GLOSSARY

100-year flood	A flood event of such magnitude that it occurs, on average, every 100 years; this equates to a 1-percent chance of its occurring in a given year. A base flood might also be referred to as a 100-year storm. The area inundated during the base flood is sometimes called the 100-year floodplain.
Abandonment	A discontinuance of service on a rail line segment, with no intention of resuming that service. The abandonment of a rail line removes that line from the jurisdiction of the Surface Transportation Board, and enables the railroad to salvage or discard track materials, and dispose of the right-of-way.
Air quality	A measure of the concentrations of pollutants, measured individually, in the air.
Alluvial fan	A fan-shaped deposit formed where a fast-flowing stream flattens, slows, and spreads, typically at the exit of a canyon onto a flatter plain.
Alluvium	Sediment such as clay, silt, and sand deposited by flowing water, as in a riverbed, floodplain, or delta.
Ambient	(1) Undisturbed, natural conditions such as ambient temperature caused by climate or natural subsurface thermal gradients. (2) Surrounding conditions.
Ambient air quality standards	Federal or state standards that define the limits for airborne concentrations of designated criteria pollutants (nitrogen dioxide, sulfur dioxide, carbon monoxide, particulate matter with aerodynamic diameters equal to or less than 10 microns and 2.5 microns, ozone, and lead) to protect public health with an adequate margin of safety (primary standards) and to protect public welfare, including plant and animal life, visibility, and materials (secondary standards).
Ambient noise	The existing noise, or the sum of all noise (from human and naturally occurring sources), at a specific location over a specific time.
Anadromous	Anadromous fish reproduce in freshwater and the offspring migrate to the ocean to grow and mature, and return to freshwater to reproduce.
Associated facilities	Facilities that are part of the proposed action and that would be constructed to support rail activities such as communications towers, a passenger facility, and sidings and are necessary for operation of the rail line.
Applicant	Any person or entity seeking Surface Transportation Board action whether by application, petition, Notice of Exemption, or any other means that initiates a formal Board proceeding.

Area of Potential Effects	The geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of the undertaking and may be different for different kinds of effects caused by the undertaking. (36 CFR 800.16(d))
At-grade crossing	The location where a local street or highway crosses rail line tracks at the same level or elevation.
Attainment area	An area the U.S. Environmental Protection Agency has classified as complying with National Ambient Air Quality Standards specified under the Clean Air Act.
A-weighted decibels	Adjusted decibel level. A measure of noise used to compare noise from various sources. A-weighting approximates the frequency response of the human ear.
Ballast	Crushed stone that forms the railbed upon which railroad ties are laid. It is packed between, below, and around the ties and is used to facilitate water drainage and to distribute the load from the railroad ties.
Balls or flappers	Brightly colored balls are attached to transmission lines to provide greater visibility. Flappers are used to deter birds and other wildlife from landing on transmission lines.
Bear interaction plan	A plan to minimize the interaction between humans and bears; often details garbage management.
Best management practices	Techniques that various parties (e.g., the construction industry) use to minimize impacts to the environment.
Bioaccumulation	Gradual build up of chemicals (e.g., pesticides or other toxic substances) in an organism.
Biological assessment	Information prepared by, or under the direction of, a Federal agency to determine whether a proposed action would be likely to (1) adversely affect listed species or designated critical habitat, (2) jeopardize the continued existence of species that are proposed for listing, or (3) adversely modify proposed critical habitat. Biological assessments must be prepared for “major construction activities.”
Blazed section lines	Section lines marked (usually using paint on trees) by a surveyor.

Block group The smallest geographic unit for which the U.S. Census provides information on racial background, ethnic heritage, and household income. The population of a block group typically ranges from 600 to 3,000 and is designated to reflect homogeneous living conditions, economic status, and population characteristics. Block-group boundaries follow visible and identifiable features, such as roads, canals, railroads, and above-ground high-tension power lines.

Borrow area/pit Site from which earthen material is excavated and used at a different site, usually as fill to create the proper grade.

Braided river A river consisting of a network of small channels separated by small, often temporary, islands.

Branch line A secondary line of rail line usually handling light volumes of traffic.

Brush layering A revegetation technique that combines layers of dormant (living woody plants that are not actively growing) or rooted cuttings with soil to revegetate and stabilize streambanks and slopes; branches are placed to provide reinforcement to the soil.

