INDIGENOUS MONITOR OVERVIEW REPORT

Month: December 2022

Project Region: Edmonton and Yellowhead

Indigenous Monitor days on-site: 26

Kilometre Posts (KPs) monitored: KP 1–377

Indigenous Monitors on the Trans Mountain Expansion Project – Overview

The Trans Mountain Expansion Project (the Project or TMEP) is retaining 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 sites 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 Edmonton and Yellowhead Regions. The purpose of this report is to provide an update on Indigenous Monitor activity to Indigenous groups.

During this reporting period, key activities in the Edmonton and Yellowhead Regions involving Indigenous Monitors included monitoring topsoil stripping and backfill, watercourse restoration inspection, right-of-way reclamation, Edmonton Terminal, Traditional Land Use (TLU) sites and erosion and sediment control. Pipeline construction on Spread 1 is mechanically complete; some final Project activities on the Spread 1 right-of-way are being completed intermittently. The Project Construction Progress Report (Condition 106) for December 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.

Right-of-Way Reclamation

Subsoil is de-compacted to alleviate compaction caused by construction activities before topsoil replacement. Acceptable topsoil depths are confirmed by an Environmental Inspector (EI) during final cleanup. Multiple measurements are taken of topsoil replacement quality and depth. After the contractor has properly prepared the ground for seed the areas is seeded with the approved seed mix that reflects the vegetation profile from pre-disturbance.

Indigenous Monitors were on-site inspecting various reclamation activities, including discing for soil decompaction, topsoil replacement, confirming topsoil depth and seeding. Indigenous Monitors were engaged in conversations with crews and EIs in all stages of reclamation. They discussed the need to postpone topsoil replacement in wet or windy conditions to prevent damage to soil structure or erosion of topsoil. No deficiencies were found.

Topsoil replacement and cleanup at KP 59.

Topsoil replacement at KP 197.

Topsoil Stripping and Backfill

Topsoil stripping, pipe installation and backfill activities continue on Spread 2. When salvaging topsoil in construction areas, required mitigation includes segregation of topsoil from root zone material, proper storage to reduce potential erosion, effective labelling and signage, and inspection of soil piles to ensure they are within the survey limits of the right-of-way and no soil has gone outside these limits.

The Indigenous Monitors noted mitigations for the topsoil piles to reduce erosion potential, including covering with tarps and staking. Inspections were conducted for the excavated soil placed in the trench over the installed pipe. The Indigenous Monitors observed sand and subsoil being backfilled over the pipe prior to topsoil being replaced and ensured backfill activities are confined to the construction right-of-way. No issues or potential chance finds were identified.

Backfill in progress KP 78.

Backfill in progress KP 76.

Watercourse Restoration Inspection

Environmental mitigation measures for in-stream construction of watercourses are prescribed in the provincial permits and the watercourse crossing plans, and in some cases, a Fisheries and Oceans Canada (DFO) authorization. Mitigation measures required for in-stream construction include but are not limited to biosecurity cleaning of equipment, secondary containment of hydrocarbons, salvaging of stream bed material, fish salvage, water quality monitoring and sediment/erosion control. When in-stream work is complete, Indigenous Monitors regularly monitor watercourse crossings. Erosion and sediment control (ESC) measures are monitored; these measures mitigate erosion and sediment transport from construction sites to downstream areas and watercourses. On-site ESC mitigations may include sediment fences, swales, wattles, rock armouring, erosion control blankets and hydroseeding, as well as water drainage control measures.

Indigenous Monitors inspected the effectiveness of restorations completed and observed site housekeeping efforts, recontour of the bank, transplant areas, including erosion control blanket, willow stakes in riparian zones, re-seeding in previously excavated and backfilled areas and rock armouring and stream bed material replacement. These mitigations were installed and working as planned. No deficiencies were identified.

Monitoring of AB-21 at KP 65.


Monitoring of AB-19 at KP 63.


