

Appendix D

Preliminary Findings Information Package

***Sarnia Expanded Dock Facility Class Environmental Assessment – Preliminary Findings
Information Package***

City of Sarnia

1. Introduction

This information package documents the preliminary findings from carrying out Phases One and Two of the Municipal Class Environmental Assessment (MCEA) for expanding the existing dock facility in the Port of Sarnia (Project) for your review and comments. The Corporation of the City of Sarnia (City) is proposing to expand their existing dock facility (Mini Dock A) located at the western limit of Exmouth Street to support the Oversized Load Corridor (OLC) and provide access to the St. Clair River via the Port of Sarnia (**Figure 1**). The port is actively maintained to conform to current St. Lawrence Seaway shipping standards and has the capacity to handle large loads.

The expanded dock will be able to birth ships up to 35,000 Dry Weight Tonnage (DWT) and will offer a significant increase to the Port of Sarnia's potential client base. The current dredge regimen of the harbour will be maintained, in which maintenance dredging to 8.2 m below Chart Datum is undertaken every five years.

The City is carrying out the Project in support of the OLC. The OLC is a designated protected route on existing roadways connecting fabricators to the Port of Sarnia for the unimpeded import/export and transshipment of oversized product to and from fabricators' locations and Sarnia-Lambton's industrial base.



Figure 1 Location of Mini Dock A in the Port of Sarnia

2. Municipal Class Environmental Assessment Process

The Project is classified as a Schedule 'B' activity in accordance with the requirements of MCEA¹. The MCEA provides an approved process whereby specified municipal infrastructure projects can be planned, designed, constructed, operated, maintained, rehabilitated, and retired without having to obtain project-specific approval under the *Ontario Environmental Assessment Act (OEAA)*.

A project classified as Schedule 'B' activity needs to complete Phase 1 (Problem/ Opportunity Statement) and Phase 2 (Alternative Solutions) of the MCEA process including two mandatory points of contact with interested participants. The two points of contact are as follows:

- During Phase 2 of the MCEA so that input can be obtained in identifying the problem or opportunity and alternative solutions and assisting in the selection of the Preferred Solution (first mandatory point of contact)
- During the filing of the Project File Report (PFR) when a Notice of Completion is issued signaling that the MCEA process has been completed (second mandatory point of contact).

This Information Package is being made available to interested participants as part of satisfying the first mandatory point of contact during Phase 2 of the MCEA process.

¹ Municipal Engineers Association, Municipal Class Environmental Assessment, October 2000 (as amended in 2007, 2011 and 2015).

In addition, the Impact Assessment Agency of Canada has confirmed through correspondence that the Project is not subject to the Federal *Impact Assessment Act*.

3. Phase 1: Problem/ Opportunity

As stated, the City is carrying out the Project in support of the OLC (Error! Reference source not found.). One of the City's primary mandates is to ensure that infrastructure, including roads and ports, are suitable for existing and future industry to grow and prosper. This will facilitate economic growth and increase exports. As this occurs, high skilled/highly paying jobs will be retained, and added, generating tax revenues for the municipal, provincial and federal governments so that all Canadians will benefit. The establishment of an OLC utilizing existing roads and the expansion of the dock facility will fulfill this mandate.

The OLC and expanded dock facility will improve the competitiveness of local fabricators and large industry by reducing shipping costs, create new jobs, and increase the potential for the export of valuable locally manufactured vessels, reactors and modules.

The OLC is in partnership with the City of Sarnia, the County of Lambton, St. Clair Township, and the Sarnia-Lambton Industrial Alliance (SLIA) and has received broad local support from the following:

- Sarnia-Lambton Economic Partnership (SLEP)
- Sarnia Lambton Chamber of Commerce
- Sarnia & District Labour Council
- Large Petrochemical and Refining Industries throughout Sarnia-Lambton
- Local Fabrication and Manufacturing Private Industries

Problem/ Opportunity Statement

The existing dock facilities were not designed or constructed to accommodate the loading and unloading of large equipment. This requires temporary accommodations and limits the type and number of pieces that can currently be handled in each load. The Project will provide direct and cost effective access to the waterways of the Great Lakes and St. Lawrence Seaway system providing fabricators and constructors cost competitive transport to National and International markets directly supporting the "Making Ontario Open for Business" campaign.

