

100-year flood. The flood having a one percent chance of being equaled or exceeded in magnitude in any given year. Contrary to popular belief, it is not a flood occurring once every 100 years.

Abatement. Reducing the degree or intensity of, or eliminating, pollution.

Air quality standards. The level of pollutants prescribed by regulations that may not be exceeded during a given time in a defined area.

Area of Potential Effect (APE). The geographic area in which a project may cause alterations in the character or use of historic properties, or cultural and archaeological resources.

Average daily traffic. The total number of vehicles passing over a segment of roadway, in both directions, on a typical day.

Average sound level. (See “Leq”).

A-weight. A standard frequency weighting to stimulate the response of the human ear. A-weighted decibels are denoted with “dBA.”

Best management practices (BMPs). A variety of common management techniques that have been determined to be the most effective, practical means of preventing or reducing environmental effects from non-point sources. These practices are continually being improved.

Brownfield site. Sites that are underused or abandoned due to confirmed or suspected environmental contamination.

Build alternative. For an environmental analysis, the term refers to an alternative under consideration other than a “no action” or “no build” alternative. A no action or no build alternative usually refers to a situation where the transportation infrastructure remains as is.

Capacity. The maximum sustained traffic flow of a transportation facility, expressed in passenger cars per hour per lane, under prevailing traffic and roadway conditions in a specified direction.

Carbon dioxide (CO₂). A colorless, odorless gas produced by burning fossil fuels, sometimes referred to as a greenhouse gas because it contributes to earth warming.

Centennial farm. A farm that has been in production and under the same family ownership for 100 years or more.

Compensatory mitigation. Unavoidable effects are compensated for by providing replacement resources often in higher quantities than the original resource.

Congestion. A condition characterized by unstable traffic flows that prohibit movement on a transportation facility at optimal legal speeds. Recurring congestion is caused by constant excess volume compared with capacity. Nonrecurring congestion is caused by unusual or unpredictable events such as traffic accidents.

Conservation Reserve Program (CRP). A program for agricultural landowners to establish long-term, resource-conserving covers on eligible farmland. Landowners receive annual rental payments based upon the agriculture rental value of the land, in addition to cost-sharing assistance for establishing approved conservation practices.

Context sensitive solutions. Solutions that supplement a road project's transportation objectives by providing planning for its effects on aesthetic, social, economic, and environmental values, needs, constraints, and opportunities in a larger community setting.

Cumulative effects. The effects on the environment that result from the incremental consequences of an action when added to other past, present and reasonably foreseeable future actions.

dBA. Noise is measured by decibels (dB) and A-weighting is applied to the dB measurement to better represent the range of human hearing. A change in sound of 3 dBA is the minimum difference audible by the human ear.

Direct impact. The impact on the environment that is caused by an action and occurs at the same time and place.

Dispersion. The process by which a substance or chemical spreads and dilutes in water or gas.

Ecology's 303(d) list. Section 303(d) of the federal Clean Water Act requires Washington State to periodically prepare a list of all surface waters in the state for which beneficial uses are impaired by pollutants such as temperature, fecal coliform bacteria, nutrients, and toxic substances.

Emission. Pollution discharged into the atmosphere from smokestacks, other vents, and surface areas of commercial or industrial facilities, and from residential and mobile sources.

Emission factor. The relationship between the amount of pollution produced and the amount of raw material processed. For example, an emission factor for a blast furnace making iron would be the number of pounds of particulates per ton of raw materials.

Environment. The sum of all external conditions affecting the life, development, and survival of an organism.

Environmental assessment (EA). A document that evaluates significant short-term and long-term effects of a program or project. It also identifies ways to avoid, minimize, and mitigate these effects.

Environmental impact statement (EIS). A document that identifies and analyzes, in detail, environmental impacts of a proposed action. As a tool for decision-making, the EIS describes positive and negative effects, and lists alternatives for an undertaking.

Environmental justice. The fair treatment of people of all races, cultures, incomes, and educational levels, with respect to the development and enforcement of environmental laws, regulations, and policies. Fair treatment implies that no population should be forced to shoulder a disproportionate share of exposure to the negative effects of pollution due to lack of political or economic strength.

Environmental justice populations. Under Presidential Executive Order 12898, federally funded projects must attempt to identify, avoid, minimize, and mitigate disproportionate effects to low-income and minority populations.

Ephemeral stream. A stream that only carries flowing water during and shortly after rain events. There is no supplemental source for stream flow.

Exposure. The amount of radiation, noise, or other pollutant present in a given environment that represents a potential health threat to living organisms.

Farmland of Statewide Importance. Other than prime farmland, it is farmland that is of statewide importance for the production of food, feed, fiber, forage, or oil seed crops, as determined by the state agency or agencies, using U.S. Department of Agriculture guidelines.

FEMA floodplain. A floodplain mapped and regulated by FEMA as part of their National Flood Insurance Program.

FEMA floodway. The channel of a river or other watercourse and the adjacent land areas that must be unconfined or unobstructed, either vertically or horizontally, to provide for the discharge of the base-year flood (usually 100-year).

Floodplains. Lowlands that are relatively flat, which are subject to flooding in any given year.

