

## **EXHIBIT C            PURPOSE, NEED, PROPOSED PROJECT AND TIMING**

## 1. PURPOSE, NEED, PROPOSED PROJECT, AND TIMING

### *Purpose and Need for Proposed Project*

1. Imperial's SPPL is important infrastructure that provides petroleum products used by households and businesses across the Greater Toronto and Hamilton Area. Products include a significant portion of jet fuel for Toronto Pearson International Airport, as well as gasoline and diesel fuel that keep people, goods and services moving throughout the region. To support continued safe, reliable, and environmentally responsible transportation of products, Imperial is planning to construct and operate approximately 63 kilometres of pipeline between the company's Waterdown Station and Finch Terminal to replace the transportation capabilities of the existing SPPL.
2. Figure 1-1 below shows the existing Imperial SPPL network in Ontario.
3. Imperial has elected to replace the SPPL at this time as part of the ongoing integrity management system. Other possible options to replace the transportation capacity of the SPPL, such as truck transportation, were not considered suitable alternatives due to safety and traffic congestion in this highly urbanized region.
4. The Waterdown to Finch segment of the SPPL has operated safely since it was constructed in the mid-1950s. Imperial attributes this record of safe and reliable operations to its preventative maintenance and proactive pipeline inspection programs. The pipeline is monitored 24 hours a day, 365 days a year through pressure monitoring by a remote control centre. Weekly aerial patrols and patrols by truck and by foot are conducted along the pipeline's path and specialized tools such as SmartBalls and Smart Pigs are used to confirm both internal and external characteristics of the pipeline and identify necessary repairs. Ongoing maintenance work, known as integrity digs, facilitates continued safe pipeline operations through physical inspection and installation of repair sleeves to reinforce the pipeline. Since 2014, an average of 16 digs have been conducted per year as part of the ongoing integrity dig program.
5. The operating pressure of the existing 12-inch carbon steel pipeline can vary based on the product being shipped, as well as the current supply and demand balance, but never exceeds the maximum regulated limit. To further support safe operations, Imperial reduced the pipeline segment's operating pressure in 2014 as part of its integrity management system.
6. The SPPL transports important refined fuel products such as diesel, gasoline and jet fuel, which are shipped through the same pipeline using a method called 'batching'. This includes moving a specific volume of one product through the pipeline, known as a batch, before switching to the next product type. The products are pumped consecutively without a physical barrier between the fluids. The pure product is received and separated into tanks for quality testing and further delivery at the Finch Terminal, while the mixed portion of products between batches is removed for further processing. The replacement pipeline will continue to operate using this method to deliver multiple refined products to market.
7. The purpose of replacing the Waterdown to Finch segment of the SPPL is to support continued safe and reliable pipeline operations for decades to come.

### *Proposed Project*

8. The proposed Project involves installation of approximately 63 km of a new 12-inch diameter pipeline and associated infrastructure between Imperial's Waterdown Station and Finch Terminal.
9. In consideration of social and environmental constraints, and to minimize impact on infrastructure and other land uses in the area, the new pipeline will be constructed following the existing SPPL route as closely as possible. The existing pipeline is located within an Imperial right-of-way ("ROW") for

approximately 18.8 km, and within a ROW managed by Hydro One Networks Inc. ("HONI") for approximately 43.7 km. New easements will be required on a limited number of private lands and Imperial will work directly with the affected landowners to obtain these agreements. New easements will also be required within the HONI ROW, and Imperial is working with HONI and Infrastructure Ontario to secure the necessary agreements. Pipelines owned by other operators inside the ROW will continue to operate without disruption.

10. Infrastructure associated with the new pipeline will include valves and launchers/receivers which are necessary to launch and receive pipeline inspection tools. Valve design and placement will be in compliance with TSSA requirements and Canadian Standards Association ("CSA") Z662. A cathodic protection system consisting of rectifier and anode beds will be installed to protect the pipeline from corrosion. Alternating current mitigation will be accomplished by installing zinc ribbon with the pipeline to prevent corrosion.
11. The new pipeline will be constructed using the following general methods:
  - o trenched; and
  - o trenchless.

