

**DEFINITIONS**

100 minimum convex polygon	A method of defining animal home range by completely enclose all data points by connecting the outer locations to create a convex polygon
absolute humidity	Actual mass of water vapour present in the air-water vapour mixture
acid rock drainage	Acid rock drainage occurs when minerals containing sulphide and elemental sulphur are exposed to oxygen and water, and the acidity resulting from the oxidation of sulphur is entrained by water
aggradation	Increase in river bed elevation over time due to net bed material deposition
air quality criteria	Criteria, expressed as objectives and standards, developed by environmental and health authorities to provide guidance for environmental protection decisions. These criteria may be based on the effects of the contaminant on human health, wildlife, vegetation, and aesthetic qualities such as odour or visibility.
alkalinity	A measurement (expressed in milligrams per litre of calcium carbonate) of the capacity of water to neutralize acids. The concentration is measured based on the presence of naturally available bicarbonate, carbonate, and hydroxide ions.
alluvial	Formed by the deposition of water-transported sediment
alluvial fan	A fan-shaped landform created by sediment deposition at a location where a confined river enters an unconfined valley or plain
alluvium	Soil deposited by a river
ambient air quality	State of outdoor air quality from an environmental perspective, usually measured based on concentrations of contaminants in the air
ambient concentration	Measure of the level of a contaminant in the atmosphere, typically at ground level, expressed as a mass per volume of air (e.g., micrograms per cubic metre, or $\mu\text{g}/\text{m}^3$ ) or volume of contaminant per volume of air (e.g., parts per billion, or ppb).
ambient sound level (ASL)	All noises that exist in an area and are not related to a facility under study. Ambient noise may include sound from other existing industrial facilities, transportation sources, animals, and nature. Context for ambient noise should be defined for each project.
ammonia-nitrogen	The overall concentration of nitrogen in both the ionized ( $\text{NH}_4^+$ ) and molecular ( $\text{NH}_3$ ) forms of dissolved ammonia. The ammonia concentration is reported as nitrogen, where the weight of the nitrogen is ignored in the analysis.
ampere (amp) (A)	The International Standard unit of electric current that is produced by one volt applied across a resistance of one ohm
anthropogenic	Caused by human activity

aquatic habitat	Water environment in which an organism normally lives or occurs
aquatic productivity	The rate of generation of biomass in an aquatic ecosystem
area source	Stationary source of air pollutants that is too small and too numerous to require an authorization under Ministry of Environment laws. In emission inventories, this is a diffuse source of air contaminant emissions or a grouping of sources (e.g., home heating in a residential area). In dispersion modelling, it is treated as a two-dimensional source (or grouping of sources) of diffuse air contaminant emissions that emanates from a broad area (e.g., amalgamated emissions from mobile equipment and/or general activities in an open pit, fugitive dust from stockpiles).
atmosphere	The layer of air covering the earth's surface
atmospheric conditions	The state of the atmosphere in terms of temperature, wind, clouds, and precipitation. Two of the most important atmospheric factors affecting the propagation of air overpressures are: (1) temperature inversion and (2) wind. Barometric pressure and humidity have little effect and generally need not be considered.
attenuation	The reduction of sound intensity by various means (e.g., air, humidity, porous materials, etc.)
A-weighting	The sound level that emphasizes the middle frequency components similar to the frequency response of the human ear. A-weighting shows that the measured sound pressure levels have been filtered using a frequency weighting network that mimics the response of the human ear.
background	A single value representing the representative background concentration of a criteria air contaminant
bank-full water level	The water level that coincides with the top of the river bank
baseline	Air quality conditions, in terms of emissions or ambient concentrations, associated with existing sources in the study area, including all human-caused and natural sources
bed shear stress	The force per unit area of river flow applied to the bed material of the channel
bedload	Sediment transported by rolling, sliding, or hopping along the river bed
benthic	Inhabiting or being associated with the bottom sediments of a body of water
benthos	The collection of organisms that live on or in the bottom of a body of water
bioaccumulation	The progressive accumulation of a substance in a living organism above a background concentration. This occurs as a result of its intake from food and also directly from the environment via water or sediment. Methylmercury is known as a bioaccumulative substance, whereas inorganic mercury is not.
bioavailable	Available for uptake by an aquatic organism.
biodiversity	A measure of the number and relative abundance of biological species.

