

Appendix 1 - AGGREGATE GLOSSARY

Term	Definition
	Note: definitions are specific to aggregate operations or are operational definitions used in the aggregate industry.
aggregate	Sand, gravel, crushed stone and quarried rock used for construction purposes.
ambient water quality	Water in its natural state; the existing environmental condition of the water or how it was found.
aquifer	A layer of gravel, sand or porous, fractured rock containing saturated permeable material through which significant amounts of ground water can travel to wells and springs.
as-built drawings	Engineering plans that have been revised to reflect all changes to the plans that occurred during construction.
as-graded	The configuration of the surface conditions on completion of grading.
average monthly discharge	The average of the measured turbidity or other water quality values (TSS, TDS, etc.) collected from a discharge point over a calendar month's time. For further water quality information related to the environment, contact the local office of the Ministry of Water, Land and Air Protection. For information related to discharge and drinking water, contact the local office of the Regional Health Authority.
baffles	Partitions within a settling pond or retention basin designed to increase the length the water travels before discharge.
bedrock	The solid rock that underlies the soil, overburden and unconsolidated material.
bench	A relatively level or back sloping step, excavated or constructed on the face of a graded slope surface for safety, stability, drainage and to facilitate maintenance.
berm	A constructed barrier of overburden, topsoil or waste rock, often planted with trees, shrubs and ground cover. Berms are used to block noise, dust and views of an aggregate operation from reaching adjacent properties.
best management practices (BMP)	BMPs can be physical structures, activities, practices or procedures that prevent, reduce or mitigate an undesired event, impact or effect.
biodiversity	The variety and variability among living organisms and the ecological complexes in which they occur.
bioengineering	Restoration or reinforcement of slopes and stream banks with living plant materials.
biophysics	The study of the biological and physical characteristics of an area (e.g., topography, soils, climate, landforms, watercourses, vegetation, etc.).
blue-listed species	Vulnerable indigenous species or sub species (refer to <i>endangered species</i>).
borrow pit	An excavation to provide fill for construction activities.
buffer strip	A strip of land that separates incompatible activities. Buffer strips can be used to intercept dust and noise, enhance aesthetics or other qualities along or adjacent to residences, roads and trails, filter stormwater runoff or protect an environmentally sensitive area such as a stream (riparian area). They may be land left in its natural state or planted to perform specific objectives.
clearing	The removal of trees and shrubs.
coir fascines	Although "coir" is actually made from coconut husks, this term has been adopted in BC to mean a mat or bundle made from willow whips, branches or cuttings for such

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	uses as filling ditches or making revetments on unstable slopes or banks.
competency	A measure of the strength or soundness of rock.
community values	Consensus, expectations and opinions of a local population.
crushed stone	Rock, boulders and cobbles that are blasted or mined and subsequently crushed and processed into aggregate.
deleterious	Harmful to health or well-being.
deposit characteristics	Physical properties, sedimentary features, quality, particle gradation and composition of a deposit.
deposit model	A planning model that includes the geological feature that makes up the sand and gravel (e.g., Delta, alluvial terrace, outwash plain, drumlin), the deposit characteristic (e.g., rock types, rock characteristics), the deposit size (e.g., surface area, depth) and environmental effects of mining (e.g., high clay content).
deposit size	Surface area, thickness and volume of gravel.
ditch grade control	The action of controlling the steepness of a channel, ditch or any watercourse. Grades of less than 5 percent are generally desirable for watercourses to avoid erosion. Check Dams are commonly used to control grades in ditches.
effluent	Waste material released either into the air or water, or onto land.
endangered species	<p>Species and ecosystems at risk in British Columbia number in the hundreds. The identified species and ecosystems are tracked and ranked by the BC Conservation Data Centre (CDC). The ranking assists the Ministry of Sustainable Resource Management in assigning them a red or blue listed status.</p> <p>The red listing means that the listed species are, or are close to being extirpated, endangered or threatened. Extirpated means they no longer exist in the wild in B.C., but do occur elsewhere. Endangered means they are facing imminent extirpation or extinction. Threatened means that they are likely to become endangered if limiting factors are not reversed.</p> <p>The blue list includes vulnerable indigenous species or subspecies that are of special concern because of characteristics that make them particularly sensitive to human activities or natural events. It also includes species that are generally suspected of being vulnerable, but for which information is too limited to allow designation in another category.</p>
erosion	The wearing away of the ground surface as the result of wind, running water, ice or other geological agents, including such processes as gravitational creep.
erosion and sediment control	Procedures intended to prevent erosion and sedimentation, such as preserving natural vegetation, seeding, mulching and matting, plastic covering, filter fences, and sediment traps and ponds.
extraction	The process of removing raw material, rock or aggregate from the deposit location.
face	See <i>mining face</i> .
fishery	An area of water that is being fished. A fishery includes the full area from which fish may be taken by a pound, seine, net, weir or other fishing appliance, and the appliance itself.

