



Agenda Bill AB25-086

Meeting Date: September 2, 2025

Agenda Item: X.B

☒ **Regular Business Meeting**

☐ **Workshop/Study Session**

☐ **Special Business Meeting**

Submitted By: Andre Harper, Project Manager and Steve King, PW Director

Date Submitted: August 29, 2025

Department: Public Works

Contact Phone: 360-379-5088

SUBJECT: Resolution 25-027 Authorizing the Application for Loan Funding for Final Design and Construction of Lawrence Street Combined Sewer Separation Project and the Wastewater Treatment Plant Outfall Project in an Amount not to Exceed \$6,500,000

CATEGORY:

- ☐ Consent ☒ Resolution
☐ Staff Report ☐ Ordinance
☐ Contract Approval ☐ Other: Action Item

☐ Public Hearing (Legislative, unless otherwise noted)

☐ **3-Year Strategic Plan:** 4 - Ensure sustainable future for public services and facilities

BUDGET IMPACT: \$0

Expenditure Amount: n/a

Included in Budget? Yes ☒ No ☐

Cost Allocation Fund(s):

Sewer CIP (415), Stormwater Operations (412), Sewer SDC (495), Transportation Benefit District (TBD), Department of Ecology (DOE) Loan, Public Works Board (PWB) Loan

SUMMARY STATEMENT:

Background:

The City Council approved resolution 25-024 on August 4, 2025 authorizing a loan in the amount of \$4,500,000 for the Lawrence Street Combined Sewer Overflow Project. Please refer to the August 4th meeting agenda packet for reference material.

<https://cityofpt.us/citycouncil/page/agendasminutesvideos>

Since August 4th, staff has been working with Department of Ecology Staff on two projects. Department of Ecology highly encouraged updating the Lawrence Street Combined Sewer Overflow project with additional scope to increase water quality treatment. In addition, the Department of Ecology recommended the City apply for loan funding for the wastewater treatment outfall project.

As such, this resolution replaces Resolution 25-024.

WWTP SEWER OUTFALL PARTIAL REPLACEMENT

Considerable progress has been made in the definition of the outfall project and subsequently resulted in a project reduction in scope and costs. Since the project has been worked on for many years, the following summary provides context for this project.

Engineering is in the process of planning and design for replacement of the City's wastewater outfall. The existing 18-inch reinforced concrete outfall pipe section was originally installed in the 1940s. The original outfall was approximately 450-feet long and extended from the onshore maintenance hole into the Strait of Juan de Fuca using 3-foot sections of 18-inch-diameter concrete pipe. In the late 1960s, the outfall was extended an additional 450 feet into the Strait of Juan de Fuca using 18-inch-diameter cast iron pipe comprised of 18-foot sections. The 1960s' cast iron portion was connected to the older concrete pipe outfall, and a cast iron diffuser section was installed offshore at the end of the extended outfall.

The outfall pipe has experienced several nearshore leaks since the early 2000s, which the City has repaired. Outfall testing revealed that replacement of the old concrete pipe section of the outfall is necessary to prevent further leakage and to allow the outfall to continue to function.

The original project scope and engineering report identified the need to trench in approximately 800 feet of new outfall pipe in the sea floor at an estimated project cost of \$4 million. This project scope received considerable public concern due to impacts on eel grass and kelp forests. Prior to securing permits, the City pulled the project back for a second evaluation with the intent of looking at less costly and less intrusive solutions.

After considering several alternatives and after doing further evaluations of the existing pipe, the City determined that the cast iron section of the outfall and offshore diffuser are not in need of replacement at this time. This project proposal therefore reduces the scope of the earlier proposals and associated subtidal impacts by proposing replacement of the concrete section only. The concrete section of pipe replacement can be accomplished by only working on the beach. Assuming the Department of Ecology approves of this revised engineering report and approach, staff recommends proceeding with this reduction in scope at an estimate cost of \$2.5 million

