



Staff Report

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

A. Recommendations

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

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

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

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

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

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

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

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

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.

J. Attached

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

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

TWWTP Outfall Construction Staging at Lora Bay Park Communications Plan



Project Outline

The Town of The Blue Mountains is upgrading the treatment plant outfall as part of the Thornbury Wastewater Treatment Plant Expansion. This outfall will run 1.5 km off the shore of Georgian Bay. The pipes will be assembled in 200m lengths on the shore, and then floated until final assembly can be completed.

In 2024, Town Staff, with the Town's Consultant, Arcadis, did a wide-ranging search of potential staging sites for the outfall pipe. The sites were evaluated based on accessibility, space for storage, assembling and construction equipment/facilities, water depth, protected waters and site security. Through the evaluation process, Lora Bay Park was deemed the only suitable site. Although the public use of the park would be interrupted for the summer, using Town lands to construct the offshore pipe would eliminate the costs associated with a lease agreement of a private landowner, therefore reducing the overall cost of construction.

The shoreline of Georgian Bay has a restricted activity window for the protection of spawning fish that extends between September 30 and July 15. This window provides 2.5 months to conduct any work in Georgian Bay. Pre-construction preparation will be conducted before the July 15 window to ensure that work on the shoreline can be completed on time. Public access to Lora Bay Park will be prohibited during the pre-construction and construction window. At the completion of the construction of the outfall, restoration work for the park could potentially add benefits for the community, based on Council's direction. The restoration work could potentially include the rebuilding of the dilapidated boat ramp, the rebuilding of the aging dock, the construction of boat storage, or any additional amenities at the site.

Project Goal

Communicate to the public how the Lora Bay Park site was chosen for Outfall Construction, and the potential impacts of construction for Summer 2025.

Communications Objectives

- Provide a clear timeline regarding the decision of Lora Bay Park as the construction site
- Explain the evaluation process and how the Lora Bay Park site was chosen
- Raise awareness of the impacts on Lora Bay Park for Summer 2025
- Determine how Lora Bay Park can be rehabilitated following the construction
- Convey the need for the outfall and how it impacts Town wastewater capacity



Lora Bay Park Communications Plan

Timeline

Due to the anticipated project timeline, the Communications plan has been divided into four phases.

- Phase 1: Project Announcement
- Phase 2: Pre-construction
- Phase 3: Construction
- Phase 4: Project Completion

Phase 1: Project Announcement

Action	Details	Status
Notice of Staff Report	A notice will be issued after the agenda is posted advising residents that a staff report regarding the use of Lora Bay Park for Outfall Construction will be presented at the March 18 Committee of the Whole.	
Town Website	The notice will be posted on the Thornbury Wastewater Treatment Plant (TWWTP) webpage and to the Town newsroom.	
Email to Subscribers	The notice will be emailed to subscribers of the TWWTP webpage.	



Lora Bay Park Communications Plan

Phase 2: Pre-construction

Action	Details	Status
Press Release	A press release will be issued regarding the Outfall Staging at Lora Bay Park, including details of the project, a timeline of the project and expected impacts.	
Mailed Notice	A notice will be mailed to residents within a 1km range of Lora Bay Park and all residents on Lake Drive.	
Town Website	The press release will be posted to the TWWTP page, and a new page for the Lora Bay Park Construction will be created.	
Site Signage	Signs will be installed at Lora Bay Park with information regarding the project and expected impacts/closure length.	
Email to Subscribers	The notice will be emailed to subscribers of the TWWTP webpage and the Town's press release list. The email will also encourage the public to subscribe to the new project webpage for the Lora Bay Park construction.	
Public Open House	A public Open House will be held at Lora Bay Park (weather dependent) or at Town Hall, with information to be shared about the construction project and what to expect at the Lora Bay Park site.	
Social Media	The press release will be posted to the Town's social media accounts.	
FAQs	An FAQ will be added to the Lora Bay Park Construction page that will be a living document and can be updated based on questions received from the public.	



