

INDIGENOUS MONITOR OVERVIEW REPORT

Month: April 2020

Indigenous Monitor days on-site: 18

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 and Burnaby Terminal. Activities included inspection and monitoring of shoreline construction works, underwater noise monitoring and fish acoustic deterrents, an Archaeological Impact Assessment and participating in 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.

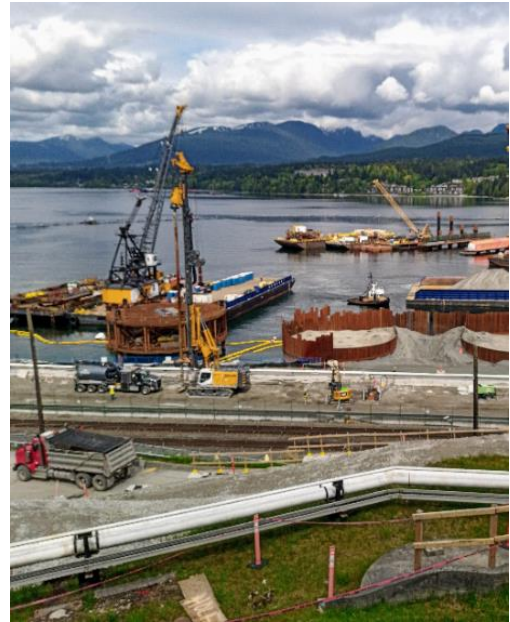
For more information: transmountain.com/covid19

Shoreline Works

Shoreline works were ongoing related to the expansion of the foreshore area at Westridge Marine Terminal (WMT). Key construction activities included infilling of the sheet pile cells and arcs, grading and levelling the fill material and cutting the sheet piles to design elevation. Ground improvement activities were also undertaken, including deep soil mixing and jet grouting.

Mitigation measures implemented to avoid or reduce potential adverse environmental effects of this shoreline construction activity includes the installation and maintenance of sediment fences, berms and ditches along the shoreline to prevent sediment and grout discharge into the marine environment. Additional erosion and sediment control measures along the shoreline include the installation of poly sheeting, straw, coco matting and sandbags.

The Indigenous Monitor is performing ongoing inspection and monitoring of construction activities and mitigation measures as construction work on the foreshore continues.



Foreshore works.

Underwater Noise Monitoring and Fish Acoustic Deterrents

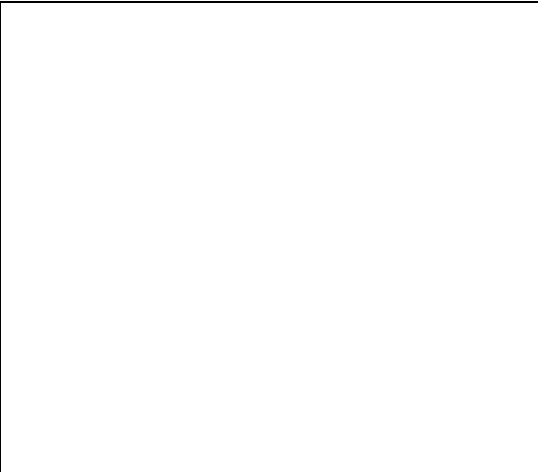
Offshore pile driving activities are ongoing at WMT. The marine derrick barges continue installing steel piles using vibratory drivers and impact hammers. Standard mitigation measures during all in-water pile driving activities include monitoring underwater noise levels using hydrophones to verify noise 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 procured an underwater acoustic deterrent system used to deter fish immediately prior to impact pile driving. The Indigenous Monitor at WMT has been trained on the operation of the system.



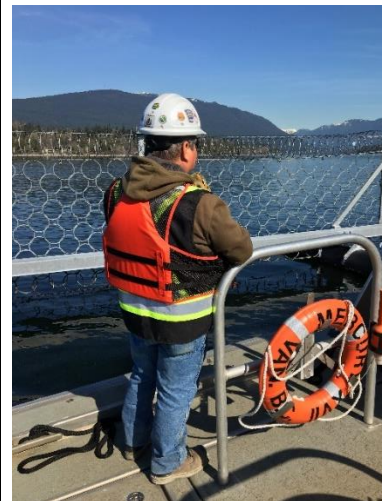
Fish Acoustic Deterrent System before underwater deployment.

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.



Regulator Meetings

Fisheries and Oceans Canada (DFO) and the Indigenous Advisory Monitoring Committee (IAMC) conducted meetings with the WMT team by teleconference. Foreshore and marine construction progress is discussed as well as environmental mitigation measures such as erosion and sediment control measures (e.g., turbidity curtains, shoreline slope protection), waste containment and management, bubble curtains and underwater noise monitoring for impact pile driving, and the fish acoustic deterrents.



Indigenous Monitor performing marine environmental inspection at Westridge Marine Terminal.

The Indigenous Monitor at WMT participated in the DFO and IAMC meetings and is an active participant in discussions about the effectiveness of ongoing environmental mitigation and monitoring measures.

Archaeological Impact Assessment

The Indigenous Monitor at Burnaby Terminal worked with Resource Specialists conducting an Archaeological Impact Assessment (AIA) within areas deemed for future construction.



Trans Mountain Resource Specialists conduct Archaeological Impact Assessment.

The AIA included surface walks, shovel testing, raking and screening, in search for potential heritage resources buried in the area. Works took place over two weeks with up to five archeologists on-site at any given time.

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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