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flocculation	The process by which suspended or very fine particles in water are assembled into larger masses or floccules that eventually settle out of suspension. This process occurs naturally, but can also be accelerated through the use of chemicals such as alum.
fugitive dust	Dust which is generated by unstable, non-point sources like movement of equipment and the effects of wind and rain on stockpiles and areas stripped of vegetation. Fugitive dust is the most common cause of dust complaints at aggregate operations, as it commonly settles on cars and in homes.
grab sample	A single sample or measurement taken at a specific time or over as short a period as is feasible.
grade	The elevation of the ground surface. <i>Existing grade</i> is the grade prior to disturbance. <i>Rough grade</i> is the stage at which the grade approximates the final finished grade. <i>Finish grade</i> is the final grade of the site. <i>Grading</i> is any excavating, filling, removing or placement of material, or combination thereof.
gravel	Unconsolidated materials that are made up of rock fragments 2 mm to 75 mm in diameter.
ground water	Water that passes through or stands underground in porous rocks and soils, in the zone of saturation, that is under a pressure equal to or greater than atmospheric pressure and supplies wells. The Ministry of Water, Land and Air Protection is responsible for regulating groundwater quality.
grubbing	The removal of stumps and root systems from the soil.
hybrids	Species of plants or trees created by cross-pollinating two or more other species.
hydroseeding	A process whereby seed, fertilizer, wood fiber mulch and/or other agriculture approved additives are mixed together to form a slurry that, when applied to soil, encourages vegetation growth and is an effective means of erosion control.
leachate	Water or other liquid that has percolated through raw material, product, or waste and contains substances in solution or suspension as a result of the contact with these materials.
lithology	The physical character and composition of a sediment or rock, generally defined by its mineral composition.
loadout facility	Site and equipment for loading gravel into trucks or rail cars, or onto barges.
maximum daily discharge limitation	The highest allowable daily discharge of a pollutant, such as turbidity, measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.
mineral resource conservation	The act of reserving the opportunity to extract mineral resources.
mining face	The exposed vertical or near vertical portion of soil or rock that results from mining activity. Shape is generally determined by the reach of loading equipment working on the face.
natural aggregate	Sand, gravel and crushed stone.
net gain	An increase in the productive capacity of habitats for selected fisheries brought about by determined government and public efforts to conserve, restore and develop habitats.

