Le présent message contient des renseignements importants. Si vous avez besoin d'une traduction, veuillez communiquer avec info@transmountain.com



CONSTRUCTION NOTICE

TRANS MOUNTAIN EXPANSION PROJECT COQUIHALLA-HOPE, BC MAY 2020 – OCTOBER 2022*

Trans Mountain plans to proceed with pre-construction field activities to support construction of the Trans Mountain Expansion Project in the Coquihalla-Hope region between the Coquihalla Summit and Popkum this summer (within Construction Spread 5B). Trans Mountain plans to begin construction in this region in late 2020*.

*Activities and dates are subject to change.

As some regulatory approvals have a long lead time, Trans Mountain is not ifying affected parties now regarding these activities. Trans Mountain's first priority has and will always be the health and safety of our workforce, their families and our communities. In response to the evolving COVID-19 pandemic, Trans Mountain and our construction contractors for the Trans Mountain Expansion Project have been working diligently together to ensure adherence to all advice and direction from government and health officials both provincially and federally.

Trans Mountain continues the uninterrupted safe operation of the Trans Mountain Pipeline and construction of the Trans Mountain Expansion Project. We are grateful to all our people who continue to work under these challenging conditions and are committed to taking all appropriate meas ures to keep everyone safe, healthy and able to work.

For more information on Trans Mountain's COVID-19 response, please visit <u>transmountain.com/covid19</u>

Following the pre-construction activities, construction will begin in late 2020 in a series of phased activities along the pipeline right-of-way through October 2022*. The schedule and map on the following pages provide

Learn more about construction in your area and sign up for updates at: www.transmountain.com

> For more information please contact: 1.866.514.6700 info@transmountain.com

In case of a pipeline emergency or to report odours,

call 24 hours 1.888.876.6711



more information about the timing of construction activities in each community. Detailed explanations of the pre-construction and construction activities follow. The public's patience is appreciated as we work to minimize any disruptions or inconvenience associated with pre-construction and construction activities.

PRE-CONSTRUCTION ACTIVITIES

WHAT YOU MAY NOTICE

Pre-construction activities include surveying, flagging and staking the right-of-way, and locating underground utilities. During the course of these activities, the public may notice:

- Hand digging and/or hydrovac excavation
- Asphalt cutting and paving/patching
- Associated intermittent construction-type noise
- Site surveying at multiples points
- Intermittent traffic disruptions with control signage and flagging in place

The following measures will be in place to ensure Trans Mountain maintains a safe work environment with minimal impacts to the public and the environment:

- Activities will mainly take place between 7 am and 5 pm, Monday to Friday
- No work is planned on Saturday, Sunday, and statutory holidays
- Potential for temporary interruptions to traffic flow while work is underway
- Dust control measures will be in place
- Site-specific traffic management plans will be used to minimize impacts to the traveling public
- Survey and hydrovac locations will be restored following completion of the studies

SCHEDULE OF PRE-CONSTRUCTION ACTIVITIES*

Communities/Region	Approx. Date Range	Activities
Coquihalla Summit to Popkum	April 2020 – January 2021	 Preparing the right-of-way Utility location (Surface sweeping) Access points

PRE-CONSTRUCTION ACTIVITIES

Preparing the right-of-way

There are a number of steps involved in preparing the right-of-way for the arrival of construction crews and equipment, including clearing, flagging and installing temporary infrastructure. They include:

- BC One Call, locating and marking of all buried facilities
- Surveying
- Flagging and staking the right-of-way and any temporary workspace required for construction
- Installing signage



- Clearing trees and vegetation from pre-approved areas essential for construction
- Disposing or burning unsalvageable timber, like branches, tree limbs or shrubs left behind from clearing

Throughout these activities, we will implement environmental mitigation measures outlined in our Environmental Protection Plans, including having Environmental Inspectors and Indigenous Monitors on site. For more information, please view our Environmental Protection Plans at <u>transmountain.com/environmental-protection-plans</u>

Utility location

Trans Mountain and its contractors will be locating existing underground utilities and conducting land surveying along the Trans Mountain Expansion Project route between the Coquihalla Summit and Popkum (see map on page 5). Small potholes will be bored at targeted locations using a hydrovac truck and/or hand excavation. This work will help inform construction planning and confirm construction techniques planned in these areas.