Brush mattressing A revegetation technique that provides a protective vegetative covering (in the form of a brush mat of dormant branches that will root and grow) to a slope.

Camp layout The configuration for temporary housing facilities.

Census block group *See* block group.

Channel aggradation Deposition and accumulation of sediments in a stream channel.

Channel plug A natural or manmade plug that blocks the flow of water through a riverbed or culvert.

Channel reorientation Lateral or downstream shifting of a river channel.

Class 4 Standards For Class 4 track, the maximum allowable operating speed is 60 miles per hour for freight trains and 80 miles per hour for passenger trains. Track class designation between 1 and 9 is determined by the Federal Railroad Administration and characterizes the quality and condition of track. The track geometry and type of track structure govern the allowable speed over the track and the level of upkeep to maintain the track.

Closed forest A forest with tree canopy coverage of 60 to 100 percent.

Coir logs Interwoven coconut fibers that are bound together with biodegradable netting and provide temporary physical protection to a site while vegetation becomes established; often used to secure the base or toe of a slope in low velocity areas.

Condition	As used in this Environmental Impact Statement, a provision the Surface Transportation Board imposes as part of a final decision that requires action by an Applicant.
Conductors	Part of a transmission line through which electricity passes.
Construction camp	A facility designed and intended for temporary use to house construction workers.
Construction staging area	A designated area where vehicles, supplies, and construction equipment are positioned for access and use at a construction site.
Conveyance structure	A structure to convey water (e.g., a pipe, culvert, or bridge).
Core-and-blade technology	Use of core tools, made by the removal of flakes from a core, and blade tools.
Criteria air pollutant	Any of six pollutants (lead, carbon dioxide, sulfur dioxide, nitrogen dioxide, ozone, and particulate matter) regulated under the Clean Air Act, and for which areas must meet National Ambient Air Quality Standards.
Criteria of significance	The criteria the Surface Transportation Board's Section of Environmental Analysis has developed to determine whether a potential adverse environmental impact would be significant and could warrant mitigation.
Critical habitat	The specific site within the geographical area occupied by species listed as threatened or endangered that includes the physical or biological features essential to conservation of the species. These areas might require special management considerations or protection. These areas can include specific sites outside the geographical areas occupied by the species at the time of listing that are essential for the conservation of the species.
Cumulative effects/ impacts	Impacts to the environment that result from the incremental impact of a proposed action when added to other past, present, and reasonably foreseeable future actions, regardless of which agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.
Cut	Cutting away from the top of a slope to fill in at the bottom, thereby providing a suitable grade for the rail roadbed. *See* fill.
Day-night average noise level	The energy average of A-weighted decibels sound level over 24-hours; includes a 10-decibel adjustment factor for noise between 10 p.m. and 7 a.m. to account for the greater sensitivity of most people to noise during the night. The effect of nighttime adjustment is that one nighttime event, such as a train passing by between 10 p.m. and 7 a.m., is equivalent to 10 similar events during the daytime.

Decibel A standard unit for measuring sound pressure levels based on a reference sound pressure of 0.0002 dyne per square centimeter. This is nominally the lowest sound pressure people can hear.

Deck girder bridge A bridge with its deck built on top of girders (support beams), which are placed on bridge abutments and foundation piers.

Dedicated easement An easement upon which there is established a legal right-of-way or formal landowner permission for public access along its entire length.

Deep-draft Pertaining to water-going vessels with drafts greater than 15 feet.

Direct impact An effect that results solely from implementation of an action without intermediate steps or processes. Examples include habitat destruction, soil disturbance, air-pollutant emissions, and water use.

Dispersed-use access A management concept that encourages use over an entire area, rather than concentrated in a particular area.

Drumlin fields A cluster of drumlins (elongated hills formed by glaciers) that have the same size, shape, and orientation.

Early stages of egg incubation Could occur any time between spring and late fall depending on the fish species and location.

Effects For an Environmental Impact Statement, the positive or negative (adverse) consequence of an action (past, present, or future) on the natural environment (land use, air quality, water resources, geological resources, ecological resources, aesthetic and scenic resources) and the human environment (infrastructure, economics, social, and cultural).

Emergent vegetation Aquatic plants with growth that emerges above the water.

Emissions Air pollutants that enter the atmosphere.