biological production	The change in biomass expressed as mass per unit area per unit time
biomagnification	The tendency of some chemicals to accumulate or biomagnify at higher concentrations at progressively greater levels or steps up the food web, usually through dietary accumulation
biomass	Weight of organic matter (i.e., plants and animals) in an ecosystem
biomass burial	Results from the burial of non-decomposed biomass due to sedimentation and shoreline erosion; buried biomass represents organic matter that may cease to mineralize and may become permanently stored in the sediment
biosphere	The region of earth (air, land, surface rocks, and water) where living organisms exist and biological processes occur
border ice	Ice that forms in low velocity areas close to shore, in back channels and around gravel bars
boreal climate	The climatic zone of northern temperate areas, having a subarctic climate characterized by long, usually very cold winters, and brief, warm summers
boreal reservoir	Water held above a hydroelectric dam in a boreal climate
bubble emissions	Escape of CH <sub>4</sub> from the sediment, through the water column, to the atmosphere, as rising gas bubbles
CALMET	A meteorological pre-processor that develops hourly three-dimensional meteorological fields to drive the CALPUFF dispersion model
CALPUFF	A multi-layer, multi-species, non-steady-state puff dispersion model that simulates time- and space-varying meteorological conditions on pollutant transport, transformation and deposition. It is one of the refined dispersion models approved for use by the B.C. Ministry of Environment.
Canadian Water Quality Guidelines (CWQG) for the Protection of Aquatic Life	Guidelines established by the Canadian Council of Ministers of the Environment that are used to assess the potential effects of the concentration of different water quality parameters upon aquatic life (e.g., fish, aquatic plants, and benthic invertebrates).
carbon model	A model developed to analyze the movement of carbon in a natural system; this includes a detailed account for all carbon sources, pathways and fluxes
carbon sequestration	The removal and storage of carbon from the atmosphere into carbon sinks through physical or biological processes, such as photosynthesis
carbon sink	A place where carbon, in some form, may be stored, usually as either underground as a liquid or bound biologically in vegetation or soils; something (i.e., a body of water) that has net absorption of carbon dioxide from the atmosphere
carbon stock	The quantity of carbon held within a pool at a specified time
CE-QUAL-W2	Hydrodynamic and water quality model

clearing	The removal of trees and other woody vegetation
climate	Climate is the average of the variations of weather in a region over long periods of time
climate change	Climate change is the long-term trends in the climate in a region over long periods of time
cofferdam	Cofferdams are temporary structures used to isolate areas that are ordinarily exposed to water; this enables construction works to be carried out in the dry behind the protection of the cofferdams
colluvium	Rock and soil debris that falls from a slope and accumulates at the base of the slope
combustion	A chemical reaction during which a fuel is oxidized and a large quantity of energy is released
competence	The ability of a given river flow condition to mobilize the bed material of the channel. A particular river flow condition is said to be competent if it results in movement of the bed material.
competition	An interaction between or among living things for resources, such as food or habitat
concentration	A measure of a substance in air, water, soil, or living tissue (the medium), expressed as a mass of substance per volume of medium; amount of a material per unit volume
conductivity	A measure of the ability of water to carry an electrical current. This measurement is directly related to the amount of positively and negatively charged ions in the water and can be correlated with the concentration of total dissolved solids (TDS).
consolidated ice cover	Formed when a "juxtaposed ice cover" is pushed by downstream forces of water flow and gravity and thickens beyond one frazil ice pan floe in thickness (see also "juxtaposed ice cover")
Coriolis effect	An effect where moving objects, or water, are deflected due to the rotation of the Earth. In the Northern Hemisphere, the deflection is to the right.
criteria air contaminant	Air contaminants for which British Columbia or Canada have ambient air quality criteria (objectives or standards). Criteria air contaminants include total suspended particulates (TSP), particulate matter with a diameter less than 10 microns (PM <sub>10</sub> ), particulate matter with a diameter less than 2.5 microns (PM <sub>2.5</sub> ), nitrogen dioxide (NO <sub>2</sub> ), sulphur dioxide (SO <sub>2</sub> ) and carbon monoxide (CO).
critical shear mass	The particular threshold value of bed shear stress at which the bed material begins to move
cumulative sound level	The accumulated sound level at a point of reception that includes an ambient or existing sound level and a predicted or estimated sound level from the project being assessed
daytime	Defined as the hours from 07:00 to 22:00