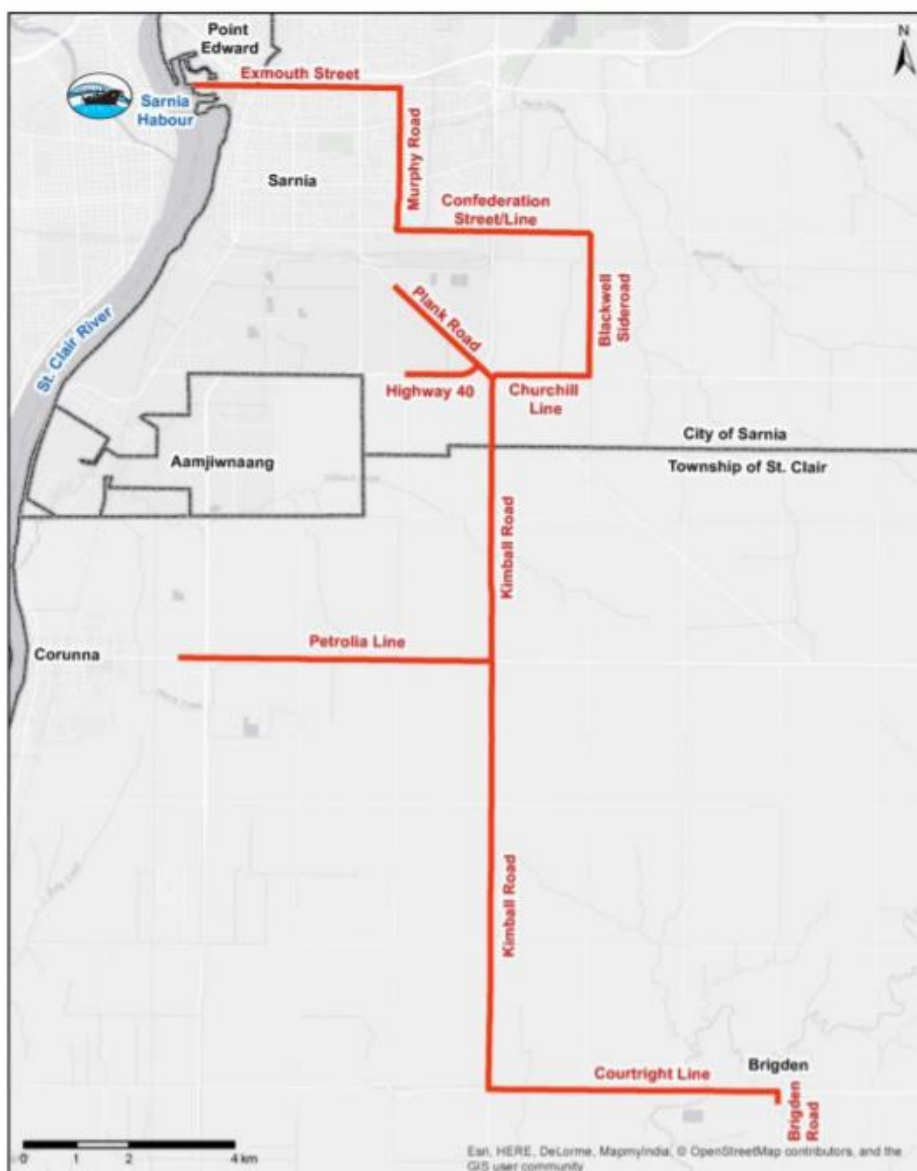


Figure 2 The Oversized Load Corridor Route

4. Phase 2: Alternative Solutions

Three alternatives were established based on the loading/unloading methods that are specific to the oversized loads that will be transported from the Sarnia Harbour.

