INDIGENOUS MONITOR OVERVIEW REPORT

Month: October 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 pump-off, watercourse restoration inspection-DFO tour, right-of-way reclamation, Edmonton Terminal, Traditional Land Use (TLU) sites, topsoil stripping, backfill, as well as participating in the TMEP Line-Wide Indigenous Monitor Gathering. 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 October 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.

Pump-Off

To keep trench excavation areas dewatered and stable during pipeline construction, water that accumulates from precipitation or groundwater seepage is pumped off and relocated to an approved location either on or off the construction footprint. At KP 90, water accumulating in the excavated pipeline trench was pumped off to a sediment bag. Water flowing out of the filtration system was discharged upland to a well-vegetated area.

The Indigenous Monitors inspected to ensure the filtration system was functioning as intended and that no sediment loading was identified at the discharge point. It was observed that pump-off water was released a minimum of 50 m from the nearest watercourse, replacement materials were readily available, including sediment control devices, pumps, spill kits and secondary containment, and housekeeping of off-construction footprint locations was compliant. No deficiencies were identified during the inspection.

Pump-off location KP 90.

Watercourse Restoration Inspection – Fisheries and Oceans Canada

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.

In addition to regular watercourse monitoring, an Indigenous Monitor took part in a DFO inspection. The group inspected restored DFO sites on Spread 2 and engaged in conversations about each crossing with DFO representatives. Erosion and sediment control (ESC) mitigations were a primary focus of the inspection. The group looked at the effectiveness of mitigations installed, such as sediment fence, ESC blanket, willows, revegetation, rock armouring and coarse woody debris. No deficiencies were identified.

Restoration inspection AB-202 KP 337.

Restoration AB-167 KP 307.

Topsoil Stripping and Backfill

Topsoil stripping, pipe installation and backfill activities continue in Spread 2. When removing soil 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 grading and reducing ponding. 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 ensure backfill activities are confined to the construction right-of-way. No issues or potential chance finds were identified.

Ditching and backfill KP 111.

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 KP 52.

Checking topsoil depth KP 255.

Area seeded after cleanup KP 255.

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.

Strategies for avoiding or reducing potential environmental impacts are employed at all stages of construction by following the Environmental Protection Plans. The goal is to protect the environment, have as little impact as possible and ensure the land is returned to a similar function.

A joint inspection was conducted by the Environmental Inspector and Indigenous Monitor at Edmonton Terminal. Observations included construction of the containment wall, ongoing coating of the new tanks and the construction of the line 2 pump building.

The containment wall construction continues with installation going as planned. Mitigations for collecting the blasting sand were confirmed to be in place. Sandblasting material is collected and recycled. Line 2 pump building construction continues and is scheduled to be completed by the end of the year. Waste management was inspected as well as secondary containment for equipment and fuel storage tanks. 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 during inspection.

Manifold area Edmonton Terminal.

Containment pond Edmonton Terminal.

Manifold area and sump tank construction Edmonton Terminal.

Containment wall construction Edmonton Terminal.

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 included 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-2, TLU-4, TLU-5 and TLU-19.

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.

Mitigations in place TLU-1

Mitigations in place TLU-2

Signage in place TLU-9.

TMEP Line-Wide Indigenous Monitor Gathering

Trans Mountain Indigenous Monitors from across the Project gather annually for a team meeting to collaborate and discuss the TMEP IM program and topics of interest related to environmental inspection, monitoring and Indigenous interests.

On October 21, 2022, Indigenous Monitors from spreads and terminal locations gathered in person and via Teams web conference for a line-wide meeting. This collaborative meeting covered topics including TMEP construction updates and milestones, support and information request mechanisms, environmental skills development training/career progression opportunities and team-building opportunities.

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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