

November 2022

1.0 Introduction

This Environmental Assessment (EA) Report has been prepared in accordance with the Terms of Reference (TOR) approved on December 29, 2014. It documents the EA process undertaken to review options for addressing the future solid waste disposal needs of the Town of St. Marys (herein referred to as the Town), located in southwestern Ontario, as shown on Figure 1-1.

The Final EA was submitted on August 13, 2021. This document has been amended to address comments by the Government Review Team (GRT), raised during the review period following that submission. For details see Appendix F Comments with Respect to the August 2021 EA Submission.

GRT comments on the Final EA raised several concerns regarding preferred Alternative 3 particularly the proximity to, and the potential impacts of the Cement Kiln Dust (CKD) Pile on the relocated watercourse. To address these concerns, the Town re-engaged with St. Marys Cement (SMC) to discuss the watercourse relocation and how far onto SMC lands it might extend. SMC undertook further review and indicated that encroachment onto their lands would not be possible without affecting their Aggregate Resources Act license. Reflecting on both the comments on the Final EA and the limitations with respect to SMC lands, the study team revisited the preferred Alternative 3. The team was challenged to determine if refinements to the preferred alternative could minimize the need to relocate the watercourse while maintaining the target capacity of the preferred alternative and its attributes. To this end, the team identified a new preferred alternative, Alternative 3A.

The existing St. Marys landfill site (herein referred to as St. Marys Landfill); located at 1221 Water Street South, St. Marys, Ontario, operates under Environmental Compliance Approval (ECA) No. A150203 dated January 10, 2022, issued by the Ministry of the Environment, Conservation and Parks (MECP)⁴. It has an approved capacity⁵ of 380,000 m³ and receives post-diversion waste from within the Town. The St. Marys Landfill is located on a 37 ha property that was part of a former clay pit that was used by St. Marys Cement Co. (SMC) in cement manufacturing. Eight hectares (8 ha) of the 37 ha property are approved for landfilling. The location of the Town and the existing landfill are illustrated on Figure 1-2. Site capacity (waste and daily cover) is currently

⁴ The Ministry of the Environment and Climate Change (MOECC) was renamed the Ministry of the Environment, Conservation and Parks (MECP) in 2018. In this document, MOECC is referenced as the author on materials published prior to 2018. MOECC is also referenced as the name of the ministry consulted throughout the TOR and much of the EA process. MOECC and MECP are considered synonymous.

⁵ In accordance with 13.5 of the June 24, 2010 ECA approval. Non-inclusive of ECA approvals since.