Floodway. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

FONSI. A Finding of No Significant Impact briefly presents why an action does not have a significant effect, and includes and references the EA.

Footprint Report. A comparison between different routes based on how constructible they are, their costs, right-of-way requirements, access impacts, and their potential for social, economic, and environmental impacts.

FOSI. A Finding of Significant Impact briefly presents why an action is expected to have a significant impact and what those impacts would be.

Geographic Information System (GIS). Digital computer mapping, overlays, and spatial data analysis.

Group A and B wells. Group A groundwater supply wells serve 15 or more households; Group B groundwater supply wells serve between 2 and 14 households.

Growth Management Act (GMA). Washington State legislation passed in 1990 and subsequently amended that requires long-range comprehensive plans prepared by cities and counties to be balanced with supporting transportation infrastructure (RCW 36.70A).

Heavy vehicles. All vehicles are classified by weight. Heavy vehicles include tractor-trailers (semis), concrete mixers, dump trucks, fire trucks, and buses.

Highway permeability. The ability of wildlife to cross highways safely. Designated wildlife crossings such as with bridges or tunnels increases highway permeability.

Hydrocarbons (HC). Chemical compounds that consist entirely of carbon and hydrogen. Hydrocarbons contribute to air pollution problems, like smog.

Indirect effects. Effects that occur as a result of a proposed project, but take place later in time or are further removed in distance from the proposed project.

Intactness. The integrity of visual order in the natural and man-built landscape, and the extent to which the landscape is free from visual encroachment.

Integrated Vegetation Management (IVM). The establishment of low-maintenance beneficial vegetation and the suppression of unwanted vegetation through integration of biological, cultural, manual, mechanical, and educational tactics. Chemical controls are used only when needed. IVM uses plant growth characteristics, principles of plant succession, and knowledge of natural and human-related factors affecting environmental change to achieve management goals, while minimizing impacts on the environment.

Interagency Project Team (IPT). A collection of resource experts from the federal, tribal, state, and local governments, and the private sector. These experts contribute input during the NEPA process to ensure the consideration of all potential impacts on natural, social, and economic resources present within the project area and geographic region.

Inversion. An atmospheric condition caused by increasing temperature with elevation, resulting in a layer of warm air preventing the rise of cooler air trapped beneath. This condition prevents the rise of pollutants that might otherwise be dispersed. Trapping pollutants near the ground increases ozone to harmful levels.

Jurisdiction. A municipal government agency, such as a city or county. As appropriate, the term “jurisdiction” also includes federal and state agencies, and federally recognized tribes.

Lead agency. The agency with the primary responsibility for complying with either federal or state regulations.

Leq. Equivalent sound level. The level of a constant sound which, in a given time period, has the same energy as does in a time-varying sound.

Leqhr. The equivalent sound level measured over a period of one hour.

Level 1 environmental summary. A preliminary, corridor-level review of environmental conditions and potential effects of the project alternatives. This level of analysis is a means of providing the design team with environmental information early in the planning process.

Level of service (LOS). A gauge for evaluating system performance for roadways, nonmotorized and other transportation modes. For example, roadway measures of level of service often assign criteria based on volume-to-capacity ratios.

Liquifaction. The transformation of a granular soil from a solid state to a liquified state, often as a consequence of strong earthquake shaking.

Loess. Soils composed of mixed accumulations of fine-grained clay and silt. They are created by glaciers and deposited by the wind.

Logarithm. The exponent that indicates the power to which a number must be raised to produce a given number. For example, if $B^2=N$, the 2 is the logarithm of N (to the base of B), or $10^2=100$, and $\log_{10} 100=2$. Also abbreviated to “log.”

Logical termini. As defined by FHWA: 1) rational beginning and end points for a transportation project, and 2) rational beginning and end points for a review of environmental impacts.

Mitigation measures. Actions taken to reduce adverse effects on the environment, usually implemented under the State Environmental Policy Act (SEPA) and/or the National Environmental Policy Act (NEPA).

Monitoring. Periodic or continuous surveillance or testing to determine the level of compliance with statutory requirements and/or pollutant levels in various media or in humans, plants, and animals.

National Environmental Policy Act (NEPA). Federal legislation adopted in 1969 that establishes a national environmental policy focused on Federal activities and the desire for a sustainable environment balanced with other essential needs of present and future generations. The fundamentals of the NEPA decision-making process include: an interdisciplinary approach in planning and decision-making for actions that affect the human environment, interagency coordination, consideration of alternatives, examination of potential environmental consequences and mitigation, documentation of the analysis, and making the information available to the public for comment prior to implementation.

National Wetland Inventory (NWI). A series of maps developed by the USFWS, mapping wetlands nationwide.

No Build alternative. The NEPA requires that each EA include a “No Action” alternative, which for most highway construction projects is called the “No Build” alternative. This alternative establishes the baseline for comparing negative and positive effects of all other alternatives on social, economic, and environmental resources.

Obligate species. Any type of wildlife that must have a certain kind of habitat to survive. In the context of this EA, it means species that rely on shrub-steppe habitat.

