Line 5 Segment Replacement Project: St. Clair River Crossing

In November 2017, Enbridge entered into an agreement with the State of Michigan to address the future of Line 5, a 1,038-kilometre, 30-inch-diameter pipeline that originates in Superior, Wisconsin, travels through Michigan’s Upper and Lower Peninsulas, and terminates in Sarnia, Ontario.

The agreement features seven key actions Enbridge will undertake to enhance the overall safety of Line 5 and protect the waters of the Great Lakes, including replacement of the pipeline segment that crosses the U.S.-Canada border at the St. Clair River from Marysville, MI to Froomfield, ON. The segment replacement will be installed underneath the river bed using Horizontal Directional Drilling (HDD), a proven construction method that is preferred for larger rivers or certain sensitive crossings because it minimizes impacts on the surface area.

Is the segment crossing safe? If so, why replace it now?

Ongoing inspections and engineering studies show that Line 5 at the St. Clair River crossing remains safe to operate. The replacement of Line 5 at the St. Clair River is one of seven proactive measures resulting from our agreement with the State of Michigan, and is not maintenance driven. We believe the agreement demonstrates our commitment to doing the right thing to serve the public interest in the Great Lakes Region and enhance the overall safety of Line 5.

Will this project benefit the local economy?

Pipelines projects like this bring economic benefits to communities through which they pass in the form of potential job opportunities, municipal and property tax revenues. As the project is currently in the planning phase, we haven’t yet determined workforce requirements in consultation with construction service providers. However, pipeline projects typically provide opportunities for the following disciplines: labourers, welders, equipment operators, teamsters and drivers. This project will also stimulate the local economy through the purchase of goods and services and items such as food and accommodation for workers.

How will this project enhance the safety of Line 5 and the St. Clair River crossing?

In addition to ongoing improvements to our inspection and monitoring of Line 5, our agreement with Michigan includes a plan to replace the pipeline crossing at the Straits of Mackinac. Regarding the St. Clair crossing, we expect to install pipe with a heavier wall thickness and higher tensile strength steel. The coating will be a fusion bonded epoxy likely with an abrasion-resistant overlay. New remote-operated valves with continuous pressure monitoring will also be installed on both sides of the river.
Line 5 – A key economic driver

Line 5 is an integral part of the Great Lakes region’s critical energy infrastructure, providing a safe and efficient supply of crude oil to numerous regional refineries in both the U.S. and Canada, which in turn produce essential petroleum products such as propane, gasoline, diesel and asphalt.

Line 5 transports up to 540,000 barrels per day (bpd) of light crude oil, light synthetic crude oil, and natural gas liquids (NGLs), which are refined into propane.

Line 5 delivers crude oil to refineries located in Lambton County, Ontario where it is refined into a broad range of fuel and lubricant products to meet Ontario’s energy needs.

The products moved on Line 5 heat homes and businesses, fuel vehicles, and power industry in Ontario, Michigan and Ohio. Liquid Natural Gas (LNG) delivered to Michigan on Line 5 is processed into 380 million gallons of propane per year, accounting for about 65% of the propane that heats Upper Peninsula homes, and provides 55% of Michigan’s total propane needs.

Line 5 also supplies the vast majority of crude oil feedstock to Marathon’s Detroit refinery and also carries up to 14,000 bpd of Michigan-produced light crude. Since 1953, Line 5 has carried about 80 million barrels of Michigan-based crude to market.

Replacing the Line 5 St. Clair River crossing

Our plan is to replace the pipeline segment within the same corridor as the existing crossing between Marysville, Michigan and Froomfield, Ontario.

During construction, drilling equipment will be located on both sides of the river. The rig will be located on the U.S. side and a reaming platform will be located on the Canadian side. Although land around the drill entry and exit locations is disturbed during HDD activities, it will be restored to its pre-construction state upon project completion.

Construction will commence once all permit and authorizations are received. Once underway, construction is expected to last approximately four months. Federal permit applications will be filed by the summer of 2018.

Enbridge has notified landowners and residents in the impacted work areas so that field assessments can begin. We will work with landowners and all stakeholders to identify possible impacts and develop strategies to mitigate project-related impacts where possible. We have also begun outreach to nearby Indigenous communities, municipalities, businesses and industrial/ environmental associations and these engagements will continue through the life of the project.

Horizontal Directional Drilling – Minimizing Impact

HDD is a proven construction technique whereby advanced technology is used to drill an underground arc that travels down, under and back up to the surface on the far side of a water body or other crossing. For large rivers or certain sensitive crossings, directional drilling is an appropriate and preferred construction method because it minimizes impacts on the surface area above the drill.

We want to hear from you

As always, should you have any questions or concerns regarding the St. Clair HDD Segment Replacement Project, please call our toll-free line at 1-888-967-3899, send an email to projects@enbridge.com or visit Enbridge.com/StClairHDD.