active Transportation

Physical Activity and Health

Literature Review

The development patterns of neighborhoods and cities shapes the travel options that are available to residents, and how feasible it is to walk, bike, roll, take transit, or drive to essential, everyday destinations. Urban planning decisions and design features influence travel options, like the availability and connectedness of sidewalks and bike lanes, mix of land uses, neighborhood density, proximity of recreational and open spaces, design variety and aesthetics, and proximity and access to transit and employment. Improvements in these areas can lead to increases in physical activity.[62,63]

In contrast, urban planning decisions can also discourage active travel. Induced demand is a well-studied concept in transportation infrastructure that describes how when highways expand to include more lanes (supply), traffic increases to use those lanes (demand).[64,65] Induced demand is associated with increased vehicle miles traveled, which in turn has negative effects on physical activity and air quality.[66]

Physical activity improves a wide range of health outcomes across the lifespan. When community design makes active travel safe, feasible, and attractive, physical activity can become an easy option for everyone in their everyday life. Health benefits include improvements in mental health and cognition, stronger bones and muscles, and reduced risk of all-cause mortality, cardiovascular disease, type II diabetes, and several types of cancer.[67,68] Inversely, sedentarism is associated with increases in all-cause mortality, metabolic syndrome, obesity, and unhealthy cardiometabolic biomarkers.[69]

A review of health impact assessments evaluating health benefits and risk from shifting from car travel to active travel found a majority of studies (27/30) determined the benefits outweighed risks.[70] Benefits were primarily driven by increases in physical activity, and include a wide range of outcomes, including improvements in all-cause mortality, cardiovascular disease, stroke, type 2 diabetes, cancer, dementia, depression, life expectancy, and health care costs. The studies found the risks from traffic crash injuries and exposure to air pollution to be minor compared to benefits, though uncertainty exists for demographic subgroups.[70] Changes in physical activity and active transportation in response to changes in large scale infrastructure are highly context specific, difficult to evaluate, and therefore understudied. Existing findings are mixed. A review of physical activity effects from the implementation of new built environment infrastructure changes including traffic-free bridges, an informal boardwalk, and a cycling trail, found inconsistent changes for walking but positive effects for cycling.[71] Despite inconsistent effects in walking, the review found that closer residential proximity to the intervention area was associated with higher levels of physical activity and walking.[71]

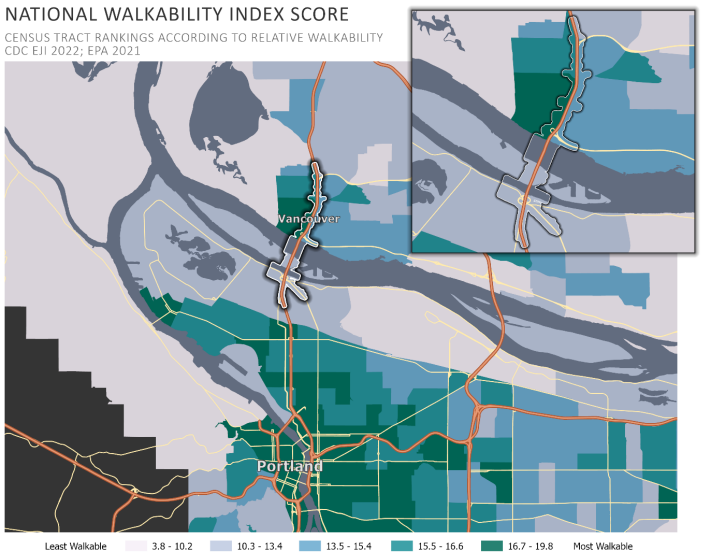
Public transit is associated with increases in physical activity, as people tend to walk or bike to transit stops and stations. A review of natural experiments evaluating the effects of new or extended bus rapid transit or light rail services found that building a new public transit line is associated with an increase of nearly 30 minutes of light to moderate physical activity a week for new users. This is one fifth of the WHO weekly physical activity recommendation.[72] A review of light rail transit effects on physical activity found that new light rail increased user weekly walking rates between 7-40%. There were limited effects on cycling rates.[73] Projects that incorporate built environment changes that affect both transportation systems, like light rail improvements, and the surrounding land use and environmental design, create places that are more welcoming and easier to navigate, which in turn increases physical activity.[74]

Local Context

Active Transportation. Approximately 2.4% of workers over the age of 16 that live in the study area walk to work, and 1.0% bike to work.[75] This proportion is greater than Clark County overall and less than Multnomah County overall. The project study area connects the downtown core of the City of Vancouver, an area with greater walkability (as identified by the EPA EJI), directly to parts of Multnomah County outside of the urban core and lower walkability (Figure 8). The IBR Program conducted a 24-hour bicycle and pedestrian count on the interstate bridge October 19th, 2022 to establish a baseline for travel modelling. The count occurred during a significant smoke event, so program staff adjusted the counts based on the upper threshold reduction percentages identified in Doubleday et al., 2021.[76] It is unclear if these assumptions in this methodology match the IBR program area context. Future analysis would benefit from active transportation counts when environmental conditions are not biasing travel choices.

The *DSEIS Transportation Technical Report* notes that existing active transportation structure is lacking in the project area. Walking and biking path networks are incomplete and often do not meet current design standards, including state, local, and ADA standards, depending on location. Multnomah County land uses in the project area, such as in the Columbia Slough watershed and industrial zones have limited the development of extensive active transportation infrastructure. The existing shared use path spanning the Interstate bridge is narrow and does not allow two-way travel or passing for people biking. I-5 presents a large barrier for people walking or biking Eastbound and Westbound in Vancouver (Section 3.8, *DSEIS Transportation Technical Report*).[77] Community members have also expressed that discrimination and racism can limit outdoor exercise and recreation for communities of color in the region.[78]

Figure 8. National Walkability Score in Region and IBR Study Area



Transit. Trimet and C-Tran provide current transit service in the study area through local, regional, and express bus service and light rail. Full descriptions of available transit service in the project area are in the *DSEIS Transportation Technical Report* section 3.7.[77] The *DSEIS Transportation Technical Report* notes that currently I-5 congestion adversely impacts transit travel times and reliability during peak morning and afternoon travel periods (Section 3.7.6).[77]

Approximately 3.5% of workers over the age of 16 that live in the study area use transit to get to work (Table 7).[75] This is a little more than double the proportion of Clark County overall and a little less than half the proportion of Multnomah County overall. The IBR Program estimates that approximately 3,200 people cross the interstate bridge via bus on a typical weekday (Table 3-28, *DSEIS Transportation Technical Report*).[77(p3-89)]

Car Travel. There are currently three lanes for cars, vans and trucks in either direction along the existing bridge spans (6 lanes total). Approximately 74.5% of commuters drive or carpool in the project study area.[75] The *DSEIS Transportation Technical Report* states that the average weekday daily traffic volume for the I-5 bridge is 143,400 vehicles (Table 3-5, *DSEIS Transportation Technical Report*).[77(p3-18)]

Table 7. Mode Split in IBR Study Area, Clark County, and Multnomah County, ACS 5-Year Estimates* 2018-2022[75]

Mode	IBR Study Area	Clark County	Multnomah County
Car – Drive Alone	67.7%	72.2%	55.1%
Car – Carpooled	5.9%	8.1%	7.8%
Public Transportation	3.6%	1.5%	7.8%
Bike	1.0%	0.3%	3.5%
Walk	2.4%	1.5%	4.5%

**2020 census tract geographies:*
Washington: 410.11, 418, 419, 424, 425, 426.01, 426.02 | Oregon: 72.01, 72.02

Travel-Related Health Outcomes. The IBR project area has slightly higher levels of physical inactivity than Clark and Multnomah County overall. The prevalence of physical activity-related health conditions in the study area, including high blood pressure, cancer, and diabetes, is slightly higher than the surrounding counties overall (Table 5). Disparities within these outcomes vary widely by age, race, ethnicity, sex, and geography.

Potential Project Impacts

Overall, the replacement of the existing I-5 bridge will result in a structure with greater seismic resilience, and minimize the risk of a bridge collapse during an earthquake. This will support continued regional travel and access during the recovery period of a seismic event. Additional effects on health vary by project stage and travel mode, as described below.

Project Long Term Impacts

Active Transportation and Health. IBR Program modeling predicts that active transportation trips will increase with the Modified LPA primarily due to the increased attractiveness of active mode facilities (80-160% increases in active trips) and mode shift from other travel means (15-25% increases in active trips). Modeled estimates predict that daily total active transportation trips could increase to 740 to 1,600 daily active transportation trips (Tables 4-49 and 4-50, *DSEIS Transportation Technical Report*).[77(p4-134)]

An increase in active transportation trips would support the improvement of health outcomes related to physical activity in the study area in the future.

Transit and Health. Using the Metro Regional Travel Model, the *DSEIS Transportation Technical Report* predicts that in 2045 there would be 29,100 transit riders using a part of the planned transit improvements scoped within the IBR Modified LPA (Table 4-40, *DSEIS Transportation Technical Report*).[77(p4-119)] The DSEIS estimates that approximately 36% (12,000) of these riders would be new transit riders that shifted from driving. A majority of transit boardings and departures would occur in Clark County at the Waterfront light-rail transit (LRT) station (24% of total predicted boardings) and Evergreen/I-5 LRT station (61% of total predicted boardings) (Table 4-39, *DSEIS Transportation Technical Report*).[77(p4-117)]

The expected increase in new riders and the addition of three new LRT stations is likely to support increases in physical activity via walking and biking to and from transit stops. This is also likely to support the improvement of health outcomes related to physical activity in the study area in the future.

Car Travel and Health. Using the Metro Regional Travel Model, the *DSEIS Transportation Technical Report* projects that traffic volumes crossing the interstate bridge in 2045 will increase regardless of current design options, ranging from 0.93%-1.07% per year.[77(p4-12)] Average weekday daily traffic volumes over I-5 are predicted to increase by 26% in the no-build scenario and 23% in MLPA option Table 8). MPLA traffic volumes are smaller due to the increased availability of transit options that would be provided and diversion resulting from tolls. The *DSEIS Transportation Technical Report* estimates that the MLPA with the addition of two auxiliary lanes would result in similar peak travel volumes. The auxiliary lanes would reduce congestion-related delays by 33% in either direction compared to the hours of congestion forecast in the MLPA without auxiliary lanes. Depending on how many lanes are in the final design, the IBR program area could experience induced demand, which would likely increase vehicle miles traveled. Our recommendations reflect the need for more appropriate modeling to identify potential health impacts, including consideration of the number of lanes in design options.

Despite the forecasted reductions in travel times for car travel, traffic volumes and vehicle miles traveled are projected to continue to increase. This will likely result in little to no change in health outcomes related to car travel, physical activity, and sedentary behavior at the population level.

Table 8. Predicted Travel Changes along I-5 in IBR Study Area by Mode, ODOT DSEIS Transportation Technical Report[77]

Mode/Metric	Existing	No-Build	Modified LPA
Car			
Average Weekday Daily Traffic Volumes *(Page 4-13, Table 4-5)*	143,400	180,000 (26% increase)	175,000 (23% increase)
Vehicle Miles Traveled	Not cited in DSEIS	436,400	424,900
Transit			
Regional Transit Mode Share *(Page 4-113, Table 4-38)*	Not cited in DSEIS	5.26%	5.37%
Weekday Corridor Daily Transit Ridership *(Page 4-119, Table 4-40)*	Not cited in DSEIS	14,900	29,100
Bike			
Daily Trips *(Page 4-134, Tables 4-49 and 4-50)*	279 (205 unadjusted)	No change	740-1,600 (combined biking and walking)
Walk			
Daily Trips *(Page 4-134, Tables 4-49 and 4-50)*	132 (91 unadjusted)	No change	740-1,600 (combined biking and walking)

Project Construction

IBR construction will affect all regional travel patterns and modes for 9 to 15 years depending on project implementation. Construction would require nighttime closures of I-5 and surrounding arterials that would result in rerouting and potential congestion and delays. The project may affect existing transit operations including alterations to existing light rail operations along the Yellow line, delays for bus routes that need to be rerouted or encounter construction-related congestion, and the relocation of bus stops in affected project areas. To the extent practical, the active transportation crossing over the bridge will remain open, but surrounding sidewalks, shared use paths, and bicycle lanes may be closed and rerouted. This may negatively affect access to employment, health care, and other needed services, especially for those that are transit dependent or do not have car access.

Environmental Justice and Health Equity

Some groups face greater or additional barriers to engaging in regular physical activity through active transportation. Fear of crime and perceived safety from other road users can influence travel choices for children/parents, older adults, and people that don't identify as male.[79,80] In Multnomah County, census tracts with higher densities of intersections, an indicator of walkability, tend to have lower shares of BIPOC residents. The same pattern exists for population percentage within ¼ mile of a bus or light rail stop.[81]

The *DSEIS Equity Technical Report* evaluated potential changes in mode shift benefits by analyzing increases in transit and driving access improvements for equity priority communities identified by the IBR Program. While the analysis found improvements across the board for program area residents, benefits were not equally (nor equitably) distributed. Transit access to jobs for BIPOC residents, communities with limited English proficiency, immigrants and refugees, and people under the age of 25 did not increase as much as it did for white, non-Hispanic residents (Table 4-2, *DSEIS Equity Technical Report*).[82(p4-3)] This indicates disparities would continue to remain, likely reinforcing disparities in opportunities for physical activity. Additionally, the *DSEIS Equity Technical Report* does not include spatial analysis of active transportation benefits within the program area for equity priority communities. Further evaluation of distribution of the benefits would inform decision-makers and community advocates in further policy or programmatic interventions are needed to reduce existing disparities.

Road Safety

Literature Review

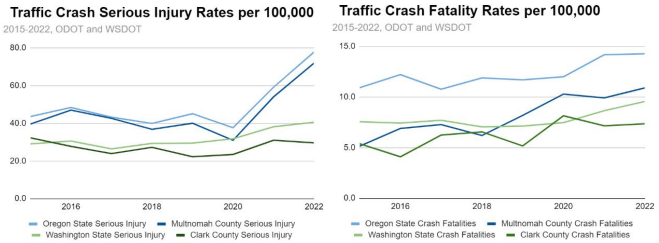
Transportation safety is a primary public health and transportation concern. Traffic crashes are a leading cause of death in the United States, and fatality rates have been increasing in recent years. Motor vehicle crashes specifically are the leading cause of death for teenagers.[83]

The Safe System approach to road safety is a multi-tier approach to improving road safety based on the fact that people make mistakes in the roadway and that humans cannot withstand the crash forces they experience from vehicles. Interventions and design principles focus on encouraging safer speeds, designing roads that encourage safer behavior, cultural shifts to promoting safety for all amongst all modes, making vehicles safer, and improving post-crash care.[84] These strategies align with core public health intervention approaches to change the context in which people operate to promote healthier actions and improve population health.[85] System-level interventions focused on safe speeds include focusing on highway design and implementing tools to encourage compliance with speed limits and manage traffic flow and density.[86]

Local Context

Locally, serious injury and fatality rates per 100,000 have been steadily increasing since 2015 (Figure 9). In 2022, there were 88 crash-related fatalities in Multnomah County and 37 in Clark County. That same year, there were 581 serious injuries related to crashes in Multnomah County, and 149 in Clark County. Since 2020, the serious injury crash rate per 100,000 has almost doubled in Multnomah County.