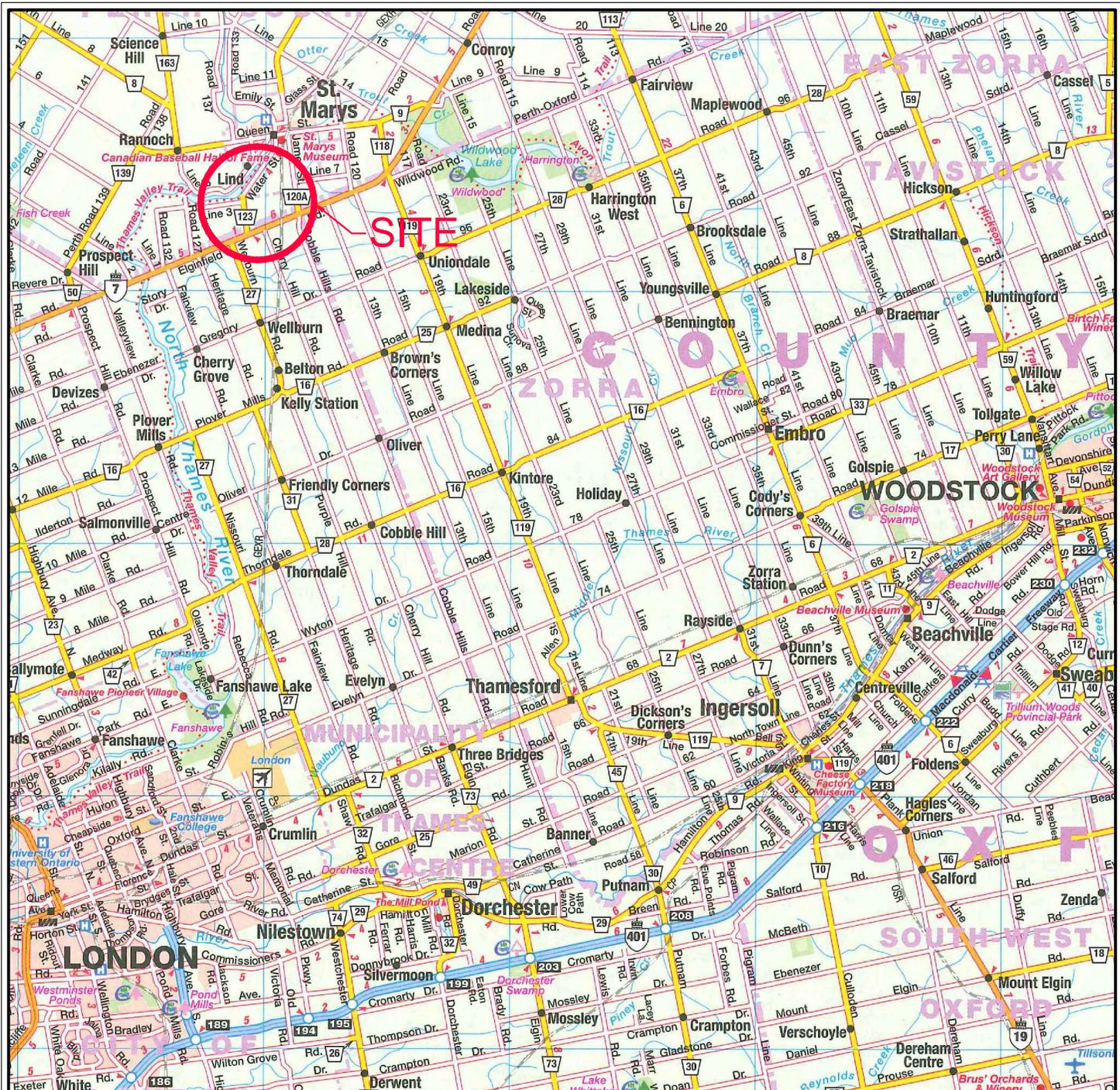
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consumed at a rate of approximately 13,500 m³/year⁶. The site reached its approved capacity of 380,000 m³ in January 2016. To maintain operations during preparation of this EA, the Town applied for and received ECA Notices (Amended ECA's are now issued in place of Notices) allowing continued use. The current Amended ECA allows operation through September 30, 2022. As required by the ECA, the Town will apply to the MECP for further operation by July 31, 2022.

For this EA process, measured waste tonnage generation, landfill volumetric survey results and industry standards and trends for waste density were used to determine long-term disposal needs. Long term disposal needs were defined as ensuring post-diversion municipal solid waste disposal capacity for the Town over a 40-year planning period commencing in 2017.

The decision-making process described in this EA Report meets the requirements of the Environmental Assessment Act and Ontario Regulation 101/07, the Waste Management Projects Regulation, made under the EA Act and will address the post diversion waste disposal needs and priorities of the Town over a 40-year planning period.

⁶ This is the average rate of fill based on detailed site survey data from 2012 to 2018 (see Table 3-4).



Map Reference: Map Art Publishing, Ontario Road Atlas



Location of Detail



Client

TOWN OF ST. MARYS

Figure Title

FUTURE SOLID WASTE DISPOSAL EA

SITE LOCATION

Drawn

Checked

Date

Figure No.