4.1 Alternative No. 1 Do Nothing

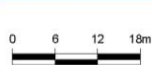
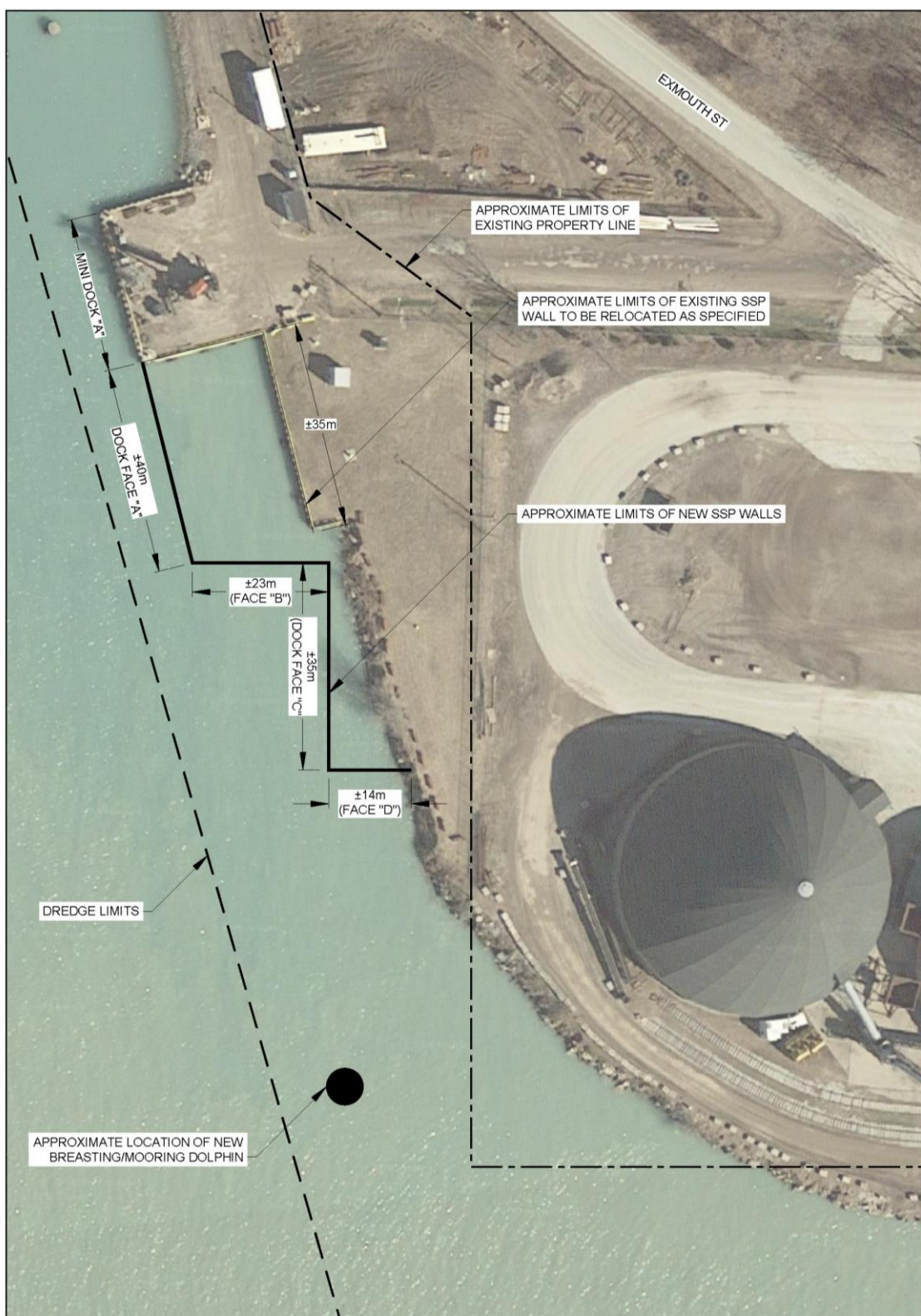
No changes to the existing dock facilities in the Sarnia Port would be undertaken to allow the unimpeded import/export and transshipment of oversized product to and from fabricators' locations and Sarnia-Lambton's industrial base.

