

Project Benefits OVERVIEW



Trans Mountain Expansion Project



Trans Mountain is expanding its current 1,150-kilometre pipeline between Strathcona County, Alberta and Burnaby, BC. The expansion will create a twinned pipeline that will increase the nominal capacity of the system from 300,000 barrels per day to 890,000 barrels per day.

On November 29, 2016, the Government of Canada granted approval for the Trans Mountain Expansion Project to proceed with 157 conditions. The expansion will add approximately 980 km of new pipeline and reactivate 193 km of existing pipeline. To support the expanded pipeline, there will be 12 new pump stations, 19 new tanks at existing storage terminals and three new berths at the Westridge Marine Terminal.

Routing of the expansion will remain along the existing Trans Mountain Pipeline route where practical – 89 per cent of the new pipeline would parallel the existing pipeline system or linear infrastructure, minimizing environmental and community impacts.

ECONOMIC BENEFITS

Twinning the Trans Mountain Pipeline will increase the value of Canadian oil by unlocking access to world markets where higher prices are paid for oil, resulting in greater tax revenue for Canada.

The expansion will enable producers to capture an additional \$73.5 billion in revenues.

The \$7.4* billion expansion will result in direct and lasting economic benefits to Canada and communities along the pipeline corridor. The Conference Board of Canada conservatively estimates \$46.7 billion will find its way into government treasuries in the form of taxes and royalties from the Project during development and over the first 20 years of operations. It will also generate an estimated \$23.2 million in additional municipal property taxes annually in BC, and an additional \$3.4 million annually in Alberta, which is more than double the current amount.

Overall, the Project generates more than 800,000 direct, indirect and induced person years of employment due to Project development, operations and higher netbacks. Construction workers will spend an estimated \$479.6 million on



accommodation, meals and personal items in pipeline communities during construction (\$381.7 million in BC and \$97.9 million in Alberta).

* Actual project costs may change.





COMMUNITY BENEFITS

Trans Mountain is committed to providing tangible benefits to local communities impacted by the construction of the proposed pipeline.

As of December 15, 2016, we've signed Community Benefit Agreements totalling \$8.47 million with communities along 95 per cent of the pipeline corridor. The investments will help fund anything from improvements to local emergency management to enhancement to trails and parks, infrastructure improvement or support for local educational and training programs.

Trans Mountain has signed 51 Mutual Benefit Agreements with Aboriginal communities that will see Trans Mountain share in excess of \$400 million with those communities. The agreements (10 in Alberta and 41 in BC) include all of the First Nations whose Reserves the Project crosses and approximately 80 per cent of communities within proximity to the pipeline right-of-way.

CREATING A SAFER, STRONGER PROJECT

Over the past four years, we've consulted with thousands of individuals through 159 open houses or workshops along the pipeline and marine corridors, and organized more than 1,700 meetings between Project team members and stakeholder groups. The input and feedback we've gathered has created a stronger, safer and more responsive Project. We have made hundreds of firm commitments to address concerns, and are required to meet all conditions put forward by the National Energy Board.

Substantial work has gone into identifying potential environmental impacts and mitigation measures to reduce risk and improve environmental stewardship. We've optimized the Project in response to feedback and concerns, including routing of the pipeline to avoid wetlands, parks, environmentally

sensitive areas and 22 river crossings at significant fish bearing rivers. We've also made safety changes such as increasing isolation valves from 94 to 126, which will result in a significant reduction of potential spill volumes, and increasing the pipeline wall thickness in high consequence areas, such as urban locations and river crossings.

We're committed to an enhanced Emergency Management Program, building on the existing plans and the company's focus on operating, managing and protecting the integrity of the pipeline system. If our proposal is approved, a \$100 million investment will be made in Western Canada Marine Response Corporation (WCMRC) to create new response bases along the tanker route and fund new equipment. This will cut planning standards for response times in half and increase response capabilities.



WHY TRANS MOUNTAIN?

The proposed Trans Mountain Expansion Project is an opportunity for Canada to access world markets for its resources by building on an existing system in a way that minimizes the impact on the environment, addresses social impacts and provides immense economic benefits and opportunities to all Canadians. We are proudly building on our 60-year history of positive working relationships and demonstrated commitment to safe and reliable operations.