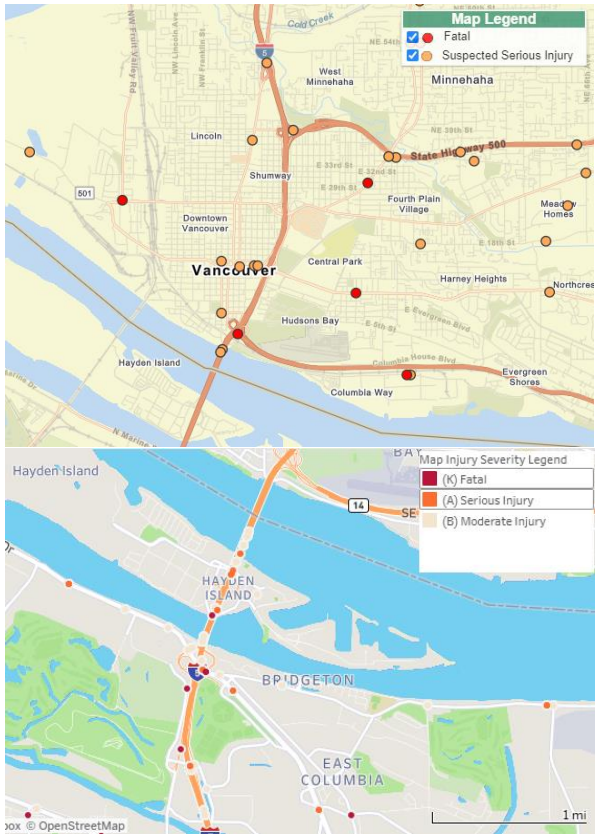
Figure 9. Rates per 100,000 for traffic crash serious injuries and fatalities. 2015-2022. Source: ODOT Crash Data Viewer, WSDOT Crash Data Portal, ACS 5-year population counts.[75,87,87]



The *DSEIS Transportation Technical Report* includes crash data from 2015 through 2019. Between 2015 and 2019 there were 2,270 crashes that occurred within the study area between 2015 and 2019. A little over half of these occurred on the I-5 mainline (Table 3-34, *DSEIS Transportation Technical Report*).[77(p3-117)] Overall, 38% (n=856) resulted in an injury, 1.5% (33) resulted in a serious injury, and 0.3% (7) resulted in a fatal injury. Seventeen involved a bicycle and 30 involved someone walking (Table 3-37, *DSEIS Transportation Technical Report*). [77(p3-120)]

In 2022, there were five fatal crashes within the IBR study area, four in Multnomah County and one in Clark County (Figure 10).[87,88] This is two short of the seven total identified over a five year span in the DSEIS Transportation Technical Report.

Figure 10. Fatal and serious injury crashes in IBR study area, 2022 Source: ODOT Crash Data Viewer, WSDOT Crash Data Portal.[87,88]



Black residents experience a disproportionate amount of transportation safety concerns in the region. Not only do Black community members experience higher death rates from traffic crashes and visits to the emergency room for traffic-related injuries, they also experience biased behavior, harassment, violence, and unfair policing. This stems from racism and racist systems baked into regional housing, transportation, and law enforcement practices.[89] Involving community in redesign for their neighborhoods can proactively encourage more, better, and safer options for everyone.

Potential Project Impacts

The *DSEIS Transportation Technical Report* relies on the Enhanced Interchange Safety Analysis Tool (ISATe) estimated to predict changes in crash frequency that may occur with and without implementation of the MPLA. ISATe predicts that across the freeway network there will be up to a 28% increase in total crashes with the No-Build Alternative, and up to a 15% increase in crashes with the Modified LPA.[77(p4-159)] The ISATe model assumes fewer crashes will occur with more lanes, and therefore predicts that the MPLA option with two auxiliary lanes would reduce crash frequency by an additional 4% compared to the MPLA with one auxiliary lane, for a total net increase in crash frequency of up to 11%.[77(p4-161)]

The DSEIS Transportation Technical Report does not provide further detail on changes in crash type, severity, location, or time due to uncertainty in ISATe, but notes removal of the bridge movable span could further reduce crashes in the MLPA. ISATe predicts that changes in crash frequencies will be negligible, with the exception of a small increase at the intersection of Evergreen Boulevard and C Street.[77(p4-160)] The *DSEIS Transportation Technical Report* provides a descriptive account that safety outcomes for active transportation modes would improve because of facility improvements, but no additional evidence or analysis is provided. There is inadequate information to conclude to what degree severe injury and fatalities will be reduced with implementation of the MPLA.

Environmental Justice and Health Equity

Urban development that supports safe physical activity is not evenly distributed across the region. Some corridors in the region have higher crash rates than others, known as high injury corridors. Sixty-five percent of high injury corridors on regional roadways are through areas with higher proportions of communities of color, people with low-income, or people with limited English.[90] Who lives in areas that support active transportation today is shaped by past patterns of housing discrimination and disinvestment, disproportionately excluding communities of color and low-income communities.[91] The DSEIS does not assess how changes in travel safety across each mode type might vary by priority environmental justice community.

Transportation Access Literature Review

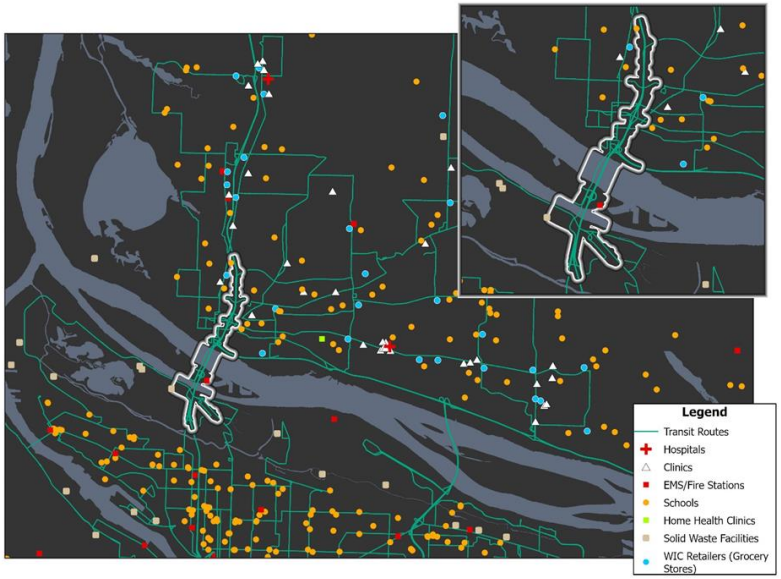
Literature Review

Transportation barriers are a major factor in accessing and maintaining healthcare across the United States. Lack of transportation can lead to delays in accessing health care, which can lead to delayed diagnosis, treatment, and reduced health outcomes. It can also disrupt care through missed appointments, disrupt access to pharmacies for medication, and create longer transit times to access care which requires additional time off work and added childcare burden.[36,92] Of particular concern is how unmet transportation needs impact children's access to health care including mental health care, "obtaining medication, accessing dental care, immunizations, chronic illness care, specialized care, and follow-up emergency care".[93] Children of color, children with vulnerable citizenship status, and children whose caregivers need financial support experience the health care impacts of transportation burden at higher rates.[93]

Potential Project Impacts

The IBR Program will naturally include some amount of disruption to daily life for community members living and working in and around the project area. The map below (Figure 11) includes some (though not all) examples of essential services, access to which should be considered and maintained as much as possible during program planning and execution. Mapping was restricted to data made publicly available by individual states, counties, and local municipalities, which causes some variation in data availability, especially across state lines. Date of most recent update also varies across data sources. Therefore, this map should not be considered a complete or up-to-date picture of the community. Locations like schools, grocery stores, clinics and hospitals, pharmacies, emergency services, transit stops, and public utility facilities are essential to the daily functioning of the community. Disruption of access to these services can have significant impacts on individual and community well-being. Those individuals that will have to find a new route through or around IBR-related construction to reach their essential services are particularly vulnerable.

Figure 11: Essential services and facilities in and near the IBR Program area.



Sources: Oregon Metro RLIS[94] (transit routes including buses and rail lines, hospitals, fire stations, schools, solid waste facilities), City of Vancouver[95] (transit routes including buses and rail lines), Washington Department of Health[96] (clinics, EMS stations, home health clinics, WIC retailers), and Washington State Office of Superintendent of Public Instruction (schools)[97]

Project Construction

Over the course of the construction period travel routes will change due to road closures, lane closures, traffic detours, relocation in bus stops, transit station closures, transit schedule changes, and sidewalk and bicycle lane impacts.[77(p5-3)] Additionally, changes in travel patterns due to construction could lead to increased congestion and diversion on alternative rates, increasing the risk of additional delay, as well as crash frequency (Table 5-1, *DSEIS Transportation Technical Report*).[77(p5-5)] The *DSEIS Environmental Justice Technical Report* also notes that if the sidewalks over the I-5 bridge are closed, access across the river could be cut off entirely for people whose only mode of travel is on foot or by bike, because the I-205 bridge is not a practical distance for an alternative.

These construction-related transportation barriers will affect access to homes, jobs, schools, health care facilities, and other essential destinations. This has the potential to create acute stress, make chronic stress worse, and interrupt access to programming and services that keep people healthy.

Long Term Effects

The improvements in light rail and transit service will generally increase access to jobs and other services in the region. Although, as mentioned above, improvements are not the same among sub groups, and access to jobs for BIPOC residents, communities with limited English proficiency, immigrants and refugees, and people under the age of 25 will not increase as much as it will for white, non-Hispanic residents (Table 4-2, *DSEIS Equity Technical Report*).[82(p4-3)]

Evaluation of potential tolling scenarios in the *DSEIS Environmental Justice Technical Report* found that some environmental justice populations might experience adverse effects. Despite improvements in trip time, reliability, and alternative transportation options, some low-income households may still experience disproportionate financial burden in scenarios where they have no other choice to drive over the bridge and pay the toll.[98(p4-40)]

Environmental Justice and Health Equity

Transportation access to healthcare often disproportionately affects older adults, people with disabilities, veterans, people with chronic health conditions, and people of color. Disproportionate negative impacts are also experienced by pregnant people, people with young children, and people experiencing homelessness.[92] Even when studies controlled for socioeconomic status, they still found higher transportation barriers and decreased healthcare access among communities of color.[99] As mentioned above, tolling may create a disproportionate financial burden on low-income households unable to benefit from improvements in transit and active transportation options, such as someone needing medical care. This could create an additional barrier to health care, as well as other essential services.

Noise

Literature Review

Health concerns associated with noise exposure include cardiovascular disease, diabetes, reduced cognitive functioning, annoyance, stress, sleep disturbance, adverse birth outcomes, and noise-induced hearing loss.[36,100,101] Noise exposure also affects quality of life, mental health, and sleep quality, which are essential for health. Health impacts can result from short, intense sounds as well as loud background noise.

Children, older adults, shift workers, and construction workers are at greater risk for noise-induced health effects.[102] Noise exposure and noise disruptions can cause increased attention issues, decreased reading comprehension, communication difficulties between children and their teachers, and increased stress and blood pressure in both adults and children.[103,104] Students learning in their second, third, or more language may be at an even greater disadvantage than other students when faced with a noisy learning space.[105]

Older adults, shift workers, and people with preexisting sleep disorders are more sensitive to noise-induced sleep disturbance, which can occur when noise levels are as low as 33 dBA.[106] Sleep disruptions strain the cardiovascular system, disrupt circadian rhythms, and raise blood pressure.[107] These sleep disruptions can lead to long-term health problems like cardiovascular disease. Undisturbed sleep is essential for daytime functioning, health and wellbeing.[106]

For workers, the National Institute for Occupational Safety and Health (NIOSH) recommended exposure limit for occupational noise is 85 dBA over an 8-hour period and the Occupational Safety and Health Administration (OSHA) requires a hearing conservation program at this level to protect from hearing damage.[108,109] While not regulatory, the U.S. EPA and WHO recommend noise exposure limits to protect against adverse health effects and hearing loss. For 24-hour averaged exposure, the U.S. EPA recommends a 45 dBA (indoor) and 55 dBA (outdoor) exposure limit to protect against adverse health effects, and a 70 dBA exposure limit to protect against hearing loss.[107,110] The WHO recommends limiting road traffic noise to 53 dBA during the day, and 45 dBA at night to prevent adverse health effects.[101] These are all more protective than the A WSDOT (65 dBA), ODOT (66 dBA), and FHWA (67 dBA) noise limits, which are regulatory (see Table 9 below).

Noise pollution, like other types of air and environmental pollution, is not equitably distributed. In the United States, people of color and immigrants are overrepresented in construction jobs with a higher risk of injury.[102] People with lower income and people of color are more likely to be exposed to both more noise and environmental pollution.[101,102] Systemic racism and other inequitable urban development and land use practices historically and presently contribute to poor health outcomes for people of color and people with low income. Exposure to noise pollution further increases risk of adverse health outcomes.

A WHO systematic review on noise interventions and health outcomes found that evidence, though limited, shows that transport noise interventions benefit health.[111] It is generally difficult to consistently study the link between environmental noise interventions and health outcomes. There are several studies on noise levels affected by noise mitigation, but fewer that explicitly study the link between noise mitigation and health outcomes.

Explanation of noise measurements

Sound intensity or pressure is measured in units of decibels (dB). The decibel scale is logarithmic, which means small increases in dB result in increasingly louder sounds to the human ear. For every 3db increase, the sound intensity doubles, and for every 10 dB increase, the sound is 10 times louder. For example, a 10-dB noise is 10 times louder than 0 dB, and a 20-dB noise is 100 times louder than 0 dB. The A-weighting noise scale (dbA) is more sensitive to the range of human hearing.

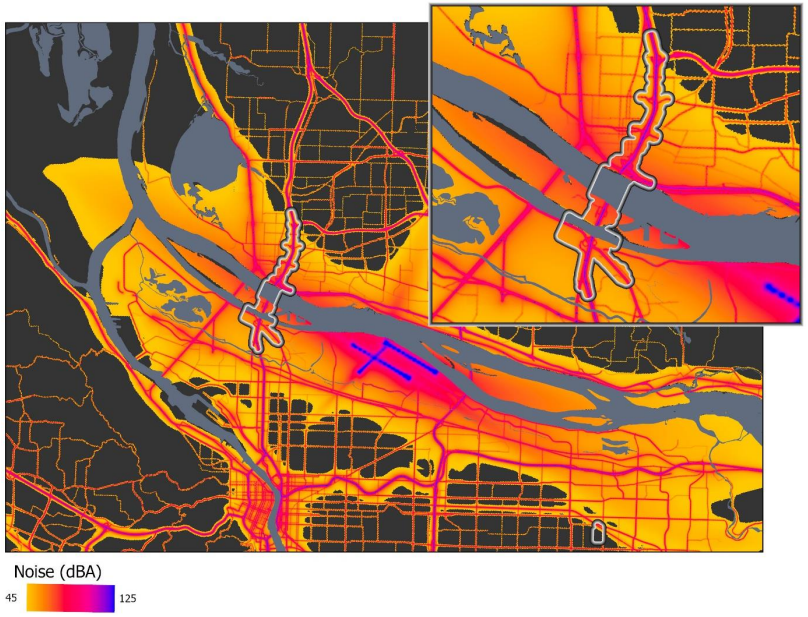
Noise levels are reported using different units and acronyms that describe the how, what, and when of the noise measurement. A-weighting is the standard for environmental noise assessment. In the noise modeling process, some noise levels are weighted differently to account for the fact that people are more sensitive to noise during typical nighttime sleeping hours than during the day, which is why some recommendations include different levels for day and nighttime.