Particulate. A very small solid suspended in air or water which can vary widely in size, shape, density, and electrical charge. Particulates in quantities are called particulate matter (PM).

Peak hour. The period of the day during which the maximum amount of travel occurs.

Perennial stream. A stream that carries flowing water year-round.

PM₁₀. A standard for measuring the amount of solid or liquid matter suspended in the atmosphere, i.e., the amount of particulate matter less than 10 micrometers in diameter; smaller PM₁₀ particles penetrate to the deeper portions of the lung, affecting sensitive population groups, such as children and individuals with respiratory ailments.

Pollutant. Generally, any substance introduced into the environment that adversely affects the usefulness of a resource.

Preferred alternative. For an environmental analysis, the term refers to the alternative identified from a comprehensive evaluation of all reasonable and feasible alternatives.

Prime farmland. Farmland that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oil seed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion.

Receptor. An organism that receives, may receive, or has received environmental exposure to a chemical.

Recognized environmental condition. 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 into structures on the property or into the ground, groundwater, or surface water of the property.

Roadside Master Plan (RMP). The RMP will address highly erodible soils, revegetation of unstable slopes, establishment of native plant species in disturbed areas of ROW, and control of invasive non-native plants. The RMP will be developed during design of Phases 7 and 8 and implemented during construction.

Roadway deficiencies. Conditions that do not fully meet highway access management standards as set by the state of Washington Administrative Code. For example, the number and spacing of intersection streets, roads, and private drives shall be consistent with the highway classification and designated uses.

Scale. Scale is the apparent size relationships between landscape components or features and their surroundings.

Section 106. A federal review process that ensures the consideration of historic properties during planning and execution of projects with federal involvement. Codified in regulation as 36 CFR 800 and implements Section 106 of the National Historic Preservation Act of 1966.

Section 4(f). Department of Transportation Act of 1966 [23 USC, Section 138 - formerly 49 USC 1653(f)].

Section 4(f) and 6(f) resources. Section 4(f) applies to projects that directly or indirectly affect publicly owned parks, recreation areas, wildlife or waterfowl refuges, or historic sites. Section 6(f) of the Land and Water Conservation Funds Act applies to projects that directly or indirectly affect publicly owned outdoor recreation property acquired or developed with moneys from the Recreation and Conservation Office.

Sensitive receptor. All land use categories where FHWA noise abatement criteria specify exterior and interior noise levels. This includes residences, hospitals, schools, churches, libraries, hotels, and recreation areas.

SEPA Adoption Notice. Used to “adopt” a previously prepared environmental document that adequately analyzes the environmental effects of a proposed project to meet the requirements of the SEPA; for example, an EA and FONSI prepared under the NEPA.

Shorelines. All of the water areas of the state, including reservoirs, and their associated wetlands, together with the lands underlying them, except shorelines:

- of state-wide significance;
- on segments of streams upstream of a point where the mean annual flow is 20 cubic feet per second or less, and the wetlands associated with such upstream segments; and
- on lakes less than 20 acres in size, and wetlands associated with such small lakes.

Shrub-steppe habitat. A type of low rainfall environment common across much of the western U.S., dominated by sagebrush, shrubs, and perennial bunchgrasses.

Slope. An area of landform surface differentiated from other areas by its degree of slope. It is a component of landforms but not limited in place or extent. Examples: cliff, gentle slope, flat plain.

Source permit. Permits issued by the Washington State Department of Ecology when rock crushers, concrete, or asphalt batch plants are used at a project location. These permits are required by Title V of the Federal Clean Air Act in accordance with 40 CFR Part 70

State Environmental Policy Act (SEPA). State legislation passed in 1974, which establishes an environmental review process for all development projects and major planning studies prior to taking any action on these projects. SEPA promotes early coordination to identify and mitigate any significant issues or impacts that may result from a project or study.

Standards. Limits on the amount of pollutants or emissions produced. The EPA establishes minimum standards, but states are allowed to be stricter.

Toxic chemical. Any chemical listed in U.S. EPA rules as “Toxic Chemicals Subject to Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986”.

Type 1 project. A federally funded, proposed highway project that will construct a highway in either a new location, or will significantly alter an existing highway’s vertical and horizontal alignment, or increase the number of lanes.

Unity. The degree to which the visual resources of the landscape join together to form a coherent, harmonious visual pattern. Unity refers to the compositional harmony or intercompatibility between landscape elements.

View. A scene observed from a given vantage point.

Visual impact. The degree of change in visual resources and viewer response to those resources caused by highway development and impact.

Visual quality. While many factors contribute to a landscape's visual quality, they can ultimately be grouped under three headings: vividness; intactness; and unity.

Visual resources. The appearance of the features that make up the visible landscape. Includes the land, water, vegetation, animal, and other features.

Vividness. The memorability of the visual impression received from contrasting landscape elements as they combine to form a striking and distinctive visual pattern.

Wetland. Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that, under normal circumstances, do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

Wetland buffer. The upland area surrounding wetlands that serves to moderate biological and physical alteration of the wetland. The buffer widths are determined by the local agency with jurisdiction.

Work plan. Outline of the project scope of work to identify historic properties and heritage resources within the project corridor.

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