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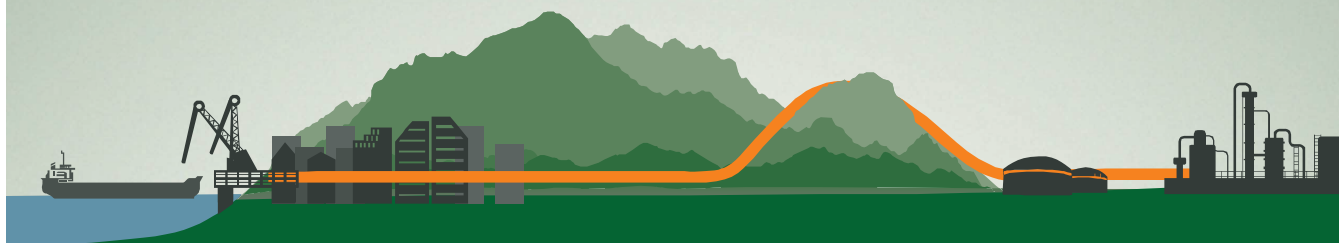
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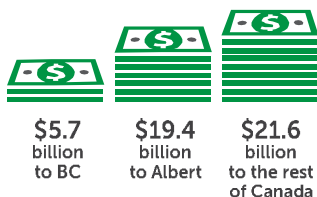
ECONOMIC BENEFITS

The \$7.4* billion Trans Mountain Expansion Project will deliver significant economic benefits for Canadians.



By unlocking access to world markets for oil, the Project will result in increased tax dollars and years of employment.

\$46.7 billion provincial/federal taxes during construction, over 20 years of operations and from impacts of higher prices for oil producers, including:



CANADA WILL EARN APPROXIMATELY



more a year for our oil as a result of selling it to international markets

AT THE MUNICIPAL LEVEL, the approval of the Expansion Project would increase property tax revenue by \$530 million to local governments along the pipeline right-of-way over 20 years.



TOTAL PROPERTY TAXES PAID OVER 20 YEARS OF OPERATIONS WOULD INCREASE TO:

Burnaby: **\$264 million**
Thompson-Nicola Regional District: **\$262 million**
Yellowhead County: **\$45.6 million**

The Project would generate more than 800,000 person years of employment during construction and 20 years of operations.



Person-years of employment:

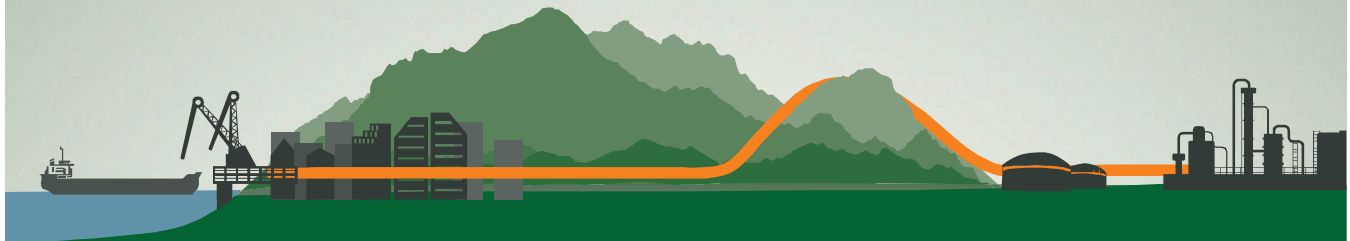
BC: 189,000 Alberta: 441,000 Rest of Canada: 171,000



* Actual Project costs may change.

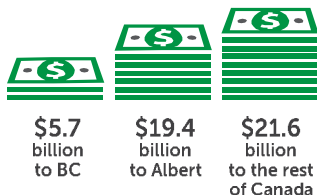
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CREATING JOBS

The Trans Mountain Expansion Project will offer a variety of jobs in BC and Alberta related to building the approximately 980 kilometres of new pipeline and associated facilities. Construction will take place in a phased approach between September 2017 and December 2019.