SK

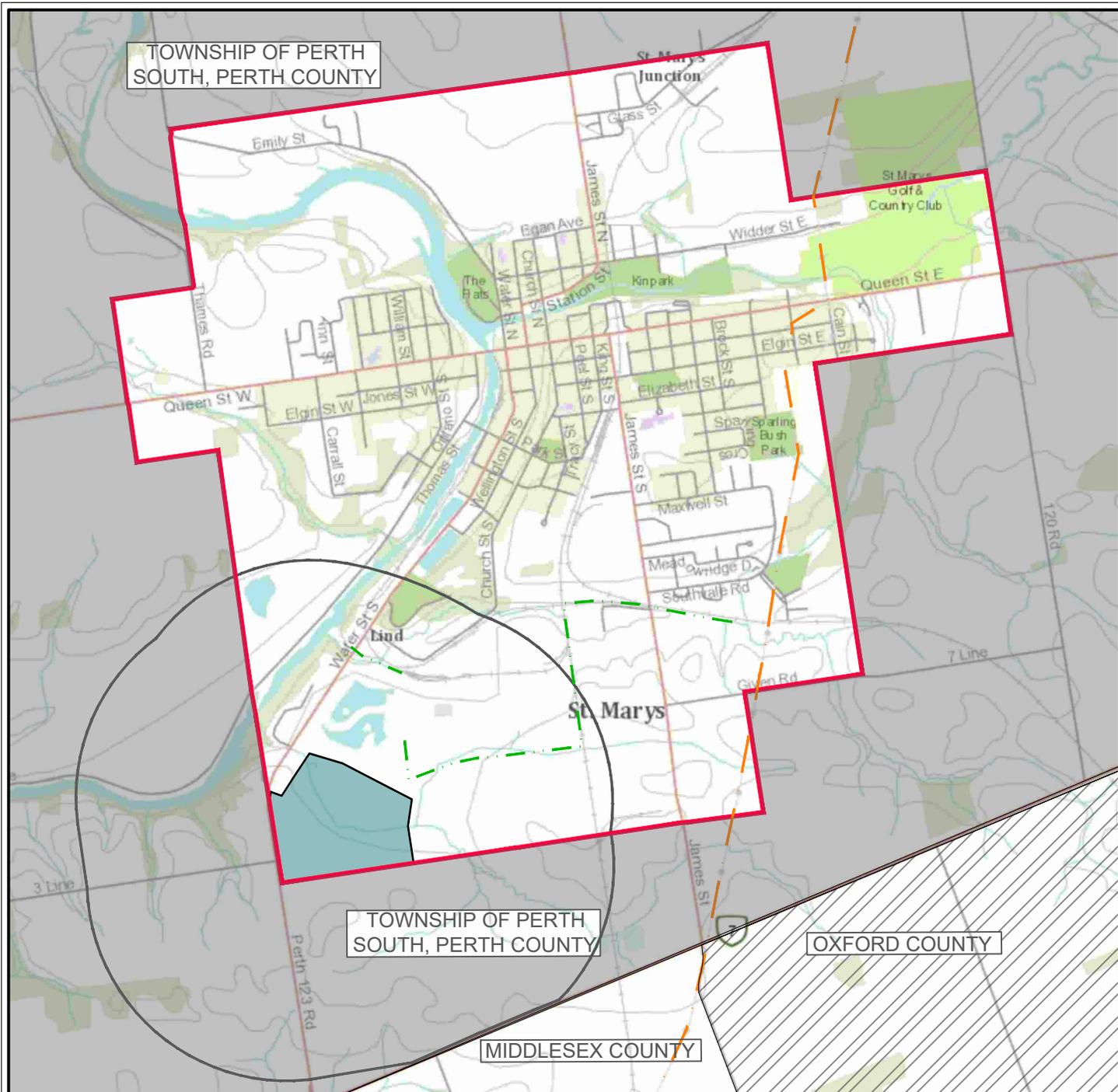
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JUNE 2022

1-1

Scale
N.T.S.

Project No.
300032339



LEGEND:

- ST. MARYS LANDFILL
- TOWN BOUNDARY
- ELECTRICAL DISTRIBUTION LINES
- ELECTRICAL TRANSMISSION LINES

Map Source:
Background mapping obtained from
arcgisonline base maps, Natural Resources
Canada.



Client

TOWN OF ST. MARYS

Figure Title

FUTURE SOLID WASTE DISPOSAL EA
TOWN LIMITS AND ST MARYS LANDFILL

Drawn
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Date
JUNE 2022

Project No.
300032339

Figure No.