Local Context

In the IBR Program focus area, 30% of individuals have high blood pressure, 14% report poor mental health, and nearly 10% have diabetes.[23]

The project area neighbors Portland International Airport, Pearson Field, Portland International Raceway, and active railways. Road, air, and rail traffic contribute to existing noise pollution, with average 24-hour noise levels ranging from 45 dBA in locations farther from transportation infrastructure and increasing up to 89 dBA near/on roads, railways, and airport locations (Figure 12).

Figure 12. 24-hour average noise levels (decibels A) in and near the project area from road, aviation, and rail traffic in 2020. Source: USDOT Bureau of Transportation Statistics[112]



The DSEIS includes noise measurements to establish existing conditions. Noise measurements were taken from various locations: schools, park trails, residences and hotels, libraries, museums, and athletic fields. The FHWA, ODOT and WSDOT have noise abatement criteria for different categories of indoor and outdoor space (see Table 9).[113]

Table 9. ODOT, WSDOT and FHWA Noise Abatement Criteria for Hourly Average Noise Levels[113]

	ODOT	WSDOT	FHWA
	Noise Abatement Criteria Hourly A-Weighted Sound Level Decibels (dBA)		
Residential (single and multi-family units) (Exterior)	65 dBA	66 dBA	67 dBA
Schools, libraries, hospitals and medical facilities, day care centers, auditoriums, places of worship, active sport areas, trails (Exterior)	65 dBA	66 dBA	67 dBA
Schools, libraries, hospitals and medical facilities, day care centers, auditoriums, places of worship (Interior)	50 dBA	51 dBA	52 dBA
Commercial areas, hotels, offices, restaurants/bars (Exterior)	70 dBA	71 dBA	72 dBA

The Washington State Board of Health's Chapter 246-366 WAC requires noise to be below well WSDOT thresholds, at 55 dBA hourly average, for new school siting and existing instructional school spaces, with exceptions where approved sound reduction is used in construction.[114] In existing indoor spaces, background noise must be below 45 dBA over a 30-second average (with the ventilation system running). Multiple schools are near the project area in Vancouver, including elementary, middle, and high schools, a community college, and the Washington State School for the Blind. Discovery Middle School was the only school location where noise measurements were taken for the DSEIS (Table 2-11, *DSEIS Noise and Vibration Technical Report*).[113(p2-25)] Measurements were also taken at an athletic field at Clark College.

Current traffic noise levels approach or exceed ODOT noise abatement approach criteria in 50 locations in Portland—primarily residences—including 18 floating homes, multi-level apartment units, and one restaurant. There are 110 locations in the Vancouver project where traffic noise levels currently exceed WSDOT noise abatement criteria, including residential locations, offices, and outdoor recreational spaces.

Current noise levels ranged from 57 dBA (Leverich Community Park Disc Golf/Picnic in Vancouver) to 77 dBA (Discovery Middle School and the intersection of Columbia St. and W. 4th St. in Vancouver). Noise levels in residential areas in north Vancouver ranged from 56 to 77 dBA, with loudest areas near noise wall openings or in areas without noise walls. Noise levels for residential floating homes in North Portland ranged from 66 to 69 dBA.

Potential Project Impacts

Project Design

The DSEIS determined that noise walls are the only feasible form of noise mitigation for the project. The DSEIS evaluated 18 potential noise walls, including the removal of existing noise walls and construction of upgraded noise walls, and determined 10 to be feasible and reasonable for consideration in project design. With mitigation, the Modified LPA would have 93 fewer traffic noise impacts than under the No-Build Alternative.

Project Construction

The DSEIS considers construction noise levels over a 9-year period. Maximum noise levels could reach up to 82-94 dBA at the closest receiver locations. In the *DSEIS Noise and Vibration Technical Report*, Table 5-1 details typical construction equipment used for the Modified LPA and demolition, their project use, and maximum noise level. Table 5-2 includes average maximum noise levels for construction activities, including demolition of existing buildings (93 dBA), staging for construction (94 dBA), and other activities like installing signage (91 dBA) (Table 5-2, *DSEIS Noise and Vibration Technical Report*).[113(p5-5)]

Long-Term Impacts

In Portland, the Modified LPA would approach or exceed ODOT noise abatement criteria at 60 residences and one sports field.[113(p4-13)] This varies slightly from the total count of residential exceedances listed in the *DSEIS Noise and Vibration Technical Report* Table 4-1, which is 63 residences. The *Technical Report* modeled noise levels for the Modified LPA, No-Build Alternative, and Existing Conditions. In Vancouver, the Modified LPA would approach or exceed WSDOT noise abatement criteria in 138 locations, including residences, offices, and outdoor space at the Vancouver Community Library and Discovery Middle school. Table 10 includes the number of locations that exceed noise abatement criteria under existing conditions, the Modified LPA, and a No-Build Alternative.

Table 10. Noise exceedances under the Modified LPA, No-Build Alternative, and Existing Conditions

	Modified LPA noise exceedance locations	No-Build noise exceedance locations	Existing Conditions noise exceedance locations
Portland*	65	64	50
Vancouver#	138	151	110
Project Area Total	203	215	160

*Sources for Portland exceedances: Table 4-1 DSEIS Noise and Vibration Technical Report (Modified LPA); Table 4-1 DSEIS Noise and Vibration Technical Report (No-Build); Table 3-1 DSEIS Noise and Vibration Technical Report (Existing Conditions)

#Sources for Vancouver exceedances: Tables 4-4, 4-6, 4-8, 4-10 DSEIS Noise and Vibration Technical Report (Modified LPA); Tables 4-3, 4-5, 4-7, 4-9 DSEIS Noise and Vibration Technical Report (No-Build); Tables 3-2, 3-3, 3-4, 3-5 DSEIS Noise and Vibration Technical Report (Existing Conditions)

In Portland, under the Modified LPA "most locations would experience an increase of 2 to 4 dBA over existing conditions, with increases of up to 11 dBA at one location".[113(p4-12)] Again, since decibels are on a logarithmic scale, a roughly 3-dB increase doubles the intensity of the sound, and a 10-dB increase means the sound is 10 times louder. Compared to the No-Build Alternative, noise levels under the Modified LPA would range from 2 dBA above to 2 dBA below current levels (p. 4-12) Jantzen Beach RV Park would experience the greatest increase in noise levels (4 to 11 dBA increase above Existing Conditions, and 4 to10 dBA above No-Build Alternative).

In Downtown Vancouver, under the Modified LPA, "noise levels would approach or exceed the WSDOT noise abatement criteria at the same 37 multi-family residences as existing conditions along with four additional residences[…]"[113(p4-32)] Modified LPA noise levels would be within 3 dBA of the No-Build Alternative at most locations; some areas will experience up to an 8 dBA reduction or increase under the Modified LPA.

In Fort Vancouver, traffic noise level exceedances for trails would be the same under the Modified LPA and No-Build Alternative. Two residences and two offices would experience increases. "Compared to the No-Build Alternative, traffic noise levels Under the Modified LPA are expected to increase throughout much of the Fort Vancouver area by up to 10 dBA..." and decrease by 4 dBA in other areas.[113(p4-44)]

In Vancouver East of I-5 and North of Mill Plain, the Modified LPA would exceed WSDOT noise abatement criteria at 26 locations, compared to 31 under the No-Build Alternative. West of I-5 and North of Mill Plain, the Modified LPA would exceed WSDOT noise abatement criteria in 54 locations, which is the same number of locations as Existing Conditions and No-Build Alternative, while the specific sites vary slightly. Notably, an up-to-10 dBA increase under the Modified LPA compared to No-Build Alternative is possible for residences near proposed ramp improvements (between E 33rd and E 35th Streets).

Environmental Justice and Health Equity

The Washington State Board of Health's Chapter 246-366 WAC requires noise to be below specified thresholds for new school siting and existing instructional school spaces. In existing spaces, background noise must be below 45 dBA and 70 dB (over a 30 second average).[114] Table 2-11 of the *DSEIS Noise and Vibration Technical Report* states that a 77 dBA noise level was measured at Discovery Middle School.[113(p2-25)] The DSEIS determined that noise walls are the only feasible form of noise mitigation for the project; however, the DSEIS states that the noise wall proposed to reduce noise for Discovery Middle School and seven nearby residences (Noise Wall 1) did not meet WSDOT criteria for reasonableness because its cost estimate exceeded WSDOT reasonable allowance criteria.[109(p7-12)] A shortened wall is recommended for consideration, though it would not reduce noise impacts for Discovery Middle School. As discussed above, children are particularly sensitive to attention, learning, and health impacts of noise exposure. Our recommendations reflect necessary attention toward mitigating noise exposure to lower levels than currently impacting Discovery Middle School and potentially impacting the school under the Modified LPA.

Additionally, the project area is adjacent to Portland International Airport and active railways. Neighborhoods in the project area—particularly Hayden Island, Bridgeton, and East Columbia in Portland, and Columbia Way, Hudson's Bay, Esther Short and Arnada in Vancouver—already experience combined noise pollution of road and aviation traffic. Project construction will add to combined noise levels. Further, potential traffic diversion to the I-205 bridge during construction and/or tolling may increase combined noise and air pollution to neighborhoods east of the project area.

The *DSEIS Environmental Justice Technical Report* describes higher levels of noise and vibration will that negatively and disproportionately impact communities identified as equity priority communities. Seven residences in the Rose Village neighborhood—identified by IBR as a "meaningfully greater EJ area for both low-income and minority populations"—would experience increased noise levels by 2-12 dBA under the Modified LPA.[98(p4-10)] The project currently proposes a noise wall to mitigate noise impacts to affected households in Rose Village. The *DSEIS Environmental Justice Technical Report* also identified the potential for disproportionately high levels of noise and adverse effects in the East Columbia and Esther Short neighborhoods, which are high-priority environmental justice areas identified by the Program.

Climate Change and Health

Literature Review

Changes in climate and the environment can have profound impacts on human health. The Northwest region is already experiencing climate change impacts, and the impacts of climate change on health are projected to increase with warming global temperatures.[115,116]Climate-related hazards such as heat and increasing heat waves, wildfire smoke and air pollution, severe weather and flooding are associated with numerous adverse health outcomes.[116–118] Hotter and longer heat waves are associated with heat-related illnesses, adverse maternal and infant health outcomes, mental health impacts, cardiovascular failure, and death.[119] In addition to extreme heat, climate change also increases the probability of other severe weather events, including flooding, which may cause injury, water contamination, and even death.[120,121]

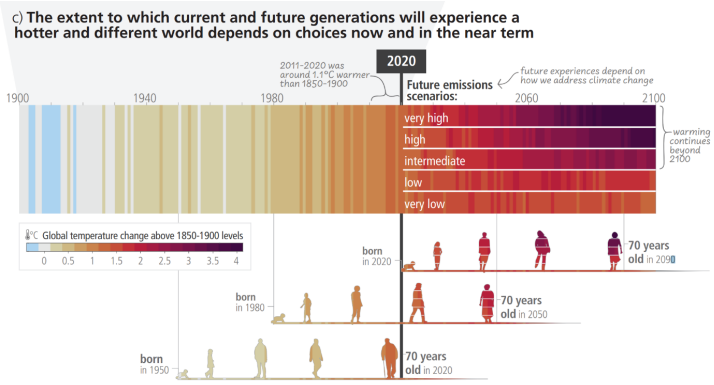
Climate-related hazards can compound to worsen existing exposures.[122] For example, excess heat may also exacerbate existing hazards related to air quality mentioned previously (Charlson et al., 2021; NIH, 2022). Additionally, across hazards, climate change threatens mental health and wellbeing.[42]

Potential Project Impacts

The IBR Program has the potential to affect climate impacts through greenhouse gas (GHG) emissions during project construction and operation of the bridge. The *DSEIS Climate Change Technical Report* outlines opportunities and a framework to limit and reduce GHG emissions to align with local, state, and federal climate and sustainability goals.[123(p1-9-1-13)] The *report* states the Modified LPA is "anticipated to reduce GHG emissions compared to the No-Build Alternative" based on the extension of light rail service, strategies to reduce congestion and idling, opportunity to reduce travel demand, and options to increase mode shift and infrastructure for active transportation.[123(p1-7)] Both the No-Build Alternative and Modified LPA are estimated to result in fewer GHG emissions in 2045 compared to the 2015 baseline based on existing regulatory requirements (*see MOVES model, Air Quality section*) and an expected shift in electric vehicle uptake.[124(p3.19-16)] Assuming adoption of electric vehicles in accordance with Oregon and Washington state rules, the MLPA is estimated to reduce total GHG emissions around 1% (MT CO2e/day) in the traffic subarea in 2045, compared to the No Build Alternative.[124(p3.19-18)] This daily reduction is equivalent to around eleven gasoline-powered passenger vehicles driven for one year.[125] Construction of the new bridge will produce GHG emissions, and construction may impact emissions due to traffic delays.[124(p3.19-19-20)] The *DSEIS Climate Change Chapter* notes "emissions generated from the construction of any of the Modified LPA design options would be similar."[124(p3.19-6)] As mentioned in the Air Quality section, the IBR Program has the potential to mitigate climate impacts through design that encourages and increases opportunity for transportation mode shift. Reducing GHG emissions now and in the short-term can mitigate future climate change impacts and global temperature change that directly and indirectly affect health outcomes (Figure 13).[126]

Hazard-specific potential project impacts are included in sub-sections below.

Figure 13. Overview of future emissions scenarios and projected global temperature change above 1850-1900 levels, and experiences among current and future generations



Source: Intergovernmental Panel on Climate Change, 2023[126]

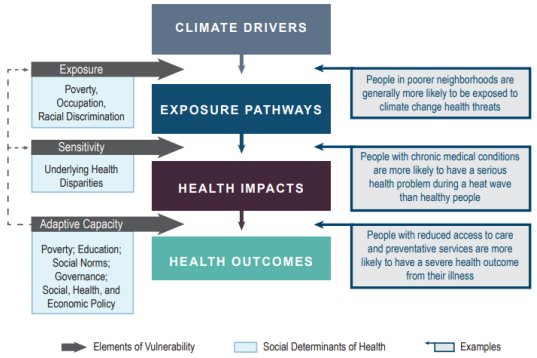
Environmental Justice and Health Equity

Certain groups of people are more vulnerable than others to health stressors from climate-related events like extreme heat, floods, poor air quality, and other similar events. These groups include children, pregnant people, older adults, people with disabilities, and people with chronic medical conditions.[127]

Unjust policies and practices, including historic underinvestment, systemic racism, marginalization, discrimination, and environmental injustice, have resulted in some communities experiencing climate impacts worse than others.[127,128] Some BIPOC communities or low-wealth communities may live in areas that have been historically redlined or faced structural exclusion, areas with outdated or aging infrastructure, and/or areas disproportionately burdened by pollution or climate exposures (environmental justice communities).[129–131] Low income and BIPOC communities often bear an unfair burden of exposure to pollution and climate impacts, yet have contributed the least to greenhouse gas emissions.[116] Historically, major transportation projects have often contributed to environmental injustices and health inequities in low income and BIPOC neighborhoods.[132(pp346-347)] Some social factors, like income, can impact access to resources to adapt to climate change (e.g., ability to afford or access air conditioning, indoor air filters, or flood/disaster insurance).[129,133] BIPOC communities may already experience stressors that influence health, and climate change adds another stressor and threat to health.[134]

People and communities may experience overlapping vulnerabilities that impact health risks from climate change (Figure 14). For example, outdoor workers with asthma or another respiratory condition may be more sensitive and exposed to wildfire smoke than other groups.[131] Children who live in a neighborhood with less trees or greenspace may be more vulnerable to heat compared to adults and those living in more shaded areas.