As per the MCEA, the "Do Nothing" alternative has been included for consideration because it provides a benchmark against which the benefits/consequences of the other alternatives can be measured.

4.2 Alternative No. 2 Expand Dock Facility

Expanding Mini Dock A would address the purpose of the Project allowing the unimpeded import/export and transshipment of oversized product to and from fabricators' locations and Sarnia-Lambton's industrial base. Mini Dock A was identified as the potential dock to expand for a number of reasons. First, Exmouth Street leads straight to Mini Dock A. The other mini dock locations would require the extension of Exmouth Street resulting in additional Project costs. In addition, the extension of Exmouth Street to all of the other mini dock locations would require a 90 degree turn to be made, which is not ideal for oversized vehicles. Furthermore, Mini Dock A is the closest dock to the shipping channel (other docks are further north); and therefore, will require the least amount of maintenance dredging. The expansion of an existing dock would provide a cost effective solution, which is technically feasible to implement, and would result in a shorter construction timeline compared to constructing a new dock facility.

The expanded dock facility would include a living shoreline aspect, mooring facilities, storage area, and laydown areas suitable for ship to shore loading/offloading and roll on/roll off barge loading. All of the proposed works would be situated within the City's existing property limits. The dock would attain an additional 112 meter (m) of dock face, offering approximately 1,400 square metres (m²) of additional shipping and storage area based on the proposed expansion (**Figure 3**).



CITY OF SARNIA
SARNIA LAMBTON OVERSIZED LOAD CORRIDOR
DOCK FACILITY ENGINEERING SERVICES

11209875-02
May 4, 2020

ALTERNATIVE No.2 EXPAND DOCK FACILITY

FIGURE 3

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Figure 3 Alternative No. 2 Expand Dock Facility

4.3 Alternative No. 3 Construct New Dock Facility

Construction of a new dock facility would address the purpose of the Project allowing the unimpeded import/export and transshipment of oversized product to and from fabricators' locations and Sarnia-Lambton's industrial base. However, the alternative would have relatively high capital costs and would propose technical difficulties because there is limited space in the Sarnia Port for the construction of a new dock facility designed to accommodate ships of 35 000 DWT (**Figure 4**).

The only feasible way of implementing this alternative would be the removal of Mini Dock A, to make room for the construction of the new dock facility, which would not be cost effective because the existing dock facilities are structural sound. In addition, the alternative would have a longer construction period compared to the expansion of an existing dock facility, which would prolong the implementation of OLC and the positive benefits that it will have on local industries. Furthermore, the alternative would generate demolition waste through the removal of the existing dock facility.

4.4 Environment Potentially Affected

With the preceding alternatives in mind, a brief description of the potentially affected environment is provided based on existing available information sources reviewed and field investigations carried out (e.g., terrestrial and aquatic environmental investigation, geotechnical investigation, bathymetric and topographic studies). The description is based on addressing all aspects of the "environment" as defined by the OEAA: natural, built, economic, social, and cultural.

Natural Environment

Aquatic

The Sarnia Dock Facility is located within the Port Sarnia (harbour) which is identified by the Ministry of Natural Resources and Forestry (MNRF) Aquatic Resource Area Data as non sensitive for fish and fish habitat. Communication with MNRF confirmed that they did not have any record of known spawning/rearing/refuge/feeding habitats within the Project area. In addition, MNRF provided a fish community summary consisting of the following for the general Project vicinity: bluegill, bluntnose minnow, brook silverside, chinook salmon, common carp, common shiner, emerald shiner, freshwater drum, gizzard shad, golden shiner, largemouth bass, logperch, *Moxostoma sp.*, Northern pike, rainbow trout, rock bass, round goby, smallmouth bass, spottail shiner, spotted sucker, tubenose goby, white perch, white sucker, and yellow perch.

