

Appendix I

GLOSSARY

This appendix provides informal definitions of technical terms used in this Final Supplemental Environmental Impact Statement (SEIS).

Note: Bold text indicates a term or phrase also defined in the table.

Term	Definition
303(d)	Section 303(d) of the federal Clean Water Act requires each state to monitor and regulate the quality of water in its rivers and streams. If a waterbody does not meet a particular water quality standard, as determined by the state, that waterbody is “303(d) listed.” See also total maximum daily load (TMDL) .
Active transportation	Human-powered modes of transportation, such as walking, bicycling, or using a wheelchair.
Add/drop lane	See auxiliary lanes .
Aggregate (geology)	A rock-like mixture of minerals and rock fragments.
Alignment (transit)	The route that the high-capacity transit guideway for light-rail would follow.
Alternative	For the purposes of the IBR Program, an alternative is a specific set of bridge, transit, and highway solutions. The Modified Locally Preferred Alternative (LPA) is the build alternative that was analyzed as part of the SEIS process.
Amended Record of Decision (ROD)	After a ROD is signed, new information may be received or generated that could affect implementation of the alternative selected in the ROD or could prompt the reassessment of the selected alternative. This new information is documented in a supplemental NEPA document (for example, an SEIS) and an Amended ROD may then be signed by the lead agencies . The decisions made in the prior ROD remain unaltered except for the supplemental environmental review addressed in the Amended ROD.
Anadromous	Fish species that hatch in fresh water, enter the ocean for a portion of their life cycle, then return to fresh water to spawn. Common anadromous species include but are not limited to salmon, steelhead, lamprey, eulachon (smelt), and shad.
Aquifer	An underground layer of water or layer of permeable material (gravel, sand, silt, some rock) that holds water, from which water can be extracted, usually by means of a well or spring.
Auxiliary lanes	A dedicated lane between highway interchanges—from one on-ramp to the next off-ramp—that provides motorists with more time and extra room to accelerate or decelerate and merge when entering or exiting a highway. These ramp-to-ramp connections allow vehicles to enter and exit the roadway outside of through-traffic lanes. They can improve safety and reduce congestion by accommodating cars and trucks entering or exiting the highway or traveling short distances between adjacent interchanges and reduce conflicting movements from merging or changing lanes.
Average (traffic)	The average traffic condition is the vehicle flow on a weekday, usually Tuesday, Wednesday, or Thursday, for a given time period.
Benthic organisms (benthos)	In freshwater biology, benthic organisms are those organisms living in a waterbody’s benthic zone . Types of benthic organisms in the IBR Program area include some species of snails, shrimp, and crayfish.

Term	Definition
Benthic zone	The ecological zone at the lowest level of a waterbody. The benthic zone includes surface sediment on the bed or floor of the waterbody, as well as some subsurface layers beneath the surface sediment.
Best management practice (BMP)	A method or activity that is generally acknowledged to be the most effective and practical at achieving a given outcome.
Biofiltration swale	A depressed area with mild slopes that treats stormwater runoff through filtration and sorption as stormwater runoff flows through the vegetated surface. These areas are typically dry between storm events and are typically planted with grasses.
Bioslope	Like filter strips , a bioslope is a sloped area used to treat stormwater runoff from an adjacent roadway surface. Bioslopes are also known as ecology embankments. The stormwater runoff percolates through a special mixture of materials, which slows down the flow and promotes the filtering of pollutants.
Bi-State Legislative Committee (BSLC)	A panel composed of eight Washington and eight Oregon legislators who provide guidance and feedback on key IBR Program decisions.
Braided ramp	An on-/off-ramp design where an on-ramp passes over an off-ramp, or vice versa. Braided ramps separate merging and diverging traffic by creating a bridge for some traffic to cross over and other traffic to cross under. This improves safety by eliminating lane weaving.
Buffered Bicycle Lane	That part of the highway adjacent to the roadway that is designated for bicycle travel, delineated from the adjacent travel lane by two stripes that delineate a buffer zone.
Build alternative	A set of proposed transportation improvements (bridge, transit and highway) that the IBR Program is evaluating in the NEPA document.
Bus rapid transit (BRT)	A type of high-capacity transit that uses large buses and makes fewer stops for fast, frequent service. Buses stop at transit stations or platforms. Reliable travel times are ensured when buses operate in a lane dedicated to bus use. BRT buses also have the flexibility to travel in high-occupancy-vehicle lanes, expressways, or ordinary streets.
Cobbles	Pieces of rock between 2.5 and 10 inches in diameter; informally, rock sized between gravel and boulders.
Cofferdam	A temporary, watertight enclosure for excluding water from an area that is normally submerged. Cofferdams are one method of isolating an area within a waterbody for construction or other activities.
Collector-distributor	A roadway parallel to a larger-capacity roadway. A collector-distributor is designed to remove weaving from a highway mainline and reduce the number of entrances and exits.
Columbia River bridges	The newly constructed bridges that would be built west of the existing Interstate Bridge .
Columbia River Crossing (CRC)	A multimodal project conducted by Oregon and Washington, from 2005 to 2014, that studied options for replacing the Interstate Bridge. The CRC project completed the federal environmental review process (NEPA) and reached a federal ROD in 2011 on a locally preferred alternative . The CRC project did not secure adequate state funding for construction and was discontinued in 2014. The IBR Program supplements the prior work from the CRC project’s NEPA process.
Columbia River Crossing Locally Preferred Alternative (CRC LPA)	The CRC Selected Alternative identified in the 2011 ROD, as revised by the 2012 and 2013 re-evaluations.