Figure 14. Overview and examples of how the Social Determinants of Health can impact vulnerability to climate change



Source: Gamble et al., 2016 [116]

In the IBR project area, the average prevalence of high blood pressure and diabetes are slightly higher compared to Clark and Multnomah counties overall (Table 5).[23] A higher percentage of people living below 200% poverty (33%) live in the project area compared to Clark and Multnomah counties overall (Table 4). According to the literature, people with low income may be more burdened by climate change health impacts.[127,135] Additionally, groups particularly susceptible to climate-related hazards represent a notable proportion of the population living in the project area. These include older adults (18%), people with disabilities (20%), people who are unemployed (5.3%), and people without health insurance (7.4%) (Tables 3, 4).[23] Climate change can negatively impact the health of socially vulnerable groups, and Figure 5 displays several socially vulnerable census tracts in the IBR project area compared to the rest of the region.[135] Similarly, the DSEIS states the program focus area includes six schools, six assisted living facilities, and five healthcare facilities. Similar to air pollution impacts, these institutions may include people who are particularly susceptible to climate-related health impacts.

Heat

Literature Review

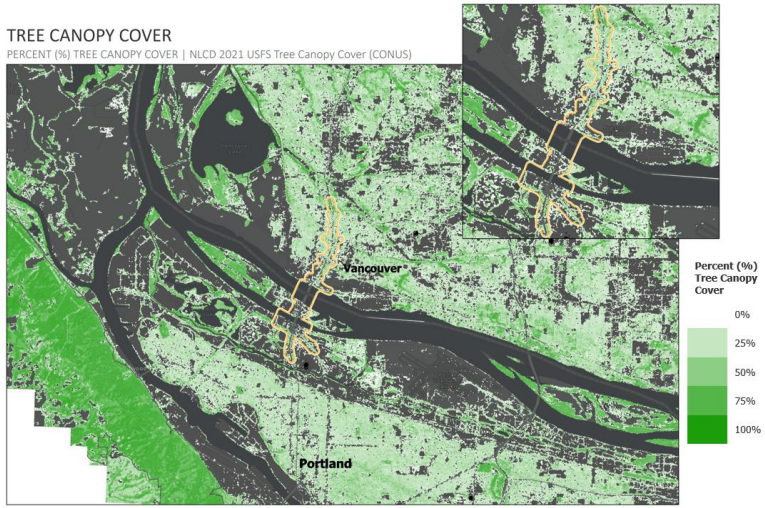
Extreme heat poses a significant threat to public health and safety, and is the leading cause of weather-related injury and death in the United States.[136] Exposure to heat can result in heat-related illness (including heat cramps, heat exhaustion, and heat stroke), mental health impacts, adverse perinatal outcomes, cardiovascular failure, and death.[119,137–139] High temperatures, heat early in the season, long periods of excess heat (heat waves), and high nighttime temperatures (lack of overnight cooling) are particularly hazardous for public health.[140–142]

The National Integrated Heat Health Information System defines "urban heat islands" as the phenomenon that cities get much hotter compared to rural or vegetated landscapes, due to buildings, unshaded roads, and other paved areas gaining heat during the day and emitting heat into the surrounding air.[143] Therefore, people who live in cities are more likely at risk of heat compared to rural and suburban communities.[144] Within cities, heat exposure and related health impacts may vary by neighborhood. This is due to an inequitable distribution of trees and greenspaces, where some areas may have more heat-absorbing buildings and pavements than other surrounding neighborhoods.[144] Historic redlining and systemic underinvestment may be contributing factors to the inequities in exposure to heat in certain neighborhoods, where a higher percentage of BIPOC communities and low-wealth communities may live.[116,144] Additional equity considerations around heat islands include access to cooling centers, inadequate housing conditions, and a higher cost burden of air conditioning bills.[116,144]

Local Context

Figure 15 displays tree canopy cover around the project area in Clark and Multnomah counties. The IBR Project area has less tree canopy cover (16%) compared to Clark (24%) and Multnomah (25%) counties overall.[145] Tree canopy cover can provide shade and cooling to surfaces, so it is one measure that can be used as a potential estimation of heat exposure.

Figure 15. Tree Canopy Cover in Region and IBR Study Area



From 2016-2022, there were 112 heat-related deaths in the Portland metropolitan area (including Washington, Clackamas, Multnomah, and Clark counties).[146,147] In 2021, the year of the Pacific Northwest heat dome event, the region experienced the highest number of recorded heat-related deaths.

Potential Project Impacts

Analyses included in the DSEIS *Climate Change Technical Report* projects average temperatures and number of extremely hot days will increase during the construction of the bridge and project lifetime.[123(p4-5-4-6)] The report notes infrastructure design considerations "should withstand regular air temperatures well over 100° F" to avoid disruptions to transportation.[123(p4-6)]

The IBR Program may influence exposure to urban heat. There are several opportunities to reduce and mitigate exposure to heat for bridge workers and community members alike—and prevent heat-related illness and death throughout the program's design, construction, and operation. The DSEIS *Climate Change Technical Report* includes information about specific measures to provide shade and cooling for bridge users, especially for pedestrians and bicyclists.[123(p4-6)] To mitigate the urban heat island effect, the program and local agencies could increase greenspace and tree canopy cover and reduce the amount of paved surfaces in areas surrounding bridge.[123(p3-4)] The *Report* specifies monitoring stations along active transportation facilities that track heat to alert bridge users of its safety.[123(p7-4)] The *Report* cites occupational safety rules from Oregon Occupational Safety and Health Administration and Washington Labor & Industries to protect workers from the negative health outcomes of heat exposure.[123(p4-6)]

Environmental Justice and Health Equity

While heat can affect everyone, some communities are more sensitive to heat, may be more exposed, or may have less access to resources to cope with heat. A 2018 study in Portland found that Black, Native Hawaiian or Pacific Islander, Hispanic, and youth populations were most exposed to urban heat.[148] Older adults, infants and children, pregnant people, and people with existing health conditions or who take certain medications may be more sensitive to heat and more at risk for heat-related illness.[149–151] Some communities may be more exposed to heat due to social or structural factors, like where you live or work, including low-wealth communities, people living unsheltered or unhoused, people living in urban heat islands, people without access to air conditioning, people who exercise outdoors, and outdoor workers.[120,152]. According to a 2018 report on climate risks in Washington State, among construction workers "heat related illness is most common among roofing construction and highway/bridge construction workers."[129(pp40-41)]

Wildfire Smoke and Ozone Pollution

Literature Review

Wildfire smoke especially threatens public health in the Pacific Northwest. Wildfire smoke contains several air pollutants, including fine particulate matter ($PM_{2.5}$) that can penetrate deep into the lungs and bloodstream.[153] Exposure to wildfire smoke can cause and exacerbate respiratory, cardiovascular, and neurological diseases, mental health impacts, as well as other impacts to the skin, gut, kidneys, eyes, nose, and liver.[154–156] Wildfire smoke exposure in pregnancy is associated with increased risk of adverse birth outcomes, including preterm birth and lower birth weight in some studies.[153,157] Wildfire smoke exposure has also been linked to premature death.[158]

Ozone is an air pollutant with documented health effects, and higher temperatures increase the production of ozone at ground-level. Ground-level ozone in the air can cause health effects such as sore throat, coughing and breathing problems, susceptibility to infections, and exacerbate existing conditions like asthma, emphysema, and chronic bronchitis.[159]

Local Context

In recent decades, the western United States has experienced an increase in the frequency and severity of wildfires, and associated wildfire smoke.[160] In the last decade, there have been several severe wildfire smoke events impacting the region. The Washington State Department of Ecology identified Vancouver as one of sixteen overburdened communities in Washington highly impacted by air pollution, specifically high levels of $PM_{2.5}$.[50] The Portland-Vancouver metropolitan area also experiences high ozone levels, especially on hotter days.

Ten percent of adults in the IBR project area have asthma (Table 5).[23] Asthma prevalence is similar in Clark and Multnomah counties overall.[23] While there may be several factors contributing to asthma and other chronic respiratory conditions, asthma is an important health outcome as people with asthma may be more impacted by poor air quality.

Potential Project Impacts

The DSEIS *Climate Change Technical Report* notes the region will "see an increase in severe smoke events" in the future.[123(p4-9)] Severe smoke events could impact bridge construction and use, including impacts to visibility and exposure to air pollution among bridge workers, pedestrians, bicyclists, transit users, and community members.

There are several opportunities for the IBR Program to mitigate exposure and protect public health during smoky conditions and poor air quality, including provision of training and protective equipment for workers, reducing construction or transportation pollution during severe smoke or ozone events, and planning for smoke-related disruptions for active transportation users, such as intermittent closures or detours. The DSEIS *Climate Change Technical Report* cites state rules to protect workers during smoky conditions.[123(p4-9)] The Program should consider cumulative effects of air pollution when planning for high wildfire smoke or ozone days.

Environmental Justice and Health Equity

People with existing health conditions (such as asthma, Chronic Obstructive Pulmonary Disease (COPD), diabetes, chronic kidney disease, or heart disease), older adults, pregnant people, infants, and children are especially at risk of air quality-related health outcomes.[155,158,161] Outdoor workers, including those working in construction, transportation, or agriculture, are particularly at risk of wildfire smoke exposure and long periods of air pollution.[153,162] Nationally, low-income populations and BIPOC communities are overburdened by air pollution.[153] Racism in housing, including historic redlining, housing segregation, and neighborhood disinvestment, has contributed to inequities in exposure to air pollution.[153] Further disparities around air pollution exposure may persist due to inequitable access to air conditioning and air filtration in homes and schools in low-income neighborhoods and BIPOC communities.[153]

Severe Weather and Flooding

Literature Review

Severe weather, including snow, ice, or windstorms, flooding, and thunderstorms can impact health directly, as well as disrupt infrastructure vital to health and wellbeing (such as electricity, transportation, healthcare, safe water, and sanitation). Winter storms can cause injury and increased risks of falls, hypothermia, frostbite, mental health impacts, and death.[163] Flooding can cause immediate risks to human health, such as injury and death. Flooded waters can be contaminated and lead to human illness.[163–166] Flooding may also pose risks to human health through disruption of critical services (e.g., roads, transportation, drinking water) and disrupt wastewater infrastructure.

Local Context

Human-induced climate change has altered weather patterns and increased the frequency and intensity of extreme weather events. Future trends in weather events, particularly precipitation predictions, are uncertain. However, there is some evidence that extreme precipitation and flooding event will increase due to climate change.[167,168] A general upward trend in precipitation should be expected in the Lower Columbia River Basin, with additional risk for winter atmospheric river flooding.[169]

Impacts of severe winter weather on health outcomes can include increased falls and cold-related illnesses. In January 2024, emergency department visits for falls, cold-related illness and other health impacts increased during a severe winter weather event in the region.[170]

Potential Project Impacts

Severe storms or weather events could impact transportation and create barriers to access essential services in the region, such as healthcare. Bridge design should account for severe weather and flooding to minimize the impact of future events. The *DSEIS Climate Change Technical Report* provides an estimation of precipitation intensity and floodplains. However, the *Technical Report* may use outdated data sources and underestimate the future flood risk in the area, translating into greater vulnerability to health risks for bridge users and nearby communities.

The DSEIS *Climate Change Technical Report* notes a predicted increase in the intensity of precipitation during winter months and less snowpack across the Columbia River Basin. The cited model is current and consistent with other precipitation models in scientific literature.[171] Stormwater and flood management will be especially important to mitigate the effects of excess precipitation.

The Annual Exceedance Probability (AEP) is a statistical measure used to describe the probability of a specific event occurring in any given year. This statistic is often used to describe the probability of a severe flood. For example, floods with an AEP of 1% are often referred to as a "100-year flood", or a flood with a 100-year recurrence interval. These estimates are updated regularly to adjust for changing climate and weather patterns.

The *DSEIS Climate Change Technical Report* provides 100-year recurrence interval floodplains mapped by FEMA corresponding to the immediate vicinity of the project area.[123(p6-6)] FEMA flood profiles are measured by FEMA flood insurance studies (FIS). The most recent FEMA FIS for Vancouver, Washington and Portland, Oregon references United States Army Corps of Engineers (USACE) studies from the 1970s.[172]

However, the USACE recently updated their AEPs for the Lower Columbia River Basin in 2022. In their report, the authors note that the FEMA effective flood profiles may not stay aligned with updates from the USACE. Furthermore, USACE estimates a higher water surface elevation corresponding to a 100-year flood than estimated by the annual FEMA effective FIS at the I-5 Bridge.[172(p72)]

The *DSEIS Climate Change Technical Report* does not specify the FEMA FIS year in their presented floodplains map and notes that "more of the study area will be subject to flood risk in the coming century". Still, the map may not accurately represent the region currently at-risk of damage due to a 100-year flood and requires further review.
See more in the Water Quality section.

Environmental Justice and Health Equity

Children, older adults, and people with compromised immune systems are more at risk of the health impacts of contaminated water.[165,173] Systemic underinvestment and outdated water system infrastructure in low-income communities can disproportionately expose these communities to unsafe water.[165] People with disabilities may face barriers to access risk communications or resources during severe weather events or climate hazards. Some people with disabilities may require ongoing medical care, which puts this population at risk during climate events that overwhelm the healthcare system or result in power outages.[174] People with limited English proficiency may face language barriers that restrict access to healthcare, social services, and risk communications.[135]

Mental Health and Climate Change

Literature Review

The impacts of climate change on mental health are a growing area of research. Severe weather and disasters can have immediate mental health impacts from trauma, loss of livelihood and displacement, such as shock, post-traumatic stress disorder (PTSD), and compounded stress and anxiety.[42,116] A 2021 scoping literature review by Charlson et al. found that many climate-related hazards were "associated with psychological distress, worsened mental health, and higher mortality among people with pre-existing mental health conditions, increased psychiatric hospitalizations, and heightened suicide rates".[139] While more gradual exposures to climate change (including increased temperatures, changes in weather patterns, etc.) and mental health impacts are less researched, chronic mental health impacts may include depression, anxiety, suicide, substance abuse, violence, and loss of personal and community belonging.[42] Further, sense of loss of environmental landmarks and place, impacts to plant and animal species, and other environmental effects may increase feelings of hopelessness, fear, and depression.[42,175]

Local Context

In the project area, an estimated 14% of adults reported poor recent mental health (Table 5).[23] The prevalence of reported poor mental health is comparable in Clark and Multnomah counties overall.[23] While these estimates are not specific to climate change, the current landscape of mental health in the region is consequential as climate change can disproportionately impact those with existing mental health conditions and/or contribute to new stressors and mental health impacts.