This section of the St. Clair River is within a warm water thermal regime with a Restricted In-Water Work Timing Window of March 15 to July 15. Every five years, the harbour is dredged to the maintained dredge depth of 8.2 meters below Char Datum (IGLD 1985). Site observations found that habitat diversity within the Project footprint was minimal, as a result of the regular disturbance.

Federal aquatic Species at Risk (SAR) listed as potentially within the broader Lake Huron/St. Clair River area, which includes the Port of Sarnia consist of the following: silver lamprey (Special Concern), spotted sucker (Special Concern), Northern madtom (Endangered) and channel darter (Endangered). However, communication with Department of Fisheries and Oceans, Canada (DFO) has confirmed that there is no "critical habitat" present within the broader area including within the immediate vicinity of the existing dock facility.

In addition, there are Provincial aquatic SAR records within the Natural Heritage Information Centre grid block (1 km²) that encompasses the existing dock facility. These include the spotted sucker (Special

Concern) and wavy-rayed lampmussel (Threatened). Confirmation of these records through communication with Ministry of Environment, Conservation and Parks (MECP) is pending.

Terrestrial

The majority of the study area is disturbed with limited terrestrial habitat. The limited habitat present is not believed to provide appropriate habitat for SAR. There are no provincially significant wetlands (PSWs) or areas of natural scientific interest (ANSI) within 120 m of the study area.

Built Environment

The existing facilities within Sarnia's Winter Basin consist of two mini docks and four piers. Exmouth Street begins at the Bridgeview Marina to the north and follows the facility south along the shore. At Mini Dock A the street turns east. Exmouth Street is the end of the OLC. East of the dock facility is the Cargill Sarnia Grain Terminal.

Economic Environment

As stated in Section 3, the proposed dock facility expansion is an integral part of the OLC and has the opportunity to improve the economic environment revenue of Sarnia-Lambton fabricators by an estimated \$9.5 million and provide an estimated 2613 new jobs.

Social Environment

The Sarnia Dock Facility is within the industrial area of the Sarnia Port. As such, there are no residences in the area that would be potentially affected by construction.

Cultural Environment

Considering that maintenance dredging takes place approximately every five years at the harbour, it is not anticipated that any archaeological findings would be discovered from any dock construction activities. It is unlikely that archeological findings of relevance would be buried within the reaches of the dock footprint and dredging depth, as the sediment down to the desired depth has been transported downstream from the river and as such is relatively young sediment.

