Glossary of Water Management Terms
Technical words are often used when talking about water. *The Glossary of Water Management Terms* brings these words together and describes them using everyday language. You can use this as a reference tool during Water Licence Reviews or Environmental Assessments in your community. Keep it close by so you can quickly look up water terms.

*The Glossary of Water Management Terms* is produced by Indian and Northern Affairs Canada (INAC) and the Nunavut Water Board (NWB). INAC manages the waters of Nunavut and advises the Department’s Minister on water materials. The NWB has responsibility for the regulation, use and management of water in Nunavut. Both INAC and the NWB work in partnership to promote sustainable development.

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<table>
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<th>Term</th>
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| Acid Drainage| any drainage from mine workings, waste or tailings, with a low (acidic) pH
(Acidic drainage) |
| Acidity      | a measure of the capacity of a solution to neutralize bases
(Acidic capacity) |
| Adit         | a horizontal entrance, or passage, in a mine
(Adit) |
| Aeration     | process of blowing air (or another gas such as carbon dioxide) through a liquid or solid
(Aeration) |
| Aerobic      | any biological process that occurs in the presence of oxygen; also applies to organisms that require oxygen to survive
(Aerobic) |
| Alkalinity   | a measure of the capacity of a solution to neutralize acids
(Alkaline capacity) |
| Anaerobic    | any process that can occur without oxygen; also applies to organisms that can survive without oxygen
(Anaerobic) |
| Analysis     | a close look at something to find out more about it; can involve looking closely at the individual parts of something and describing them
(Analysis) |
### Glossary of Water Management Terms

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<tr>
<td><strong>Anthropogenic</strong></td>
<td>caused or produced as a result of human activity</td>
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<tr>
<td><strong>Aquatic</strong></td>
<td>term used to describe any organism growing in, living in, or frequenting water; some plants and animals that live in water are called aquatic species</td>
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<tr>
<td><strong>Aquifer</strong></td>
<td>an underground layer of rock or soil that contains water and can supply a large quantity of water to wells or springs</td>
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<tr>
<td><strong>Assessment</strong></td>
<td>a written decision about the importance, size or value of something; for example, an environmental assessment may describe the value of arctic char after a study of the char, the fishermen, the method of fishing and the effect on the environment</td>
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<tr>
<td><strong>Assimilative Capacity</strong></td>
<td>the amount of pollutants that a water body may absorb while continuing to meet water quality standards</td>
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<tr>
<td><strong>Attenuate</strong></td>
<td>reduce in significance or concentration</td>
</tr>
<tr>
<td><strong>Backfilling</strong></td>
<td>the return of wastes or other material underground for disposal</td>
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**Bedrock** | solid rock underlying soil, gravel or loose boulders; the Canadian Shield is composed of bedrock |

**Best Management Practices** | management or construction practices designed to be effective and reduce the impact on the environment |

**Bioaccumulation** | occurs when plants or animals collect contaminants in their tissues over time; when low amounts of contaminants are continually absorbed, they build up and can cause illness |

**Biochemical Oxygen Demand (BOD)** | a laboratory test to measure the amount of oxygen consumed by microorganisms as they decompose organic matter; the test indicates the amount of organic material in a water sample |

**Biodegradable** | material that will decompose under natural, biological conditions and processes |

**Biodiversity** | the number of different plants and animals that live in a specific area |

**Bioindicators** | organisms that are used to detect changes in environmental pollutant levels, such organisms are usually sensitive to changes in their surroundings |
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<td><strong>Biomagnification</strong></td>
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<td><strong>Bioremediation</strong></td>
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<td><strong>Biota</strong></td>
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<tr>
<td><strong>Buffering Capacity</strong></td>
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<td><strong>Chlorination</strong></td>
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<td><strong>Climate</strong></td>
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<td><strong>Coarse Rejects</strong></td>
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<td><strong>Concentrate</strong></td>
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Concentration

the process of separating a mineral from valueless host rock in preparation for further processing; also the amount of a substance in a given weight or volume of another material