Potential Project Impacts

As previously stated, the DSEIS projects changes to climate across bridge construction and operation. The DSEIS *Climate Change Technical Report* did not include information about climate change impacts on mental health.

The IBR Program has the opportunity to influence climate change impact, community connectedness, safety, transportation, healthcare access (including access to mental health services), and the built environment through the project. All of these determinants can individually and cumulatively affect mental health.

Environmental Justice and Health Equity

Climate change impacts the natural environment, posing threats to mental, spiritual, and cultural health, wellbeing, and traditional practices among Tribal and Indigenous communities.[42,116,139,176] Climate change may exacerbate the impacts of intergenerational trauma and health inequities as a result of systemic racism and settler colonialism.[42,116,139] People with existing mental health conditions may be more impacted by trauma and distress from climate-related hazards or events.[42,139] Youth may be more at risk of climate-related mental health impacts, and are likely to experience more cumulative effects of climate on mental health in their lifetimes.[42,139,175]

Social Determinants of Health

The World Health Organization defines social determinants of health as "the non-medical factors that influence health outcomes" and estimates that between 30-55% of health outcomes are dependent on these determinants.[177] The term broadly encompasses social and environmental conditions – or the conditions in which people are "born, grow, live, work, and age". This often includes neighborhood conditions, but also spans social factors like housing, education, and occupation. These systems affect health in complex and overlapping ways, often determining access to health-promoting resources. They also shape the level of stress someone experiences. Long term stress for social or environmental causes, like poverty or racism, activates biological systems that lead to inflammation, hormonal dysregulation, and chronic disease.[178]

In this analysis, we review housing and displacement, income and employment, access to greenspace, and Indigenous social determinants of health. It is important to note that transportation access is also a social determinant of health. Discussion of transportation access is in the *Transportation and Active Transportation* section.

Housing and Displacement

Literature Review

Housing influences health through four primary pathways: quality, affordability, stability, and location. Homes that are free of molds/pests and have essential amenities and thermal control promote good health. Housing that is located near healthy food options, parks, living wage jobs, and transit support access to health promoting opportunities and needs.[179] Affordability and stability are linked to health via stress. Expensive housing that leaves less budget for other needs, and the fear of losing housing, can lead to constant stress and cortisol release. Chronic stress contributes towards poorer mental health outcomes, reduced immune system function, metabolic and cardiovascular outcomes, and mortality.[180] Housing loss through foreclosure and gentrification-related displacement are associated with poorer well-being outcomes, including depression, anxiety, and self-reported health.[179,181]

Local Context

The IBR study area intersects with 14 neighborhoods in Clark and Multnomah County (ten and four respectively).

There are an estimated 1,366 people across the whole houselessness spectrum in Clark County, and an estimated 11,153 in Multnomah County.[182,183] Data on houseless community members is difficult to collect and maintain over time. Estimates included in Table 11 below come from the *DSEIS Equity Technical Report* and county point in time counts. Houseless residents are distributed throughout the IBR study area. The *DSEIS Equity Technical Report* Table 5-2 cites estimates that 349 houseless residents reside in Multnomah County in Inner Northeast Portland and North Portland, and 625 houseless residents in Clark County.[82(p5-5)]. These estimates come from point in time counts conducted in 2022 and are outdated, are likely undercounts, and do not delineate the full spectrum of people experiencing housing instability that reside in emergency or transitional shelters. There are two safe rest villages within the study area in North Portland (Sunderland RV park and N Portland Rd (in development)).

Table 11. Housing demographics in IBR Study Area, Clark County, and Multnomah County. Sources: ACS 5-Year Estimates 2018-2022[+75], CDC EJI [^23], DSEIS Equity Technical Report[*82], Clark County Point in Time Count[++182], City of Portland/Multnomah County Joint Office of Homeless Services Audit Report[^^183]

Mode	IBR Study Area	Clark County	Multnomah County
Total Housing Units[+]	12,651	196,557	317,308
Percentage who Rent[^]	52%	33%	43%
Percentage of Renters who are Paying at Least 30% of Household Income on Rent in the Past 12 Months[+]	50.1%	48.4%	48.9%
Percentage of Homeowners with Mortgage who are Paying at Least 30% of Income on Mortgage Payments in the past 12 Months[+]	23.3%	25.7%	30.1%
Houseless Populations	974 (2022)*	1,366 (2023)[++]	11,153 (2024)^^

Potential Project Impacts

The *DSEIS Environmental Justice Technical Report* Table 4-4 states the Modified LPA will displace people living in 43 residences through property acquisition.[98(p4-17)] The *DSEIS Equity Technical Report* details that the Modified LPA would displace 32 floating homes in North Portland Harbor.[82] On the south shore of North Portland Harbor, the Modified LPA would displace three floating homes and one residential unit on land. In Clark County, the Modified LPA would displace seven residences and include partial acquisition of 10 residential parcels for permanent right-of-way. The design option that shifts I-5 west would displace 33 residential units of the Normandy Apartments in the Esther Short neighborhood (*DSEIS Equity Technical Report*, Table 5-1).[82(p5-2)] These displacements could affect resident mental health by causing stress and anxiety regarding moving, disrupt existing social networks, and increase the distance to employment or regular essential services.

The DSEIS notes the IBR Program will follow the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), a federal law that establishes minimum standards of support for persons displaced through property acquisition due to a federal project. The URA goals include providing relocation assistance and ensuring displaced individuals find decent, safe, and sanitary housing. For residential displacements, the IBR Program must provide relocation advisory services to displaced owners and tenants, give 3 months advance notice of property possession, and cover costs for moving and added costs of rent or purchase of comparable replacement housing.

Construction of the Modified LPA may cause the displacement of encampments in the area. Forced relocation can cause several harms of houseless community members, including the loss of personal belongings and needed medical items, displacement into more hazardous conditions, and disruption of community networks and social supports.[184] The *DSEIS Equity Technical Report* states understanding the full impact of the Modified LPA on the houseless community will require in-depth outreach with service providers and notes the IBR Program will coordinate with these organizations to offer services to unsheltered people that are directly affected by construction.[82(p5-5)]

Environmental Justice and Health Equity

The DSEIS states that acquisitions will cause displacement in the Esther Short, East Colombia, and Rose Village neighborhoods, high priority EJ areas. This could affect community cohesion and access to community resources and services. The analysis balances these impacts with non-specific improvements in transit access, reliability, and connectivity for all communities.

Aspects of the gentrification process like increased housing costs, sociocultural erasure, and transformation of available amenities affect physical and mental health, and create inequities between racial and class groups.[185] The *DSEIS Environmental Justice Technical Report* states that the Modified LPA could catalyze increases in property values and rents in affected areas. These increases in financial burden from rent and property taxes could create additional stress and worsen mental health.[186]

Income and Employment

Literature Review

Employment can introduce several health-promoting and health-negating factors into a worker's daily life that vary widely by sector and occupation. The cumulative net effects of employment contribute toward overall life and health span.[187] Income is the most strongly associated aspect of employment related to improved health outcomes and life expectancy, usually granting access to better medical care, housing opportunities, food security and other health-promoting basic needs.[188,189] Stability in job status protects mental health, while insecurity leads to stress, cortisol release, and associated health impacts.[190] Long commutes place time limits on workers. More time commuting typically means less physical activity, less time to prepare food at food, and less time to sleep.[191]

Local Context

A majority of workers that cross the I-5 bridge are Clark County residents commuting into Oregon (79%). The employment rate of the IBR study area is similar to Clark and Multnomah Counties overall (Table 12). Employment in the construction sector is slightly higher in the project area than the percentages in the surrounding counties. Life expectancy in the IBR program area ranges from 75 to 79. This is in the middle-to-lower ranges among life expectancy in Clark and Multnomah counties overall (Figure 4).

Table 12. Income and Employment Demographics in IBR Study Area, Clark County, and Multnomah County, ACS 5-Year Estimates 2018-2022

Mode	IBR Study Area	Clark County	Multnomah County
Employment Rate	95.4%	94.8%	94.5%
% Employment in Construction Industry	10.1%	9.2%	5.1%

Potential Project Impacts

The total program cost for the IBR Program is an estimated $6 billion. An investment of this size is expected to stimulate economic activity. The IBR Program estimates construction will drive $3.6 billion in net new economic activity and 13,460 new person-year jobs (one person working full time for a year). The program has committed to a 15% Disadvantaged Business Enterprise participation goal, will incorporate DBE best practices throughout program implementation, and will develop a DBE and capacity-building strategy to support economic opportunities for workers of color, workers with disabilities, and young workers.

Between 32-35 businesses and 600-742 employees are projected to be impacted due to property acquisitions required for construction. Table 13 outlines effects on businesses and employees. A majority of businesses impacted are in Multnomah County, but a greater share of workers employed in Clark County are projected to be affected. The *DSEIS Economics Technical Report* also notes additional businesses that remain may be affected as well if they find it difficult to attract or maintain customers either during the construction period or that traveled to the area for the original grouping of businesses that no longer remains.[192] Mitigations noted include a phased construction schedule to minimize business access impacts, as well as business outreach to identify additional supports for construction-related issues. The IBR Program must also comply with URA requirements for nonresidential displacements, which include provision of relocation advisory services, 3 months advance notice before land possession, and covering costs for moving and reestablishment expenses.

Table 13. Expected Business Displacements and Affected Employees, DSEIS Economics Technical Report[192]

Area	# of Businesses Displaced	# of Employees Affected	Notes
Oregon Mainland	7	41	Primarily marine-related light industrial and commercial-retail
Hayden Island	15	159	Primarily food service and retail that serves the island
Downtown Vancouver	10-13	400-542	Primarily commercial office and retail, larger range considers impact of I-5 Mainline Westward Shift option

The *DSEIS Economics Technical Report* states a potential concern related to business displacement is the need for employees to find new jobs.[192] This disruption in job stability could affect worker mental health. If these employees end up with longer commutes, they may have less time for health-promoting activities like sleep, healthy food preparation, or physical activity.

Environmental Justice and Health Equity

Communities that have greater income inequality tend to have poorer health outcomes.[193] There is a strong association between depression and income inequality, which disproportionately impacts women and people of color.[194] Upward economic mobility influence health and well-being. Economic mobility prospects matter for health and well-being. In the United States, incremental increases in early intergenerational upward mobility are associated with incremental decreases in mortality, with the greatest magnitude occurring for Black men.[195]

BIPOC community members, women, people with disabilities, LGBTQ+ groups, and single-parent households are more likely to experience poverty and face more barriers in finding and maintaining employment. In the region, people experiencing economic instability cite several conflating and intersectional barriers to stability, including housing instability, financial burden of medical care, discrimination, mental health concerns, individualist 'bootstrap' culture, inability to secure stable jobs with living wages, lack of insurance benefits, and limited advancement opportunities.[78]

The *DSEIS Environmental Justice Report* states that implementation of the Modified LPA would displace 10 businesses in the Esther Short neighborhood and 3 businesses in the Rockwood neighborhood (high-priority low-income neighborhoods), and no specific benefits to low-income or minority populations are projected. It also notes that the loss of service industry jobs on Hayden Island may disproportionately impact low-income and workers of color. The analysis states this loss is balanced by the non-specific jobs and economic development opportunities the project will bring for all communities. However, Modified LPA-induced changes in transit access to jobs is expected to have larger benefits for white, non-Hispanic residents in the study are than BIPOC residents, immigrants and refugees, and people under the age of 25.

Greenspace

Literature Review

Access to greenspace has been shown to have a positive impact on the health and mental health of both individuals and communities.[196,197] Some of the physical health benefits include decreases in cortisol, risk of diabetes, risk of preterm birth, in rates of hypertension, asthma, heart disease, and all-cause mortality.[197] Greenspace has also been linked to increases in physical activity. Studies have even compared the impact of walks in different urban environments and found that a walk on an urban road with trees resulted in significant decreases in tension, fatigue, and anxiety.[196] At the community level, greenspaces have been shown to increase social interaction and decrease social isolation, to improve air quality, reduce noise impacts, and reduce urban heat island effects.[197]

Access to greenspace has not been available to individuals and communities equally. "Most studies reveal that the distribution of such space often disproportionately benefits predominantly White and more affluent communities," and this is "increasingly recognized as an environmental justice issue".[198] While the benefits of access to greenspace have been shown over many studies, increasing greenspaces without seeing the larger context can create a paradox that may negate some positive impacts. Increases in greenspace can lead to increased housing costs that could "lead to gentrification and displacement of the very residents the greenspace strategies were designed to benefit".[198]

Potential Project Impacts

The Modified LPA will change the connection to the Columbia River Renaissance Trail by making it both safer and wider.[199(p4-10)] This could have a positive health impact by increasing safety and connectivity to parks and trails. Other trail improvements included in the Modified LPA include: "improved intersections, sidewalks, and bike lanes" connected to the Discovery Historic Loop Trail, and an improved shared-use path through Old Apple Tree Park.[199(p4)] The Modified LPA includes "improved bicycle pedestrian, highway, and transit access" to parks in Portland and Vancouver "which could make access to parks easier".[199(p6-1)] Increased access to parks and greenspace would have a positive impact on individual and community health.

The DSEIS indicates that noise levels could increase throughout many parks in the project area closest to the bridge and highway including East Delta Park, Fort Vancouver National Historic Site, Marshall Community Center, the Leupke Senior Center, Marshall Park, Clark County Recreation Fields, Leverich Community Park, Burnt Bridge Creek Trail, Kiggins Bowl Sports Fields and Stadium (IBR Parks and Recreation Technical Report). It also indicates that noise could decrease in the Lower Columbia River Water Trail, Lewis and Clark National Historic Trail, Vancouver Waterfront Park, Old Apple Tree Park, Arnada Neighborhood Park.[199]

See Noise Section for more information about health impacts of noise.

Indigenous Social Determinants of Health

Carroll et al. 2022 define Indigenous social determinants of health as "the conditions specific and unique to Indigenous communities that impact health and wellbeing".[200,201] While not a complete list, some of these conditions include: "Indigenous knowledge, language and identity, land and kinship, sovereignty, and structural and systematic factors".[200] The Seven Directions Center for Indigenous Public Health has identified these factors that contribute to the health of American Indian/Alaska Natives and acknowledges that this list may not encompass all of the important factors for all Indigenous communities.

"Indigenous communities support healthy vibrant lives embedded in their own Indigenous knowledge, values, and traditions. Even today, despite settle-colonial efforts to either wipe out or totally assimilate individuals and collectives, Indigenous nations continue to bring health and well-being to their communities and convey knowledge to future generations".[201] "Over the past 500 years, colonization weakened Indigenous systems that helped to maintain community health (e.g. traditional food systems, access to clean water, Indigenous languages, access to land) and replaced them with unsupported and underfunded systems, leading to disproportionate systemic health disparities, including some of the highest rates of diabetes, suicide, and cardiovascular diseases".[202] "Comprehensive community-driven, nation-based reclaiming and defining of Indigenous health and well-being is necessary to establish and address the broad array of determinants of health and well-being in Indigenous communities".[201]

The IBR Program poses a risk of disrupting connection to traditional cultural activities and could impact the ability to access culturally specific health care for American Indian/Alaska Natives. Many of the Cowlitz Indian Tribe's members reside outside of Washington and their access to their ancestral lands and ceremonies will be diminished and must be addressed in the planning of the project. Specifically, the impacts of tolling will increase the burden to tribal members traveling to access culturally specific healthcare, access cultural activities, and access ancestral land.

