EROSION AND SEDIMENT CONTROL

BC Hydro is committed to mitigating environmental effects from Site C through careful project planning, comprehensive environmental mitigation programs, and ongoing monitoring during construction.

During project planning, BC Hydro identified areas that have the potential for erosion and sedimentation. That's why BC Hydro's **Construction Environmental Management Plan** provides specific actions to be taken to prevent the erosion of soils and the transport of sediment. These measures are implemented prior to the start of work and during the work.

Above: Sediment pond at the Site C dam site. Sediment ponds are a best practice in sediment control. During a rain event, these ponds capture runoff that may contain eroded soil. The pond allows the sediment to drop to the bottom and keeps the water exiting the pond clean.

Erosion control measures

Some key erosion control measures include:

- Controlling site runoff by ditching, grading and sedimentation ponds.
- Stabilizing slopes.
- Leaving stumps in place to reduce soil disturbance.
- Incorporating perimeter channels, as required, to catch and transport site runoff from new construction sites and equipment staging areas.
- Installing appropriately sized culverts to reduce road failure through erosion.
- Maintaining ditches along access roads, as required, to control surface runoff and sediment transport.
- Salvaging and stockpiling clean surface soils for site restoration.
- Restoring disturbed areas to a stable vegetated condition as soon as possible.
- Maximizing winter season clearing of the reservoir to reduce the potential for erosion to occur.

Sediment control measures

Some key sediment control measures include:

- Controlling runoff and managing storm water (e.g., rainfall or snow melt) by directing it away from construction areas where excavation, spoil placement and staging activities occur.
- Installing culverts under access roads to maintain hydrological balance and sedimentation barriers.
- Isolating in-stream work areas from flowing water to prevent sediment from entering the downstream environment.
- Maintaining contingency supplies of sediment and erosion control materials at each construction site and training workers in their appropriate installation and maintenance.
- Construction and operation of engineered and temporary sediment ponds to remove sediment from construction water.
- Installing silt fences, berms, swales, ditches, check dams and other sediment control facilities.

These erosion and sediment control measures will be inspected regularly, revised and repaired as needed, and maintained until construction is complete. In addition, qualified professionals from BC Hydro and its contractors conduct daily inspections to ensure the work on site is compliant with erosion and sediment control requirements. From September 2016 to February 2018, more than 8,200 inspections were conducted.