

# INDIGENOUS MONITOR OVERVIEW REPORT

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**Month: September 2020**

**Indigenous Monitor days on-site: 20**

**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) and Burnaby Terminal. Activities included wildlife observation and discovery, inspection and monitoring of erosion and sediment control and water management, concrete management and participation in regulator meetings and inspections.

**For more information: email [info@transmountain.com](mailto: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.

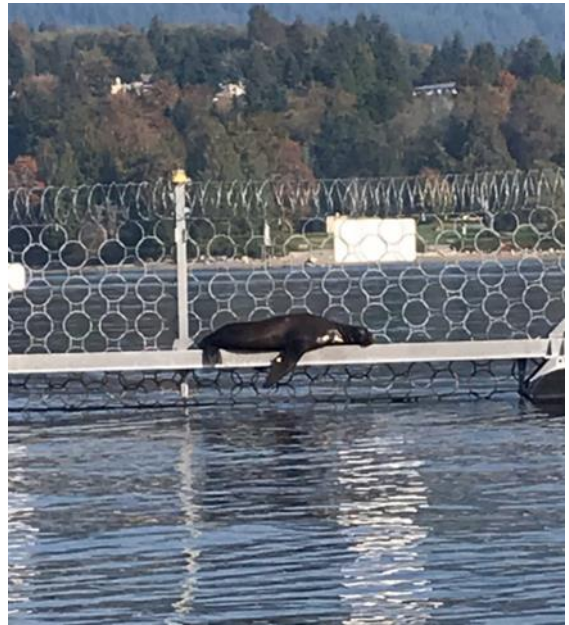
**For more information: [transmountain.com/covid19](https://transmountain.com/covid19)**

### Wildlife Observation and Discovery

Project personnel are required to report wildlife observations and follow contingency measures for the discovery and management of wildlife.

The Indigenous Monitors record wildlife observations and discoveries at WMT and Burnaby Terminal and inspect mitigation measures implemented to protect wildlife. At Burnaby Terminal, the Indigenous Monitor conducted wildlife sweeps in construction areas after the heavy rainfall in late September and participated in relocating amphibians like frogs and salamanders into the tertiary containment area, which is identified in the provincial permit as the relocation area.

At WMT, the Indigenous Monitor observed in-water impact pile driving activities and monitored for the presence of marine mammals such as seals and sea lions. Impact pile driving activities are immediately halted if a marine mammal is observed within the prescribed exclusion zone.



Male California sea lion resting out on marine construction safety boom at WMT.

### 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, 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 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 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



Polyethylene sheeting used as an ESC measure along the shoreline at WMT

### **Erosion and Sediment Control and Water Management – (cont'd)**

September to monitor flow and downstream water quality from soil erosion.

A custom-built turbidity curtain is installed surrounding the WMT foreshore expansion area as a marine ESC mitigation measure. Turbid water (i.e., water containing suspended sediment) may be generated by wavy conditions, rainfall or construction activities on the foreshore or upland areas. The turbidity curtain is designed to contain this turbid water within the immediate construction work area. It is an important environmental protection mitigation which is implemented year-round and is monitored and inspected regularly for its integrity and effectiveness.

The Indigenous Monitor is performing ongoing inspection and monitoring of the turbidity curtain at the Westridge Marine Terminal Foreshore, including after the heavy rainfall in late September.



Existing constructed drainage canal at Burnaby Terminal facilitating management of erosion and sediment control on-site.



Turbidity curtain at the WMT foreshore.



## Concrete Management

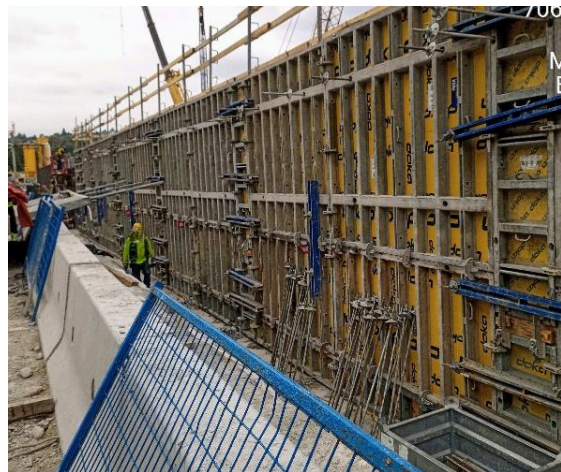
In the Lower Mainland, concrete is used in many of the terminal construction activities. For example, at Burnaby Terminal concrete is poured into circular frames to form the new storage tank foundations and sprayed onto rebar to create reinforcement walls around the new tank areas. At WMT, concrete is used for both onshore and marine structures, including the train derailment wall, the foreshore ground improvements (deep soil mixing and jet grouting) and the offshore marine superstructure (e.g., mooring dolphins, breasting dolphins, loading platforms and trestle spans).

During the pouring or spraying of concrete, environmental protection mitigations are implemented to isolate the concrete work and to prevent spillage of concrete or grout onto the ground or into the ocean and/or watercourses. These mitigations include ensuring all concrete work is completed during dry conditions and properly contained within sealed forms using containments for any concrete waste storage. Concrete contact water is also managed by either treating it in a Water Treatment Plant or collecting it and transporting it to a Trans Mountain approval facility.

The Indigenous Monitors at Burnaby Terminal and WMT perform ongoing inspection and monitoring of concrete construction activities and the applicable mitigation measures.



Tank foundation frame prior to concrete pour.



Preparing for concrete pour for derailment wall.



After concrete pour for derailment wall.

### Regulator Meetings and Inspections

Fisheries and Oceans Canada (DFO) and the Indigenous Advisory Monitoring Committee (IAMC) conduct monthly site inspections at WMT. 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 Indigenous Monitor at WMT participated in the DFO/IAMC inspections and is an active participant in discussions about the effectiveness of ongoing environmental mitigation and monitoring measures.



Picture of eastern Foreshore at WMT.

### 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	0	0	0	0	0
Fulfilled	-	-	-	-	-
Outstanding	-	-	-	-	-

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

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