Endangered species A species of plant or animal that is in danger of extinction throughout all or a significant portion of its range and is protected under Federal and/or state regulations.

Equalization culvert A culvert placed under the rail bed to allow for water flow at a location other than a waterbody.

Equipment For a railroad, a term used to refer to the mobile assets of the railroad, such as locomotives, freight cars, and on-track maintenance machines. This term is also used more narrowly as a collective term for freight cars operated by this railroad. Also known as rolling stock.

Equivalent sound levels A single value of sound level for any desired duration (such as 1 hour), which includes all of the time-varying sound energy in the measurement period. Equivalent sound levels correlates reasonably well with the effects of noise on people, even for wide variations in environmental sound levels and time patterns. It is used when only the durations and levels of sound, and not their times of occurrence (day or night), are relevant.

Essential Fish Habitat The waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (Magnuson-Stevens Act, 16 U.S.C. 1801 *et seq*). Waters include aquatic areas and their associated physical, chemical, and biological properties and can include aquatic areas historically used by fish where appropriate; substrate includes sediment, hard bottom, structures underlying the waters, and associated biological communities; necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and spawning, breeding, feeding, or growth to maturity covers a species' full life cycle.

Fault A fracture or a fracture zone in crustal rocks along which there has been movement of the fracture's two sides in relation to one another, separating one continuous rock stratum or vein into parts.

Fill (1) The term the U.S. Army Corps of Engineers uses to refer to the placement of materials (e.g., soils, aggregates, concrete structures) within water resources under Corps of Engineers jurisdiction. (2) General term for materials (e.g., soils, aggregates) deposited in an area for construction purposes, such as to modify a grade.

Final Scope of Study Serves as the work plan for preparing a Draft Environmental Impact Statement. Developed by reviewing scoping comments after scoping meetings are held to determine what issues will need to be assessed in the Environmental Impact Statement.

Flood Insurance Rate Maps Maps available from the Federal Emergency Management Agency that delineate the flood insurance rates of an area. The maps are based on the potential for 100-year and 500-year flooding in the area.

Floodplain The lowlands adjoining inland and coastal waters and relatively flat areas and flood-prone offshore islands, including, at a minimum, those areas that have a 1 percent or greater chance of flood in any given year (also known as a 100-year or a Zone A floodplain).

Floodway The portion of the available flow cross section that cannot be obstructed without causing an increase in the water-surface elevations resulting from a flood with a 100-year average return period of more than a given amount.

Footprint The area that would be covered by the rail line or rail line construction and operations support facilities. For certain of these facilities (for example, quarry sites), this would be the area inside the site fence line.

Fugitive dust	Particulate matter discharged to the atmosphere from the mechanical disturbance of granular material exposed to the air, but not discharge to the atmosphere in a confined flow stream.
Geographic Information System	A computer system designed to store, retrieve, manipulate, analyze, and display geographic data. The Geographic Information System combines mapping and databases.
Geotechnical borehole	A narrow shaft drilled into the ground to obtain information on the physical properties of the rock and soil below the ground surface.
Glacial moraine	Material, ranging from silt to boulders, deposited by the movement and melting of glaciers.
Glaciofluvial	Pertaining to streams fed by melting glaciers, or to the deposits and landforms produced by such streams.
Grade (related to a rail line)	The ratio of elevation change to the distance traveled by a train, expressed as a percent. For example, a 1-meter (3.28-foot) change in elevation over 100 meters (328 feet) of track is a 1-percent grade.
Grade crossing	*See* at-grade crossing.
Grade separation	*See* grade-separated crossing.
Grade-separated crossing	The site where a local street or highway crosses rail line tracks at a different level or elevation, either as an overpass or as an underpass.
Graminoid	Grasses and grass-like plants such as sedges.
Greenhouse gas	Atmospheric gases that absorb and emit thermal infrared radiation. Water vapor, carbon dioxide, methane, nitrous oxide, ozone, and chlorofluorocarbons are common greenhouse gases in Earth's atmosphere.
Ground vibration	The rapid linear motion of a compression wave in the ground caused by a single or repeated force or impact to the ground, as in the action of a pile driver or a tire hitting a bump or pothole in a road.
Grounded hardware	Hardware used on or in conjunction with transmission lines that is connected to the ground so as to prevent an electrical short.
Groundwater	Water contained in pores or fractures in either the unsaturated zone or saturated zone below ground level.
Grubbing	First order of work on most construction projects. Clearing and grubbing includes removal of trees, stumps, roots, and other matter resting on the surface of the ground.
Guy line	A rope or cable used to provide support and stability to a structure.