CONSTRUCTION ACTIVITIES

WHAT YOU MAY NOTICE

During the course of these activities, the public may notice:

- Construction equipment and vehicles, and workers on-site
- Increased activity and intermittent construction-type noise in proximity to the work-site
- Rock blasting in areas where conventional excavation methods would be ineffective
- Signage in locations where construction activities will take place near recreation areas
- Additional directed lighting at the work-site
- Intermittent, temporary traffic delays or increase in traffic volumes

Trans Mountain's goal is to maintain safe work environments and minimize any impacts of these activities to the public and the environment. When work commences, the following measures will be in place to manage these impacts:

- Hours of work:
 - Activities will mainly take place between 7 am and 7 pm Monday to Saturday
 - Some facility construction work may take place on Sundays
 - Some blasting activities near roadways may take place at night in order to minimize disruption to the travelling pubic
- Contractors will abide by applicable noise bylaws, variances may be required for unexpected activities
 - Trenchless installation will be conducted under applicable Noise Management Plans as needed. Noise bylaw variances may also be required
- Dust from construction traffic will be controlled using best industry practices, including water trucks and street sweepers
- Lighting will be directed only on areas of work for worker safety
- Tree and vegetation removal work will comply with necessary approvals. Registered professional foresters and certified arborists will be on-site as needed
- Construction-related traffic will follow site-specific traffic management plans to minimize impacts to road users
- Construction vehicles will not occupy off-site public parking spaces
- Work will be monitored by Environmental Inspectors and Indigenous Monitors



Trans Mountain conducts all work under its Environmental Protection and Pipeline Protection Programs to ensure compliance with applicable regulations and requirements.

SCHEDULE OF CONSTRUCTION ACTIVITIES*

Communities/Regions	Approx. Date Range	Activities
Laidlaw	Active – October 2022	Stockpile site and construction yard use
Area 1 - see map	August 2020 – October 2021	Construction including: • Utility relocation
Area 2 - see map	October 2020– February 2022	 Pipeline construction Trenchless installation
Area 3 - see map	August 2020 – April 2022	 Watercourse crossings
Area 1 - see map	February 2022 – July 2022	
Area 2 - see map	May 2022 – August 2022	Hydrostatic testing and valve installation
Area 3 - see map	May 2022 – October 2022	
Норе	March 2021 – November 2021	Pump station construction

*Dates are subject to change. Commencement of work is subject to necessary regulatory approvals and permits. Activities will start no sooner than the date shown.



CONSTRUCTION AREA





CONSTRUCTION ACTIVITIES

Environmental protection

As part of the Trans Mountain Expansion Project, extensive work has been conducted to determine environmental impacts and develop mitigation measures to reduce those impacts. Our goal is to protect the environment, have as little impact as possible and, where we do have an impact, ensure we return the land to a similar function following construction.

We completed field studies between 2012 and 2018 along the proposed pipeline corridor studying a wide range of environmental features, including wildlife, fisheries, plants, species at risk or species of special status, soils, heritage resources, traditional land use and air and greenhouse gas emissions. Following the field studies, we conducted extensive analysis to predict the effects associated with the Project, including those that could be caused by construction, operations, decommissioning or abandonment, as well as potential incidents and malfunctions. The information and analysis were used to develop our Environmental Protection Plans.

Mitigation strategies for avoiding or reducing potential environmental effects will be employed at all stages of the Project. For more information about environmental mitigation methods and our Environmental Protection Plans, visit <u>transmountain.com/environmental-protection-plans</u>.

