INDIGENOUS MONITOR OVERVIEW REPORT

Month: June 2021 Indigenous Monitor days on-site: 22
Project Region: Lower Mainland Kilometre Posts (KPs) monitored:
Spread 7 KP 1166.515–1173.622

Indigenous Monitors on the Trans Mountain Expansion Project – Overview

The Trans Mountain Expansion Project (the Project or TMEP) 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 Terminal, Sumas Terminal and on Spread 7. Activities included construction housekeeping, Brunette River trenchless crossing and TLU and Heritage Resources training, watercourse reclamation monitoring, regulator meetings and wildlife observations. The Project Construction Progress Report (Condition 106) for June 2021, which reports environmental events and deficiencies in Tables 4 and 5 respectively, is found here.

The Project has a process for sharing information related to potential TLU and Heritage Resource chance finds during construction. The Protecting TLU and Cultural Heritage Resources Fact Sheet (**link here**) provides an overview of the chance find communication process. Applicable Indigenous groups are notified and engaged directly on potential chance finds.

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 its workforce, their families and our communities.

For more information: transmountain.com/covid19



Construction Site Housekeeping

The Indigenous Monitors at all sites in the Lower Mainland 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.

Waste that is not properly secured or disposed of is flagged to the Environmental Inspectors and contractor site services crew for cleanup. The recycle bins are also inspected to make sure waste is properly segregated into the right categories which include metal, wood, general waste, construction waste and bottles. At Burnaby Terminal and WMT, money made from the bottle returns are donated to the local wildlife rescue association which helps the local community to rehabilitate hurt or abandoned wildlife in the Lower Mainland.

At Burnaby Terminal, the Indigenous Monitor regularly inspects the spill kits around the terminal site. Kits are inspected for volume and types of spill response material and to ensure the appropriate placement in relation to work fronts. Spill response procedures listed in the Environmental Protection Plan (EPP) are also regularly communicated to contractor operators on how to contain a spill and what to do during a spill. Drip trays are also inspected under stationary equipment to make sure they are present when parked.



Secondary containment properly placed under a container of used oil at WMT.



Appropriately stocked Emergency spill kit inspected at Burnaby Terminal.



Brunette River Tributaries – Trenchless Crossing

The Project is preparing for the guided horizontal auger bore (GHAB) trenchless pipeline watercourse crossing that will extend under two tributaries to the Brunette River (Keswick Park Creek and Unnamed Channel). To create temporary workspaces for construction, vegetation will be removed in a section on the north bank of the Brunette River east of the Brunette Avenue Interchange in New Westminster. This riparian area is designated by Fisheries and Oceans Canada (DFO) as critical habitat for the Nooksack Dace fish (Rhinichthys cataractae), which is listed as Endangered under Schedule 1 of the Species at Risk Act.

Trans Mountain has obtained a species at risk permit issued by the DFO to work on the riparian area of CWP 88 (KP 1173.3) and CWP 89 (KP 1173.4) along the Brunette River. Conditions of the permit relate to measures and standards to avoid and mitigate impacts to fish and fish habitat, including impacts to Nooksack Dace critical habitat. The measures include, but are not limited to, leaving undisturbed a 15-metre buffer of existing riparian vegetation located directly adjacent to the instream critical habitat of the Brunette River, marking the boundary with signage, installing and maintaining sediment and erosion control measures (e.g., silt fencing and sheet pile shoring), and collecting water quality measurements throughout the period of construction to document turbidity and total suspended solids in the Brunette River at an upstream and downstream location, adjacent to construction.

Indigenous Monitors and Environmental Inspectors are onsite to monitor and inspect the crossing and associated permit conditions.

Soil piles covered in poly to mitigate erosion at CWP 89.

Fraser River Horizontal Directional Drill

Construction activity on the Fraser River horizontal directional drill (HDD) was on hold in June, however, routine inspections were conducted on the entry pad area on the south side of the river at the Colony Farm laydown yard (KP 1167.8). These inspections included observing if the perimeter fencing was maintained and that the protective wooden matting previously installed had not been displaced.

The Indigenous Monitors also inspect that the wildlife deterrents placed around the stored wooden matting are holding up and functioning while the site is inactive.