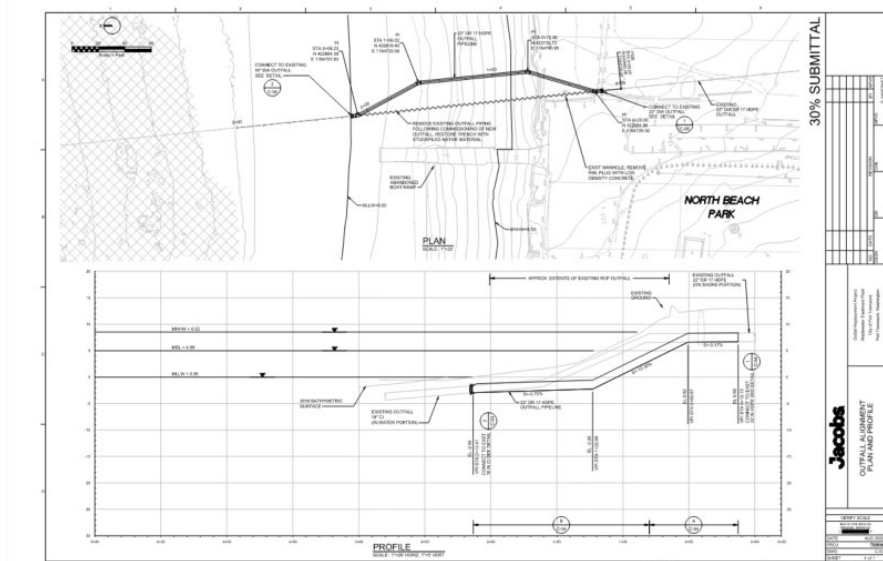
On December 12, 2024, City Council authorized under AB24-181 for the City manager to sign loan Agreement No. WQC-PorToc-00169 with the Department of Ecology (Ecology) for funding to complete project with a Change of Scope and Amended Engineering Report. Ecology funding is now being sought for approximately 200 feet of 22-inch outer diameter HDPE pipe installed to replace the existing concrete pipe.

The onshore portion of the project, including construction staging, will occur in the area of North Beach Park.

WWTP Sewer Outfall Site Map:



Design Proposed:



LAWRENCE STREET COMBINED SEWER SEPARATION PROJECT

Council previously approved loan applications for a total of \$4,500,000 for the Lawrence Street Combined Sewer Separation Project (AB25-077). An additional \$500,000 will be requested from the Ecology CWSRF Loan program in order to add stormwater treatment to meet the requirements of the Ecology Stormwater Management Manual for Western Washington. This addition was suggested by Ecology during discussions regarding the competitiveness of the loan application.

Funding Strategy Summary:

The total planning-level project cost estimate for the WWTP Sewer Outfall Partial Replacement Project is \$1,500,000. Most of the project will be funded through the low-interest loan / forgivable CWSRF loan from the Ecology. To support competitive applications, the City will provide a local match not to exceed \$300,000 from wastewater funds.

An additional \$500,000 in funding for the Lawrence Street Combined Sewer Separation Project will be requested in the already-planned application for low-interest loan / forgivable CWSRF loan from Ecology.

Next Steps:

- Submit funding application for WWTP Sewer Outfall Partial Replacement:
 - ECY Clean Water State Revolving Fund Loan – Due September 3, 2025.
- Submit funding application for Lawrence Street Combined Sewer Separation Project:
 - ECY Clean Water State Revolving Fund Loan – Due September 3, 2025.
 - Public Works Board application was submitted on August 8, 2025. No changes are needed to this application. The Public Works Board works with the Department of Ecology to ensure that the City's applications do not overlap.

ATTACHMENTS:

1. Resolution 25-027
2. Outfall Alternatives

CITY COUNCIL COMMITTEE RECOMMENDATION: N/A

RECOMMENDED ACTION:

Move to approve Resolution No. 25-027 Authorizing the Application for Loan Funding for Final Design and Construction of Lawrence Street Combined Sewer Separation Project and the Wastewater Treatment Plant Outfall Project in an Amount not to Exceed \$6,500,000

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ALTERNATIVES:

- ☒ Take No Action ☐ Refer to Committee ☐ Refer to Staff ☐ Postpone Action
- ☐ Remove from Consent Agenda ☐ Waive Council Rules and approve Ordinance ____
- ☐ Other:

RESOLUTION NO. 25-027

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PORT TOWNSEND, WASHINGTON, AUTHORIZING THE APPLICATION FOR LOAN FUNDING FOR FINAL DESIGN AND CONSTRUCTION OF LAWRENCE STREET COMBINED SEWER SEPARATION PROJECT AND THE WASTEWATER TREATMENT PLANT OUTFALL PROJECT IN AN AMOUNT NOT TO EXCEED \$6,500,000

WHEREAS, the City of Port Townsend's (City) 2024 Adopted General Sewer Plan, Capital Improvement Project No. F9 identifies the need to replace aging sewer outfall infrastructure; and

WHEREAS, the City Council approved Resolution 25-024 authorizing a loan request not to exceed \$4,500,000 for the Lawrence Street Combined Sewer Overflow Project; and

WHEREAS, this resolution repeals and replaces Resolution 25-024; and

WHEREAS, staff worked with Department of Ecology to add stormwater quality treatment to the Lawrence Street Combined Sewer Project necessitating an additional \$500,000 loan amount; and

WHEREAS, an amended Engineer's Report for the Outfall project includes partial repair and replacement of the on-shore concrete pipe section; and

WHEREAS, the City will apply for a construction loan from the Washington State Department of Ecology's Clean Water State Revolving Fund (CWSRF) Water Quality Combined Funding Program, in a total combined amount not to exceed \$1,500,000 for the Outfall Project; and