Habitat The place(s) where plants or animal species generally occur(s) including specific vegetation types, geologic features, and hydrologic features. The continued survival of the species depends on the intrinsic resources of the habitat.

Hazardous chemical As defined under the Occupational Safety and Health Act (Public Law 91-956) and the Emergency Planning and Community Right-to-Know Act (42 U.S.C. 116), a chemical that is a physical or health hazard.

Hazardous materials Substances or materials the Secretary of Transportation has determined are capable of posing an unreasonable risk to human health, safety, and property when transported in commerce, as designated under 49 CFR Parts 172 and 173.

Hazardous wastes Waste materials that, by their nature, are inherently dangerous to handle or dispose of (e.g., old explosives, radioactive materials, some chemicals, some biological wastes), as designated under 40 CFR Part 261. Usually, industrial operations produce these waste materials.

Hertz A unit of frequency equal to one cycle per second.

Horn noise (train) Noise that occurs when locomotives sound warning horns in the vicinity of highway/rail at-grade crossings.

Hydric soils Soils that formed under condition of saturation, flooding, or ponding long enough during the growing season to develop anaerobic or oxygen-free conditions in the upper part.

Hydrology Study of the movement, distribution, and quality of water throughout Earth.

Hydrophytic vegetation Plants adapted to living in or on an aquatic environment.

Hyporheic zone A region beneath and lateral to a stream bed, where there is mixing of shallow groundwater and surface water.

Ice jam The build-up of ice chunks resulting from rapid breakup of frozen waterbodies. Occurs when the combination of warm temperatures and heavy rain cause snow to melt rapidly, which then can cause frozen waterbodies to swell and experience multiple ice breaks. Ice jams can cause flooding in areas by blocking the flow of water.

Impact *See* effects.

Impaired waterbody Any waterbody that is too polluted to maintain its beneficial uses as defined by state and tribal water quality standards.

In attainment The U.S. Environmental Protection Agency designates an area as being in attainment for a particular pollutant if ambient concentrations of that pollutant are below the National Ambient Air Quality Standards.

Indirect impact	An effect that is related to but removed from a proposed action by an intermediate step or process. Examples include surface-water quality changes resulting from soil erosion at construction sites, and reductions in productivity resulting from changes in soil temperature.
Industrial spurs	A railroad siding industries use to store freight cars for loading and unloading.
Intermodal	Involving the use of more than one mode of transport.
Interstitial spaces	The open spaces in a rock or soil, considered collectively.
Invasive plant species	An alien species, the introduction of which does or is likely to cause economic or environmental harm or harm to human health (Executive Order 13112, *Invasive Species*, February 3, 1999).
Jurisdictional wetland	A wetland that the U.S. Army Corps of Engineers regulates under Section 404 of the Clean Water Act (33 U.S.C. 1344).
Jute matting	An organic geotextile that forms a mulch that suppresses weed growth and increases moisture retention in the soil to promote revegetation.
Kames	Geologic features formed by retreating glaciers. Hills or mounds composed of sand, gravel, and till and are irregularly shaped.
Lateral migration	Erosional process in which the side to side movement of the stream undercuts the bank causing lateral growth of the stream channel and increased meander bend amplitude.
Late-succession forests	A forest that includes mostly mature and old-growth trees.
Leachate	The liquid than drains from a landfill.
L_{eq}	Level equivalent, which is the energy-averaged sound pressure level over a specified time interval.
Level of service	A degree of peak congestion experienced by roadway vehicle traffic that considers factors such as vehicle delay, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Traffic analysts express level of service as letter grades, ranging from A (free flowing) to F (severely congested); they measure level of service by the average for all vehicles.
Locomotive, road	A locomotive (or engine) designed to move trains between yards or other designated points.
Locomotive, switching	A locomotive (or engine) used to switch rail cars in a yard, between industries, or in other areas where rail cars are sorted, spotted (placed at a shipper's facility), pulled (removed from a shipper's facility), and moved within a local area.