dBA	The decibel (dB) sound pressure level filtered through the A filtering network to approximate human hearing response at low frequencies
dBL	The linear decibel (dB) sound pressure level, or sound pressure with no filtering network applied. This is commonly used during measurement for full or one-third octave band frequencies, so that tonality or other analysis can be conducted as needed.
decibel (dB)	A unit of measure of sound pressure that compresses a large range of numbers into a more meaningful scale. Hearing tests indicate that the lowest audible pressure is approximately $2 \times 10^{-5}$ Pa (0 dB), while the sensation of pain is approximately $2 \times 10^2$ Pa (140 dB). Generally, an increase of 10 dB is perceived as twice as loud.
deciles	The percentage assigned to the components of a map polygon on the habitat maps. The decile percentages for each polygon add to a total of 100%.
degradation	Decrease in riverbed elevation over time due to net bed material erosion
degassing emissions	Emissions of CO <sub>2</sub> , CH <sub>4</sub> , and N <sub>2</sub> O resulting from a sudden change in hydrostatic pressure, as well as the increased air/water exchange surface after reservoir waters flow through a turbine or a spillway (bearing in mind that the natural aquatic system may have included waterfalls or rapids where similar processes took place prior to inundation)
degree-days of freezing	A cumulative total of daily average below freezing air temperatures – used as an index for calculating ice processes such as lodgement or for determining winter severity
deposition	Deposition is the settling of particles or gases onto a surface. Wet and dry deposition refer to the settling with or without precipitation. Typical units for dustfall deposition are milligrams per metre squared per day.
diffusive emissions	Molecular diffusion of CO <sub>2</sub> , CH <sub>4</sub> , and N <sub>2</sub> O across the air-water interface, taking into consideration that post-inundation concentrations of CO <sub>2</sub> , CH <sub>4</sub> , and N <sub>2</sub> O in the reservoir may be elevated in comparison with pre-inundation concentrations of these gases in the natural aquatic system, and that the post-inundation surface area is larger than the pre-inundation surface area
discontinuity	A plane or surface that marks a change in physical characteristics in a soil or rock mass. A discontinuity can be, for example, a bedding, foliation, joint, cleavage, fracture, fissure, crack, shear, or fault plane.
dispersion	Process by which contaminants emitted from a source mix with ambient air and are transported downwind, and thereby decrease in concentration the further they are measured from the source
dispersion modelling	Mathematical simulation of contaminant dispersion in the atmosphere used to predict downwind concentrations of contaminants
disturbance and displacement	A change in behavior due to an activity and the resultant avoidance of otherwise suitable habitats.

