

INDIGENOUS MONITOR OVERVIEW REPORT

Month: November 2021

Project Region: Lower Mainland

Indigenous Monitor days on-site: 22

**Kilometer Posts (KPs) monitored:
Spread 7 KP 1144–1176**

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 and on Spread 7B. Activities included environmental feature staking and flagging, construction site housekeeping and waste segregation, archaeological deposits screening program, tunnel boring at WMT, erosion and sediment control measures, and the Fraser River Horizontal Directional Drill (HDD).

The Project Construction Progress Report (Condition 106) for November 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

Environmental Feature and Traditional Land Use Site Flagging and Staking

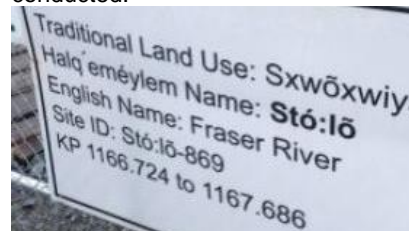
During pre-construction activities on Spread 7B, previously identified TLU sites, including culturally modified trees (CMTs), were marked with flagging ribbon by Resource Specialist crews. If a previously unidentified potential chance find is identified, the TLU Site Discovery Contingency Plan is followed.

In November, pre-construction walkthroughs were conducted at CWP 99 (KP 1175.7), CWP 100 (KP 1176) and CWP 101 (1176.1) with the Indigenous Monitors, Environmental Inspector and the General Contractor. The walkthroughs included monitoring for any previously unidentified CMTs and TLU sites. No CMTs or TLU sites were discovered.

At CWP 60 (KP 1165), the Indigenous Monitor observed a TLU sign that required replacing. The deficiency was reported to the Environmental Inspector for resolution. At the Fraser River Horizontal Directional Drill (HDD) site, TLU signage was also inspected to ensure it is visible and sturdy.



Area in CWP 99 where pre-construction walkthroughs were conducted.



TLU signage at the Fraser River HDD site.

Burnaby Mountain Tunnel – WMT

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 assembled and where excavation started in May 2021. During tunnelling activities, the Indigenous Monitor observes and inspects that environmental mitigation associated with the handling, management and disposal of tunnel soil and rock spoils are functioning as intended.

In November, after the extreme weather conditions and heavy rainfall that occurred in the Lower Mainland, tunnel boring activities were paused due to pooling stormwater in the portal area. Hydrovac trucks were deployed to remove the pooling stormwater and large capacity tanker trucks transferred the stormwater off-site to a Trans Mountain approved location.

The Indigenous Monitor at WMT will continue to observe the TBM construction activities and stormwater management.



Muck pit for tunnel spoils in portal area at WMT.

Construction Site Housekeeping and Waste Segregation

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, recycling disposal, labelling, fuel storage, secondary containment of equipment and hydrocarbons, and proper storage and use of vehicle and equipment spill kits.

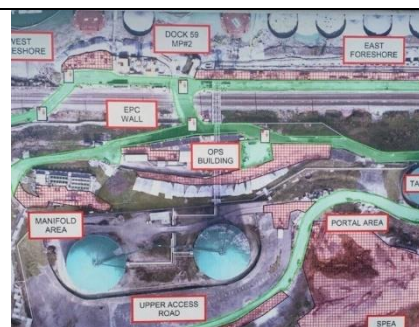
At WMT, the Indigenous Monitor regularly inspects the portal, manifold, east and west foreshore and tank 93 areas, as well as barges offshore, for housekeeping and waste segregation measures. If a deficiency is observed, the contractor is notified. For example, In November, some minor waste segregation deficiencies were observed in the eastern foreshore area and the derailment wall in the manifold area. As well, a piece of heavy equipment in the Tank 93 vicinity was parked without a spill tray. In each case, the Environmental Inspector was notified, and the contractor took corrective actions.

On Spread 7B, the Indigenous Monitors also regularly inspect construction site housekeeping measures on active and inactive Construction Work Packages (CWPs). In November, these inspections occurred at CWP 67 (KP 1168.2), CWP 75 (KP 1169.2), CWP 85 (KP1172.2), CWP 88 (KP 1173.3), CWP 89 (KP 1173.5) and CWP 98 (KP 1174). No concerns were identified.

Erosion and Sediment Control

Erosion and sediment control (ESC) mitigation measures are used to reduce erosion and limit sediment transport across construction sites to downstream areas, including watercourses or the marine environment.

During and after the extreme weather conditions and heavy rainfall experienced in the Lower Mainland in mid-November, the Indigenous Monitors, alongside the Environmental Inspectors, observed and inspected numerous ESC measures throughout the terminals and CWPs on Spread 7B. On 7B, inspections began with priority areas like CWP 61 (KP 1165.1), CWP 62 (Fraser River HDD KP 1166.3), CWP 87 (KP 1173.2), CWP 89 (KP 1173.5) and CWP 98 (KP 1174). ESC mitigations inspected included sediment fences, swales, wattles, straw bales, check-dams, polyethylene sheeting on slopes and stockpiled soil, as well as water management measures.



Map of WMT.



Good waste segregation inspected at CWP 67.



Watercourse S6 running clear through CWP 98 during heavy rainfall.

For example, on CWP 98 inspections were conducted at Holmes Creek and Austin Creek to ensure sediment was not breaching the silt fencing and check-dams. The Indigenous Monitors also observed the Trans Mountain Resource Specialist sample creek water and test for turbidity. Despite the increased level of water, turbidity in the watercourses appeared low.

Another example of the inspections of ESC measures included the observation of the silt fence at CWP 89 and that it remained parallel and adjacent to the watercourse and that the rock armoured banks were in place and functioning as intended.

At CWP 45 (KP 1159), the Indigenous Monitor inspected ESC measures like the silt fencing installed to protect a fish bearing wetland, and that the water filtration system was installed and functioning as intended to clean and recycle water into the wetland.



Silt fence at CWP 89 working as intended during heavy rainfall.



Water filtration system at CWP 45.

Fraser River Horizontal Directional Drill (HDD)

Horizontal directional drilling (HDD) is being used to cross under the Fraser River. This work takes place in a phased approach beginning with the establishment of temporary workspaces on either side of the area being crossed at CWP 61 (KP 1165) and CWP 62 (KP 1166). The south side houses a drilling rig and associated equipment, and the north side at Colony Farm (KP 1166 – KP 1167) serves as a staging site for the pipe, including welding and pipe stringing.

In November, the Indigenous Monitors observed various construction activities and environmental mitigations associated with the Fraser River HDD, including maintenance of environmental feature staking and flagging and that ESC measures like silt fencing and polyethylene sheeting on soil stockpiles were functioning as intended, especially during and after the heavy rainfall in mid-November.

While drilling was in progress, the Indigenous Monitor accompanied the contractor and Environmental Inspector on walkthroughs along the path of the active bore to monitor for Inadvertent Fluid Release (IFR). In addition, Trans Mountain has retained an independent environmental consulting



IFR emergency response pathway is clear.



Fraser River HDD rig at CWP 61.

<p>company to monitor for IFRs by boat on the Fraser River in the vicinity of the HDD route.</p> <p>In November on CWP 62, the Indigenous Monitors observed hydrostatic testing of the welded pipe. They monitored that the water used for the testing was removed with hydrovacs and stored in large secure tanks for future testing use. The Indigenous Monitor also participated in discussions with the Environmental Inspector and Environmental Construction Analyst regarding the HDD and subsequent pullback operations.</p>	
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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	2	0	0	0	2
Fulfilled	2	-	-	-	2
Outstanding	-	-	-	-	-

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

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