Long-term impact	In this Environmental Impact Statement, these potential impacts would result from permanent changes to the landscape or community due to the introduction of the physical presence of the proposed rail line and associated facilities. These impacts remain long after construction of the facility has ended.
Low ground pressure construction vehicles	Construction equipment that is either lighter-weight than normal, or has a higher surface area to distribute its weight, either by using tracks instead of tires or larger or a greater number of tires.
Low-income population	A population composed of persons whose median household income is below the Department of Health and Human Services poverty guidelines.
Main line	Railroad line used by through trains traveling between terminals.
Mean high water line	The point on a streambank at which surface water is so continuous that the streambank is marked by erosion, absence of woody terrestrial vegetation, or predominance of aquatic vegetation.
Mineral fines	A generic term given to a range of primary mineral materials that have been ground into fine powder.
Minority population	A population composed of persons who are Black (non-Hispanic), Hispanic, Asian American, American Indian, or Alaska Native.
Mitigation	In an Environmental Impact Statement, an action taken to prevent, reduce, or eliminate adverse environmental effects.
Moraine	A deposit of earthen material left on the ground by receding glaciers. The deposits are often composed of boulders, stones, gravel, sand, and other debris deposited on the landscape in the form of ridges, mounds, and irregular masses.
Morphology	The structure of landforms and processes that shape them. Processes that mold natural water bodies include erosion, transport, and deposition of sediment.
Motive power	Locomotives operated by the railroad.
Munitions and explosives of concern	Military munitions that might pose unique safety risks. These include unexploded ordnance, discarded military munitions, or munitions constituents present in high enough concentrations to pose an explosives or other health hazard
Munitions constituents	Any materials originating from unexploded ordnance, discarded military munitions, or other military munitions, including explosive and nonexplosive materials, and emission, degradation, or breakdown elements of such ordnance or munitions.
Muskegs	An acidic soil type found in Arctic and boreal areas composed of decomposing plants and surface-level water tables.

National Ambient Air Quality Standards	Air pollutant concentration limits established by the U.S. Environmental Protection Agency for the protection of human health, structures, and the natural environment.
National Flood Insurance Plan	A Federal program administered by the Federal Emergency Management Agency that enables property owners to purchase insurance as protection against flood losses in exchange for state and community floodplain management regulations that reduce future flood damages.
National Register of Historic Places	Administered by the National Park Service, the *National Register of Historic Places* is the Nation's master inventory of known historic properties, including buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the Federal, state, or local levels.
National Wetlands Inventory	An inventory of wetland types in the United States compiled by the U.S. Fish and Wildlife Service.
Native American	Of or relating to a tribe, people, or culture indigenous to the United States (25 U.S.C. 3001 *et seq*.; Public Law 101-601).
Navigable waters	Any body of water that may be publicly used for business or transportation; in the United States, each state determines what private uses may occur in intrastate navigable waters, but the Federal Government has authority over navigable interstate and international waters.
Nephalometric turbidity units	The standard unit of measurement used to measure turbidity in water. It makes use of a light-scattering effect of fine suspended particles in a light beam.
Noise	Any undesired or unwanted sound.
Noise contour	Line plotted on a map or drawing connecting points of equal sound levels.
Noise-sensitive receptor	Location where noise can interrupt ongoing activities and can result in community annoyance, especially in residential areas. The Surface Transportation Board's environmental regulations include schools, libraries, hospitals, residences, retirement communities, and nursing homes as examples of noise-sensitive areas.
Nonattainment area	An area that the U.S. Environmental Protection Agency has classified as not complying with the National Ambient Air Quality Standards promulgated under the Clean Air Act.
Nonnative invasive plants	Plants that are not native to an area, have few or no natural predators and, therefore, proliferate easily in an area which adversely affects the ecology of the areas they invade, often resulting in the loss of native plant life due to overwhelming competitive pressures.
Nonpoint source pollution	Water pollution coming from non-specific, dispersed sources, such as agricultural area runoff draining into a river.

Noxious weed Non-native plants that spread quickly and are difficult to control, invading a variety of habitats and causing ecological and economical damage.

Official trail A recreational trail that has been specifically established within currently adopted plans by ADNR and/or MSB or is established within these plans at the time of construction or ROW conveyance (whichever occurs first), and is located on state, MSB property, or whose location is provided for by recorded ROW or easement. ARRC proposed to provide public access by a grade-separated crossing where practicable, or the trail could be relocated to avoid crossing the rail line. The design of the crossing would accommodate existing trail users at the time of construction or ROW conveyance (whichever occurs first). ARRC would coordinate with the trail owner and consult with user groups as appropriate where the crossing location may have to be relocated to accommodate a grade-separation, or multiple crossings within one mile might be consolidated.

