INDIGENOUS MONITOR OVERVIEW REPORT

Month: November 2020 Indigenous Monitor days on-site: 21
Project Region: Lower Mainland Kilometre Posts (KPs) monitored: n/a

Indigenous Monitors on the Trans Mountain Expansion Project - Overview

The Trans Mountain Expansion Project (the Project) has retained Indigenous Monitors as integrated members of its construction Environmental Inspection team. Indigenous Monitors work with Environmental Inspectors to monitor compliance with mitigation measures to minimize impacts to traditional resource use and cultural/heritage impacts during construction. Indigenous Monitors have a strategic role in providing traditional knowledge directly and pragmatically to construction oversight practices and bring an Indigenous lens to daily environmental inspection activities.

This Overview Report provides highlights of the Indigenous Monitors' day-to-day work and key mitigation measures observed by the Monitors related to Project construction in the Lower Mainland. The purpose of this report is to provide an update on Indigenous Monitor activity to Indigenous groups.

During this reporting period, key Project activities in the Lower Mainland region involving Indigenous Monitors included construction at Westridge Marine Terminal (WMT), Burnaby Termina, and Sumas Terminal. Activities included erosion and sediment control and water management, construction housekeeping and waste management, and watercourse diversions. The Project Construction Progress Report (Condition 106) for November 2020, which reports environmental events and deficiencies in Tables 4 and 5 respectively, is found here.

For more information: email info@transmountain.com or call 1.866.514.6700.

Trans Mountain COVID-19 - Our Response

Trans Mountain is actively monitoring the COVID-19 situation with the help of federal, provincial, and local agencies. Trans Mountain's top priority remains the health and safety of our workforce, their families, and our communities. Trans Mountain and its construction contractors are working diligently together to adhere to all advice and direction from government and health officials, while ensuring the safe uninterrupted operation of the Trans Mountain Pipeline and the continued, safe construction of the Expansion Project. Measures being undertaken at construction sites include: temperature screening; following physical distancing guidelines; staggering work shifts and breaks; eliminating or minimizing in person meetings; enhancing cleaning and sanitizing; and ensuring workers orientation includes COVID 19 expectations, awareness and prevention.

For more information: transmountain.com/covid19



Erosion and Sediment Control and Water Management

Erosion and sediment control (ESC) measures are monitored and inspected at WMT, Sumas Terminal and Burnaby Terminal to ensure they are functioning as intended to mitigate erosion and sediment transport from construction sites to downstream areas, including watercourses and the marine environment. On-site ESC mitigations include sediment fences, swales, wattles, straw, polyethylene sheeting, coco matting and hydroseeding, as well as water drainage control measures. Before and after heavy rainfall, the Indigenous Monitors inspect exposed slopes and other construction areas to ensure they are covered with the appropriate ESC measures.

At the terminals surface and underground drainages are installed across the facility site to reduce the potential for soil erosion by water during construction activities. Daily, the Indigenous Monitor inspects the ESC water conveyance systems, which include drainage ditches, water treatment systems, pumps, hoses, canals, culverts, retention ponds and sumps. Additional inspections occur before and after significant rainfall like that which occurred in late November.

Examples of ESC measures that the Indigenous Monitors inspected in November include, but are not limited to:

- Coco matting used as slope protection following vegetation clearing on the west side of the Sumas Terminal Watercourse 1 realignment
- Polyethylene sheeting covering slopes during WMT western foreshore construction
- Hydroseed sprayed on exposed slopes at L300 at Burnaby Terminal to tackify loose soil
- Silt fencing placed in the Streamside Protection and Enhancement Area around the realigned S6 watercourse at WMT
- Sandbags placed to direct construction contact stormwater to the east water treatment plant at WMT.



Coco matting at Sumas Terminal Watercourse 1 diversion area.



Silt fence in the Streamside Protection and Enhancement Area around the realigned S6 watercourse at WMT.



Sandbags to direct stormwater runoff to east water treatment plant at WMT.

Construction Site Housekeeping and Waste Management

The Indigenous Monitors at WMT, Burnaby Terminal and Sumas Terminal regularly conduct inspections of the various construction areas for general housekeeping measures. This includes observing and documenting garbage and recycling disposal, scrap metal management, waste storage, fuel storage and proper use of vehicle and equipment spill kits.

In November, the Indigenous Monitor at Burnaby Terminal, along with the Lead Environmental Inspector, began a site-wide Inventory of garbage cans, recycling bins and construction debris material waste bins at the numerous active construction areas. The purpose of this inventory is to ensure every active construction site has the proper waste segregation receptacles.

At WMT on the eastern foreshore, a large conveyor was recently procured to transfer cured grout spoils material, produced from deep soil mixing and jet grouting, from the onshore work area onto barges for transport to a Trans Mountain approved off-site disposal facility. This waste segregation and management process has decreased land-based traffic at WMT. In November, the foreshore access road was also paved to allow street sweepers to effectively clean up soil on the road mitigating the potential for the soil to be tracked to other parts of the terminal or off-site.

The Indigenous Monitor at WMT inspected and monitored the waste segregation mitigations on the foreshore, including the containment of cure grout spoils and operation of the conveyor.



Concrete waste bin at the Burnaby Terminal.



Conveyor at WMT eastern foreshore loading cured grout spoils material onto a barge for transport to a Trans Mountain approved off-site disposal facility.

Watercourse Diversion

Watercourses within each of the terminal footprints are being diverted or permanently realigned, like the S6 Watercourse at WMT and Eagle and Silver Creek tributary at the Burnaby Terminal. The Indigenous Monitors at each site monitor the diversions to ensure environmental mitigation measures are working as intended

Watercourse Diversion (cont'd.)

such as maintaining instream flow and water quality downstream of the Project sites.

In November at the Sumas Terminal, the permanent realignment of Watercourse 1 (WC1) was completed using an isolation methodology consisting of upstream and downstream dams. A pump was used to collect and pump the dammed water around the work area back into the downstream WC1 channel. The realignment required an open excavation to relocate the existing portion of the channelized watercourse around the Sumas Terminal fenceline, tving it into the north end of the existing WC1A or WC1B channel. The Indigenous Monitor at Sumas Terminal observed the creek diversion construction activities and the final ESC measures including coco matting, riprap armouring and hydroseeding.



Completed realignment of Watercourse 1 at Sumas Terminal.

Indigenous Monitor Request Dashboard

Indigenous Monitors are provided daily on-site field support from Environmental Inspectors and office support from Indigenous Monitor Coordinators. Indigenous Monitors can also make specific support requests or submit questions through their daily report. Examples include but are not limited to; request for Project reports, input from an environmental resource specialist or on-site support from an Elder or other cultural knowledge holder. Monthly requests and their completion status are noted below.

Status	Number and Type of Requests				
	Project Reports/ Documents	Environmental Resource Specialists	Elder/Cultural Knowledge Holder	Other	Total
Total	1	0	0	0	1
Fulfilled	1	-	-	-	1
Outstanding	0	-	-	-	0

This report has been reviewed by the active Indigenous Monitor(s)