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no net loss principle	A working principle by which Fisheries and Oceans Canada strives to balance unavoidable habitat losses with habitat replacement on a project-by-project basis so that further reductions to Canada's fisheries resources due to habitat loss or damage may be prevented.
Notice of Work (NoW)	Notice of Work and Reclamation Program on a Sand and Gravel and/or Quarry Operation. The application for a new or amended <i>Mines Act</i> Permit.
overburden	Material below topsoil and above saleable aggregate. Overburden is unconsolidated material between the soil layer (rooting zone) and the bedrock, excluding the economically valuable sand and gravel layers. Overburden is typically comprised of glacial till, and/or freshwater or marine sediments. Sand and gravel are often sandwiched between layers of overburden.
overfall	The height above a surface watercourse from which a drainage structure discharges.
perched water table	Ground water trapped above an impervious layer of material such as a clay bed.
pH	The pH of a substance measures its acidity or alkalinity in a scale that ranges from 1 to 14. A pH of 7 is defined as neutral, and large deviations, either above or below this value, are considered harmful to most aquatic life.
pit	Any site where sand and/or gravel is extracted.
pit run	Gravel as found in natural deposits; unprocessed gravel.
pollutant	An inorganic or organic substance or sound in the environment that, because of its chemical composition or quantity, prevents the functioning of natural processes and produces undesirable environmental and health effects or adversely affects the usefulness of a resource. For example, substances that could render water harmful to fish include oil and greases, metals, oxygen-demanding substances, toxic organics, fecal coliform bacteria, and any excessive nutrients and sediment. With respect to water, pollutants include any man-made or man-induced alteration of the physical, biological or chemical integrity of the water.
pollution	Contamination of the environment with objectionable or offensive matter.
proctor	See <i>Standard Proctor</i> .
processing plant flow sheet	A conceptual model that attempts to predict processing plant performance. The flow sheet forms the basis for the selection of equipment to meet the processing goals.
progressive / concurrent reclamation	The practice of restoring a worked area at a site using soil, overburden and other materials removed in order to access a new section of the deposit, while extraction is going on elsewhere.
quarry	Any site that is used for the extraction of rock from bedrock to be used for construction purposes.
recycled aggregates	Reprocessing of waste concrete and asphalt pavements into useable aggregates.
red-listed species	Extirpated, endangered or threatened species, subspecies (taxa), or ecosystem in B.C. Refer to <i>endangered species</i> for more detailed definitions.
Regional MDRC	Regional Mine Development Review Committee.
rehabilitation	The creation of landforms, land productivity and land uses that are compatible with existing land uses in the surrounding area.

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restoration	The re-creation of the original landforms, land productivity, and land uses on a disturbed site.
revegetation	The re-establishment of self-sustaining plant cover on a disturbed site.
rip rap	Loose stone used as a foundation/protection for a breakwater, embankment, mountain trail, etc.
round rock aggregate	Natural aggregate from either a fluvial or glaciofluvial deposit and comprised primarily of rounded particles created by mechanical erosion.
sand	Unconsolidated materials that are primarily composed of coarse, medium and fine mineral particles 4.76 mm (#4 sieve) to 0.074 mm (#200 sieve) in diameter.
scarify	Breaking up hard or compacted materials using a grader.
sediment	The very fine material within washing water and storm water runoff, originating from natural, mechanical and human disturbances. Sediment particles originate from the weathering and erosion of rocks or unconsolidated deposits and are transported by, suspended in, or deposited by water or air. Composed of clay, silt and sand.
site	The land or water area where any facility or activity is physically located or conducted or all of the disturbed and undisturbed land within the legal boundaries of a property.
soil	The unconsolidated material on the immediate surface of the land that serves as a natural medium for the growth of plants.
stakeholders	All individuals, agencies, bodies, companies, etc. with an interest in a given matter.
Standard Proctor	A test that determines the maximum dry density for specific soil types. Specified compaction densities for fills are often based on a percentage of Standard Proctor for a specific moisture content.
standards	Levels of performance set by regulation or legislation.
sterilization	The removal of access, for whatever reason, to a potential aggregate site for extraction.
stockpiling	The practice of storing materials for later use, sale or disposal.
stormwater	That portion of rainfall and snowmelt runoff that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes and other features of a stormwater drainage system.
stormwater drainage system	Constructed and natural features that function together as a system to collect, convey, channel, hold, inhibit, retain, detain, infiltrate or divert stormwater.
Superpave	The product of the American Strategic Highway Research Program (SHRP). Superpave (Superior Performing Asphalt Pavements) is an improved system for specifying the components of asphalt concrete, asphalt mixture design and analysis, and asphalt pavement performance prediction.
timing windows	A schedule of certain aggregate operations and mining activities to minimize environmental impacts.
topsoil	The upper-most soil layer that is commonly characterized by dark-coloured, organically-enriched materials.
washing	Practice of cleaning aggregate with water to remove excessive amounts of fine particles.

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water quality	The chemical, physical, and biological characteristics of water, normally with respect to its suitability for a particular purpose.
water table	The upper surface or elevation of the groundwater within the aquifer that is closest to the ground surface.