1-2

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This EA has been prepared in accordance with Sections 6(2)(a) and 6.1(3) of the *Environmental Assessment Act* as well as having regard for the following guidance documents:

- “Code of Practice – Preparing and Reviewing Environmental Assessments in Ontario” (MOECC, January 2014).
- “Code of Practice for Consultation in Ontario’s Environmental Assessment Process” (MOECC, January 2014).
- “Guide to Environmental Assessment Requirements for Waste Management Projects in Ontario” (MOECC, March 2007).

During preparation of this EA, the Town has consulted with the MECP, other federal and provincial government agencies, the public, Indigenous communities and other interested persons.

1.1 The Proponent

The proponent of the EA is the Corporation of the Town of St. Marys, which currently and will continue to own and operate the St. Marys Landfill.

1.1.1 The Study Team

The Study Team conducting this EA on behalf of the Proponent consists of R.J. Burnside & Associates Limited (Burnside) staff, specialist sub-consultants, and review personnel from the Town.

1.2 Technical Report Volumes and Appendices

Due to the large number of documents prepared for this EA, documents have been organized into volumes and appendices, as follows:

- Volume I: EA Report
- Volume II: Work Plans⁷
- Volume III: Technical Reports
- Volume IV: Consultation Record

New appendices have been added to Volume I: EA Report since the final EA was submitted. Appendix D: Supplementary Information in Support of Alternative 3A provides additional information about a new Alternative that has been identified. Additional information is provided in Sections 7, 8, 9 and 11 of this EA report. Much of the new information in the Sections and new Appendix D is the result of a field study and updates to existing reports undertaken in response to reviewer concerns with potential water quality impacts of the Cement Kiln Dust

⁷ Work Plans were provided as draft reports only. Comments provided by agencies, Indigenous communities and the public were directly incorporated into the implementation as described in Section 10.0, Consultation Summary.

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(CKD) pile following the August 2021 submission of the Final EA. Appendix E is the approved Terms of Reference and Appendix F Comments With Respect to the August 2021 EA Submission.

Volume III includes technical reports prepared through the EA process. Each report and its location within Volume III is identified in Table 1-1.

Table 1-1: Reports Prepared Through the EA Process

Report	Location in EA Appendices
Landfill Expansion Emission Summary and Dispersion Modelling Report	Vol III Appendix A
Landfill Expansion Noise Impact Assessment	Vol III Appendix B
Hydrogeology Study	Vol III Appendix C
Natural Heritage Assessment	Vol III Appendix D
Cultural Heritage Resource Assessment*	Vol III Appendix E
Stage 1 Archaeological Assessment*	Vol III Appendix F
Socio-economic Impact Assessment	Vol III Appendix G
Traffic Impact Study	Vol III Appendix H
Leachate Treatment and Disposal Report	Vol III Appendix I
Record of Consultation	Vol IV

*Prepared by Archaeological Services Inc. All other reports prepared by Burnside.

In addition, several existing reports created by others were used to help define existing conditions. These reports are not included in the EA documentation but include the following:

- “CKD Stockpile, St. Marys Plant site” (aka: “Cement Kiln Dust Report”, or simply “CKD Report”), prepared for St. Marys Cement by Golder & Associates Ltd., March 3, 2005.
- “County of Perth, Town of St. Marys and City of Stratford. 2010. Perth, St. Marys and Stratford Economic Development Strategy and Action Plan: 2010-2014”, Millier Dickinson Blais Inc., April 2010. <http://www.townofstmarys.com/en/town-services/resources/Documents/Perth-St-Marys-Stratford-Economic-Plan-Final.pdf> (Accessed November 2015).
- County of Perth Planning and Development Department, (2013) Perth County Official Plan. <http://www.perthcounty.ca/OfficialPlanSchedulesofDetailed Maps> (Accessed November 2015).
- “St. Marys Strategic Plan Revision & Update”, January 2017, prepared by Town of St. Marys. <https://www.townofstmarys.com/en/town-services/resources/Documents/FINAL-Strategic-Plan-REV-20170831.pdf> (Accessed October 2019).
- “The Corporation of the Town of St. Marys Waste Reduction & Diversion Assessment”, prepared by the Public Works Department, dated August 2018 (accepted by Council on September 11, 2018).

Additional sources of background information are documented in Section 13.0, References.