Term	Definition
Columbia River Datum (CRD)	The plane of reference from which river stage is measured on the Columbia River from the lower Columbia River up to Bonneville Dam, and on the Willamette River up to Willamette Falls. The datum equals 1.82 feet above mean sea level (equivalent to National Geodetic Vertical Datum [NGVD]) at Vancouver, Washington (USACE 2014).
Community Advisory Group (CAG)	One of three advisory groups formed to guide the IBR Program. The CAG consists of a group of community members from the greater Portland and Vancouver region that provides advice and recommendations to the Executive Steering Group and IBR Program administrator on issues of importance to the community.
Community cohesion	The ability of people to communicate and interact with each other in ways that lead to a sense of community as reflected in the neighborhood's ability to function and be recognized as a singular unit.
Community connector	A structure over a highway that helps to maintain or improve connectivity between the two sides of a highway, that provides visual and cultural landscape connectivity, and/or that mitigates for visual impacts of new highway construction. For the IBR Program, the proposed Community Connector, located just south of Evergreen Boulevard, would serve as a pedestrian connection between the communities on the east and west sides of I-5.
Community engagement	The IBR Program's ongoing efforts to hear community concerns, values, and interests; maintain open, two-way communications; and reflect community interests in key Program decisions.
Community resources	Services and gathering places such as educational, religious, health care, cultural, recreational, and commercial institutions.
Community survey	A data-driven public survey of diverse community members and organizations conducted by the IBR Program to assess public concerns and interests related to the region's transportation system.
Community-based organizations (CBO)	Groups representing varied local interests and concerns such as the environment, businesses, labor, social services, affordable housing, recreation, transit, etc.
Congestion	Congestion occurs when the demand is greater than the transportation system's capacity. For highways, congestion occurs when the average speed along a section falls below a specified speed, generally below 35 miles per hour. Recurring congestion is caused by constant excess volume of vehicles compared to capacity. Nonrecurring congestion is caused by actions such as special events and/or traffic incidents.
Contributing impervious area (CIA)	All impervious surface associated with a project that contributes stormwater, including impervious surface areas within the project limits and impervious surface areas contiguous to the project that discharge stormwater runoff into the project area. Non-highway-related impervious areas (commercial development, residences, agricultural land) and certain non-triggering impervious areas (such as areas where pavement is not replaced to its full depth) are not part of the CIA.
Construction staging	A designated area where vehicles, supplies, and construction equipment are positioned for access to and use on a construction site.
Cooperating agencies	One of three designations of agencies under the NEPA environmental review process. A cooperating agency is typically a federal agency, other than a lead agency , that has jurisdiction by law (with permitting or land transfer authority) or special expertise with respect to an environmental impact involved in a proposed project or project alternative. A state or local agency of similar qualifications—or when the effects are on lands of tribal interest, a Native American tribe—may, by agreement with the lead agencies, also become a cooperating agency. All cooperating agencies are also considered participating agencies .