Employment

=

more than 800,000 person years during
Construction and 20 Years of Operation



189,000 person years in BC



441,000 person years in Alberta



171,000 in other Provinces/Territories

The equivalent number
of jobs per year:

=

15,000 for construction (9,000 in BC)
37,000 for operations (8,000 in BC)

The majority of jobs will be created during pipeline construction and span a wide variety of responsibilities, skill levels and trade specializations.

Workers will be hired mainly through contractors responsible for building the pipeline spreads and facilities which include terminals and pump stations.

Typical Pipeline Spread:



- 47 Management
- 24 Foreman
- 26 Straw Boss
- 12 Mechanic
- 130 Equipment Operator
- 52 Driver
- 19 Coater/Sandblaster
- 31 Welder
- 31 Welder's Helper
- 20 Labourer Plus
- 145 Labourer
- 8 Tester
- 6 Medical and Security
- 35 Direct Pipe/Hdd

Typical Pump Station Crew:



- 2 Management
- 4 Inspector
- 4 Foreman
- 2 Millwright
- 3 Welder
- 3 Pipefitter
- 6 Electrician
- 6 Carpenter
- 1 Crane Operator
- 2 Painter/Coater
- 4 Building Erector
- 6 Site Prep Earthworks
- 6 Labourer

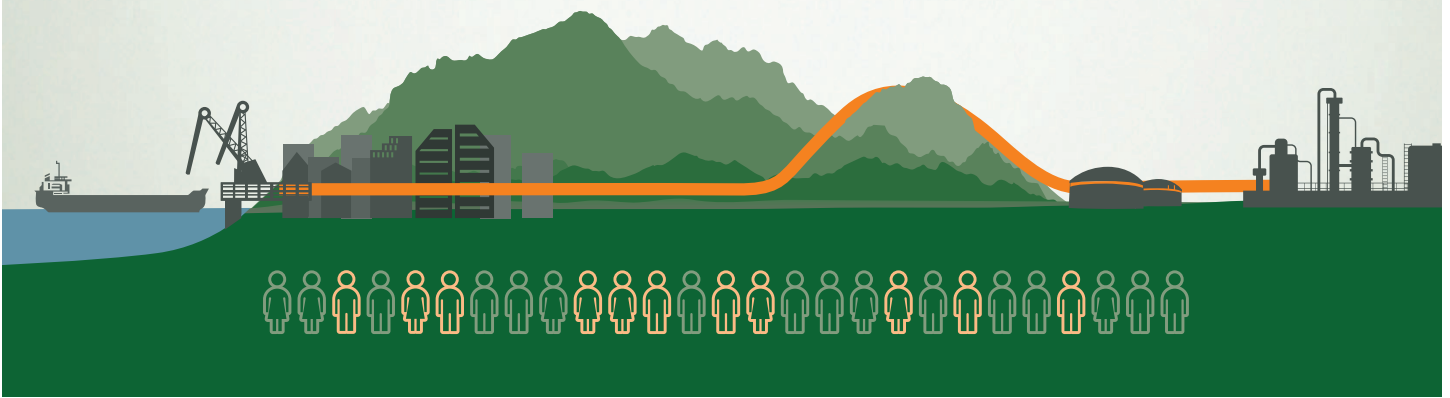
Trans Mountain is working to identify individuals who are interested in employment opportunities. We are committed to maximizing opportunities for Aboriginal, local and regional residents. Register your interest online at www.transmountain.com/jobs.



TRANSMOUNTAIN EXPANSION PROJECT

Connect & Register Online For Local Job Opportunities:

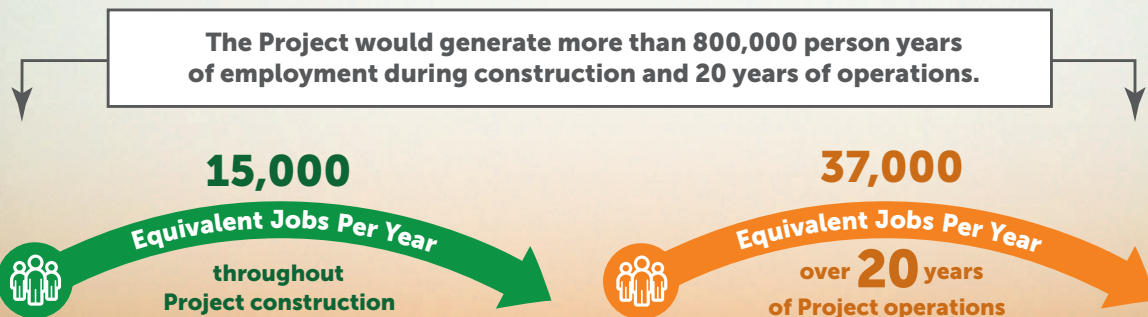
transmountain.com/jobs | transmountain.com/procurement



TRANSMOUNTAIN

Committed to providing pipeline and facilities construction employment and procurement opportunities for Aboriginal, local and regional community members.

The jobs will be hired mainly through contractors or sub-contractors responsible for building the pipeline and facilities.



Register Online: transmountain.com/jobs | transmountain.com/procurement

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Community Roundup

The Trans Mountain Expansion Project means new short- and long-term jobs, training opportunities for job seekers, more taxes paid to all three levels of government and money for communities to pay for many local projects.

Direct Project economic impacts in the Surrey area:



Annual Tax Revenue*
\$1,015,000

(to the City of Surrey),
an increase of \$441,000



Construction Spending**
\$1.15 billion

(in the Metro Vancouver region)



Workforce Spending**
\$158.7 million

(in local spending in the Metro Vancouver region by local and non-local workers during construction)

* Numbers based on 2013 data

** Numbers based on 2012 estimates, subject to change

The Project team connects with Surrey:

Connected to Surrey

For more than four years, the Trans Mountain Expansion Project team has been meeting with and listening to Aboriginal groups, local communities and governments to find out what topics they care about most.



Public Information Sessions



Website and Online Forums



Meetings with Local and Regional Governments



Presentations to Community Groups



Workshops

The community identified what matters most:



Routing and Construction

- Avoid Surrey Bend Regional Park and high-density residential areas
- Minimize impacts on city's infrastructure
- Minimize traffic and access impacts to residents and commuters



Safety and Emergency Preparedness

- Spill response and impacts in the event of an emergency



Economic Benefits for Local Businesses

- Procurement opportunities
- Employment and training

Several local changes have been made in Surrey:

Surrey Project Changes

Feedback has resulted in a stronger, safer and better Project. Stakeholder feedback has changed the Project and will continue to do so.



Routing

- Routing not considered along existing Trans Mountain Pipeline to avoid urban infill and residential neighbourhoods
- Preferred routing is along South Fraser Perimeter Road (SFPR) to avoid Surrey Bend Regional Park



Environment

- Measures to protect Species at Risk, such as the Pacific water shrew, and protect wetland areas



Safety and Emergency Preparedness

- Heavier walled pipe and marker tape in urban areas to reduce potential for pipeline damage associated with third party ground disturbance activities



Engineering

- Trenchless installation of major paved roads to avoid traffic disruption

Next Surrey Engagement

Detailed proposed construction plans will
be shared in Q2 2017.

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A Socio-Economic Effects Monitoring Plan (SEEMP) has been developed to address Trans Mountain's commitments to stakeholders as well as meet the requirements of National Energy Board (NEB) Condition 13. The SEEMP will form part of a broader strategy to monitor and report on Project-related socio-economic effects, and will be submitted to the NEB prior to the start of construction.

Trans Mountain identified a number of sources of data (indicators) in the SEEMP to help track socio-economic effects of the Project. These indicators will help monitor construction effects and will provide Trans Mountain with an opportunity to adjust mitigation for any adverse community impacts.

Indicators have been identified for construction-related activities such as:

- Traffic
- Worker accommodation
- Worker health
- Sensory disturbance
- Impacts on community services such as health, medical and emergency
- Changes in population, unemployment, rental and vacancy rates

Potentially affected Aboriginal groups, communities, local and regional authorities as well as service providers provided feedback on the indicators and monitoring approach as part of construction planning.

