



TRANSMOUNTAIN BACKGROUNDER

Project Cost and Schedule

To date, Trans Mountain has spent \$2.5 billion on the Expansion Project and it is anticipated that an additional \$8.4 billion will be spent to complete the Project, plus \$1.7 billion of financial carrying costs for a total cost estimate of \$12.6 billion. The in-service date is expected to be December 2022.

Breakdown of Project Costs

The Project today is a very different project from the last time a cost estimate was completed. There are two broad categories, with an approximate fifty-fifty split, that explain the variation in cost estimate in 2020 versus 2017:

1) Refined project scope and improvements, risk management, and contingencies:

Since 2017, Trans Mountain has completed final, detailed engineering work and has included additional safety and environmental standards that comply with the current regulatory context and the 156 conditions from the Canadian Energy Regulator. There are also additional commitments that have been as part of Phase III consultations with Indigenous groups that have been outlined by the Government of Canada. There is also a \$500 million in contingency, which is appropriate for a large-scale infrastructure project of this size and complexity.

2) Impact of the 2018 Federal Court of Appeal decision:

Delaying construction for approximately one year had a significant impact on the Project budget. This increase includes higher cost of land acquisition, higher labour costs that reflect market conditions, as well as higher costs related to safety and security.

The company has also recommended to the Government of Canada in its capacity as owner and lender, a further \$600 million reserve for cost impacts beyond the control of Trans Mountain.

Employment & Training

As of December 31, 2019, Trans Mountain and our contractors have:

- Hired more than 2,900 people, with more than 300 Indigenous hires
- Trained more than 825 people, more than 110 have been Indigenous
- \$21 million in education and training funding, programs and initiatives
- Spent almost 7 million person hours on the Project

Major Activities Update and Future Workforce Forecasts

Current workforce forecasts will see 5,500* people employed at peak construction period in mid to late 2021. Trans Mountain is committed to prioritizing and maximizing Indigenous, local and regional hiring to the greatest extent possible.

Major Project Activities	Activities	Start Time	Peak Workforce
Spread 1 (KP 0-49)	Pipeline construction underway	Started Q4 2019	500 people in Q1/Q2 2020
Spread 2 (KP 49-338)	Pipeline construction underway <ul style="list-style-type: none"> Clearing, preparation Trenchless crossings 	Started Q4 2019 Started Q1 2020 Q3 2020 start	800 people in Q3/Q4 2020
Spread 3 & 4A (KP 489-610-690)	<ul style="list-style-type: none"> Special projects and early works Right-of-way clearing & Pipeline 	Q1 2020 start Q3 2020	900 people in 2021
Spread 4B (KP 690-765)	<ul style="list-style-type: none"> Surveys and early works Right-of-way clearing & Pipeline 	Q1 2020 start Q3 2020 start	400 people in Q1/Q2 2021
Spread 5A (KP 806-990)	<ul style="list-style-type: none"> Special projects in Kamloops & trenchless crossings Right-of-way clearing & Piping 	Q1 2020 start Q3 2020 start	600 peaking in Q4 2021
Spread 5B (KP 990-1075)	<ul style="list-style-type: none"> Special projects and early works Surveys and right-of-way clearing 	Q1 2020 start Q3 2020 start	900 people in Q3/Q4 2021 and Q1 2022
Spread 6 (KP 1075-1145)	<ul style="list-style-type: none"> Surveys, hydrovac and early works 	Q3 2020 start	300 people in Q3/Q4 2021
Lower Mainland (KP 1145-1180)	Westridge Marine Terminal and Burnaby Terminal construction underway <ul style="list-style-type: none"> Pipeline construction, Tunnel portal construction, Sumas Terminal construction 	Started Q3 2019 Q1 2020 Start	1000 people
Pump Stations and Edmonton Terminal	Construction Underway	Started Q4 2019	500 people
Reactivation of Existing Line (KP338-489; KP 765-806)	<ul style="list-style-type: none"> Surveys, hydrovac and digs Integrity work and Crossings 	Started Q1 2020	150 people
Project Team			1,300 people

*The highest number of people forecasted to work on the Project at one time.

Construction by Region

Greater Edmonton

Includes the addition of four new storage tanks at our Edmonton Terminal and Spread 1 pipeline construction – approximately 50 km of pipeline.

- Edmonton Terminal Contractor – Cord
- Spread 1 Pipeline Contractor – SA Energy Group

Yellowhead

Includes four pump stations and Spread 2 pipeline construction – about 285 km of pipeline.

- Spread 2 Pipeline Contractor – Midwest Pipelines
- Pump Stations Contractor – Cord

North Thompson

Includes three pump stations and three Spreads 3, 4A and 4B, totaling approximately 275 km of pipeline construction between Mount Robson Provincial Park and our Darfield Pump Station north of Kamloops.

- Spread 3 & 4A Pipeline Contractor – Ledcor Sicim
- Spread 4B Pipeline Contractor – SA Energy Group
- Pump Stations Contractor – Cord

BC Interior

Includes Spread 5A pipeline construction – about 185 km of pipeline and three pump stations.

- Spread 5A Pipeline Contractor – Surerus Murphy Joint Venture
- Pump Station Contractor – Cord

Coquihalla – Hope

The Coquihalla-Hope portion of the Project includes Spread 5B pipeline construction – approximately 85 km of pipeline and one pump station.

- Spread 5B Pipeline Contractor – Macro Spiecapag Joint Venture
- Pump Station Contractor – Cord

Fraser Valley

The Fraser Valley includes Spread 6 pipeline construction – about 70 km of pipeline construction from Popkum/Bridal Falls to Langley and the expansion of the Sumas Terminal in Abbotsford.

- Spread 6 Pipeline Contractor – SA Energy Group
- Sumas Terminal Contractor – Kiewit Ledcor Trans Mountain Partnership (KLTP)

Lower Mainland

The Lower Mainland includes Spread 7 pipeline construction – 35 km of pipeline construction between Langley and Burnaby, as well as the expansion of Burnaby Terminal and Westridge Marine Terminal, and construction of the Burnaby Mountain Tunnel.

- Spread 7 Pipeline Contractor – Kiewit Ledcor Trans Mountain Partnership (KLTP)
- Burnaby Terminal, Westridge Marine Terminal, Burnaby Mountain Tunnel Contractor – Kiewit Ledcor Trans Mountain Partnership (KLTP)

Reactivation

To complete the full twinning of the pipeline system, two pipeline segments that have been maintained in a deactivated state will be reactivated:

- Hinton, Alberta to Hargreaves, BC: approximately 150 km
- Darfield to Black Pines, BC: approximately 42 km
- Reactivation Contractor – SIMPCW Ledcor