The IBR Program is engaged in tribal consultation with federally recognized tribes of Washington state and Oregon, and one tribe that is not currently a federally recognized tribe. Appendix A of the DSEIS describes the tribal consultation and process. It reiterates the commitment to government-to-government consultation with tribes and to incorporate input into decision-making processes. Our recommendations include encouragement to the IBR Program, and all partner agencies, to meaningfully engage in tribal consultation and implement input from tribes at every stage of decision-making to mitigate harm to American Indian/Alaska Native communities.

Water Quality

Literature Review

Safe and clean water is essential for the health of humans, animals, and the entire ecosystem. There are many ways that public health is concerned with clean water including sanitation, drinking water, fish and shellfish consumption, water recreation, and harmful algal blooms.

Drought is a public health concern that can impact water quantity and quality.[203,204] Decreased water flow in rivers and streams can concentrate contaminants, reduce nutrients, and lower oxygen levels – which all pose risks for water quality, aquatic life, and potentially human health.[205,206] Drought can also impact groundwater availability and aquifer recharge, which is an issue for populations reliant on water systems from groundwater.[205]

Climate change can affect water quality through warmer temperatures, changes to precipitation and severe weather, amount, timing and melting of snowpack, and availability of water.[207] Longer periods of heat and higher temperatures impact surface water temperatures of oceans, rivers, lakes, ponds, and streams. Warmer water temperatures can create more hospitable environments for harmful algae and other toxins. Some harmful algae can produce toxins and create "blooms" of cyanobacteria (harmful algal blooms, or HABs) that can make people sick when drinking, swimming, or recreating in contaminated water or eating fish that were exposed. Cyanobacteria exposure can lead to gastrointestinal illness, irritation of skin, eyes, nose, or throat, and potentially liver damage.[208]

Potential Project Impacts

The Troutdale Aquifer is designated by the United States Environmental Protection Agency as a Sole Source Aquifer and provides fresh water to the City of Vancouver. The water quality technical report notes that a "sole source aquifer report for the Modified LPA would be prepared and submitted to the EPA once the Draft SEIS is out for agency review." That information should be made available to the public to review for awareness of potential impacts and/or precautions being taken.

There is currently very little treatment of stormwater from the bridge into receiving waters. According to the *DSEIS Water Quality and Hydrology Technical Report,* the Modified LPA "includes a stormwater conveyance system" that "would reduce total suspended solids, particulates, and dissolved metals to the maximum extent possible before runoff reaches surface water or is infiltrated".[209(p4-1)] New and updated stormwater infrastructure that complies with all regulatory standards would have a positive impact on water quality.

The *DSEIS Water Quality and Hydrology Technical Report* Section 5.1.2 points out many potentials for negatively impacting water quality including contamination from equipment, groundwater contamination, contamination of surface water, turbidity in water, contamination of water due to disturbances in riverbed sediment during in-water work, and construction materials and byproducts falling into the river during construction and demolition.[194] While we appreciate that "all reasonable precautions would be taken to avoid and minimize water quality" at all stages of the project, the responsibility to protect water quality could not be more consequential.

Hazardous sediments and contaminants
Both the *DSEIS Water Quality and Hydrology Technical Report* (Section 5) and the *DSEIS Hazardous Materials Technical Report* (Section 5.3) discuss the need to sample and analyze the levels of hazardous sediments and toxic contamination.[53,209] We agree and advocate for sampling, testing, analysis, and publication of data to understand the potential contaminants and toxic material that could impact water quality during in-water construction. In our review of the DSEIS, we did not find a detailed plan for sampling and analysis of riverbed sediment prior to in-water work occurring. Our recommendations reflect the need to document and release a detailed plan to show any potential contaminants, hazardous sediment, and toxics so partners and the public can understand potential risks.

There are a number of waterways within the project area that are listed under 303(d) of the Clean Water Act for failing to meet water quality standards, including the Columbia Slough, Burnt Bridge Creek, Columbia River (including North Portland Harbor), and Fairview Creek (DSEIS Water Quality and Hydrology Chapter). Described in Table 3.14-2 of the DSEIS Water Quality and Hydrology Chapter, these waterways include pollutants such as toxics like polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), dichloro-diphenyl-trichloroethane (DDt) metabolites, vinyl chloride, and dissolved oxygen.[210] Projected impacts, if any, are not described in the DSEIS in relation to these pollutants and the potential for increased turbidity during in-water work.

Emerging contaminants
The *DSEIS Water Quality and Hydrology Technical Report* states that best management practices (BMP) have been shown to reduce many pollutants from runoff but the effectiveness of removing "polycyclic aromatic hydrocarbons (PAHs), microplastics, and constituents of emerging concern (CEC), including 6PPD-quinone, are less well known because the fate and transport of these pollutants remains unclear".[209(p3-5)]

6PPD stands for the chemical N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine and is used on all kinds of tires to reduce degradation, or breaking down, which helps the tires last longer.[211]As tires drive on the road, small dust and particles come off the tires due to friction and contain 6PPD that is carried into waterways as stormwater runoff. 6PPD has been found to highly toxic to coho salmon and is killing fish before they can lay their eggs and killing juvenile salmon disrupting the lifecycle of this critical species. It is also harmful to other fish including rainbow trout and brook trout. The impacts of 6PPD on human health are still being studied.

Integrating stormwater best practices into the new bridge will help improve water quality and protect the waterway, the ecosystem, and human health. Since the understanding of these toxics, and their impact, continues to grow every day it is important for the program to actively seek out updates to best management practices from the Washington State Department of Ecology and Oregon State Department of Environmental Quality to reduce 6PPD and 6PPD-q. In 2022, directed by the Washington State legislature, the Washington State of Ecology published "6PPD in Road Runoff: Assessment and Mitigation Strategies."[212] This document suggests best management practices (BMPs) to reduce 6PPD including source control BMPs, flow control and runoff BMPs. The highest level of effectiveness of these practices would reduce 6PPD and would have a positive impact on ecosystem health.

The 10-year construction period of this project creates an opportunity to be adaptable to learning about and implementing new best management practices as the understanding of this critical issue develops.

Dust, construction and demolition
In addition to the air quality concerns posed by fugitive dust from construction and demolition, a fugitive dust plan should include assessment of dust makeup, impacts on water quality and mitigation that will be taken. The age of the current bridge brings concerns of the chemical makeup and potentially toxic materials used during the time period it was built, specifically lead and asbestos. Demolition of the current bridge over the water brings the potential for toxic fugitive dust to settle onto the Columbia River and negatively impact water quality, aquatic plant life, and animal species living in the river. There is not sufficient information in the DSEIS for analysis of the demolition plans or fugitive dust mitigation plan and how it could impact water quality.

Future water availability
The *DSEIS Climate Change Technical Report* includes "increased drought" as a regional hazard experienced currently or projected in the future.[123] The Project area may be impacted within the bridge's lifetime by drought conditions that affect water availability and water quality in the Columbia River, as well as in surrounding water bodies.

Environmental Justice and Health Equity

From our review, the DSEIS does not make a clear connection between impacts to water quality and equity priority communities. Overall, the information in the DSEIS suggests that new stormwater infrastructure in the Modified LPA would positively affect water quality, which would benefit the general population, inclusive of equity priority communities. Further, we were unable to conduct community engagement for this health analysis to gather community-based information about environmental justice and health equity concerns around potential water quality impacts. There are likely more connections between water quality, environmental justice, and health equity, particularly regarding subsistence fishing and Indigenous social determinants of health, that are important for the community and that we were unable to sufficiently assess. There is insufficient information in the DSEIS to assess potential environmental justice and health equity impacts on water quality.

Discussion

There is **sufficient evidence** in the DSEIS for the following potential health impacts of the Modified LPA:

- **Potential protective elements and positive health impacts**
  - **Transportation and active transportation:** The extension of light rail services and addition of enhanced pedestrian and bike facilities will likely increase physical activity and improve health. Expanding design and policy decisions that encourage people to walk, roll, bike, or use transit, rather than drive, would increase health benefits.
  - **Access**: Bringing the bridge, and auxiliary connections, up to or exceeding standards under the Americans with Disabilities Act (ADA) would improve access for all. Using inclusive or universal design, which centers around older adults, people with disabilities, and children, would increase benefits.
  - **Heat**: Providing shade and cooling for bridge users, especially active transportation users, could provide protection from heat-related health outcomes.
  - **Employment:** The project would drive a temporary increase in construction-related employment. Increased access to light rail and transit services could increase access to jobs and other essential services. Increasing contracting for Disadvantaged Business Enterprises, Minority Business Enterprises, Women Business Enterprises, and Small Business Enterprises would increase equitable distribution of these benefits.
  - **Access**: The Modified LPA includes plans to expand connections between active transportation networks, trails, and parks. Increased access to greenspace would have a positive impact on health.
  - **Water quality**: Improvements to stormwater infrastructure would have positive health impacts on water quality, and the health of the ecosystem.
  - **Safety:** Replacement of the existing I-5 bridge will result in a structure with greater seismic resilience, minimize the risk of a bridge collapse during an earthquake, and support safety, regional travel, and access to essential services.

- **Potential harmful elements and negative health impacts**
  - **Air quality:** Given the existing high traffic volumes along the I-5 interstate bridge, people who live nearby are subjected to greater concentrations of air toxics and are at risk of experiencing additional air quality burdens. The DSEIS estimates a 33% increase in VMT under the Modified LPA by 2045 and increase in freight traffic volumes, which could increase particulate matter and negatively impact air quality.
  - **Transportation and active transportation:** Transit access to jobs for BIPOC residents, immigrants and refugees, and people under the age of 25 did not increase as much as it did for white, non-Hispanic residents. This indicates disparities would continue to remain, likely reinforcing disparities in opportunities for physical activity.
  - **Tolling**: Tolling would have a disproportionate impact on low-income community members and could negatively impact access to essential services like health care and culturally specific health care.

  - **Access**: Construction delays on roads, delays to bus routes and light rail service, and closures of sidewalks and active transportation paths may negatively impact access to homes, jobs, schools, health care facilities, and other essential destinations. These impacts may be greater for those that do not have car access.
  - **Noise**: The Modified LPA would approach or exceed noise abatement criteria at 65 locations in Portland and 135 locations in Vancouver, including Discovery Middle School. Children and their learning comprehension are particularly affected by noise. The DSEIS describes higher levels of noise and vibration will negatively and disproportionately impact communities identified as equity priority communities.
  - **Displacement**: The IBR Program will acquire land displacing 43 homes and could also displace houseless residents in the project area. Between 32-35 businesses and 600-742 employees could be impacted due to property acquisitions. Equity priority communities of East Columbia, Rockwood, Esther Short, and Rose Village would be disproportionately impacted.
  - **Access**: The IBR Program could negatively impact access to traditional cultural activities, culturally specific health care, and access to ancestral lands for American Indian and Alaska Native communities.

There is **insufficient evidence** for several topic areas to determine potential health impacts of the Modified LPA.

- **Climate change and health:** The DSEIS anticipates the Modified LPA will reduce greenhouse gas emissions (GHG) compared to the No-Build Alternative. Construction of the Modified LPA will produce GHG emissions. Several climate-related hazards are projected to impact the region throughout the construction and operation of the Interstate Bridge, including heat, wildfire smoke, severe weather and flooding. The health effects of climate change are not equally distributed, and several communities are disproportionately affected by climate change - including IBR Equity Priority communities. More information is needed about how the Program will mitigate climate change impacts to Equity Priority Communities and what protective elements for health and climate justice will be included in final design and construction plans.
- **Air quality:** Due to the large geographic area used to conduct the air quality analysis, and the statement in the DSEIS that localized health impacts due to air quality cannot be reliably quantified, more information is needed to reliably assess air quality impacts. This is the basis of our recommendation for air quality monitoring and further air quality assessment, including dispersion modeling. Air dispersion modeling incorporates data appropriate for analyzing potential health impacts on a local scale.
- **Road safety:** The DSEIS states that crashes will increase by 15% under the Modified LPA, mainly due to estimated increases in traffic volumes. The DSEIS does not provide clear information on how crash frequency would change by travel mode, crash type, severity, location, or for environmental justice communities. There is insufficient evidence in the DSEIS to conclude to what degree severe injury and fatalities would be reduced for active transportation users.
- **Fugitive dust**: There is insufficient information about mitigation plans for fugitive dust during construction and how that could impact air quality and water quality.
- **Water quality**: There is insufficient information in the DSEIS regarding a plan to sample and analyze hazardous sediments and toxic contamination prior to in-water work.

Addressing the gap of insufficient information
As identified above, there are a number of places throughout the DSEIS where there is insufficient information to determine health impacts. There are also many decisions to be made for the final EIS, design decisions, and local decisions that could change the assessment of the project having either a positive, negative, or neutral impact to health. At this stage, we are only able to comment on the current proposal, but want to note the potential for changes throughout the design and construction phases of this project.

A project of this scale is composed of large-scale decisions that on their face could be beneficial for health, such as improvements to active transportation. However, implementation of these decisions and plans has the potential to tip the scales one way or the other toward improving or harming health. To continue the example of expanded active transportation, if bike and pedestrian paths are implemented in a way that makes those paths safe, accessible, connected to essential services, and free from exposure to pollution and noise, then they could have a positive health impact. If they are implemented in a way where there are no sight lines from vehicles, budgets for active transportation are cut to prioritize lanes of vehicle traffic, and there is high exposure to noise and traffic pollution, then they could have a negative health impact.

There is opportunity at every stage of this project to prioritize the health and safety of the citizens of Washington, Oregon, and anyone using the bridge. That is why our recommendations fall under the general categories of designing with health in mind and constructing with health in mind, so that the program can prioritize sustainability and health throughout the lifetime of the project. In addition to our recommendations, we propose that the IBR Program adopt a "health in all policies" approach into their decision-making.

Addressing Environmental Justice and Health Equity
Through program policy and implementation, the IBR Program has the opportunity to make positive changes and take action toward equity in affected communities. The decisions that could positively impact health in a community can also provide other co-benefits that further equity and environmental justice. For example, since communities of color experience a stronger urban heat island effect, program decisions that increase tree canopy cover could provide multiple benefits including reducing the urban heat island effect, improving air quality, positively impacting ecological health, improving access to active transportation with increased shade cover, and improving mental health benefits.

When weighing design and policy decisions, a health in all policies approach allows the decision to be evaluated for potential co-benefits of each decision. Decisions that increase environmental justice and health equity should be prioritized due to the co-benefits of improving community and ecological health.

There are many places throughout the DSEIS where the Program notes disproportionate impacts to equity priority communities. While mitigation of harm is the most important, it is also the minimum that the project could strive for. Every instance of disproportionate impact is the roadmap to show where increased benefits could be concentrated.