Term	Definition
Crash	A collision, typically between vehicles, but may also involve pedestrians or bicyclists. Crashes may be analyzed for a single location such as an intersection, for a specified section of highway, for a particular type of transportation facility (e.g., for interstate highways), or for a specified area such as a region or state. Such analyses help to identify needed safety improvements. Crashes may be analyzed in a number of ways: by frequency, by number of collisions, by number of collisions per mile or per vehicle miles traveled , by severity, and by type (rear-end, turning conflict, etc.).
Cultural resources	Collectively refers to historical and archaeological resources. Cultural resources are broadly divided into the historic built environment (buildings, structures and objects), archaeological sites, and defined features or areas that are important to maintaining cultural identity.
Deadheading	Trips made by a transit vehicle (bus, light-rail, streetcar, etc.) when the vehicle is out of service and no passengers are on board. This is also referred to as a non-revenue trip, dead mileage, or dead running.
Demand (transportation)	The total number of users attempting to access the transportation system, including those caught in congestion .
Demographics	Statistical data relating to the population and particular groups within it. The IBR Program uses demographic data to understand the general characteristics and geographic locations of communities potentially affected by the Program and to inform community engagement strategies.
Diamond interchange	A common type of interchange used where a highway crosses a minor road. The highway is grade-separated from the minor road, and off-ramps diverge gently from the main highway, intersect directly with the minor road, and beyond the minor road continue as a gently merging on-ramp. The name “diamond” is used because, seen from the air, the pattern of major highway, minor road, and associated on- and off-ramps form a diamond shape.
Direct effects	Effects that are caused by a project action and that occur at the same time and place as the action.
Distinct population segment (DPS)	A population of organisms that is considered distinct from similar organisms for purposes of conservation. In the Pacific Northwest, populations of several species, including steelhead and bull trout, are further subdivided into Evolutionarily Significant Unit (ESUs) for purposes of management and recovery.
Easement	The legal right to use property belonging to another person for a stated purpose. An easement may grant the right to use the property surface, the property’s subsurface for a given depth range below the surface, or the airspace above the property surface for a given range of elevations.
Ecosystem	A portion of the physical environment that includes both biological and nonbiological elements working together as a stable system. Ecosystems can be defined to be quite small (e.g., a single wetland) or quite large (e.g., an entire forest).
Eminent Domain	<p>In Washington, eminent domain is the right of a government to acquire private property for public purpose following payment of just compensation to the property owner (Washington Constitution article 1 § 16).</p> <p>In Oregon, “an authority may acquire, by the exercise of the power of eminent domain, any real property which it deems necessary for its purposes after adoption by it of a resolution declaring that the acquisition of the real property described therein is necessary for such purposes” (Oregon Revised Statute 456.145).</p>

Term	Definition
Endangered species	A species (population of organisms) that is in danger of becoming extinct. Causes of endangerment can include population size, excessive predation, loss of supporting habitat, or other threats.
Endangered Species Act (ESA)	A 1973 federal law designed to protect threatened and endangered species of fish, wildlife, and plants.
Environmental Impact Statement (EIS)	A document that outlines the impacts of a proposed action on the surrounding natural and built environments. It also describes potential measures to reduce or mitigate those impacts. See also Supplemental EIS .
Ethnicity	The fact or state of belonging to a social group that has a common national or cultural tradition.
Eutrophication	An increase in the concentration of chemical nutrients in an ecosystem to a degree that the primary productivity of the ecosystem is affected. Effects of eutrophication can be beneficial to some species but harmful to others. For example, one chemical nutrient may nourish one species, but in high concentrations may be toxic to other species. In the Pacific Northwest, for example, certain algal blooms—so-called red tides—can cause chemicals harmful to humans to accumulate in shellfish.
Evolutionarily Significant unit (ESU)	A population of organisms that is considered distinct from similar organisms for purposes of conservation. In the Pacific Northwest, species of salmon (Chinook, coho, chum, etc.) are further subdivided into ESUs for purposes of management and recovery. See also distinct population segment .
Executive Steering Group (ESG)	One of three advisory groups formed to guide the IBR Program. The ESG is a panel of representatives from regional partner agencies and the Community Advisory Group co-chairs. The ESG provides guidance and recommendations on key IBR Program issues.
Express bus	A bus that operates point-to-point service—generally during peak times—that typically connects outlying points to business cores without intermediate stops.
Extradosed bridge	A bridge type that is a hybrid superstructure that fills the gaps between spans, usually accommodated by girder spans and cable-stayed spans. It supports superimposed loads of the superstructure through a combination of girder action and cable-supported action between pylons. In contrast, a cable-stayed bridge supports all of the superimposed load on the superstructure between the pylons through the cable stays.
Federal navigation channel	A U.S. Army Corps of Engineers (USACE) Civil Works project authorized by the U.S. Congress under which USACE is responsible for the establishment and ongoing maintenance of navigation channels in navigable waterbodies.
Filter strip	A vegetated strip of land between a potential source of polluted runoff, such as a highway, and a receiving waterbody. The filter strip is planted with vegetation that slows the runoff and aids in removing sediment or other pollutants before the runoff enters the receiving waterbody.
Floodplain	A flat or nearly flat area adjacent to a stream or river that is subject to periodic flooding during high stream or river flows.
Flyover ramp	A ramp that crosses over (above) another ramp or portion of a highway.
Full acquisition	The purchase of all ownership interest in a parcel of land.
Gantry	Structures used to support overhead signs. Gantry signs are commonly used on highways and can also be used to hold cameras for toll road entrances or exits.
Geographic information system (GIS)	An electronic (computer) system that stores and displays information linked to a location.