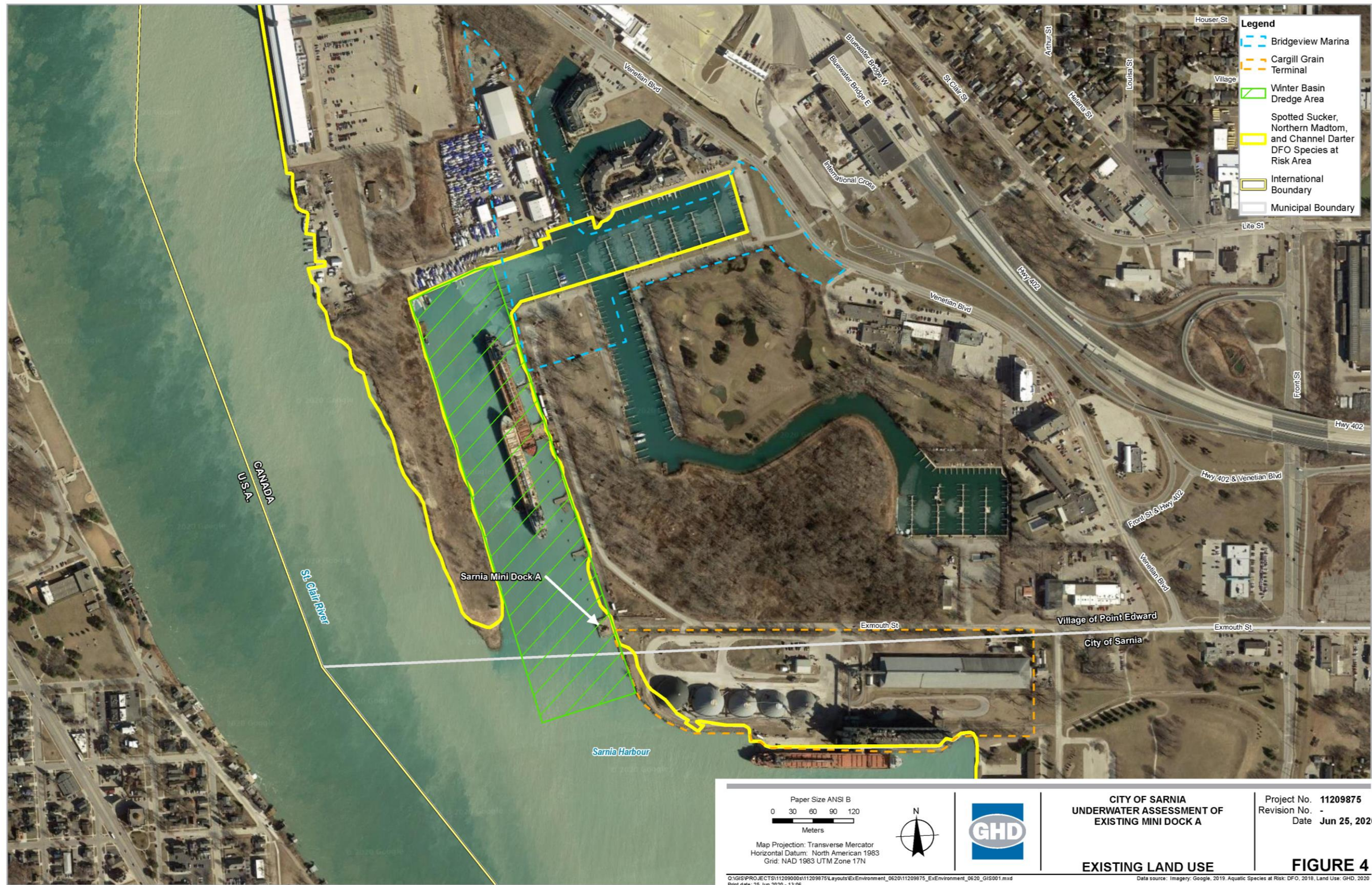


Figure 4 Existing Land Uses

4.5 Evaluation Summary and Recommended Solution

The three alternatives were comparatively evaluated according to seven categories including technical, financial plus those aspects of the environment as defined in the OEAA (e.g., natural, built, etc.). Rankings were applied to each alternative (i.e., Most Preferred, Moderately Preferred or Least Preferred (includes Ties)) by individual category (i.e., Technical, Natural Environment, Built Environment, Social Environment, Economic Environment, Cultural Environment, and Financial). Table 1 summarizes the results of this preliminary comparative evaluation.