WHEREAS, the combined loan amounts for the Lawrence Street Combined Sewer Overflow Project and the Outfall project total \$6,500,000; and

WHEREAS, the General Sewer Plan and rate model anticipates issuance of \$15,000,000 in debt in 2025 for sewer capital; and

WHEREAS, State Department of Ecology and Public Works Board loans offer forgivable portions of the loan and low interest rates saving rate payers considerably compared to municipal bonds; and

WHEREAS, the City commits to the responsibility to repay the loan(s) and abide by the provisions of the loan agreement(s), if awarded;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Port Townsend to authorize application for a loan for the Wastewater Treatment Plant (WWTP) Sewer Outfall Partial Replacement Project and the Lawrence Street Combined Sewer Overflow Project in an amount not to exceed \$6,500,000.

ADOPTED by the City Council of the City of Port Townsend at a regular meeting thereof, held this 2nd day of September, 2025.

David J. Faber
Mayor

Attest:

Alyssa Rodrigues
City Clerk

Wastewater Treatment Plant Outfall Replacement Project

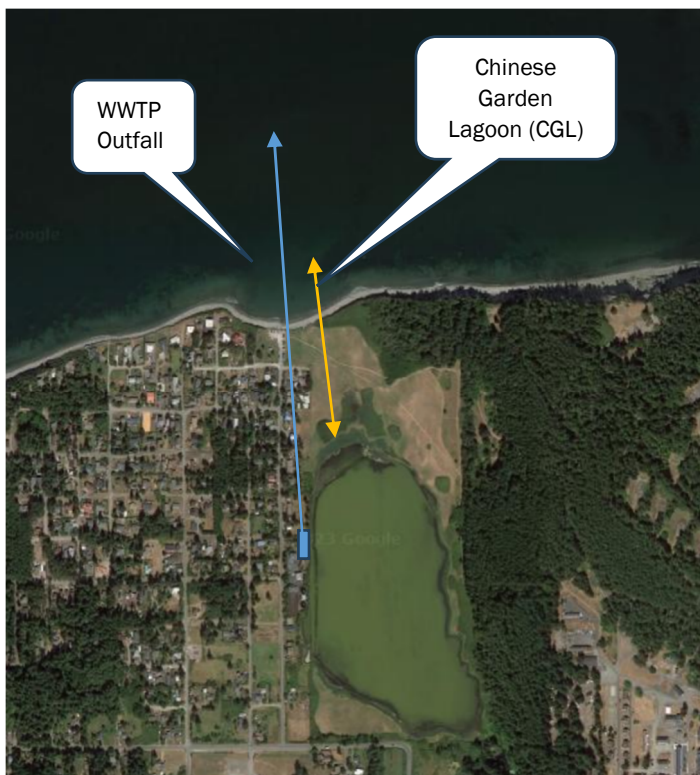
Evaluating Alternatives



Problem Statement

The City of Port Townsend has an aging (1950's) wastewater treatment plant (WWTP) outfall pipe buried in the seafloor. Replacement of the pipe requires digging up the seafloor to install a new pipe. This solution will work but is disruptive to the seafloor and associated underwater environment. The disruption to eel grass and kelp beds can be mitigated, but based on public feedback, the City is looking for an “outside the box” solution that will have the best environmental outcome and save the sewer rate-payers given the current rate burden of utility bills.

Many people assume the Chinese Lagoon water comes from the WWTP. The WWTP's outfall water likely has better water quality parameters than the body of water in the lagoon as the data shows. Is there a potential outfall solution that improves the water quality of Chinese Garden Lagoon or at least helps the feasibility of the outfall project to reduce environmental impact?



Existing Outfall Pipe (Blue)



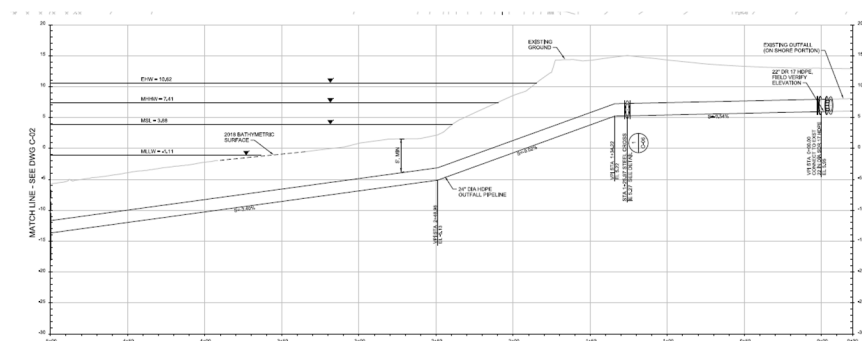
Existing Outfall with Documented History of Leaks
from Storm Damage
The Outfall Diffuser is Also in Need of Replacing