Term	Definition
Guideway	A transit right-of-way separated from general purpose vehicle transit. A guideway may have train tracks or separated bus lanes.
Headway	Scheduled time between two transit vehicles passing the same point traveling in the same direction on a given route.
High-capacity transit (HCT)	A public transportation service that operates in a dedicated guideway and moves a large number of people at high frequency; examples include bus rapid transit and light-rail transit .
High-occupancy vehicle (HOV)	Motorized vehicles designed to carry more than a specific minimum number of passengers, mainly buses, vanpools, and carpools, and permitted to use a travel lane reserved for such vehicles.
High-occupancy vehicle (HOV) lanes	One or more lanes of a roadway that have restrictions on use to encourage ridesharing and can reduce vehicle miles traveled . Traffic lanes may include restrictions for the number of occupants allowed in the vehicles, and enforcement may vary by time of day.
Hydrology	The flow of water in and through a given area, including the volume of water, where it drains, and how quickly the flow rate changes in a storm.
Inclusion	Elimination of barriers that prevent the full participation of all people.
Indirect effects	Reasonably foreseeable effects caused by an action, but that are later in time or farther removed in distance. Indirect effects may include induced growth, changes in land use or population patterns, and effects on air, water, and ecosystems.
Induced demand	A phenomenon that can occur when improving accessibility, roadway capacity, and public transit, along with changes in land use, lead to a rise in demand from more people accessing the transportation system.
Induced growth/development	Population growth or development that results from one or more project actions. For example, building or improving a highway may result in easier access to the area, which may in turn lead to the growth of business or residential uses near the highway.
Interchange Area Management Plan (IAMP)	A joint ODOT and local government long-term land use and transportation plan designed to balance and manage transportation and land use decisions in areas planned for future use as a highway interchange. An IAMP helps to ensure that local land use plans and actions are and remain compatible with the eventual use of the land for transportation purposes.
Interstate 5 (I-5)	The main north-south interstate highway on the West Coast of the United States. I-5 runs largely parallel to the Pacific Coast of the contiguous United States from Mexico to Canada.
Interstate Bridge Replacement (IBR) Program	A joint effort by the states of Oregon and Washington to replace the aging, structurally vulnerable Interstate Bridge over the Columbia River with modern, seismically resilient, multimodal structures that can reliably serve the Portland-Vancouver region into the next century.
Interstate Bridge	The existing I-5 river crossing over the Columbia River that consists of two bridge spans. One of the bridge spans is at least 105 years old and is at risk of collapse in the event of a major earthquake. Both bridge spans no longer serve the needs of commerce and travel.
Jurisdictional waters	Waters under the jurisdiction of the U.S. Army Corps of Engineers as granted by the federal Clean Water Act. Although specific determinations must be made, jurisdictional waters typically include waterways and their associated wetlands.

