



# Staff Report

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## Operations – Water & Wastewater Services

**Report To:** COW - Operations, Planning and Building Services  
**Meeting Date:** March 18, 2025  
**Report Number:** OPS.25.015  
**Title:** Staging Site for Construction of Thornbury Wastewater Outfall  
**Prepared by:** Allison Kershaw, Manager of Water & Wastewater Services

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### A. Recommendations

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THAT Council receive Staff Report OPS.25.015, entitled “Staging Site for Construction of Thornbury Wastewater Outfall”;

AND THAT Council direct Staff to provide a staff report to a future Committee of the Whole meeting to gather input on the revitalization of Lora Bay Park following the completion of the Thornbury Wastewater Outfall Construction.

### B. Overview

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This staff report is providing Council with the Communications Plan to notify residents about the use of Lora Bay Park during the summer of 2025 as a temporary staging site for the construction of the pipe required for the Thornbury Wastewater Treatment Plant (TWWTP) Effluent Outfall. While the Park is being used for this construction, it will be closed to the public. It is anticipated that the park will be closed from the beginning of June until the end of September of 2025.

### C. Background

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The existing effluent outfall for the TWWTP was identified as undersized to accommodate the effluent flows from the TWWTP Phase 1A expansion. The Town has undertaken the design work for a new larger effluent outfall pipe that will accommodate up to and including Phase 3 TWWTP expansion. The current outfall to the Beaver River provides capacity for the Thornbury Wastewater Treatment Plant to treat the wastewater from approximately 4400 homes, however, the new outfall will provide capacity for approximately 16,000 homes. When constructed and situated, the new effluent outfall will extend from the TWWTP north on Grey Street, to the shoreline located on the unopened section of Grey Street, then proceed another 1.5km offshore into Georgian Bay. The first 400m of offshore section of pipe will be buried approximately 2m below the lake bottom. The remaining 1.1km will be laid on the lake bottom. To construct the offshore effluent outfall piping, a temporary staging site with adequate space

and access to the water is required. This work aligns with the Province's More Homes Build Faster Act, 2022.

To summarize the need of the temporary outfall staging site, it is anticipated that the HDPE outfall pipe will be delivered in standard pipe lengths of 16.7m by standard freight to the selected staging site. The pipes will be stored in stocked piles at the staging site. Reinforced concrete ballasts, used to weight the pipe to the lake bottom will also be shipped and stored at the staging site. The pipe segments require a butt-welded fusion connection. Each pipe section will be transferred from the storage location to an area with a shelter, to protect the welding equipment for fusing the pipes. The transfer will utilize a forklift or a crane. When the sections of fused pipe reach 200m in length, they will be capped with a blind flange, deployed into relatively calm water and moored offshore. The ballasts can be installed onto the pipeline as it is being deployed into the water at the shoreline, or from a crane barge as the pipelines are pulled into the water. The pipelines with the ballasts attached, are then moored close to shore until such time as they can be towed to the outfall installation location, where they are sunk in place.

The on-land portion of this pipe will be constructed through the Bay/Grey Street Reconstruction projects. Relocating the Town's outfall provides an opportunity to remove the current outfall from the Beaver River to a new location 1.5 kms offshore and into deeper waters. The current Beaver River outfall allows effluent to be deposited in the waters of a sensitive receiver. As there is a limited amount of dilution available from the Beaver River, the current outfall could be impacting aquatic habitats. The new location provides a better mixing zone, preventing the build-up of pollutants resulting in less impact to the environment. Additionally, the cooler waters will be less affected by warmer treatment plant effluent.

Town Staff and the Town's Consultant, Arcadis, identified a lengthy list of potential sites (including both public and private properties) along the southern shore of Georgian Bay to use for the construction of the pipe required for in-water works. A fulsome evaluation of all sites was completed, as well as the consideration of costs to the municipality, which resulted in the selection of Lora Bay Park.

#### **D. Analysis**

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Town Staff and the Town's Consultant reviewed a wide variety of properties from Penetanguishene to Owen Sound looking for a suitable location to use as a temporary staging site. All Town-owned waterfront land in The Blue Mountains was also considered, including parks and unopened road allowances. The locations were rated on a number of different considerations including shoreline conditions, size of the site, access for pipe deliveries, cost to develop and potential land leases from third party landowners. Through the evaluation process, Town Staff and the Consultant determined that Lora Bay Park was the only suitable site to stage construction for the pipe required for the outfall. The new outfall, 1.5 km offshore, will result in a significantly more environmentally suitable location for the effluent to be discharged to the Bay. The new location is in deeper, cooler waters, and in an area that provides an excellent mixing zone. This will reduce the potential impacts to the aquatic habitats, as well as increasing

the dilution of contaminants. The new outfall will support the effluent from the treatment plant for up to 11,600 new homes, our current outfall supports 4,400 homes

Lora Bay Park includes a boat launch and a small dock that will be ideal for the construction and launch of the pipe into the Bay. The Bay has a small cove just offshore of the park, allowing for storage until the pipe sections can be relocated to their final location, 400m offshore of the extension of Grey Street.