Conductivity

a measure of the ability of a liquid to transmit electrical current or heat

Conservation

protection, preservation, management, or restoration of a resource

Consumptive Water Use

when water is used and not returned to its source, such as through evaporation or by including it in a product

Contaminant

introduced species, substance or material which was either not previously present or was present in a lesser amount, and that may have a harmful effect on the environment

Cumulative Effects

the combined environmental impacts that accumulate over time and space as a result of a series of similar or related individual actions, contaminants, or projects

Decommissioning

the process of permanently closing a facility/site; includes rehabilitation and plans for future maintenance of affected land and water
Dewater  the process of permanently closing a facility/site; includes rehabilitation and plans for future maintenance of affected land and water

Diamond Drill  a piece of equipment used to drill through hard rock, the drill has a diamond on the drill bit and can cut through hard rock better than a metal drill bit

Dilution  to decrease the concentration of a substance by mixing it with another or by adding water

Disinfection  to destroy or prevent the growth of microorganisms

Disposal  the relocation and/or containment, of unwanted materials

Dissolution  the process of dissolving a solid in a liquid

Ecosystem  a community of plants, animals, and non-living things that exist in the same place

Effluent  treated or untreated liquid waste material that is discharged into the environment from a structure such as a settling pond or treatment plant
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<tr>
<td><strong>Environmental Impact Statement (EIS)</strong></td>
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<td><strong>Erosion</strong></td>
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<td><strong>Evaporation</strong></td>
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<td><strong>Fecal Coliform</strong></td>
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<td><strong>Filtration</strong></td>
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<tr>
<td><strong>Flocculent</strong></td>
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Freeboard  
the vertical space remaining in a containment structure; the vertical distance between the surface of the water and the top of a dam or dyke (\(\Delta L\))

Glacier  
a huge mass of ice, formed on land by the compaction and re-crystallization of snow, that moves very slowly downslope or outward due to its own weight (\(\rho\))

Greywater  
liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities; does not include toilet wastes (\(\Delta L\))

Groundwater  
the water found beneath the Earth’s surface that supplies wells and springs (\(>cL\))

Grab Sample  
a single water or wastewater sample taken at a single point in time and location (\(\gamma\))

Habitat  
the specific area in which a particular type of plant or animal lives (\(\gamma\))