Term	Definition
Lahar	A flow of volcanic material (such as rock debris and gases) and water that travels quickly and can cover great distances. Lahars typically flow downstream of a volcano within a river valley.
Landscape unit	A portion of a given landscape considered separately from the entire landscape for purposes of analysis and comparison.
Lead agency	One of three designations of agencies under the NEPA environmental review process. A lead agency is the agency carrying out the federal action and is responsible for complying with the requirements of NEPA. In some cases, such as the IBR Program, more than one federal agency is designated as a federal lead agency. Federal agencies, together with state agencies, local agencies, and/or tribes, may act as joint lead agencies. Lead agencies prepare the environmental documentation for a project and oversee the NEPA process.
Level of service (LOS)	<p>A qualitative measure of the effectiveness of one or more elements of transportation infrastructure. LOS is most commonly used to describe roadway performance, but it can also be applied to transit, intersections, or other infrastructure elements. The American Association of State Highway and Transportation Officials defines the following levels of service:</p> <ul style="list-style-type: none"> A Free flow B Reasonably free flow C Stable flow D Approaching unstable flow E Unstable flow F Forced or breakdown flow
Light-rail transit (LRT)	A form of high-capacity transit that operates in its own fixed guideway and is powered by overhead electrical current. TriMet operates light-rail in the Portland metropolitan area.
Limited English proficiency	Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English. Federal laws prohibit discrimination based on national origin. Many individual federal programs, states, and localities also have provisions requiring language services for individuals with limited proficiency in English.
Liquefaction	A phenomenon associated with earthquakes in which sandy to silty, water-saturated soils lose strength and behave like a fluid. As seismic waves pass through saturated soil, the structure of the soil distorts and spaces between soil particles collapse causing ground failure. In general, young, loose sediment and areas with high water tables are the most vulnerable to liquefaction.
Local bus	Operates throughout the day and week with frequent stop spacing.
Locally Preferred Alternative (LPA)	A project alternative chosen by local and regional supporting agencies as the best overall alternative to meet a project's purpose and need. The FTA- and FHWA-preferred alternative is the same as the LPA. Once chosen, the LPA is advanced for more detailed study. Selection of the LPA does not constitute selection or approval by a project's lead agency(ies) or commitment of funding for a project. The decision whether to construct a project and the precise alternative to be constructed are documented in the ROD after the Final EIS or Final SEIS is approved.
Micromobility	A term encompassing alternate modes of transportation including bicycles, electric bicycles, electric scooters, electric skateboards, and shared bicycles.

Term	Definition
Mitigation	Actions taken to minimize or compensate for negative or undesirable effects of an action. Mitigation may be required by law for unavoidable effects on the environment or on members of the public who are displaced or disadvantaged by project actions. Environmental mitigation may be conducted at the site of impact or at a different site in the general project area.
Mode	A singular, well-defined method or form of transportation. Common modes are car, truck, bus, light-rail, bicycle, and pedestrian.
Modified Locally Preferred Alternative (LPA)	Refers to an agreed-upon set of components for further evaluation through the NEPA environmental review process. For the IBR Program, the Modified LPA is not the final design, but it is a key milestone setting the direction to test and evaluate plans for a new multimodal river crossing system.
Moment magnitude scale	A scale that represents the amount of energy released by an earthquake. It has replaced the use of the Richter scale because it measures a wider range of energies. Like the Richter scale, the moment magnitude scale is a logarithmic scale; units are represented as Mw. An increase of 1.0 on the scale represents roughly a 32 times increase in the amount of energy released. Moment magnitude scale measurements are similar to but not precisely equal to Richter scale values.
Multimodal	Refers to a transportation system—in whole or in part—that provides for more than one mode of transportation. For example, the Modified LPA would provide infrastructure for several modes (single-occupancy vehicles, trucks, light-rail, bus, bicycles, and pedestrians) to cross the Columbia River.
National Environmental Policy Act (NEPA)	Enacted in 1970, NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. To meet this requirement, federal agencies prepare a detailed environmental document, which can be an environmental assessment or Environmental Impact Statement .
National Historic Preservation Act (NHPA)	A 1966 federal law designed to protect historic, cultural, and archaeological sites.
National Register of Historic Places (National Register)	This official list of historic places worthy of preservation is part of the National Park Service’s program to coordinate and support public and private efforts to identify, evaluate, and protect America’s historic and archaeological resources. The National Register and the efforts of the National Park Service to develop and maintain the register are authorized by the National Historic Preservation Act of 1966.
Neighborhood cohesion	The ability of people to communicate and interact with each other in ways that lead to a sense of community as reflected in the neighborhood’s ability to function and be recognized as a singular unit.
NEPA re-evaluation	Joint NEPA regulations from the FHWA, FTA, and Federal Railroad Administration include a process for re-evaluating environmental documents or decisions to determine whether the original document or decision remains valid or if a supplemental or new analysis (e.g., a supplemental environmental impact statement) is required.
No-Build Alternative	The alternative under which no project-related action would be built. The No-Build Alternative is carried through the NEPA process and analyzed for effects as a way to formally compare the effects of the proposed build alternative with what is likely to happen if the build alternative is not constructed. Note that “no-build” does not mean “do nothing.” The No-Build Alternative analysis considers other projects that are already planned and that are reasonably certain to be constructed, as well as other anticipated changes in conditions (e.g., projected population growth).