The boat launch and the dock in the park are approaching end of life and require refurbishment. This project will allow for this work to be completed. Based on Council direction, increased amenities could also be added to Lora Bay Park as part of the restoration to original condition following construction activity. Community Services staff will work with the Town's Communications division to engage the public on potential upgrades to the park.

To better understand what the construction at the park will look like, a link to a video of a similar, but larger pipe being constructed has been provided: [Link to Offshore HDPE welding](#). During the construction of the pipe, this is the anticipated layout for the site.

Figure #1 – Overview of Lora Bay Park





Figure #2 Laydown and Construction Area Requirements.



Staff understand how disruptive this construction may be to the residents and are taking every opportunity to mitigate the inconvenience to the neighbours. The pipe is critical infrastructure that is needed by the Town to ensure we can meet our growth needs. It is also important to realize that this provides an opportunity to remove the current outfall from the Beaver River, a cold-water fishery, to a more suitable location further offshore, and in deeper water. This provides a better mixing zone for the wastewater treatment plant effluent and result less

impact to aquatic ecosystems and less temperature swings in the receiving waters. The new outfall has been sized to accommodate up to the Phase 3 (up to a total of 16,000 homes, our current outfall supports 4,400 homes) expansion of the treatment plant. This will provide capacity for almost four (4) times the current outfall.

Staff will ensure that residents are informed of how this project is moving along. A robust Communications Plan has been developed and included as Attachment #1. This includes, but is not limited to, posting on the Town's website, mail out to residents, and a public open house.

## **E. Strategic Priorities**

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### **1. Communication and Engagement**

We will enhance communications and engagement between Town Staff, Town residents and stakeholders

### **2. Organizational Excellence**

We will continually seek out ways to improve the internal organization of Town Staff and the management of Town assets.

### **3. Community**

We will protect and enhance the community feel and the character of the Town, while ensuring the responsible use of resources and restoration of nature.

### **4. Quality of Life**

We will foster a high quality of life for full-time and part-time residents of all ages and stages, while welcoming visitors.

## **F. Environmental Impacts**

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The lands utilized for staging will be assessed prior to taking occupancy and after construction. The lands will be required to be returned to original condition, or better.

## **G. Financial Impacts**

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The cost to construct the outfall has been included in the 2025 Budget at an estimated cost of \$16 Million and is to be paid from the Wastewater Asset Replacement Reserves and the Wastewater Development Charges Reserves (75% DC eligible project).

It is noted that the Wastewater Development Charge reserve fund is projected to be in a deficit position by the end of 2024. As a result, a review will be necessary to determine whether

internal or external borrowing is the most appropriate solution. In contrast the Wastewater Asset Replacement Reserve is projected to end 2024 at \$14.5M.

## **H. In Consultation With**

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Ryan Gibbons, Director of Community Services

Tim Hendry, Director of Strategic Initiatives

Monica Quinlan, Director of Corporate & Financial Services/Treasurer

Allan Gibbons, Manager of Communications and Customer Service.

## **I. Public Engagement**

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The topic of this Staff Report has not been the subject of a Public Meeting and/or a Public Information Centre as neither a Public Meeting nor a Public Information Centre are required. However, any comments regarding this report should be submitted to Allison Kershaw, Manager of Water & Wastewater Services [managerwww@thebluemountains.ca](mailto:managerwww@thebluemountains.ca).

## **J. Attached**

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1. Attachment 1 – TWWTP Outfall Construction Staging at Lora Bay Park Communications Plan

Respectfully submitted,

Allison Kershaw,  
Manager of Water & Wastewater Services

Alan Pacheco  
Director of Operations

For more information, please contact:  
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### Report Approval Details

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|----------------------|--|
| Document Title:      | OPS.25.015 Staging Site for Construction of Thornbury Wastewater Outfall.docx                |
| Attachments:         | - Attachment 1 - TWWTP Outfall Construction Staging at Lora Bay Park Communications Plan.pdf |
| Final Approval Date: | Mar 13, 2025   |

This report and all of its attachments were approved and signed as outlined below:

**Allison Kershaw - Mar 13, 2025 - 11:43 AM**

**Alan Pacheco - Mar 13, 2025 - 11:48 AM**