draft tube	The bend in the water passage downstream of the turbine runner that provides a gradual expansion to reduce the flow velocity and recover energy by converting kinetic energy into potential energy
duration curve	A graphical summary of data that shows the percentage of time (termed exceedance probability) that any data value is equalled or exceeded over the period of consideration
dustfall	The amount of particulate matter of all size classes that deposit onto a collection surface in a given amount of time
ecological communities	A term used by the B.C. Conservation Data Centre to capture the full range of ecosystems in B.C. at a variety of levels. The term "ecological" is a direct reference to the integration of non-biological features such as soil, landform, climate and disturbance factors. The term "community" reflects the interactions of living organisms (plants animals, fungi, bacteria, etc.), and the relationships that exist between the living and non-living components of the "community".
ecosystem	The compilation of living and non-living mechanisms and processes that make up any part of the living world; fundamentals of an ecosystem include plants, animals, water, and soil
ecosystem mapping	A method of mapping assemblages of plants found on the landscape
emission	Release of a contaminant into the environment, typically the air or water
emission factor	Measure of the amount of contaminant discharged into the atmosphere, expressed as a quantity of contaminant released per unit activity associated with the release (e.g., kilograms per tonne, or kg/t, of material handled; grams per vehicle kilometres travelled, or g/vkt).
emission inventory	Summary of emission rates of air contaminants from all point, area, and mobile sources in a defined area, which could be the property of an industrial facility or a geopolitical boundary
emission rate	The rate at which contaminants are released into the atmosphere from a source such as a stack. Typically expressed as a mass per unit time (e.g., grams per second, or g/s; or tonnes per year, or t/yr).
energy equivalent sound level ( $L_{eq}$ )	The $L_{eq}$ is the average A-weighted sound level over a specified period of time. It is a single-number representation of the cumulative acoustical energy measured over a time interval. If a sound level is constant over the measurement period, the $L_{eq}$ will equal the constant sound level.
entrainment	A situation where a fish is drawn into a water intake and cannot escape
exceedance probability	The percentage of time over the period of consideration in which a particular value is equalled or exceeded. This quantity forms the x-axis of a duration curve.
fixed Kernel	A statistical method of defining animal home ranges using location data.
fluvial geomorphology	The physical geometry and bed material characteristics of a river channel

fog	Visibility of less than 1 km
food web	A network of food chains or feeding relationships by which energy and nutrients are passed on from one species of living organisms to another
fossil fuel	Fuel formed in the earth's crust over millions of years from remains of living organisms (e.g., oil, coal, natural gas, or their by-products)
fragmentation	Involves the 'separation' of habitat patches into one or more pieces – a process that can result in some portion of the original habitat patch or rare plant occurrence to be lost or transformed into a less favourable or inhospitable habitat
frazil ice	Small ice crystals that form in turbulent flow once the river temperature reaches the freezing point. These are present throughout the water column. They eventually stick together, float to the surface and form frazil pans that flow down the river.
frequency	The number of times per second that the sine wave of sound or of a vibrating object repeats itself. The unit is expressed in hertz (Hz), formerly in cycles per second (cps).
frequency distribution	Displays the number of occurrences per chosen intervals, which are usually mutually exclusive and complete, i.e., each occurrence falls into exactly one interval
freshet	The flood or high water level period of a river from heavy rain or melted snow
fugitive dust	Dust released into the atmosphere as a result of the mechanical disturbance of granular material exposed to air
gas	One of the four major states of matter; consists of freely moving atoms or molecules without a defined shape or volume
gauss (G)	A unit of magnetic flux density equal to $1 \times 10^{-4}$ tesla
glaciofluvial (sediment)	Deposited by flowing glacial meltwater
global warming	Heating of the earth caused by the trapping and absorbing heat in the form of infrared radiation due to increasing concentrations of GHG in the atmosphere
global warming potential (GWP)	A measure of how much a given mass of greenhouse gas is estimated to contribute to global warming
greenhouse effect	Trapping of heat energy in the form of infrared radiation (see global warming)
grizzly	A rack of parallel thick steel bars used to separate large rock from smaller rock
groundwater	Water that occurs below ground surface
grubbing	The removal of surface organic material including stumps, brush, and root matter
hardness	A characteristic of water caused by the presence of positively charged ions such as calcium, magnesium, iron, and manganese. This parameter is expressed in milligrams per litre of calcium carbonate.