Term	Definition
No-build conditions	Conditions that are predicted to occur if no project-related action is constructed. No-build conditions and conditions predicted to occur under the build alternative(s) are generally compared for a specific time in the future; year 2045 for the IBR Program.
Notice to supplement (NTS)	A published document, similar to a new EIS 's Notice of Intent, informing the public of an upcoming supplemental environmental analysis for a proposed project.
Noxious weeds	Invasive plant species that have been designated by county, state, or national agricultural authorities as injurious to agricultural or horticultural crops, natural habitats, ecosystems, humans, or livestock.
Nuisance species	Non-native species that are invasive and that threaten the diversity or abundance of native species, or that cause adverse effects on human health or use of the environment.
OR	Highway designation in Oregon, e.g., OR 140.
Ordinary high water mark	The water level that a non-tidal waterbody reaches with sufficient frequency to leave visible evidence on the landscape. Typically, this is not the peak water level, but the level that a waterbody reaches twice in a given water year.
Participating agency or participating tribe	One of three designations of agencies under the NEPA review process. Participating agencies and tribes are federal, state, and local agencies and tribal governments that have an interest in the Program under review. Each participating agency or tribe has the opportunity to participate in Program meetings, open houses, and workshops, in addition to reviewing and providing comments on various NEPA documents. Non-governmental organizations and private entities cannot serve as participating agencies.
Partial acquisition	The purchase of only a portion of a parcel of land, or limited rights to use a property, rather than acquiring the entire parcel.
Peak period	Informally known as “rush hour,” this term refers to the time of the day when traffic volumes in an urban area are greatest and when travel patterns generate the most traffic, especially in a certain direction.
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.
Performance standards	Local traffic impacts are measured by impacts to intersection level of service , delay, and queuing. WSDOT, ODOT, the City of Vancouver, and the City of Portland have adopted performance standards for intersections. Further description of these standards can be found in the Transportation Technical Report.
Piles	Wooden, concrete, or metal supports that are pushed or driven into the ground to support a permanent or temporary structure. Piles are typically driven deep into the soil until they reach dense soil or bedrock.
Pleistocene age	A period of time in the Earth's history. The Pleistocene age extended from approximately 1.6 million to approximately 11,000 years before the present. During this time an occurrence of one of the earth's ice ages during which ice and glaciers advanced and retreated over a significant portion of the earth's surface
Precast (concrete)	A concrete structure that is cast into shape before being moved into place as a complete unit or as part of a larger structure.
Primary study area	The 5-mile segment of I-5 from State Route 500 in Vancouver to approximately Columbia Boulevard in Portland.
Program Area	The Program area extends along I-5 from approximately Columbia Boulevard in the south to State Route (SR) 500 in the north.

Term	Definition
Protected Bicycle Lane	See Separated Bicycle Lane .
Purpose and Need	A formal statement adopted by the lead agencies that identifies and describes the transportation problems that a program or project is seeking to address. The IBR Program’s purpose and need statement, which was developed for the CRC project, identifies six transportation problems: growing travel demand and congestion; impaired freight movement; limited public transportation operation, connectivity, and reliability; safety and vulnerability to incidents; substandard bicycle and pedestrian facilities; and seismic vulnerability.
Queuing	A line of waiting vehicles. Examples of common locations for queues to form include at a ramp meter , a traffic signal, or waiting to turn from a left-turn lane.
Ramp meter	A signaling device at a highway on-ramp, usually a red-green stoplight, that regulates the flow of traffic entering the highway. The signaling device is connected to a traffic sensor that registers the volume of traffic on the highway and adjusts the signal timing to allow smooth entry and merging of vehicles onto the highway.
Recognized Environmental Conditions (REC)	Defined by ASTM E1527-21 as, “...the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.”
Recommended Design Options	The design options recommended by the IBR Program were informed by environmental and technical considerations, agency and tribe input, and public feedback.
Record of Decision (ROD)	A formal public document issued by the regulating agency(ies) that constitutes federal approval of an environmental impact statement for a proposed highway or transit project under NEPA . The ROD is the document that authorizes the relevant state transportation department(s), local jurisdiction(s), or transit agency(ies) to proceed with the design, property acquisition, construction, and transit operation (if applicable) of the project, based on the availability of funding.
Regulatory agencies	Federal, state, and local agencies that can monitor and enforce laws and regulations affecting a capital project.
Reliability	The ability of users to predict the travel times required for particular trips when referring to transportation or transit.
Riparian	The area between a stream or river and the adjoining upland areas. Riparian habitats provide important ecological functions for aquatic and terrestrial species.
River mile (RM)	The measure, in miles, of the distance from the mouth of a river or stream, following the course of the river or stream. The mouth of the river or stream is RM 0.
Screening criteria	A set of metrics used to evaluate and score the effectiveness of various transportation improvement options, usually weighed against a no-build option .
Section 106	Section 106 of the National Historic Preservation Act of 1966 requires that federal agencies consider the effects of their undertakings on historic resources. This includes identifying any such resources—historic properties, buildings, structures, etc.—that could be affected by the project, assessing the possible adverse effects of the project on these resources and finding ways to avoid, minimize, or mitigate these adverse effects.
Section 4(f)	Section 4(f) of the U.S. Department of Transportation (USDOT) Act concerns transportation projects that would use or impact any significant public park, recreation area, wildlife or waterfowl refuge, or historic site. Section 4(f) applies to impacts caused by programs and policies undertaken by the USDOT.