Open forest An open forest has tree canopy coverage of 25 to 60 percent.

Open water period Period of time during which a waterbody is not frozen.

Organic soil A soil with a high percentage of fresh, partially, or well decomposed matter.

Outwash deposit Deposits left by transported rock debris that are typically low density, and are composed of relatively clean sand and gravel.

Overburden Surface soil that must be moved away during excavation.

Overly constricting active channels Excessive narrowing of stream channels through which water current flows (as distinct from channels that currently do not convey water).

Overpressures A pressure shock wave, usually resulting from the detonation of an explosive, which measures over and above normal air or water pressure.

Oxbow A U-shaped body of water formed from a meandering river.

Palliatives A variety of products applied to roadways to control dust and reduce erosion and dust emissions.

Palustrine wetland A non-tidal wetland dominated by trees, shrubs, or persistent emergent vegetation. Includes wetlands traditionally classified as marshes, swamps, or bogs.

Particulate matter (PM) Airborne dust or aerosols.

Peak particle velocity — The measure of ground movements. Technically, the maximum instantaneous positive or negative peak of the vibration signal, measured as a distance per unit of time (such as millimeters or inches per second). Peak particle velocity is typically used to evaluate shock-wave type vibrations from actions like blasting, pile driving, and mining activities, and their relationship to building damage.

Peat — Formed when plant material is exposed to acidic and anaerobic conditions and thereby prevented from decaying fully. Peat is the accumulation of this partially decayed vegetation generally found in wetlands.

Permafrost — Ground (soil or rock and included ice and organic material) that remains at or below zero degrees Celsius for at least two consecutive years.

pH — A measure of the relative acidity or alkalinity of a solution, expressed on scale from 0 to 14, with the neutral point at 7.0. Acid solutions have pH values lower than 7.0, and basic (that is, alkaline) solutions have pH values higher than 7.0.

Platting — Mapping, at scale, divisions of a piece of land. Platting occasionally shows topographic or vegetative information as well. After platting, legal descriptions can refer to blocks and lot-numbers as opposed to portions of sections.

PM_{10} — All particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers. Particles less than this diameter are small enough to be breathable and could be deposited in lungs.

$PM_{2.5}$ — All particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers.

Point source — A distinct stationary source of air or water pollution such as a factory or sewer pipe.

Potlatch site — The locations where the potlatch festival ceremony of indigenous people of the Pacific Northwest Coast in North America is practiced. The main purpose of the ceremony is to redistribute and reciprocate wealth.

Prime farmland — According to the Natural Resources Conservation Service, land having the best combination of physical and chemical characteristics for producing food, feed forage, fiber, and oilseed crops.

Qualitative — With regard to a variable, a parameter, or data, an expression or description of an aspect in terms of non-numeric qualities or attributes. *See* quantitative.

Quantitative — A numeric expression of a variable. *See* qualitative.

Quiet zone An area in which locomotive warning horns are not sounded at at-grade highway-rail crossings. The Federal Railroad Administration has primary authority over quiet zones which can be established pursuant to the process in 49 CFR Parts 222 and 229, Use of Locomotive Horns at Highway-Rail Grade Crossings, Final Rule.

Rail line segment For the purposes of this Environmental Impact Statement, portions of rail line alternatives that extend between two junction points.

Rail string A continuous steel-reinforced beam outfitted with a rail head and reinforced with multiple pre-stressed steel wire ropes.

Rail yard A location or facility with multiple tracks where rail operators switch and store railcars.

Rare species Species that have small total populations that presently are not in danger or vulnerable, but are at risk for extinction.

Receptor *See* noise-sensitive receptor.

Recharge A hydrologic process whereby water moves downward from surface water to groundwater.

Redd A depression created by the upstroke of a female salmon's body and tail, vacuuming up the gravel at the river bottom and using the river's current to drift it downstream. Hundreds of eggs are deposited in redds by the female during the 2 days she is spawning. Redds are highly visible in streams and are marked by clean exposed white gravel.

Resident fish streams Streams that support fish that do not migrate and remain year-round.