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hibernacula	Areas used in winter by hibernating animals
home range	An area used by an animal but not defended from others of the same sex or species
ice front	Also known as “leading edge”; the upstream extent of the solid ice cover
inorganic mercury	Mercury that is associated with other compounds or elements other than carbon, such as chlorine, sulphur, silver, gold, or oxygen. Elemental mercury is also a form of inorganic mercury
insectivore	An organism that primarily consumes insects (terrestrial and/or aquatic) to acquire energy; an example is rainbow trout
Intergovernmental Panel on Climate Change	The Intergovernmental Panel on Climate Change (IPCC) is a scientific body established in 1988 by the World Meteorological Organization and the United Nations Environment Program, tasked to evaluate the risk of climate change caused by human activity; this body regularly publishes reports that assess the latest scientific, technical, and socio-economic evidence on climate change
interim sediment quality guideline (ISQG)	One of two sediment guidelines derived from toxicological data. The lower of the two values are the interim sediment quality guidelines (CCME 2001). These are the concentrations at which there is the potential for biological effects to occur.
inundation	The act of covering land with water
juxtaposed ice cover	Formed when the ice floes gently come to rest edge to edge without overturning and form an ice cover that consists of ice pans a single layer thick (see also “consolidated ice cover”)
labile carbon	This form of carbon is easily available to be broken down and circulates rapidly in the environment (< 5 years). Although carbon can be quite abundant in soils and sediment, much of the carbon is inert and not easily broken down or absorbed (i.e., the non-labile fraction).
lacustrine	Inhabiting or being situated in lakes or reservoirs
lek	A place where male sharp-tailed grouse gather for the purposes of competitive mating displays
Level A objective	Provincial air quality objective. This level is the long-term goal for air quality and provides a basis for an anti-degradation policy for the unpolluted parts of the country, and for continuing development of control technology.
Level B objective	Provincial air quality objective. This level is intended to provide adequate protection against effects on soil, water, vegetation, materials, visibility, personal comfort, and well-being.
Level C objective	Provincial air quality objective. This level denotes time-based concentrations of air contaminants beyond which, due to a diminishing margin of safety, appropriate action is required without delay to protect the health of the general public.
limnetic	Inhabiting or being situated in the open water of a freshwater pond or lake.

lithology	Pertaining to the physical characteristics of a rock or soil unit
littoral	Inhabiting or being situated in shoreline aquatic habitat having a water depth <6 m
lodgement	When frazil ice pans pass through a constriction, freeze together and stop moving; This creates an ice front that travels upstream
lotic	Inhabiting or being situated in rapidly moving fresh water
maximum acceptable objective	Federal air quality objective. This level is intended to provide adequate protection against effects on soil, water, vegetation, materials, visibility, personal comfort, and well-being.
maximum desirable objective	Federal air quality objective. This level is the long-term goal for air quality and provides a basis for an anti-degradation policy for the unpolluted parts of the country, and for continuing development of control technology.
maximum tolerable objective	Federal air quality objective. This level denotes time-based concentrations of air contaminants beyond which, due to a diminishing margin of safety, appropriate action is required without delay to protect the health of the general public.
mercury	The general term used to describe the element mercury (Hg). Mercury can exist in many forms. In the context of the Site C EIS, mercury refers to any form of mercury that is found in water, sediment, soil, vegetation, and animal tissue, including invertebrates and fish, either as inorganic mercury bound to other elements (e.g., carbon, sulphur) or as methylmercury.
meteorological conditions	Prevailing environmental conditions as they influence the prediction of dispersion
methylation	The process by which inorganic mercury is transformed into methylmercury, usually mediated by sulphur-reducing bacteria in sediments. This natural process is accelerated in new reservoirs or impoundments.
methylmercury	This is the 'organic' form of mercury or CH <sub>3</sub> -Hg <sup>+</sup> whereby a mercury atom is attached to a carbon via a methyl group. This is the most toxic form of mercury and is the form that is easily absorbed and accumulated by aquatic organisms. Methylmercury typically comprises about 95% of the total mercury concentration that is present in fish.
mobile source	A non-stationary source of air emissions such as a vehicle, backhoe, tractor, ship, train, or airplane; typically associated with transportation, construction, or agriculture
mortality	Death of individuals
net emissions	Measure of a project's total greenhouse gas emissions after having accounted for existing emissions
nighttime	Defined as the hours from 22:00 to 07:00