Bird deterrent on the stockpiled wooden matting while the site is inactive.



Burnaby Mountain Tunnel – Soil and Rock Spoils Management

As part of the Expansion Project, Trans Mountain is constructing an underground tunnel to connect Burnaby Terminal and WMT, avoiding impacts on residents and existing infrastructure. Trans Mountain's contractor is using a tunnel-boring machine (TBM) to construct a 2.6-km tunnel through Burnaby Mountain, starting at WMT. For more information about the tunnel visit the Trans Mountain website here.

The Portal Area at WMT is the level staging area where the

TBM was first assembled and the excavation started. In June 2021, the excavation of soil by the TBM continued, and the Indigenous Monitor at WMT observed and monitored the management of soil produced by this activity. From the face of the TBM excavation in the tunnel, soil and rock spoils are loaded into steel boxes (muck cars) via a conveyor belt inside the TBM. The muck cars are moved on rails by a locomotive from the TBM through the excavated tunnel to the Portal Area for unloading. Once there, the material is unloaded into a lock block containment bin referred to as a "muck bin." From there, the muck (soil and rock spoils from tunnelling) is loaded into dump trucks and transported to a Trans Mountain-approved temporary storage site. At this site, samples are collected and submitted to the lab for analysis of metals and contaminants of potential concern. Once the results are received, the material will be transferred to the appropriate Trans Mountain-approved disposal facility.

The Indigenous Monitor at WMT will continue to observe the TBM construction activities and monitor the handling and management of tunnel spoils and other environmental mitigations associated with the TBM activities.



Grout prodcution area in the portal area surrounded by a protective berm constructed from asphalt.



Muck bin at the Portal Area at WMT.



Train locomotive at the Portal Area at WMT.



Wildlife Observation and Management

Wildlife observation and management is ongoing in the Lower Mainland. The Indigenous Monitors participate in discussions relating to wildlife protection strategies with the Environmental Inspectors and Trans Mountain Wildlife Resource Specialists and monitor and inspect that mitigation measures are effectively in place.

At the Colony Farm laydown yard (KP1167.8), Indigenous Monitors alongside the Wildlife Resource Specialist inspected daily that the wildlife fencing was maintained and effective, and that no safety hazards existed. They also observed an Oregon Forest snail salvage conducted by the Trans Mountain Wildlife Resource Specialist.

At Burnaby Terminal, the Indigenous Monitors and Environmental Inspectors focused on breeding bird mitigation measures with an eye on maintaining bird buffers and appropriate flagging with signage. The Indigenous Monitor also assisted with identifying an active Kildeer nest in the southwest area of Burnaby Terminal. Buffers were put in place and the contractor crews in the area were notified.

Overwater Construction of Dock Infrastructure

Overwater construction at WMT includes building new dock infrastructure, which includes trestle spans, loading platforms, breasting dolphins and mooring dolphins. The trestle spans and loading platforms are built from pre-cast and cast-in-place concrete. During concrete pours, concrete trucks are transported to site on barges.

Mitigation measures are implemented to isolate the concrete from the marine environment and prevent spillage of concrete into the ocean. These mitigations include ensuring all concrete work is completed during dry conditions, ensuring all concrete is contained within sealed forms, and using sealed containments for any concrete waste storage. For some specific concrete pours, such as annular pours for the breasting and mooring dolphins, Scuba divers are on-site to inspect underwater for any potential spillage. To mitigate the risk of fuel or oil spills from equipment during concrete pours, spill trays are placed under all concrete trucks and pumper trucks. Spill kits are also staged on all barges to ensure cleanup supplies are readily available in the event of a spill.

The Indigenous Monitor is performing ongoing inspection and monitoring of overwater construction activities, including concrete management and spill prevention mitigations.



Robin on the protective fencing buffer that surrounds the bird nest area at Colony Farm



Area flagged off at Burnaby Terminal where the Kildeer bird had its egg.



Concrete pour for Loading Platform 3 pile cap. Concrete is being pumped into sealed forms from concrete trucks stationed on a barge.



Sealed forms encompassing concrete poured for Loading Platform 3 pile cap. Photo taken three hours after concrete was poured.



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	Rolling Total 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)