Stockpile sites and construction yards

In 2019 Trans Mountain began preparing and activating pipe stockpile sites to support construction related activity. These sites are being used for:

- Delivery and storage of construction materials and equipment, including stockpiling and staging of pipe
- Installation of temporary office buildings or trailers to support construction crews building the pipeline and associated facilities
- Transportation of materials and equipment to and from the site

One site has been activated in Laidlaw. In the coming months, crews will also prepare an additional construction yard located in the Upper Fraser Valley for use in the near future.

Blasting

Blasting will take place at a number of locations near roadways, waterways, existing underground facilities and geohazard areas. Blasting close to roadways will usually take place at night to minimize impact to the travelling public. Temporary road closures may be required. Residents may notice noise relating to the blast and clean-up activities.

Utility relocation

Trans Mountain will work collaboratively with TELUS and/or BC Hydro to relocate their utilities in some areas, where new right-of-way areas are required. This should not impact your services, but you may see work crews in your area.

Pipeline construction

Once clearing is complete and access to the right-of-way has been established, crews will perform a series of steps within the construction footprint to facilitate installation of pipe in the ground:

- Remove topsoil and grade the surface to prepare for the arrival of bigger equipment and delivery of pipe segments
- Remove pipe from delivery trucks and lay down along right-of-way



- Weld pipe segments together and apply a protective coating
- Perform non-destructive examinations to ensure quality of welds
- Dig a trench and lower in pipe sections
- Backfill the trench to bed and protect the pipe
- Cleanup and reclamation activities. These include returning the right-of-way to its original grade, replacing any topsoil and replanting vegetation.

Where the pipeline crosses a body of water, one of three construction methods of construction will be used. The techniques for each are site-specific:

- Isolated method
 - The stream is temporarily dammed and rerouted through temporary pumps or using piping often referred to as a flume. The pipe is then installed using conventional construction techniques before the dam is removed and the stream returned to its normal flow path. Great care is taken to preserve the environmental features around the stream, such as the wildlife and aquatic habitat provided within the riparian zone.
- Trenchless method
 - Trenchless construction methods can be used to cross under some watercourses, leaving the bed and banks relatively undisturbed. Trenchless methods are only possible in the right geotechnical conditions and require special environmental measures to be put in place.
- Open-cut method
 - If the other techniques cannot be used for environmental or geotechnical reasons, we will use an open-cut crossing of the watercourse. Open-cut watercourse crossings trench directly through the watercourse following the conventional construction methodology.

Engineering feasibility assessments have been made to determine the most suitable crossing techniques to be used at each water crossing. Regulatory guidelines and standards will apply to all crossing methods, as will appropriate erosion and sediment control measures to ensure the safety of the body of water.

Learn more about pipeline construction and watercourse crossings at transmountain.com/building-a-pipeline

Trenchless installation

Trenchless construction methods can also be used to install the pipe for select road or highway crossings and in places with restricted workspace such as some urban or residential areas. Several different trenchless methods can be employed with the selected methodology based on geotechnical conditions, topography, available working space and length of the crossing. Trenchless installation methods include direct pipe, horizontal directional drilling, and micro tunnelling.

For more information on trenchless construction, please visit transmountain.com/building-a-pipeline

Performing a hydrostatic test

Before the pipeline is ready to transport oil, a hydrostatic test is performed. A hydrostatic test is a way pipelines can be assessed for strength and any potential leaks. The test involves filling the pipe system with water and increasing pressure of the pipe to the specified test pressure. Should there be any leaks or weaknesses, they can be identified through this test and rectified. Hydrostatic testing is the most common method employed for testing pipes.



Valve installations

Valves are installed at intermediate locations as required by the pipeline design and the Canadian Standards Association pipeline code. The valves are used once the line is in operation to shut off and then isolate part of the pipeline. Valve installation will take place along the pipeline route once hydrostatic tests are completed.