nitrate	Nitrate represents the most oxidized chemical form of nitrogen found in natural systems. Nitrate is an inorganic compound that occurs under a variety of conditions in the environment, both naturally and synthetically. Nitrate is composed of one atom of nitrogen (N) and three atoms of oxygen (O); the chemical symbol for nitrate is NO <sub>3</sub> . Nitrite (NO <sub>2</sub> ) can be formed from nitrate by a chemical process called reduction. Nitrate does not normally cause health problems unless it is reduced to nitrite.
nitrate + nitrite	The sum of the concentrations of nitrate and nitrite
nitrous oxide	A greenhouse gas mainly resulting from the combustion of fuels and the manufacture of nitrogen fertilizers
noise	Generally defined as the unwanted portion of sound
omnivore	An organism that has a varied diet, consuming a variety of food items including algae, invertebrates and, sometimes, fish to acquire energy; an example is a sucker or whitefish
overburden	Soils that overlay bedrock
Packer test	A test consisting of isolating specific sections of a bedrock borehole with inflatable bladders so that water quality samples can be collected and aquifer tests can be conducted. A series of such tests allows definition of the vertical distribution of water quality and hydraulic conductivity in an aquifer.
particulate matter	Complex mixture of extremely small particles and liquid droplets suspended in the earth's atmosphere
particulate organic carbon	Suspended organic particulate that influences a water body's chemistry
Peace River Valley	The linear are incorporating the Peace River and its associated gravel bars, terraces and side slopes extending to the top of the slope at the level of the surrounding plateau
peak pressure level (L <sub>peak</sub> )	The maximum instantaneous sound pressure level, usually due to an event or short burst of sound; usually measured in linear decibels
peat	Partially decomposed plants and other organic materials that build up in poorly drained wetland habitats
pelagic	Inhabiting or being situated in open water aquatic habitat in a lake or reservoir having water depths > 6 m
percentile	The n <sup>th</sup> percentile is defined as the value that is greater than or equal to the n% lowest values, and equal or less than the (100-n)% highest values. For example, 1% of all data are less than or equal to the 1st percentile. The median is the value that separates the lower and the upper half of all values and therefore is equal to the 50th percentile.
periphyton	Algae attached to or clinging to plants and other objects projecting above the bottom sediments

permissible sound level (PSL)	The guideline for noise defined by the British Columbia Oil and Gas Commission. The maximum sound level (day or night $L_{eq}$ ) that a facility should not exceed at a receptor. The PSL is the sum of the base or ambient sound level, daytime adjustment, and other adjustments as defined by the British Columbia Oil and Gas Commission.
phytoplankton	Algae that live in the water column of lakes and reservoirs and large rivers and do not use bottom habitat
piezometer	A well that is used to observe water levels and measure lateral and vertical water movement, and from water quality samples can be collected
piscivore	An organism that primarily consumes fish to acquire energy; an example is an adult lake trout or bull trout
polycyclic aromatic hydrocarbons (PAHs)	Organic compounds comprised of two or more aromatic rings. These compounds are by-products of combustion and can be emitted into the environment from both natural and anthropogenic sources.
predator-prey relationships	An interaction between two organisms of unlike species in which one of them acts as predator that captures and feeds on the other organism that serves as the prey.
primary consolidation	When a juxtaposed ice cover initially consolidates (usually within a few hours or less than a day of the initial formation). This produces normal freeze-up water levels at the Town of Peace River.
primary production	The total amount of new organic matter produced by photosynthesis
probable effects level (PEL) guideline	One of two sediment guidelines derived from toxicological data. The upper of the two values are the probable effect level. These are the concentrations at which there is the potential for biological effects to occur.
ptarmigan	A member of the grouse family that lives in the artic
pTDI	The provisional tolerable daily intake concentration is a 'provisional' (i.e., subject to change) concentration that is defined by Health Canada as "the maximum amount of a chemical that can be ingested on a daily basis over a lifetime without increased risk of adverse health effects", in this case, methylmercury in fish. A conservative number below which adverse health effects have never been observed.
receptor	A discrete point at which ambient concentrations and/or depositions are predicted in a dispersion model. Receptors can be specified as a grid of discrete points over an area or as individual points representing residences and other sensitive receptors.
recruitment	The process or number of fish enter into a spatial area or become a member of a group of fish. Commonly refers to juvenile fish but can include older age classes
relative humidity	Amount of moisture actually present in the air compared to the total saturated capacity of the air at a given temperature
residence time	The mean flow rate through a river reach or reservoir divided by the volume of water in the reach or reservoir. This can be thought of as the time it takes a typical parcel of water to travel through the reach or reservoir.