Revetment A structure installed on river banks that functions as a protective shoreline barrier by absorbing energy from incoming water.

Right-of-way The strip of land for which an entity (e.g., a railroad) has a property right (e.g., by fee simple ownership or easement) to build, operate, and maintain a linear structure, such as a road, rail line, or pipeline.

Rill A shallow slit into soil caused by erosion from overland flow that is concentrated into a thin path because of soil surface roughness.

Riparian Generally describes vegetative communities located on the banks of natural waterbodies such as rivers, lakes, and tidewater areas.

Riprap Hard rock used to protect sensitive areas, such as a shoreline, from erosion.

Riverine All wetlands and deepwater habitats contained with in a channel, either naturally or artificially created.

Roadbed, rail The earthwork foundation upon which the track, ties, ballast, and subballast of a rail line are laid.

Root-mean-square velocity A measure of ground vibration in decibels used to compare vibration from various sources.

Root-mean-square vibration velocity An average of smoothed vibration amplitude, commonly measured over 1-second intervals. It is expressed on a log scale in decibels referenced to 0.000001 inch per second and is not to be confused with noise decibels.

Salmonid Belonging to the family Salmonidae, which includes the salmon, trout, and whitefish.

Scarify To break up or loosen surface soil, generally to facilitate revegetation.

Scarp Topographic faulting caused by the displacement of the land surface by movement along a fault due to erosion along an old inactive geologic fault with hard and weak rock, or by movement on an active fault.

Scoping Scoping is a process designed to examine a proposed project early in the environmental analysis/review process, and is intended to identify the range of issues raised by the proposed project and to outline feasible alternatives or mitigation measures to avoid potentially significant environmental effects. The scoping process inherently stresses early consultation with responsible agencies, trustee agencies, tribal governments, and any Federal agency whose approval or funding of the proposed project would be required for completion of the project. Scoping is considered an effective way to bring together and resolve the concerns of other agencies potentially affected by the project and other stakeholders such as businesses and the general public.

Scour The destructive effect that flowing water has on a submerged object over time.

Sedges A family of flowering plants that resemble grasses or rushes, often associated with wetlands or areas with poor soils.

Seismic Pertaining to, characteristic of, or produced by, earthquakes or earth vibrations.

Seismic source Tool that generates controlled seismic energy used in both reflection and refraction seismic surveys.

Seismicity The production of seismic waves, either intentionally to gather subsurface images for exploration purposes, or unintentionally (earthquakes and tremors).

Sensitive habitat areas Areas containing or supporting organisms that are rare or valuable; these areas are often designated by a governmental entity.

Sensitive receptor *See* noise-sensitive receptor.

Short-term impact In this Environmental Impact Statement, these are impacts that result from construction operations or some other temporary physical change to the environment.

Siding A railroad track parallel to a main track that is connected to the main track at each end. A siding is used for the passing and/or storage of trains.

Sole source aquifer The U.S. Environmental Protection Agency defines a sole or principal source aquifer as one that supplies at least 50 percent of the drinking water consumed in the area overlying the aquifer. These areas have no alternative drinking water source(s) that could physically, legally, and economically supply all those who depend on the aquifer for drinking water.

Spans A section between two intermediate supports of a beam or bridge, for example, made of a solid beam or of a rope.

Statutory easements An agreement, either temporary or permanent, that allows access to a piece of property for a specific use.

Strike-slip A form of tectonics associated with the structures and processes linked to zones of lateral displacement within plates. Strike-slip earthquakes are associated with the surficial transformation boundaries between plates. Areas of strike-slip tectonics are furthermore associated with oceanic transform boundaries, continental transform boundaries, lateral ramps in areas of extensional/contractional tectonics, zones of oblique collision, or the foreland of continent-continent collision zones.

Subballast A layer of crushed gravel that is used to separate the ballast and roadbed for the purpose of load distribution and drainage.

Subduction The act of two plates of crust colliding, where the more dense crust dives beneath the less dense continental plate.

Subsidence The movement of the Earth's surface as it shifts downward, induced by mining, faulting, isostatic rebound, dissolution of limestone, groundwater-related, or natural gas extraction.

Substrate The material resting at the bottom of a stream that impacts the stream life. Substrate types include mud, sand, granule, pebble, cobble, and boulder.

Succession The gradual and orderly process of ecosystem development brought about by changes in community composition.