Term	Definition
Section 6(f)	Section 6(f) of the Land and Water Conservation Fund Act concerns parks and recreational facilities that have received funding through this act. Section 6(f) applies to impacts caused by programs and policies of a federal agency.
Separated Bicycle Lane	That part of the highway adjacent to the roadway that is designated for bicycle travel, separated by a street buffer that contains a vertical element (e.g., curb, parking).
Special status species	A species with special regulatory status due, for example, to its rarity, sensitivity, or other factors. Special status species or their habitat may be especially sensitive to development.
Shared-use path	A path that accommodates more than one mode of travel or type of use. In the IBR Program, a shared-use path is typically a path that accommodates walkers, bicyclists, and rollers.
Signal priority	Signal priority refers to traffic signal timing that adjusts red and green lights to give preference to transit vehicles such as buses or light-rail trains and to provide preferential green lights for emergency response vehicles.
Single-point urban interchange (SPUI)	Also called a single-point diamond interchange, this type of highway interchange is similar to a diamond interchange , but it allows left turns to proceed simultaneously by compressing the two “diamond” intersections into a single intersection over or under the free-flowing road. The term “single-point” refers to the fact that all through traffic on the minor road and left-turning traffic is to be controlled by a single set of traffic signals.
Sole source aquifer	An underground water supply designated by EPA as the sole or principal source of drinking water for an area.
Species of concern	An informal term referring to species that are considered at risk by agencies concerned with their conservation or survival.
Staging	See construction staging .
State Environmental Policy Act (SEPA)	A Washington state law that identifies and assesses environmental impacts associated with private or public construction projects.
State Route (SR)	A Washington state highway designation (e.g., SR 20).
Stormwater	Flowing surface water that results from precipitation events (i.e., rain and snow) or from snowmelt. Stormwater management is a concern of transportation projects and of municipal water systems, as untreated stormwater that flows off of highways, parking lots, or other impervious surfaces can carry pollutants into soils or groundwater.
Stormwater infiltration	The process by which stormwater sinks into the soil and becomes groundwater that, in turn, feeds rivers, streams, lakes, and underground water sources such as aquifers .
Subsurface easement	The right to use a specific portion of land beneath the surface for a defined purpose, without owning the surface of the land itself.
Supplemental Environmental Impact Statement (SEIS)	A supplement to a draft or final EIS is required when either an agency makes substantial changes to the proposed action that are relevant to its environmental concerns or there are significant new circumstances or information relevant to the environmental concerns that have relevance to the proposed action or its impacts. Following an agency’s decision to supplement its EIS , it prepares, publishes, and files the supplement in the same fashion as a draft or final EIS .
Swale	A marshy or moist land, or a shallow, narrow trough-like depression that carries stormwater runoff or snow melt.
Temporary construction easement (TCE)	The right to use land for a limited time for construction, after which the rights revert to the landowner.