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RESMERC	The Reservoir Mercury model developed by Reed Harris Environmental Inc. of Oakville, Ontario. This is a mechanistic model developed to predict concentrations of methylmercury in environmental media in newly formed reservoirs.
resource selection function modeling	A model that yields values proportional to the probability of use of a resource unit by an animal or group of animals
riparian	Inhabiting or being situated on the banks of a natural course of a river, lake or reservoir
riprap	Large rocks used to armor shorelines, streambeds, bridge abutments, pilings, and other shoreline structures against scour, water, or ice erosion. Rock for riprap must be hard, dense, angular, durable, and able to resist long exposure to weathering. Rocks used for riprap must be large enough to resist displacement by waves or currents, and the riprap layer must be thick enough to accommodate the largest rock required. Riprap is placed on a bedding layer of finer rock to prevent the large riprap settling into the foundation. Riprap is typically classified by weight, average diameter, and the amount of amount of finer and coarser material permitted. For example, rocks acceptable for class 100 riprap have an average weight of 100 kg; 85% of the rocks must be 10 kg or heavier, and rocks larger than 300 kg cannot exceed 15% of the total. The average diameter of class 100 riprap is about 450 mm.
river chainage	The distance in kilometres along the river centre line downstream of the W.A.C. Bennett Dam
roller compacted concrete (RCC)	A mix of cement, fly ash, water, sand, and aggregate that contains much less water and cementitious material than conventional concrete. RCC is placed in a manner similar to paving; the material is delivered by dump trucks or conveyors, spread by small bulldozers or specially modified asphalt pavers, and then compacted by vibratory rollers.
secondary consolidation	Consolidation of an ice cover that has already undergone primary consolidation (can be triggered by a warming in the weather after a cold spell)
secondary production	The formation of living mass of a heterotrophic population or group of populations over some period of time
sediment	Material consisting of small particles (such as sand or mud), that are suspended in or settle to the bottom of a liquid; sediment input into a water body comes from natural sources (such as erosion of soils or rock), or as a result of anthropogenic activities (such as forestry, agriculture, or construction activities); certain types of contaminants will collect on and adhere to sediment particles
sediment	Solid material that is transported by, suspended in, or deposited from water. It originates mostly from disintegrated rocks; it also includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage and quantity, and intensity of precipitation.
sedimentation	The act of depositing sediment
sediment transport capacity	The quantity of bedload that a river can transport in a given period of time based on the available power of the streamflow