Successional stages A natural progression of plant inhabitation of bare ground, often occurring in different stages; e.g., initially annuals and perennials, then small woody plants, then trees.

Surface organic mat A dense clump of vegetative matter, usually found floating on the surface of a waterbody.

Switch	The portion of the track structure used to direct rail cars and locomotives from one track to another.
Switching	The activity of moving rail cars from one track to another in a yard or where tracks go into a railroad customer's facility.
Take or taking	Refers to the removal of property, an acquisition of right-of-way, or a loss and/or degradation of species' habitat.
Tank car	A type of freight car that shippers use to ship liquids and liquefied gasses in bulk.
Thaw-unstable permafrost	Permafrost in poorly drained, fine grained soils, especially silts and clays that contain more ice than water; unstable because thawing can result in loss of strength, excessive settlement, and soil containing so much moisture that it flows.
Thermal erosion	The erosion of ice-bearing permafrost through warming.
Thermoregulation	An organism's ability to maintain its body temperature within certain boundaries regardless of external environment temperatures. This is a function of homeostasis.
Threatened species	A species likely to become endangered within the foreseeable future throughout all or part of its range and is protected by state and/or Federal law.
Threshold for environmental analysis	A level of proposed change in rail line activities that determines the need for an environmental review by the Surface Transportation Board's Section of Environmental Analysis. The Section of Environmental Analysis first applies the Board's thresholds for environmental analysis at 49 CFR Part 1105. The Board thresholds apply specifically to air quality and noise. For other issue areas, the Section of Environmental Analysis has developed appropriate thresholds to guide its environmental review.
Till	Glacial drift made of an unconsolidated mixture of sediment such as clay, sand, pebbles, cobbles, and boulders. As a glacier melts, till is washed downstream and deposited as outwash in sandars by rivers flowing from the glacier.
Ton-mile	The movement of 1 ton of cargo or equipment over a distance of 1 mile.
Track class	Designation between one and nine by the Federal Railroad Administration to characterize the quality and condition of track. Track geometry and type govern the allowable speed over the track and the level of upkeep to maintain the track. For Class II track, the maximum allowable operating speed for freight trains is 25 miles per hour and for passenger trains is 30 miles per hour.
Trophic	The feeding levels in a food chain, with green plants forming the first trophic level – the producers. Herbivores comprise the second trophic level, while carnivores form the third and fourth.

Turnout The portion of rail line structure where a single track divides into two tracks.

Underfit streams A stream too small to have eroded the valley in which it is found; it is typically expected for a valley to be in proportion with the stream that flows through it. Underfit streams are generally caused by the modification of the landscape by glaciation, thus creating glacial troughs and causing the river to be disproportionate with the valley size after the ice retreats.

Unofficial trail A trail that is not specifically established within currently adopted plans by ADNR and/or MSB or is established within these plans at the time of construction or ROW conveyance (whichever occurs first), and whose location is not provided for by recorded ROW or easement. ARRC does not propose to provide crossings for unofficial trails. Unofficial trails would be blocked, and ARRC's trespassing regulations would prohibit the public from crossing of the ROW without first obtaining approval from ARRC.

Water-bar An erosion control structure, such as a log or timber installed across a trail; used to intercept flowing water and divert it into a stable drainage way or vegetated area.

Watercourse A natural or artificial channel through which water flows.

Waters of the U.S. Streams, drainages, or washes under the jurisdiction of the U.S. Army Corps of Engineers under the Clean Water Act as defined at 33 CFR Part 328.3a. The Army Corps of Engineers and the U.S. Environmental Protection Agency regulate the placement of dredged or fill material into these waters. The definition incorporates channels with ephemeral and intermittent flow that exhibit specific physical features, including channel shape and surrounding vegetation, that would provide indications of an ordinary high-water mark.

Wayside Adjacent to the rail line, as in "wayside signals" or "wayside defect detectors."

Wayside noise Train noise adjacent to the right-of-way that comes from sources other than the horn, such as engine noise, exhaust noise, and noise from steel train wheels rolling on steel rails.

Wetlands According to 40 CFR Part 230.41, those "areas that are inundated or saturated by surface or ground water 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," generally including swamps, marshes, bogs, and similar areas.

Wye connection A triangular shaped arrangement of tracks with a switch at each corner. With a sufficiently long track leading away from each corner, a train of any length can be turned.