Health in all policies approach + Meaningful community engagement and tribal consultation
This health analysis and our recommendations reflect the importance of a health in all policies approach through this and upcoming stages of decision making. "Health in all policies is a collaborative approach to improving the health of all people by incorporating health considerations into decision-making across sectors and policy areas".[213] Health in all policies is a framework, while health impact assessments are the tool, but both have a shared goal of presenting evidence-based health information to decision-makers.

As described previously, individual and community health are made up of intersecting influences such as the built environment, current and historical disparities, and cumulative impacts of these many factors. To fully realize health equity, the public health system needs to be integrated with other systems that impact health, such as transportation. This approach allows for opportunities for collaboration to solve complex problems, identify and work toward shared goals across agencies and projects, and de-silo efforts to allow for more innovative and efficient use of resources.[214]

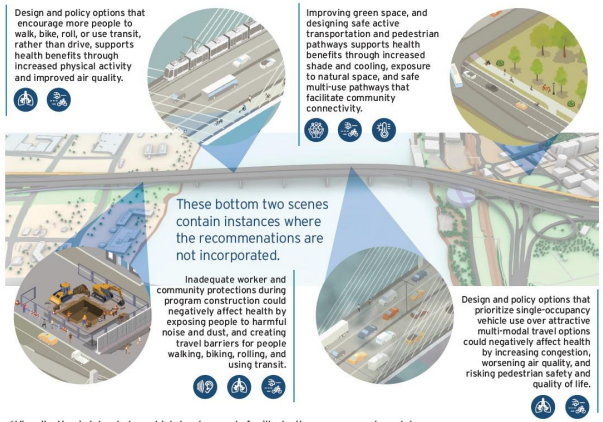
The IBR Program has an extraordinary opportunity to adopt a health in all policies approach throughout the design and construction phases of the project so that the lifetime impact of this project is positive. We are ready to continue to support the important work to ensure the equitable distribution of the transportation, economic, ecological, disaster resilience, and other benefits of replacing the Interstate Bridge between Washington and Oregon.

Our recommendations reflect the shared public health values of health equity, environmental justice, and ecological health. Each recommendation touches on one or more of our topic themes of air quality, transportation and active transportation, climate change and health, noise, social determinants of health, and water quality. Under each general recommendation there are more specific and tangible recommendations for implementation.

We appreciate any and all feedback from the IBR Program about our assessment. We also look forward to a detailed response about which recommendations the program plans to adopt, and how they will implement them.

Figure 16: Visualization of potential cumulative effects of implementing recommendations of the Health Analysis

The visualization* below includes four different scenes related to the bridge replacement project. The top two scenes contain depictions of instances where recommendations from the Health Analysis are incorporated.



**Visualization is intended as a high-level example for illustration purposes only and does not reflect property impacts or indicate that decisions on design options have been made. River crossing graphic adapted with permission from the IBR Program.*

Recommendations

To reduce negative health impacts of the IBR Program, we recommend decision-makers design, construct, and maintain a program that prioritizes human health and safety, ecological health, and environmental justice.

Our recommendations are organized in four themes:

- Prioritize sustainability, transparency, communication and health for the lifetime of the project (p. 79-80)
- Provide additional information and modeling to better understand potential health impacts (p. 81)
- Design with health and equity in mind (p. 82-86)
- Construct with health and equity in mind (p. 87-89)

Our recommendations are guided by the following principles:[101]

1. Equitably reduce environmental exposures. Reducing environmental exposures in one area should not come at the expense of increased environmental exposures in another area.
2. Promote interventions to reduce environmental exposures, improve health, equitably distribute benefits, and monitor impacts on health outcomes.
3. Coordinate approaches to control environmental health risks across sectors.
4. Inform and involve communities that are affected by changes in environmental exposures.

Recommendations were developed and informed by peer-reviewed literature, best practices from previous health impact assessments on similar transportation infrastructure projects, and potential health impacts and mitigation identified during assessment of the DSEIS and other identified sources.

An icon or multiple icons accompany each recommendation. The icons indicate which topic area and associated health outcomes could be improved by implementation of the recommendation.

Air quality	Transportation & active transportation	Climate change & health	Noise	Social determinants of health	Water quality

Prioritize sustainability, transparency, communication and health for the lifetime of the project

Transparency is central to building and maintaining trust. Community members will be affected by the IBR Program. It is critical that community members are both able to access information about how the program will affect them and able to share information, complaints, or questions with the program about how the program is affecting them.

The following recommendations support transparent communication and prioritize health during the lifetime of the program:

1. **Institute accessible systems for real-time two-way communication about project design and construction impacts to keep community members informed of project impacts, and the program informed of community impacts.**
    a. All communications materials should be written in plain language, available in multiple languages, and compatible with assistive technologies.
    b. With implementing agencies and contractors, coordinate a communication plan with multiple accessible platforms (e.g., website, social media, email and physical newsletters, text alerts, hotline) that are updated in real time so that the community can know when and where construction is happening; expected changes to transit, driving, or pedestrian routes; potential environmental impacts; and who to contact with questions, comments, or concerns.
        i. This should include notifying specific audiences with construction schedules well in advance: 1) emergency responders so they can be prepared during an emergency; 2) pedestrians and cyclists to know when it is safe to traverse portions of the road or access detours; and 3) affected residents, businesses, and commercial properties.
        ii. Communicate with community members and affected residents on types, time, duration, and potential health effects of construction well before and throughout construction activity. This should include details about noise, air quality, transportation and active transportation impacts.
        iii. Develop and maintain a centralized hotline and website for complaints, questions, or issues during and after construction. This should include coordinating with agencies responsible for controlling environmental exposures (e.g., noise, dust) during planning and construction and when responding to complaints.
        iv. Use visual technology such as 3D models and QR codes placed around the project area to help with visual understanding of design and construction plans.

2. **Prioritize health in program policies and decision-making throughout the lifetime of the program by incorporating regular engagement with community members, health department staff, and Tribal governments.**
    a. Provide funding to maintain health analysis team to continue to track and identify opportunities to include public health recommendations into the project. This can include:
        i. Incorporating health department staff into ongoing design committees or advisory councils
        ii. Proactive engagement and communication between program staff and public health to identify decision points and opportunities for health-focused decision-making well in advance
    b. Develop a monitoring, evaluation and reporting plan with clear responsibilities and accountability for the lifetime of the program. This should cover:
        i. Health, health equity, environmental justice and environmental indicators affected by the project, including health topics identified in this assessment and other topics that community and Tribal partners identify
        ii. Agencies responsible for measuring those indicators
        iii. Summaries of community complaints or comments and actions taken by the program or partner agencies to address them
        iv. Monitoring and timely reporting of any project-related issues that are context- and location-specific to support rapid response and reduce additional issues, including:
            1. Any injuries that are work related, transportation related, or non-workers injured in the project areas
            2. Any project-related noise, dust, emissions, or other environmental exposure disturbances
    c. Both before tolls go into effect, and after tolls are operational, ODOT and WSDOT should maintain a toll equity accountability committee or establish another structure where equity voices are at the table in a consistent, transparent, and resourced way to ensure long term accountability.
        i. Implement best practices from the Equity and Mobility Advisory Committee recommendations to the Oregon Transportation Commission.[215]

Provide additional information and modeling to better understand potential health impacts

Developing and sharing enhanced assessments of estimated impacts of the IBR Program on residents, people passing through and near the project area, and workers will increase the opportunity for incorporation of tailored strategies that more adequately protect health at the individual, project, and systems levels.

3. **Compile and release to the public more information about demolition plans for the current bridge infrastructure, including potential air quality, noise, and water quality impacts. This could include:**
    a. A detailed noise assessment and mitigation plan with noise heat mapping, predicted noise levels, and any overlap in noise-emitting activities with construction (e.g., if demolition and new construction are happening at the same time).
    b. Details about materials in existing infrastructure that could release contaminants into the air upon demolition, including lead and asbestos, and a detailed mitigation/abatement plan.
    c. Details about materials in existing infrastructure and the riverbed that could release sediments and contaminants into the water upon demolition, and a detailed mitigation/abatement plan.

4. **Expand information about potential air quality, safety, and connectivity impacts of design and construction.**
    a. Include air dispersion modeling of potential impacts of construction-related traffic diversion through neighborhoods adjacent to the project area.
    b. Include analysis of potential disruptions to regular transit, road, and active transportation routes that may affect community members' access to workplaces, health care services, social services, and other community services.
    c. Include analysis of severe injury and fatalities reduction for active transportation users and detail about mitigation features to prevent injury and fatalities.
    d. Collect and include pedestrian and bicycle counts from days where environmental threats (i.e., wildfire smoke) are not influencing travel behavior.

5. **Compile and release to the public additional information about potential air quality, safety, and connectivity impacts of tolling-related traffic diversion through neighborhoods.**

6. **Develop and release to the public a detailed sampling and analysis plan of riverbed sediment including potential contaminants, hazardous sediments, and toxics.**

Design with health and equity in mind

Design decisions early on are an important opportunity to make upstream, preventive health interventions that support healthier communities. Intentional planning with an environmental justice lens provides the opportunity to not only prevent disproportionate harms from design, but to address past harms and current disparities through infrastructure investments. Designing the IBR Program area with health at the forefront will be more beneficial to the community for decades to come.

The following recommendations prioritize health through program design:

7. **Design active transportation (bike lanes, sidewalks, and multi-use trails) and public transportation that is accessible to all to improve air quality and physical activity.**
    a. Design decisions should prioritize transportation system designs that reduce vehicle miles traveled, reduce single-occupancy vehicle capacity, increase physical activity, and increase access to transit.
    b. The design team should make considerations to include light rail station investment and design that encourage walkability and accessibility in surrounding areas. They should account for increased utilization, and opportunities for shade and cooling to protect users from heat.[216]
    c. Sidewalk and active transportation design should be centered around older adults, people with disabilities, and people with children, also known as inclusive design or universal design.

8. **Design safety features to reduce injury for active transportation users and vehicle users.**
    a. Design should prioritize pedestrian safety and active transportation user safety by integrating design features to reduce vehicle speeds. The design team should use a safe systems and health impact pyramid lens to evaluate ongoing transportation infrastructure decisions to reduce risk to all users.[84,85]
    b. Create active transportation spaces that feel safe and increase visibility. Use signage, lighting and lane markings on shared use paths to reduce the risk of bicycle-pedestrian, vehicle-pedestrian, and vehicle-bicycle collisions.
    c. Design and install suicide barriers that are tall and unclimbable. Install appropriate multilingual signage displaying the 988 National Suicide Prevention and Mental Health Crisis Hotline as required by Washington RCW 39.04.420.[217]

9. **Improve greenspace and tree canopy cover to improve air and water quality, provide shade, and increase natural spaces.**
    a. Use green infrastructure to improve air quality, infiltrate stormwater, increase climate resilience, improve habitat for wildlife, and increase physical activity.[218]
    b. Use landscaping materials throughout the project area, along sidewalks, roadways, trails, shared use paths, and at transit stops to soften the concrete footprint and reduce the urban heat island effect.
        i. Use native drought- and pest-resistant vegetation to support climate resilience and local biodiversity.
    c. Coordinate with the City of Portland and City of Vancouver to meet or exceed local tree canopy cover goals of 28%-33% in the project area, reduce the urban heat island effect, create shade, and reduce potential erosion into surface water.[219,220]
        i. Reduce removal of existing trees, vegetation and greenspace, and include provision of tree canopy, vegetation, and/or bridge shade structures to create shaded area for respite from heat and sun exposure.[221,222]
    d. Reduce large expanses of pavement and impervious surfaces to limit stormwater runoff and reduce urban heat island effect.

10. **Design with sustainable materials and standards to reduce greenhouse gas emissions.**
    a. Follow sustainability guidelines outlined in local government jurisdictions' sustainability and climate action plans to reduce the effects of climate change on health. The IBR Program should score highly in quantifiable sustainable practices associated with roadway design and construction.[221]
        i. For example, following the Greenroads Rating System, the IBR should score 80 points or higher.[223]
    b. Develop and implement a preferred scenario that meets or surpasses the greenhouse gas emissions reduction target set for the region to reduce the effects of climate change on health. Refer to local cities, counties and state climate action plans and requirements regarding greenhouse gas emissions, where applicable.[224–226]

11. **Prioritize resilience to extreme weather events, climate change, and seismic events to improve safety.**
    a. Develop spaces, pathways, and other facilities built to withstand extreme weather events and changes in climate (e.g., heat waves, wind and ice storms, flooding, sea level rise and storm surge, extreme rainfall) to adapt to climate change, and to prevent injury, illness, and death from extreme weather.[123,222]
        i. This includes design that makes it easier and quicker to clear ice, snow, and other extreme precipitation from pathways.

12. **Maintain and improve good air and water quality in the project area to protect physical and mental health.**
    a. Use innovative storm water management practices along the corridor to sustainably reduce vehicle pollution from entering waterways to prevent water contamination and waterborne illness.[221]
        i. Plan for more severe and frequent storms/precipitation to limit increases in stormwater runoff.
        ii. Reduce exposure of vehicle runoff infiltrating the water system.
        iii. Treat stormwater runoff from all areas impacted by the IBR Program.
    b. Maintain wetland water quality and protect/repair nearby wetlands.
    c. Follow all federal, tribal, state, territorial, and local requirements around water quality to protect aquatic life, local wildlife ecosystems and prevent water- and foodborne illness.
    d. Use innovative design features to improve air quality for active transportation users along the corridor. This could include planting vegetation between shared use paths to improve air quality and provide additional protection from vehicles.
    e. Follow all federal, tribal, state, territorial, and local requirements to protect and improve air quality.
    f. Protect and honor Native water rights by contributing to a healthy river and healthy ecosystem because "the ability to exercise these treaty rights to fish is completely dependent upon clean water and healthy ecosystems".[227]

13. **Minimize noise in the project area to protect nearby neighbors and populations disproportionately affected by noise.**
    a. Re-examine mitigation measures for the 65 locations in the Portland project area and 135 locations in the Vancouver project area that will exceed noise standards under the Modified LPA as a way of protecting the health of residents in these areas.
        i. Re-examine mitigation measures for Discovery Middle School. Children and their learning comprehension are particularly affected by noise. If project design is unable to reduce noise exceedances for Discovery Middle School, work with Discovery Middle School to implement appropriate sound insulation as per ODOT and WSDOT noise mitigation considerations (e.g., ventilation systems, storm windows, air conditioning).
    b. Use multiple methods (e.g. freeway lids, noise walls, quieter pavement, landscaping) to reduce noise in the project area for the lifespan of the project and for all bridge users (pedestrians, cyclists, local businesses, residents).
        i. Design sound walls, and other noise reduction strategies, should prioritize the reduction in noise and be sure not to result in additional problems like disruptions of sidewalks and trails, barriers to community connectivity, or creating large concrete structures.
    c. Help residents implement noise reduction strategies before construction begins: identify and work with highly affected residents to determine mitigation during construction, such as installing double pane or sound- and dust-proof windows, installing air conditioning, sealing doors and windows, and reinsulating walls and ceilings; and providing hotel vouchers during the noisiest/overnight operations if certain noise levels are exceeded.[228]
        i. Consider lessons from the Port of Seattle Sound Insulation Repair and Replacement Pilot Program assessment (expected in 2025) as a potential model for a residential noise insulation program by a major transportation infrastructure project/port.[229]

14. **Improve connectivity and community cohesion to promote access to community and essential services.**
    a. To support reductions in racial health disparities, prioritize active transportation and transit connections to important destinations to support place-based physical activity, especially destinations identified by BIPOC communities.[230]
    b. Maintain access and, where possible, increase connectivity to key neighborhood services and assets by promoting street connectivity and walkability.[74] These include parks, schools, worksites, libraries, grocery stores, food pantries, restaurants, banks, social clubs, gas stations, laundromats, post offices, places of worship, harvesting and fishing sites, cultural and natural landmarks, hospitals and healthcare facilities, including behavioral health and substance misuse treatment facilities.
    c. Create activity-friendly routes (i.e., pedestrian, bicycle, or public transit access) that allows for multiple and convenient route options to everyday destinations by walking, biking, and rolling.[74]
    d. Use design elements (e.g. freeway lids, pedestrian bridges) to improve East/West connectivity and accessibility within the program area.
    e. Incorporate design elements that highlight local art, history, and culture, including naming the bridge, to enhance community connection.