sediment transport regime	The quantity, temporal pattern, grain-size distribution, and mode of transport of particulate matter by river flows
shotcrete	Concrete conveyed through a hose and pneumatically projected at high velocity onto a surface
slug Test	A type of aquifer test where water is quickly added or removed from a groundwater well and the change in hydraulic head is monitored through time, to determine the aquifer characteristics near the test well
sound	A dynamic (fluctuating) pressure
specie model	A summary of the life history requirements and habitat uses of a species. Ratings for each unique habitat mapped in the Project area are assigned based on the information in the model.
stage	Water level measured vertically from a reference level or elevation
standing stock	The total amount of biomass (e.g., fish or algae) in a body of water at a given time.
stoplogs	Horizontal steel beams that are stacked on top of each other to close a water passage. Stoplogs are installed in guides provided on each side of the water passage. Stoplogs have seals on all four sides.
stranding	A situation where fish are separated from flowing water as a result of declining river stage from rapid decreases in flow
stripping	The removal of topsoil and/or soil containing organic material
sulphur oxides (SO <sub>x</sub> )	Refers to any of the following classes of sulphur and oxygen containing compounds: lower sulphur oxides (S <sub>n</sub> O, S <sub>7</sub> O <sub>2</sub> , S <sub>6</sub> O <sub>2</sub> ), sulphur monoxide (SO), sulphur dioxide (SO <sub>2</sub> ), sulphur trioxide (SO <sub>3</sub> ), and higher sulphur oxides (SO <sub>y</sub> , 3<y≤4)
surface water	All water naturally open to the atmosphere (rivers, lakes, reservoirs, streams, springs, etc.)
suspended load	Sediment transported within the water column of a river. The particles are prevented from settling to the riverbed by their slow settling rate and by the turbulence of the river flow.
tailrace	That part of a hydroelectric facility that carries water away from the turbines at the downstream end
temperate climate	The climatic zone of the “middle” latitudes, that is neither extremely cold nor extremely hot
terrestrial ecosystem	A system of plants, animals, nutrients and elements, and the interactions between them, that is found on the land
terrestrial habitat	Soil/land environment in which an organism normally lives or occurs

territory	An area defended by an animal or group of animals against others of the same sex or species.
tesla (T)	The International Standard unit of magnetic induction (magnetic flux density) equivalent to one weber per square metre (see also “weber”)
thermal ice	That portion of the ice cover that is solidly frozen.
total dissolved gas (TDG)	A measure of nitrogen, oxygen, and other gases in solution, expressed as per cent saturation in water. Supersaturation of dissolved gases can cause gas bubble trauma in fish.
total mercury	The sum of all forms of mercury analysed in any environmental media, a combination of organic and inorganic mercury
total organic carbon (TOC)	Sum of all organic carbon compounds in a given volume of water
total suspended particulate	Particles less than approximately 100 microns ( $\mu\text{m}$ ) in diameter that typically remain suspended in the air for some time
total suspended solids (TSS)	A measurement of the concentration of particulate matter found in water
trophic	Involving the feeding habits or food relationship of different organisms in a food chain
tropical climate	The climatic zone of the subtropics, with warm temperatures and meager precipitation
tropical reservoir	Water held above a hydroelectric dam in a tropical climate
visibility	Greatest distance (expressed in kilometres) at which a black object of suitable dimensions could be seen and recognized. During hours of darkness, it could also be seen if under the same daylight conditions.
volt (v)	A unit of electrical potential difference equal to the difference in potential between two points in a conducting wire carrying a constant current of one ampere when the power dissipated between these two points is equal to one watt
water vapour mixing ratio	Ratio of mass of water vapour to mass of dry air, typically expressed in grams of water vapour over kilograms of dry air
watershed	The entire geographical area drained by a river and its tributaries
weber (Wb)	The International Standard unit of magnetic flux. One weber is the magnetic flux which, linking a circuit of one turn, would produce in it an electromotive force of 1 volt if it were reduced to zero at a uniform rate in 1 second.
wetland	An area of land where the water table is at, near or above the surface, or which is saturated for long enough periods of time to promote features such as gleyed soils and water-tolerant vegetation
zero-degree isotherm	The point in a river at which water temperature reaches the freezing point, allowing ice to begin forming

zooplankton                      Invertebrates that live in the water column of lakes and reservoirs and large rivers and do not use bottom habitat