Term	Definition
Terminus or termini	The end point of a transit service line. Termini is the plural form.
Thalweg	The deepest part of a river cross section.
Threatened species	A species that is vulnerable to extinction in the near future.
Throughput	The number of users being served at any time by the transportation system.
Title VI	Refers to Title VI of the Civil Rights Act of 1964. This law prohibits the exclusion of anyone from participation or benefit from a federally funded program on the grounds of race, color, or national origin.
Tolling	The practice of charging a fee for use of a transportation facility such as a highway. There are several types of tolling: charging a fixed fee; charging a variable fee based on the type of vehicle, time of day, or volume of traffic; tolling a section of highway; and so-called cordon pricing which charges a fee to enter a particular area such as a metropolitan area. Tolling is generally used to help meet the cost of constructing or operating the facility, but it is also as a transportation demand management tool.
Total maximum daily load (TMDL)	Under the U.S. Clean Water Act, the maximum amount of a given pollutant that a body of water can receive and still meet published water quality standards.
Transfers	Funds from local or regional sources spent on a project that would otherwise be spent by residents and businesses on other economic activities within the region.
Transit-oriented development (TOD)	Urban development that is designed to provide access to and encourage the use of public transit such as buses or light-rail trains.
Transportation demand management (TDM)	Measures that seek to reduce the number of vehicles using the road system, especially single-occupancy vehicles, while providing alternative options to auto travel.
Transportation system management (TSM)	Measures that attempt to improve the efficiency of existing roadways. These include a variety of techniques focused on keeping drivers informed and moving as safely, efficiently, and reliably as possible.
Troutdale aquifer	An aquifer that underlies a portion of the city of Vancouver and Clark County, Washington. The Troutdale aquifer is a critical water resource for this area and, according to EPA, provides approximately 99% of the available drinking water to people in this area. The EPA has designated this resource as a sole source aquifer for Clark County. Considered as a geologic feature, this is referred to as the Troutdale Formation.
Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) (Uniform Act)	This act provides protections and assistance for people whose real property is acquired or who must move as a result of projects receiving federal funds. The act requires that such people be treated fairly and equitably, and that they receive assistance in moving from the property they occupy.
Vehicle miles traveled (VMT)	The total number of miles that residential vehicles are driven in a specified period of time for a given area or transportation facility.
Viewer sensitivity	Considers the combined effect of the activities a viewer is engaged in, the visual context, and the values, expectations, and interests of the viewer.
Viewshed	The portion of the landscape that can be seen from within a project area and that has views of the project area. The boundaries of a viewshed are determined by the surrounding topography, vegetation, and built environment.

Term	Definition
Visual quality	What viewers like and dislike about visual resources that compose the visual character of a particular scene. Different viewers may evaluate specific visual resources differently based on their interests in natural harmony, cultural order, and project coherence. Neighbors and travelers may, in particular, have different opinions on what they like and dislike about a scene.
Volatile organic compound (VOC)	Organic (i.e., carbon-based) compounds that are easily volatilized and that can affect human health or the environment.
Voltage	Voltage is like the “electrical pressure” in an electrical line. It is measured in volts (V) or kilovolts (kV). This pressure produces an electrical field that extends out from the line and is measured in volts per meter (V/m). Current in an active electrical line also produces a magnetic field around the line.
Volume/capacity (V/C) ratio	The ratio of the traffic demand at a given intersection, that is, the number of vehicles attempting to pass through the intersection in an hour, under prevailing conditions, to the number of vehicles that can actually pass through that intersection in an hour. With a V/C ratio of < 0.85, vehicles can generally pass through the intersection without significant delays or queues. But as the V/C ratio nears 1.0, traffic flow slows, and with a V/C ratio > 1.0, traffic flow becomes unstable and vehicles can expect to wait at least one signal cycle to pass through the intersection.
Water column	A conceptual column of water from the surface to the bottom of the waterbody. This concept is useful in analyzing the thermal or chemical strata and mixing in a waterbody.
Water quality	Refers to the characteristics of the water such as its temperature and oxygen levels, how clear it is, and whether it contains pollutants.
Waters of the State/U.S.	Waters determined to be under the jurisdiction of the U.S. Army Corps of Engineers, or of a state regulatory authority. These waters are protected under the Clean Water Act and by various state statutes. They generally include navigable waters, interstate waters, wetlands, and tributaries. Activities that would impact such waters require permitting by the appropriate agency(ies).
Watershed	An area of land from which all water under or on that area drains to the same place, generally the same waterbody. Watersheds vary in shape and size as determined by topography and geology, and can cross city, county, state, or even national boundaries.
Wetland	An area of land that is inundated or saturated at such a duration that hydric soil conditions form and that hydric vegetation can develop. Specific regulatory criteria must be met for an area to be delineated as a wetland. Wetlands generally include areas such as marshes, bogs, and swamps, and they provide important ecological functions such as groundwater recharge.
Wetland buffer	An area adjacent to a wetland that provides support functions for species that live in and around wetlands and reduces the impacts of human disturbance on the wetland.
Wildlife corridor	An area of habitat that connects wildlife populations separated by human activities or structures.