INDIGENOUS MONITOR OVERVIEW REPORT

Month: March 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 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. Activities included inspection and monitoring of bird deterrents, observing marine berth piles underwater noise monitoring, supporting wildlife observations and attending Regulator meetings.

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

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Bird Deterrents

To ensure the safety of the public and workers during construction of Westridge Marine Terminal, Trans Mountain installed a marine construction safety boom (floating fence) around the marine portion of the work area. To mitigate the potential for marine birds becoming entangled in the wire mesh, Trans Mountain installed two types of bird landing deterrents along the safety boom: spike strips and metal flashers. The Indigenous Monitor was involved in the selection of these deterrents and their installation along the safety boom. The Indigenous Monitor also participates in regular inspections of the deterrents to determine whether any are missing or damaged and require replacement.



Bird landing deterrents on the marine construction safety boom.

Wildlife Observation

One requirement of the Project is to note incidental observations of wildlife. In March, Trans Mountain identified a new bald eagle nest in a forested area to the east of Westridge Marine Terminal. A Wildlife Resource Specialist was engaged to assess the new nest and prepare a Bald Eagle Nest Management Plan. This plan identifies buffer zones around the nest where certain construction activities are restricted. The Wildlife Resource Specialist will conduct ongoing monitoring of the new nest to document nest construction and breeding success.

The Indigenous Monitor accompanies the Wildlife Resource Specialist during observation of the eagle nest. The Indigenous Monitor also reviews wildlife management plans, including the Bald Eagle Nest Management Plan.



Wildlife Resource Specialist observing the bald eagle nest located in a forested area east of the Westridge Marine Terminal.

Underwater Noise Monitoring and Fish Deterrents

In-water pile driving activities are ongoing at Westridge Marine Terminal. The marine derrick barges continue installing 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, an underwater bubble curtain must be installed around the pile to reduce underwater noise levels. To further mitigate potential impacts to fish, Trans Mountain is procuring an underwater acoustic deterrent system that will be used to deter fish from the area around the pile during impact pile driving. This acoustic deterrent system is scheduled to arrive on-site in April.

During impact pile driving, Marine Mammal Observers (MMOs) are present and monitor for the presence of marine mammals within their respective exclusion zone (which differs by species). Should a marine mammal be observed within the exclusion zone, impact pile driving is immediately stopped and does not resume until the marine mammal has left the exclusion zone or has not been re-sighted for 30 minutes.

The Indigenous Monitor performs ongoing inspection of the in-water pile driving activities to verify all relevant environmental protection measures and mitigations are being implemented and that these measures are functioning effectively.



Bubble curtain being installed on an offshore pile.



Bubble curtain in use.

Regulator Meetings

Fisheries and Oceans Canada (DFO) was at Westridge Marine Terminal to inspect on-site construction activities and verify compliance with the conditions of the *Fisheries Act* Authorization. DFO performs site inspections at Westridge Marine Terminal on a monthly basis.

The Indigenous Monitor participates in DFO inspections and is an active participant in discussions about the effectiveness of ongoing environmental mitigation and monitoring measures.



Indigenous Monitor performing marine environmental inspection at Westridge Marine Terminal.

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	2	2	0	0	4
Fulfilled	2	2	-	-	4
Outstanding	-	-	-	-	-

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