Lora Bay Park Communications Plan

Phase 3: Ongoing Communication - During Construction

Action	Details	Status
Construction Updates	The Town's Communications department will provide project updates through the Town's monthly e-newsletter, social media and the project webpage.	
Site Signage	The site signage will be updated based on construction timeline, if necessary.	
Rehabilitation or Park Upgrades	<p>Based on Council direction, Town staff could engage the public to gather feedback regarding upgrades to Lora Bay Park. This action item will not be necessary if the park will only be restored to original status without any increased amenities.</p> <p>If Council directs Staff to explore increased amenities at the park, the Communications department will prepare a fulsome engagement strategy to reach the public which could include surveys and public open houses.</p>	

Phase 4: Project Completion

Action	Details	Status
Reopening Ceremony	A reopening Ceremony will be held at Lora Bay Park to showcase the new dock, boat ramp and any additional rehabilitation, as directed by Council, following the completion of construction. Town Council, Wastewater staff, Community Services staff and project contractors will be in attendance as well as a general invitation extended to the public.	
Town Website	Communications will post project completion updates to the Town website on the Lora Bay Park Construction webpage and the Thornbury Wastewater Treatment Plant Expansion webpage.	
Email to Subscribers	The project completion notice will be emailed to subscribers of the Thornbury Wastewater Treatment Plan Expansion webpage and the Lora Bay Park Construction webpage.	
Social Media	Project completion will be recognized on the Town's social media accounts, as well as promotion of the grand reopening ceremony.	



Frequently Asked Questions

When was the need for an outfall construction site identified?

On May 3, 2022, Staff Report CSOPS.22.025 was brought to Council identifying that the existing outfall pipe for the Thornbury Wastewater Treatment Plant would not have sufficient capacity to meet the needs of the current plant expansion works. Council approved budget for the engineering of a new outfall pipe which would allow the plant to meet its full capacity.

Why is the outfall being replaced?

The outfall is part of the greater Thornbury Wastewater Treatment Plant Expansion. The expansion is replacing end-of-life equipment and ensuring that the plant is capable of providing reliable service in line with the forecasted growth of the community.

The current outfall has a maximum diameter of 406mm, which does not meet the capacity requirements for the Thornbury Wastewater Treatment Plant following its expansion. A minimum piping size of 500mm will be required. The new outfall also 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.

Will the outfall be installed at Lora Bay Park?

No, there will be no permanent installation at Lora Bay Park. The new effluent outfall will extend from the Thornbury Wastewater Treatment Plant north on Grey Street, to the shoreline located on the unopened section of Grey Street, then proceed an additional 1.5 km offshore into Georgian Bay. Lora Bay Park will only be used as a temporary staging site for the construction of the pipe required for the outfall.

What sites were considered before the Town selected Lora Bay Park?

Town Staff, along with the Town's engineering consultant, completed a wide-ranging search of potential waterfront staging sites for construction of the outfall pipe throughout the South Georgian Bay region. This included all Town-owned waterfront land and unopened road allowances.

What factors were considered when evaluating the sites?

Potential sites were evaluated based on accessibility, site security, water depth, protection from severe weather, and space for storage, assembly and construction equipment/facilities. Lora Bay Park fulfills all of the needs, while also allowing for costs to be reduced by minimizing the distance to the outfall installation site and not requiring a separate lease for use of the land.



Frequently Asked Questions

Why does the entire park need to be closed?

Construction of the outfall will require the full park for material storage, construction equipment, and assembly facilities. Opening a portion of the park to the public during construction would not be possible due to public and worker safety concerns.

When will construction take place?

Any work in Georgian Bay must be completed between July 15 and September 30. The shoreline has a restricted activity window for the protection of spawning fish. Pre-construction preparation will be conducted before July 15 to ensure that work on the shoreline can be completed on time. Additional work may be conducted upon completion of the outfall for park revitalization. Town staff plan to present a report to Council asking for a noise by-law exemption to allow for construction to take place seven days a week.

Will there be excessive noise during construction?

Increased noise levels are expected during construction. There will be heavy equipment, vehicles, generators and welding on-site. Noise will be measured and maintained during construction at a consistent level below 50 dBA, with intermittent peaks above the 50 dBA level.

What will happen to the park following construction?

Following the completion of the construction of the outfall, restoration work for the park could potentially include additional amenities, based on Council's direction. The park will reopen to the public following the completion of all work and restoration to original condition.