Restoration of AB-37A complete at KP 95.

Traditional Land Use Sites

Resource-Specific Mitigation Tables and Environmental Alignment Sheets are used to illustrate 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 in relation to the Project over many years.

Indigenous Monitors inspected previously identified TLU sites along the right-of-way on Spread 2 to confirm mitigation measures remain in place, including signage, staking and flagging.

Indigenous Monitors inspect TLU sites with a focus on sites near active construction to ensure mitigation measures are in place to protect Heritage Resources. Sites inspected include but are not limited to TLU-1, TLU-4, TLU-5 and TLU-26.

An Indigenous Monitor also performed an inspection on a plant gathering site. The Indigenous Monitor confirmed no chemicals have been sprayed in the TLU site, construction is confined to approved work boundaries and that boundary signage is in place. Inspected mitigation measures remained in compliance. No cultural or environmental concerns were identified.

Signage and mitigations in place at TLU-5.

Signage and mitigations in place at TLU-26.

Edmonton Terminal Inspection

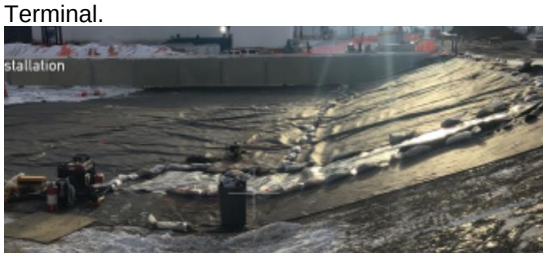
To accommodate the increased capacity of the pipeline system, Trans Mountain is adding new storage tanks at existing terminals. All additions will take place within the existing footprint of the terminals. All tanks are constructed in accordance with API Standard 650 – Welded Tanks for Oil Storage.

The Edmonton Terminal expansion is adding four new storage tanks, taking the total number to 39. The additional tanks will add approximately 1,315,000 bbl of capacity to the facility, bringing the total to 9.25 million barrels.

The Environmental Inspector and Indigenous Monitor conducted a joint inspection at Edmonton Terminal. Observations included construction in the Line 2 pump building; mechanical completion target is the end of January 2023. The containment wall around the four new tanks is almost complete. Liners in the new tanks are approximately 80 per cent complete, with final grade work ongoing within construction areas of Edmonton Terminal.

Waste management was inspected as well as secondary containment for equipment and fuel storage tanks. Open excavations were marked and properly delineated. Walking paths were kept clear. Spill kits and spill response procedures were also reviewed in the field. Key compliance measures on the construction permit were reviewed and mitigations were in place. No deficiencies were noted.

New pump building enclosed at Edmonton Terminal.



Good housekeeping on-site at Edmonton Terminal.

Fire and stormwater collection system under construction.

Erosion and Sediment Control

Site-specific ESC measures are implemented to prevent sediment-laden runoff from leaving the right-of-way or from entering watercourses and wetlands. Key areas where ESC measures are required can include soil excavations, exposed slopes, soil stockpiles and locations near watercourses.

On-site ESC mitigations may include sediment fences, swales, wattles, rock armouring, erosion control blankets and hydroseeding, as well as water drainage control measures.

Indigenous Monitors inspected ESC mitigations, including wing walls and silt fencing on Spread 2. Between KP 311 and KP 335, coarse woody debris (CWD) installation is ongoing as reclamation is completed in these areas. Indigenous Monitors inspected erosion control blankets secured with willow stakes, rock armouring, swales and placement of CWD in and around the several watercourse crossings and steep slopes. No deficiencies were identified.

Final cleanup complete with CWD and access management in place at KP 321.

CWD installed below berm at KP 320.

Indigenous Monitor Request Dashboard

Indigenous Monitors are provided with 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 (beyond any reports or documents requested and shared through day-to-day team activity on-site), 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	7	1	8	-	16
Fulfilled	7	1	8	-	16
Outstanding	-	-	-	-	-

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

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