Table 4.1 Summary of the Preliminary Comparative Evaluation of Alternatives

| Category | Alternative No. 1 Do Nothing | Alternative No. 2 Expand Existing Dock Facility | Alternative No. 3 Construct New Dock Facility |
|----------------------|---|---|--|
| Technical | <ul style="list-style-type: none"> - Does not accommodate the shipment of oversized loads | <ul style="list-style-type: none"> - Accommodates the shipment of oversized loads - Shorter construction period | <ul style="list-style-type: none"> - Accommodates the shipment of oversized loads - Longer construction period |
| Natural Environment | <ul style="list-style-type: none"> - No potential adverse effects | <ul style="list-style-type: none"> - In water constructing works, however expanded dock facility footprint within existing maintenance dredging area - Potential for adverse effects to aquatic Species at Risk | <ul style="list-style-type: none"> - In water demolition and construction works - Potential for adverse effects to aquatic Species at Risk |
| Built Environment | <ul style="list-style-type: none"> - No potential adverse effects | <ul style="list-style-type: none"> - Existing dock facility maintained | <ul style="list-style-type: none"> - Demolition of an existing dock facility and potential for adverse related environmental effects |
| Social Environment | <ul style="list-style-type: none"> - No potential adverse effects | <ul style="list-style-type: none"> - No potential adverse effects | <ul style="list-style-type: none"> - No potential adverse effects |
| Economic Environment | <ul style="list-style-type: none"> - Does not reduce shipping costs - Does not generate any new revenue - Does not create any new jobs | <ul style="list-style-type: none"> - Reduces shipping costs - Generates revenue of approximately \$9.5 million - Creates an estimated 2613 new jobs | <ul style="list-style-type: none"> - Reduces shipping costs - Generates revenue of approximately \$9.5 million - Creates an estimated 2613 new jobs |
| Cultural Environment | <ul style="list-style-type: none"> - No potential adverse effects | <ul style="list-style-type: none"> - No potential adverse effects | <ul style="list-style-type: none"> - No potential adverse effects |

| Category | Alternative No. 1 Do Nothing | Alternative No. 2 Expand Existing Dock Facility | Alternative No. 3 Construct New Dock Facility |
|----------------|---|---|---|
| Financial | - No capital costs | - Lower capital costs | - Higher capital costs |
| Recommendation | <p>Alternative No. 2: Expand Existing Dock Facility was selected as the Recommended Solution because it is the only Alternative to rank either Most Preferred or Moderately Preferred in every evaluation category. Expanding the Existing Dock Facility would accommodate the shipment of oversized loads in order to support the OLC unlike the 'Do Nothing' alternative and has a shorter construction timeline than constructing a new dock facility.</p> <p>Alternative No. 2 has limited effects to the Natural Environment due to the continuous disturbance of Sarnia Port's Winter Basin (including maintenance dredging activities). Alternative No. 2 is able to maintain the existing dock facility unlike Alternative No. 3, which requires its demolition.</p> <p>The economic benefits of the project, including the generation of an estimated \$9.5 million in revenues and the creation of approximately 2613 new jobs will be realized with Alternative No. 2 because it is able to accommodate the shipment of oversized loads unlike the Do Nothing alternative. Finally, expanding the existing dock facility will have lower capital costs compared to constructing a new dock facility.</p> | | |

| Ranking Legend | |
|----------------------|--|
| Most Preferred | |
| Moderately Preferred | |
| Least Preferred | |

5. Next Steps

As mentioned, this Information Package is being provided to interested participants as part of satisfying the first mandatory point of contact during Phase 2 of the MCEA process. In particular, the City is looking for input back from those notified as part of identifying the problem/opportunity and alternative solutions and assisting in the selection of the Preferred Solution. With this in mind, the City is planning to carry out the following steps over the next several months:

- Review input received
- Issue responses to those participants who provided input
- Consider the input received in order to finalize the problem/opportunity and alternative solutions and select the Preferred Solution
- Prepare the Project File Report (PFR)

- Issue the Notice of Completion and file the PFR for the 30 calendar day review period

COMMENTS

Consultation is an important part of the MCEA process and we want to hear from you. With this in mind, please feel free to contact the following project team member if you would like to provide comments, request additional information, and/or be added to the participant mailing list to receive future project-related notifications directly:

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Markham Ontario L3R 5Y8
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