15. **Center equity and focus on local businesses in contracting to improve economic opportunities for underrepresented groups.**
    a. Identify and commit to a plan for increasing the contracting opportunities for Disadvantaged Business Enterprises, Minority Business Enterprises, Women Business Enterprises, and Small Business Enterprises that are awarded contracts for designing, building, and operating the program.[215]
    b. Consider abiding by the Washington State Healthy Environment for All Act that establishes a "goal of directing 40 percent of grants and expenditures that create environmental benefits to vulnerable populations and overburdened communities".[231(p1)]

16. **Minimize home and business loss, and proactively support displaced residents, businesses, and employees.**
    a. Before property acquisition and displacement begins, develop and implement comprehensive strategies and funding options to address the relocation and housing needs of people displaced by the program, including housed and unhoused community members. These should build on and provide a holistic approach to Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA) requirements and the objective to lessen the emotional and financial impact of displacement. This could include:
        i. Ensuring continued access to local and culturally important food, transportation, health care, and social services to displaced people and families.
        ii. Evaluating the feasibility of 'Right to Return' options for displaced residents, either in continued housing relocation assistance or in new housing options if any are developed using project funds.
        iii. Working with families and neighbors to assist with coordinated relocation for those that are interested, and to maintain community linkages because moving can be particularly difficult for children and older adults.
        iv. Working with families to relocate within their child's school district, and if possible, moving over the summer as not to disrupt school year learning.
        v. Working with organizations like the Council for the Homeless and Columbia River Mental Health to develop strategies and investments to support the movement of people experiencing homelessness within the project area into housing and avoid further stress, traumatization, and distrust of government. Partner with homeless service providers to conduct outreach and to identify accommodation and support strategies to assist people in finding permanent housing options.[232]
        vi. Assisting displaced residents to find housing options for rent or purchase within the project area that meet their accessibility needs, health and safety needs, and are sustainable. This includes that homes are LEED certified, lead abated, and remediated for mold; have heat pumps, screened windows, air filters, ventilation; and are pet-friendly for individuals and families with pets.
    b. Identify strategies to reduce business impacts like business and employee displacement. This could include assistance and support to displaced employees in the job search, and displaced businesses in searching for new properties that meet their needs.
    c. Identify strategies to provide mental health and other support services to individuals who will be displaced from their home or disconnected from their social network due to residential or business displacement, at no cost to the individual.

Construct with health and equity in mind

Construction is expected to take approximately a decade. It is important to center worker and community health in construction plans, contracts, and operations.

The following recommendations prioritize health during the multi-year construction phase of the program:

17. **Meet and exceed, where possible, state and local requirements for noise, air quality and water quality to protect the health of workers, community members, and the ecosystem.**
    a. Ensure that construction vehicles meet state and local requirements for clean diesel contracting, and retrofit diesel construction vehicles to curb air pollution prior to the start of construction.
    b. Maintain construction equipment in good working condition to reduce emissions and noise.
        i. Reduce traffic-related air pollution from combustion of fuel, tire wear and brake wear during operation of the project.
        ii. Use approved noise control devices for generators, compressors, and similar equipment. Use OHSA approved broadband back-up warning devices on all construction vehicles and equipment.
    c. Develop a workforce transportation plan with contractors (e.g., incentivize active transportation and public transit options, carpooling) to reduce expected increased single-occupancy vehicle transportation to construction sites, and to reduce noise, air pollution, and GHG emissions.
    d. Adjust the construction schedule to maximize quiet time for residents.
        i. Limit loud-noise construction activities performed within 300 meters of an occupied dwelling unit between 7:00pm and 7:00am, as reported as noise abatement time constraints in the DSEIS.
        ii. Limit the operating periods for equipment that produces loud noise, such as pile drivers and concrete cutters, particularly during nighttime periods.
    e. Measure employee noise exposures and implement a hearing loss prevention program per state and federal noise level regulations over an 8-hour shift. The recommended exposure limit is 85 dBA over an 8-hour period.
    f. Limit in-water operations to November 1 – February 28 to protect fish, wildlife, and habitat resources per Oregon Department of Fish and Wildlife and U.S. Army Corps of Engineer regulations.[233,234]

18. **Design and mark routes during construction to protect pedestrians and active transportation users from injury and environmental exposures.**
    a. Develop safe and clearly marked alternative routes and maintain temporary paths for pedestrians, bicyclists, strollers, wheelchair users, and other active transportation users during the construction period, rather than simply closing sidewalks and bike lanes.
        i. Coordinate with and incorporate adjustments for ongoing and future Safe Routes to Schools efforts and for bike bus groups used by both adults and children in the project area (for example, Bike Bus PDX[235]).
    b. Direct alternate or detour vehicle routes away from high pedestrian areas, schools, places of worship, and other community centers to decrease likelihood of vehicle-related pedestrian injury.
        i. Include speed abatement measures (ex. speed humps, temporary signals, reduced speed limit signs) to reduce potential for crashes and injury.
    c. Reduce construction hazards to motorists, pedestrians, and cyclists from hazards such as large dust and debris "kickup", concentrated air pollution, and excess noise that could lead to unsafe areas and elevated exposures.

19. **Maintain community connectivity through reliable access to transit, neighborhood services, and regular transportation routes.**
    a. Reduce obstacles to business access, local and culturally important food—including harvesting and fishing sites—transportation, health care services, schools, places of worship and other essential community services during construction.
    b. Increase transportation assistance programs during construction to reduce disruption in accessing medical care, behavioral health care, social and educational services, especially for older adults and people with disabilities. Expand those programs and financial assistance.

20. **Protect workers and community members on high-risk days for high heat and poor air quality events.**
    a. Create and implement plans for extreme heat during the construction period, including recommended or designated times for active transportation users to travel through the project area during cooler times of day to prevent heat-related illness and death.
    b. Utilizing Washington State Department of Health guidance, take steps to reduce construction-related air pollution on days when the Air Quality Index reaches 'Unhealthy for Sensitive Groups' due to wildfire smoke or high ozone to protect outdoor workers and communities at increased risk.[236] WADOH guidance available at https://doh.wa.gov/sites/default/files/2024-06/821-174.pdf.
    c. Create and implement plans to ensure worker safety and protection, accounting for overlapping exposures, health sensitivities, and disproportionate impact to outdoor workers, including easy and reliable access to personal protective equipment.[152,162]
        i. Ensure that workers understand their rights, have adequate access, and have training to take protective steps with respect to climate hazards, such as extreme heat and severe weather, wildfire smoke, and air pollution exposure. These include access to water, shade or cooling, breaks, bathroom facilities, and personal protective equipment.[237,238]

21. **Establish systems for continuous monitoring for noise and air quality during and after program construction, ensuring that pre-construction conditions are measured as a baseline.**
    a. Use the World Health Organization's most recent Air Quality Guidelines and the Oregon Air Toxics Benchmarks to track air quality indicators near the project area and in neighboring communities.
    b. Coordinate with Washington State Department of Ecology, Oregon Department of Environmental Quality, Southwest Clean Air Agency, and community members to install and regularly analyze data from air quality monitors in the project area. This may include funding installation and maintenance of air quality monitors in the project area.
    c. In line with recommendation 1 above, identify a point of contact and appropriate communication methods for community members to use if they have questions or complaints about noise or air quality.
    d. Coordinate with schools, early learning facilities, and childcare facilities to install noise and particulate matter monitors at sensitive locations in the program area. Expand collection of noise measurements to include schools and early learning facilities near the program area beyond but inclusive of Discovery Middle School.

22. **Implement workforce development and support programs to develop and retain a diverse workforce.**
    a. In accordance with the recommendations of the IBR Workforce Market Study, develop comprehensive workforce development programs, including higher education, internships, apprenticeships, and targeted training in high-paid trades, with a focus on increasing BIPOC, underrepresented, underserved community participation and preparing students in high schools and community colleges for construction and trade jobs.[239]
    b. Prioritize services and policies for working families and caregivers, including childcare, and access to breast and chest feeding and pumping space.

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Appendix A

Additional Details on Methods

1. IBR Program data sources
    a. The working group reviewed select draft technical reports and chapters from the draft DSEIS prepared in February 2024 and then cross-checked with DSEIS documents published in September 2024, including:
        i. Acquisitions Technical Report
        ii. Air Quality Technical Report
        iii. Climate Change Technical Report
        iv. Climate Change Chapter 3.19
        v. Economics Technical Report
        vi. Energy Technical Report
        vii. Environmental Justice Technical Report
        viii. Equity Technical Report
        ix. Hazardous Materials Technical Report
        x. Neighborhoods and Populations Technical Report
        xi. Noise and Vibration Technical Report
        xii. Parks and Recreation Technical Report
        xiii. Transportation Technical Report and Appendices
        xiv. Transportation Chapter 3.1
        xv. Water Quality and Hydrology Technical Report
        xvi. Water Quality and Hydrology Chapter 3.14
        xvii. Wetlands and Other Waters Technical Report
    b. The working group consulted with writers of the DSEIS technical reports to ask questions and clarify technical information.
2. Baseline conditions & health pathways
    a. Methods:
        i. Literature review of meta-analyses & systematic reviews of topic indicators (exposures) and associated health outcomes
        ii. Description of baseline health conditions using comparable local data (state/regional or national as backup to comparable local data option)
            1. CDC EJI
            2. ACS Census
            3. CDC SVI
            4. CDC PLACES
            5. Additional data sources (sources listed in text)
3. Environmental justice & health equity
    a. Methods:
        i. Describe any known environmental justice and health equity topics addressed in the literature review and as they relate to information in the DSEIS
        ii. Describe EJ and health equity details using national mapping data (CDC EJI, additional data sources)
4. Recommendations
    a. Determined by assessment findings
    b. Review of existing HIAs conducted on transportation infrastructure projects of similar scope

i. SR 520 Health Impact Assessment: Puget Sound Clean Air Agency, Public Health Seattle & King County. *SR 520 Health Impact Assessment*.; 2008. https://drive.google.com/file/d/1UWSOxTsFcgLTTR1lBmjr-PPTZEGJ0Rnj/view?usp=sharing&usp=embed_facebook
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iv. City of Cincinnati Health Department. *Interstate 75 Focus Area Study Health Impact Assessment*.; 2010. https://www.cincinnati-oh.gov/sites/health/assets/File/I75FocusAreaHIA.pdf
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c. Recommended by phases of project:
   i. Program design
   ii. Contracting & construction (up to 10 years)
   iii. Program lifetime (50-100 years)

Response to Submission 21: Washington State Department of Health, Oregon Health Authority, Clark County Public Health, Multnomah County Health Department, and the Cowlitz Indian Tribe Health and Human Services (November 15, 2024)

21-1

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14154 - Unleashing American Energy and EO 14148 - Initial Rescissions of Harmful Executive Orders and Actions. Together, EO 14154 and EO 14148 revoked EO 13990 - Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis (January 20, 2021) and EO 14008 - Tackling the Climate Crisis at Home and Abroad (January 27, 2021). Subsequently on January 29, 2025, Secretary Duffy signed a Memorandum for Secretarial Offices and Heads of Operating Administrations - "Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender." As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, FHWA and FTA will not include greenhouse gas (GHG) emissions and climate change analyses in the federal environmental review process, and any purported GHG emissions or climate change impacts will not be considered in the federal decision. Accordingly, no GHG emissions or climate change analyses are included in this Final SEIS.

FHWA and FTA's responses herein are limited to issues raised in the comment that do not implicate GHG emissions or climate change impacts. To the extent the laws of the States of Washington or Oregon require WSDOT or ODOT to consider and respond to aspects of the comment implicating GHG emissions or climate change, those responses are provided separately in the SEPA Addendum. FHWA and FTA will not consider the SEPA Addendum as part of any federal decision-making.

Since publication of the Draft SEIS, President Trump signed Executive Order (EO) 14148 - Initial Rescissions of Harmful Executive Orders and Actions and EO 14154 - Unleashing American Energy. EOs 14148 and 14154 revoked EO 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (April 21, 2023). Subsequently on January 21, 2025, President Trump signed EO 14173 - Ending Illegal Discrimination and Restoring Merit-Based Opportunity. This EO revoked EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (February 11, 1994). As a result of these actions, coupled with CEQ's rescission of its NEPA implementing regulations, all federal environmental justice requirements are revoked and no longer apply to the federal environmental review process. FHWA, FTA and FRA's joint NEPA regulations (23 CFR Part 771) and the agencies' Interim Final Guidance on "Section 139 Environmental Review Process: Efficient Environmental Reviews for Project Decisionmaking and One Federal Decision" (December 17, 2024) do not require an environmental justice analysis. Accordingly, no analysis of environmental justice is included in this Final SEIS. Any purported environmental justice impacts will not be considered in the federal decision but social, economic, and community impacts will continue to be disclosed where applicable in accordance with 23 CFR Part 771.

The Health Analysis was submitted as a public comment on the Draft SEIS. The Health Analysis was a third-party effort conducted by the Washington State Department of Health, Oregon Health Authority, Clark County Public Health, Multnomah County Health Department, and Cowlitz Indian Tribe Health and Human Services. NEPA does not require the analysis of health effects for the IBR Program as those effects are not reasonably foreseeable. Although not required as part of the NEPA process, the Health Analysis was prepared in response to requests from several of the IBR Program's partners, and the authors of the Health Analysis described their findings and recommendations with the IBR Program's advisory groups in 2025.

Submission 22: WSDOT Library (September 24, 2024)

Comments

22-1

Hello,

I'd like to request a print copy of the new Draft SEIS for Washington State Department of Transportation Library. Is there a way to request any print publications associated with the Interstate Bridge Replacement Program, including future publications?

Our address is:
WSDOT Library
PO Box 47425
310 Maple Park Ave SE
Olympia WA 98504-7425

Thank you so much!

Lindsay Tachell (she/her/hers)
Digital and Print Collections Librarian
Research & Library Services | Transportation Safety and Systems Analysis
Washington State Department of Transportation
Lindsay.tachell@wsdot.wa.gov<mailto:Lindsay.tachell@wsdot.wa.gov> | WSDOT Libguide<https://transportation.libguides.com/c.php?g=1125595&p=8210572>

Response to Submission 22: WSDOT Library (September 24, 2024)

22-1

The IBR Program coordinated with the commenter on September 25, 2024, and provided a printed copy to address their question.