Hazardous Waste  
a waste that contains any substance (solid, liquid, or gaseous) that is harmful or potentially harmful to life or the environment; this type of waste includes toxic flammable, corrosive and oxidizing substances and is subject to special handling, shipping, storage, and disposal requirements (\(\rho\))
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<td>Hydrocarbons</td>
<td>any substance containing carbon and hydrogen in various combinations (e.g. gasoline and oil)</td>
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<tr>
<td>Hydrogeology</td>
<td>the study of groundwater, with particular emphasis on the chemistry and movement of water</td>
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<tr>
<td>Hydrologic cycle</td>
<td>the circulation of the Earth’s waters from ocean to atmosphere to land and back to ocean</td>
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<tr>
<td>Hydrology</td>
<td>the science that deals with water, its properties, distribution and circulation over the Earth’s surface</td>
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<tr>
<td>Impoundment</td>
<td>a structure or location used for confined storage, such as a pond, lake or reservoir</td>
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<tr>
<td>Impurity</td>
<td>an unwanted chemical substance that is present within another substance or mixture</td>
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<tr>
<td>Intermittent Stream</td>
<td>a watercourse that does not flow continuously, or flows during spring and summer only</td>
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<tr>
<td>Inuit-Owned Land (IOL)</td>
<td>lands owned by a Designated Inuit Organization in accordance with section 19.3.1 of the Nunavut Land Claims Agreement</td>
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<td>Term</td>
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<tr>
<td>Kimberlite</td>
<td>a type of rock (produced by volcanic activity) that can contain diamonds</td>
</tr>
<tr>
<td>Kimberlite Pipe</td>
<td>an occurrence of kimberlite, so named because it is narrow and vertical in shape and resembles a pipe</td>
</tr>
<tr>
<td>Leachate</td>
<td>water or other liquid that has washed (leached) from a solid material, such as a layer of soil or waste; leachate may contain contaminants</td>
</tr>
<tr>
<td>Leaching</td>
<td>occurs when a liquid (e.g. water) passes through a substance, picking up some of the material and carrying it to other places; this can happen under ground in solid rock, or above ground through piles of material</td>
</tr>
<tr>
<td>Licensee</td>
<td>the individual or organization to whom a licence is issued or assigned</td>
</tr>
<tr>
<td>Metal</td>
<td>a group of elements possessing certain qualities including metallic luster, malleability, ductility, high specific gravity and good conductivity of heat and electricity; metals are mined from the Earth</td>
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<tr>
<td><strong>Base metal</strong></td>
<td>a general term applied to relatively inexpensive metals, such as copper, zinc, lead</td>
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<tr>
<td><strong>Heavy metal</strong></td>
<td>a general term applied to base metals that commonly occur in urban and industrial pollution</td>
</tr>
<tr>
<td><strong>Precious metal</strong></td>
<td>a general term applied to relatively expensive metals such as gold, silver, and platinum</td>
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**Milling Process**
process by which the valuable components of the ore are separated from waste material. Water is used and the waste is called tailings

**Minewater**
water that is pumped or flows out of any underground working or open pit

**Mitigation**
actions taken for the purpose of reducing the negative impacts on the environment of a particular land use or activity

**Neutralization**
raising the pH of an acidic material or lowering the pH of an alkaline material to a nearly neutral pH level (7)
Nunavut Land Claims Agreement (NLCA) the "Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in Right of Canada," including its preamble and schedules, and any amendments to that agreement made pursuant to it

Ore a mineral or solid material containing a precious or useful substance in a quantity and form that makes its extraction/mining profitable

Overburden material that must be removed to gain access to an ore, particularly at a surface (open pit) mine

Oxidation occurs when a substance is exposed to air

Particulate Matter very small, separate particles

Permafrost soil or rock which remains below freezing point throughout the year, as in polar and alpine regions

pH a measure of the acidity or alkalinity of a solution; the pH scale ranges from 0-14, with 7 representing neutral solutions; a solution with a pH greater than seven is described as alkaline, and one with a pH below seven is called acidic; vinegar is an example of an acid, while household bleach is an alkaline solution
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<tr>
<td>Pollutant</td>
<td>a contaminant that negatively impacts the physical, chemical, or biological properties of the environment</td>
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<tr>
<td>Portal</td>
<td>the ground level entrance or opening to an underground mine</td>
</tr>
<tr>
<td>Potable Water</td>
<td>water safe for human consumption</td>
</tr>
<tr>
<td>Processed Kimberlite</td>
<td>the portion of washed or milled kimberlite that is regarded as too poor to be treated further; this material has little or no economic value</td>
</tr>
<tr>
<td>Process Water</td>
<td>water that is used in an industrial process and is not intended for human consumption</td>
</tr>
<tr>
<td>Reclamation</td>
<td>the process of returning a site to its natural state, or a state that prevents environmental impacts or threats to human health and safety</td>
</tr>
<tr>
<td>Restoration</td>
<td>the renewing or repairing of a natural system so that its functions and qualities are comparable to those of its original, unaltered state</td>
</tr>
<tr>
<td>Runoff</td>
<td>water that is not absorbed by soil, and drains off the land into bodies of water. Can be caused by either rain or melt water</td>
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<tr>
<td>Sediment</td>
<td>the solid material that settles from a liquid; for example mud will sink and settle at the bottom of a river or stream because it is heavier than water</td>
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<tr>
<td>Settling Pond</td>
<td>a natural or artificial water body used to contain wastewater in order to enable solids to be removed from it before it is released to the natural environment</td>
</tr>
<tr>
<td>Sewage</td>
<td>toilet wastes and greywater</td>
</tr>
<tr>
<td>Sewage Disposal</td>
<td>the area and structures designed to contain and treat sewage</td>
</tr>
<tr>
<td>Silt</td>
<td>individual mineral particles of sand and clay that can be picked up by the air or water and deposited as sediment</td>
</tr>
<tr>
<td>Siltation</td>
<td>the deposition, in a water body, of sediments (e.g. sand and clay) that appear as tiny suspended particles</td>
</tr>
<tr>
<td>Solid Waste Disposal</td>
<td>the area and associated structures designed to contain solid wastes</td>
</tr>
<tr>
<td>Solubility</td>
<td>the quantity of material that dissolves in a given volume of water</td>
</tr>
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</table>
Sump: an excavation for the purpose of catching or storing liquids such as greywater; the water drains into the soil