Trenchless construction will be used for approximately 22 km of the Project to minimize impacts on environmentally or socially sensitive features and other infrastructure and land uses. Trenchless construction requires an entry and exit site on either side of the feature or infrastructure to be crossed, from which equipment will install the pipeline under the feature without surface disturbance. The two trenchless methods that will be used are:

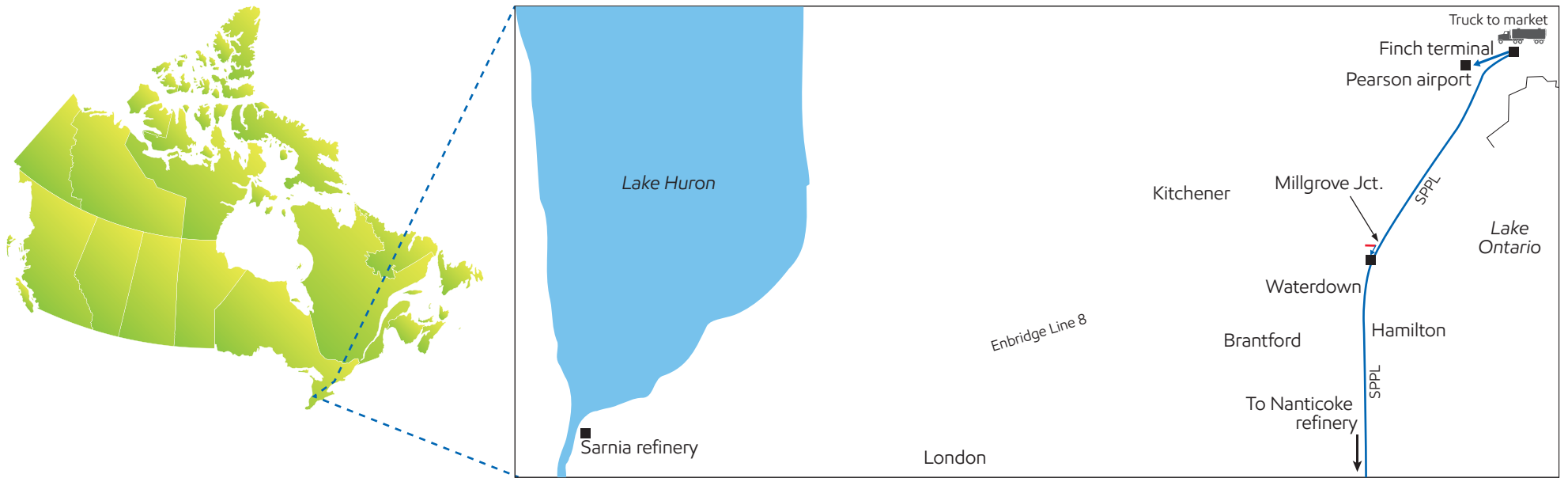
- o Bore drilling, including horizontal directional bore ("HDB"), which involves installing pipe using specialized auger drilling equipment, typically used for short segments of trenchless construction, such as beneath single crossings of provincial and municipal roads and railroads.
  - o Horizontal directional drill (HDD), which involves installing pipe using a drilling rig to drill a tunnel below the surface to pull the pipeline through. HDD will typically be used for longer segments of trenchless construction, such as beneath large watercourses, or multiple adjacent sensitive features.
12. Please refer to Exhibit H, Tab 3, Schedule 8 for a video describing the trenchless construction method. For project description details, please refer to Exhibit D, Tab 1, Schedule 2 Environmental Report.
  13. After the pipeline is installed, the existing SPPL will be purged of product, deactivated and left in-place, following all relevant safety and technical standards. Please refer to Exhibit H, Tab 3, Schedule 9 and 10 for a video describing pipeline deactivation and safety, respectively.
  14. Other projects initiated by Imperial in the vicinity of the Project that are not part of the scope and are addressed through separate regulatory processes include:
    - o deactivation of the existing SPPL pipeline between Waterdown Station and Finch Terminal;
    - o the Credit River Valley Project (a replacement of the current SPPL crossing of the Credit River); and
    - o realignment of the current SPPL to accommodate the Metrolinx Finch West LRT Project.
  15. The Project map is shown in Figure 2-1 below.

### *Project Timing*

16. Subject to regulatory and permitting approvals, the Project construction is planned to occur from December 2019 to November 2020. Once operational, the pipeline is expected to operate for more than 50 years. The construction schedule can be found in Exhibit E, Section 6.



## Figure 1-1: SPPL Network



## **2. MAP OF PREFERRED ROUTING**



**Figure 2.2-1**  
**Waterdown to Finch Project Overview**

EXHIBIT C  
 Purpose, Need, Proposed Project and Timing

Updated: 2019-04-02  
 EB-2019-0007  
 Tab 1, Schedule 2  
 Page 3 of 3

