

INDIGENOUS MONITOR OVERVIEW REPORT

Month: February 2022

Project Region: Lower Mainland

Indigenous Monitor days on-site: 25

**Kilometre Posts (KPs) monitored:
Spread 7 KP 1160–1176**

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 monitoring Heritage Resource sites, Traditional Land Use (TLU) features, erosion and sediment control measures, wildlife management and observation, and underwater noise monitoring and fish deterrents.

The Project Construction Progress Report (Condition 106) for February 2022, 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

Heritage Resource Site

Resource-Specific Mitigation Tables and Environmental Alignment Sheets are used to identify locations of and summarize specified mitigation for previously identified historical resources and TLU areas. Such locations have been identified via TLU studies conducted by Indigenous groups and archaeology baseline assessments conducted over many years of Project planning.

In February, the Indigenous Monitors observed Archaeological Impact Assessments (AIA) conducted near KP 1175. AIAs are completed by a qualified archaeologist and Indigenous Participants and include visual inspections to identify features with predictable archaeological potential, surface inspection of areas with exposed sediments for cultural or terrain features exhibiting archaeological potential, and systematic data recovery.

If an archaeological site is found, Trans Mountain completes the applicable reporting and applies for the required permits in alignment with the Heritage Conservation Act. Ongoing AIA activities continue in the Lower Mainland.

In February, the Indigenous Monitors alongside the Environmental Inspector and Resource Specialist, inspected that the appropriate signage, staking, flagging and buffer zones were in place for archaeological areas in Spread 7B. No deficiencies were found.



Systematic data at CWP 98.



Archaeological zone marked with adequate signage at CWP 100

Environmental Feature Site Flagging

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 February, the Indigenous Monitors noted all existing staking and flagging were maintained, and signage was visible and sturdy around TLU sites at the Fraser Valley Horizontal Directional Drill (HDD) entry and exit sites (KP 1165 and KP 1166), as well as at CWPs 87 (KP 1173.37), 89 (KP 1173.451) and 115 (KP 1179.613).



Visible TLU signage inspected at CWP 87 (KP 1173.37).

Wildlife Observation and Management

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

On CWP 59 (KP 1165), the Indigenous Monitor assisted the Resource Specialist in conducting raptor sweeps prior to clearing activities. The Indigenous Monitor also observed the resource specialist conduct bird surveys at CWP 100.

In February, planning for the upcoming nesting bird window was ongoing and mitigations like bird sweeps commenced. At Burnaby Terminal, the Indigenous Monitor routinely inspected areas on-site that could have potential for nesting birds. Mesh netting was installed to deter nesting in the terminal area.



Potential area for nesting birds near the Trevisa water treatment plant on Lower 200 access road. No nest or bird activity was observed.

Erosion and Sediment Control

Erosion and sediment control (ESC) mitigation measures are used to reduce erosion and limit sediment transport across construction sites to sensitive environmental features.

The Lower Mainland experienced heavy precipitation in February, making ESC a high priority. Indigenous Monitors, alongside Environmental Inspectors, observed and inspected numerous ESC measures throughout the terminals and CWPs on Spread 7B. Inspections were completed in areas including but not limited to CWP 61 (KP 1165.1), CWP 62 (Fraser River Horizontal Directional Drill 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. On Spread 7B, the Indigenous Monitor participated in a site construction meeting with the contractor and Environmental Inspector to discuss ESC plans for CWP 105 (1KP 176.73).

During a routine daily ESC inspection at Burnaby Terminal, the Indigenous Monitors observed that



Silt fencing installed next to the BC 782C watercourse in CWP 87.

polysheeting had blown off an exposed slope near the upper access road. This was reported to the Environmental Inspector and the contractor fixed the deficiency.



Silt fencing installed parallel to the S6 watercourse in CWP 98.

Underwater Noise Monitoring and Fish Deterrents

Offshore pile driving activities resumed at WMT in February. The marine derrick barges installed steel piles using vibratory drivers and impact hammers. Standard mitigation measures during all in-water pile driving activities include monitoring underwater noise levels using hydrophones to verify noise levels are below the applicable thresholds for the protection of fish and marine mammals. This is a requirement of the Fisheries and Oceans Canada *Fisheries Act* Authorization for the Project.

During impact pile driving, underwater bubble curtains are installed around the pile to reduce underwater noise levels. Analysis of underwater noise data indicates the use of two bubble curtains (primary and secondary) results in greater noise reduction than the primary bubble curtain alone.

To further mitigate potential impacts to fish, fish deterrent systems that combine high-intensity light with a low-frequency acoustic signal are deployed prior to impact pile driving. The purpose of the deterrent systems is to temporarily deter fish from the immediate area around the pile where elevated noise levels generated by impact pile driving could result in harm to fish. The sound signal used by the deterrent systems covers the most sensitive hearing band of the fish and is also within the audible range of humans. However, the signal is significantly below the high-frequency hearing of marine mammals so will not adversely affect marine mammals near the



Fish deterrent system at WMT deployed during marine impact pile driving.

<p>site. Two acoustic deterrent systems are deployed and operated for 10 – 30 minutes immediately prior to the start of impact pile driving. These units are lowered into the water from a barge and positioned at 1/3 and 2/3 water depth. The deterrent systems are used for all offshore impact pile driving.</p> <p>The Indigenous Monitor at WMT has been trained in the operation of the fish deterrent systems and in February performed regular inspections of the in-water pile driving activities to verify all relevant environmental protection measures and mitigations were being implemented and functioning properly.</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 requests for Project reports, input from an environmental resource specialist or on-site support from an Elder or other cultural knowledge holder. 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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