Suspended Solids: organic and inorganic particles, such as solids from wastewater, sand, and clay, that are suspended and carried in water

Tailings: portions of washed or milled ore that are regarded as too poor to be treated further, as distinguished from concentrates, or material of value

Toxic: poisonous, or otherwise directly harmful to life

Turbidity: particles, suspended in water or wastewater, that interfere with the passage of light; high turbidity makes water appear unclear or cloudy and is harmful to organisms such as fish

Waste: a substance that is useless to the organism or system that produces it and requires disposal

Waste Disposal Facilities: facilities designated for the disposal of liquid or solid wastes

Waste Rock: all rock materials, except ore and tailings, that are produced as a result of mining operations
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<tr>
<td>Water Quality</td>
<td>the physical, chemical, and biological characteristics of water (\Delta L_{&lt;} % \Delta c_{&lt;} \sigma_{&lt;})</td>
</tr>
<tr>
<td>Water Quality</td>
<td>fixed limits of certain chemical, physical, and biological parameters in a water body; water quality standards are established for various uses of water (e.g. drinking) (\Delta L_{&lt;} % \sigma_{&lt;} \Delta b_{&lt;} \sigma_{&lt;} \Delta c_{&lt;})</td>
</tr>
<tr>
<td>Water Table</td>
<td>the level below where the ground is saturated with water (\sigma_{&lt;} \Delta L_{&lt;} \sigma_{&lt;} \Delta b_{&lt;} \sigma_{&lt;})</td>
</tr>
<tr>
<td>Water Use</td>
<td>whenever water is used by an activity or organism, either in the place it is found or by withdrawing it (\Delta L_{&lt;} % \sigma_{&lt;} \Delta b_{&lt;} \sigma_{&lt;})</td>
</tr>
<tr>
<td>Watershed</td>
<td>the area of land from which rainfall (and/or snow melt) drains to a single point. Ridges of higher ground generally form the boundaries between watersheds, and at these boundaries, rain falling on one side flows toward the low point of one watershed, while rain falling on the other side flows toward the low point of a different watershed (\sigma_{&lt;} \Delta L_{&lt;} \sigma_{&lt;} \Delta b_{&lt;})</td>
</tr>
<tr>
<td>Weathering</td>
<td>the process by which particles, rocks and minerals are altered upon exposure to surface temperatures and pressure, air, water, wind and biological activity (\sigma_{&lt;} \Delta L_{&lt;} % \sigma_{&lt;} \Delta b_{&lt;})</td>
</tr>
</tbody>
</table>
Wetland

land that is saturated with water or submerged, at least during most of the growing season; wetlands generally include swamps, marshes and bogs (ΔLₐₘₑ₃ₙ₄₉ₛₐ₃₉ₜₜₜₜₜ)