INDIGENOUS MONITOR OVERVIEW REPORT

Month: July 2020 Indigenous Monitor days on-site: 22
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 in order 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 and Burnaby Terminal. Activities included inspection and monitoring of shoreline construction works, secant wall construction, erosion and sediment control, site water management, wildlife discovery and observation and construction site housekeeping.

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

Secant Wall Construction

At Westridge Marine Terminal (WMT), a secant wall is being built by installing overlapping underground primary and secondary concrete piles to create a continuous structure. This structure will be used as the shoring to create a work area and entrance portal for the Burnaby Mountain Tunnel.

The Indigenous Monitor at WMT inspects the secant wall work area and construction activities daily to ensure environmental mitigations are in place and functioning as intended. Mitigations measures being monitored include, but are not limited to, erosion and sediment control (ESC) measures in and around areas of exposed soil, correct discharge of construction contact water to the water treatment plant, use of drip trays beneath all equipment containing fuel/oil (when the equipment is not in use), proper segregation of waste materials and maintaining appropriate spill containment and cleanup materials near the active work areas.



Secant wall construction at WMT.

Shoreline Construction Works

Shoreline works were ongoing related to the expansion of the foreshore area at WMT. Key construction activities included installation of sheet pile cells and arcs, infilling of the sheet pile cells and arcs, grading and levelling the fill material and cutting the sheet piles to design elevation. Ground improvement activities were also undertaken, including deep soil mixing and jet grouting.

Mitigation measures implemented to avoid or reduce potential adverse environmental effects include the installation and maintenance of sediment fences, berms and ditches along the shoreline to prevent sediment and grout from entering the marine environment. A turbidity curtain is also in place around the shoreline work area to contain any turbid water. Grout spoil material is collected and transported to a Trans Mountain approved off-site disposal facility.

The Indigenous Monitor at WMT is performing ongoing inspection and monitoring of construction activities and mitigation measures as construction work on the foreshore continues.



Sheet pile cells, part of shoreline construction works at WMT.

Regulator Meetings & Inspections

Fisheries and Oceans Canada (DFO) and the Indigenous Advisory Monitoring Committee (IAMC) conduct bi-weekly meetings with the WMT team inperson and by teleconference. Foreshore and marine construction progress are discussed as well as environmental mitigation measures such as ESC (e.g., turbidity curtains, shoreline slope protection), underwater noise monitoring, marine mammal monitoring, and waste containment and management.

The Canada Energy Regulator (CER) and the IAMC conducted an environment focused inspection of onshore work areas at WMT in July. An independent monitor working on behalf of the Vancouver Fraser Port Authority (VFPA) also conducts bi-weekly inspections at WMT.

The Indigenous Monitor at WMT participated in the DFO, CER and IAMC inspections, as well as the VFPA inspections and is an active participant in discussions about the effectiveness of ongoing environmental mitigation and monitoring measures.



Shoreline and offshore sites at WMT.

Wildlife Observation and Discovery

Project personnel are required to report wildlife observations and follow contingency measures for the discovery and management of species of concerns or provincially protected species listed under provincial permits.

The Indigenous Monitors record wildlife observations and discoveries at WMT and Burnaby Terminal and inspect mitigation measures implemented to protect wildlife. They also participate in amphibian salvage prior to works taking place. For example, at Burnaby Terminal, tree frogs were identified in a construction area. The Indigenous Monitor and Environmental Inspector were notified and relocated the tree frogs to the tertiary containment area which is identified in the provincial permit as the relocation area.

A blue heron (unhealthy due to natural causes) travelled onto the site and was observed by the Indigenous Monitor, who then worked with the site team to have the heron transferred to a wildlife rehabilitation sanctuary.



Tree frogs being relocated to tertiary containment area at Burnaby Terminal.

Wildlife Observation and Discovery (cont'd)

Other wildlife observed at WMT and/or Burnaby include young bald eagles, a mother black bear and cub, red tailed hawks, barn swallows, garter snakes and coyotes.

Erosion and Sediment Control and Water Management

Erosion and sediment control (ESC) measures are monitored and inspected at WMT and Burnaby Terminal to ensure they are functioning as intended to mitigate erosion and sediment transport from construction sites to downstream areas, watercourses or the marine environment.

At Burnaby Terminal, 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 includes drainage ditches, water treatment systems, pumps, hoses, canals, culverts, retention ponds and sumps. Additional inspections occur before and after significant rainfall to monitor flow and downstream water quality.



Drainage canal at Burnaby Terminal after heavy rainfall.

Construction Site Housekeeping Inspections

At WMT and Burnaby Terminal, the Indigenous Monitors 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, proper use of vehicle and equipment spill kits, vehicle and equipment parking, and wash areas. The Indigenous Monitors also inspect food waste containers to make sure they are wildlife proof throughout the site. Limiting human and wildlife interactions is a key mitigation measure in the Environmental Protection Plan.



Waste containers.



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 Know ledge Holder	Other	Total
Total	0	0	0	0	0
Fulfilled	-	-	-	-	-
Outstanding	-	-	-	-	-

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