City of Port Townsend



2024 King Tide Debris Field Overtopping Shoreline

- Outfall replacement project needs identified in the year 2000 WWTP Facility Plan
- Environmental Studies and survey concerning eel grass and kelp beds completed in 2019
- Project cost estimate: \$4.1 million, with City investment to date approximately \$1 million for design and environmental studies
- Updated Facilities Plan approved by Dept. of Ecology in 2019. Approves trenching in the seafloor a parallel pipe approximately 900 feet offshore. Trenching requires replanting of eel grass on seafloor.
- Pipe fractures occur every year in the first 200-300 feet (beach section) due to storm damage and active beach environment. Fractures are repaired by City staff as soon as they are discovered.
- Current discharge diffuser is 900 feet from the beach.



Wastewater Treatment Plant Outfall Replacement Project

Evaluating Alternatives



Community Concerns

Concerns have been voiced suggesting that the City should select an alternative outfall replacement option that would be more environmentally favorable, less disruptive, and more cost effective. Previously alternatives such as slip lining, directional drilling, and trenching have been explored. All those alternatives have significant drawbacks. A new perspective was inspired at a Marine Resources Council Committee meeting in 2021. City staff have used this inspiration to come up with three concept options which include varying levels of incorporating of Chinese Garden Lagoon into a solution:

- **Inland Estuary:** Develop an inland estuary with improved water quality to support the marine environment and discharge of treated water into Chinese Garden Lagoon (CGL). Could discharge to the lagoon improve water quality? Sea level rise will ultimately connect the Lagoon to the Strait. This option is likely the highest cost but could be competitive for salmon recovery grant funding and result in additional enhancement of treated wastewater.
- **Emergency Discharge to CGL:** Leave CGL as is and only discharge during king tides events combined with high rainfall storms. Although rare, this combination prohibits treated water from flowing to the Strait. This option allows for slip lining of the existing outfall pipe to the Strait. Emergency discharges to CGL are expected to be infrequent most likely occurring during a combination of king tides and heavy rainfall
- **Construction Discharge to CGL:** Discharge to CGL only during construction of a new outfall pipe. Since sewer treatment is 24/7, treated water must be diverted to work on the existing pipe. If water is diverted, slip lining is possible, which avoids the need for trenching in the seafloor. Slip lining reduces the capacity of the pipe and thus pumping would be required for high flow and king tide events as discussed in the second bullet.

All three options involve coordination with Washington State Parks and all stakeholders. These options may be bold, but with significant potential benefit, so worth asking if they should be pursued. The permitting agencies all need to agree that this is a worthy approach.

Summary

City Sewer Rates are high and likely to increase due to substantial investment needs in the Wastewater Treatment system governed by state and federal compliance requirements. High utility rates for existing households compounds housing cost burden. How does Port Townsend, in partnership with resource agencies, develop a truly enhanced outcome for the community and the environment while recognizing the cost burden on community members? Is there a fisheries or marine enhancement approach that will bring added environmental benefit and grant resources? Are there some common-sense approaches to rehabilitating the existing outfall and operational strategies to continue using a first-class facility for public health and environmental protection?

Wastewater Treatment Plant Outfall Replacement Project

Evaluating Alternatives



Water Quality



Aerial looking at Wastewater Treatment Plant (WWTP)



Aerial looking at Chinese Garden Lagoon (CGL)



From beach looking at Strait of Juan De Fuca (SJDF)

WWTP Treated Effluent Water Quality Analysis: Sample analyzed September 13, 2023:

Ammonia – 0.16 mg/L
Nitrate+Nitrite (N) – 1.92 mg/L
pH – 7.10
Phosphorus (Total) – 4.80 mg/L
Total Kjeldahl Nitrogen (TKN) – 1.6 mg/L
Total Nitrogen – 2.08 mg/L
Total Solids (TS) – .0656 % TS (3-year ave)
Total Suspended Solids (TSS) – 4.0 mg/L
Total Volatile Solids (TVS) – 2.14 Wt %

CGL Water Quality Analysis: Sample analyzed September 13, 2023:

Alkalinity – 230 mg/L (CaCO₃)
Ammonia – 0.048 mg/L
Conductivity – 87,200 µS/L
Nitrate+Nitrite (N) – 0.653 mg/L
pH – 8.07
Phosphorus (Total) – 0.13 mg/L
Total Kjeldahl Nitrogen (TKN) – 3.0 mg/L
Total Nitrogen – 3.65 mg/L
Total Solids (TS) – 4.80 % Solids
Total Suspended Solids (TSS) – 56.7 mg/L
Total Volatile Solids (TVS) – 21.4 Wt %

Straights of Juan De Fuca Water Quality Analysis: Sample analyzed September 13, 2023:

Alkalinity – 115 mg/L (CaCO₃)
Ammonia – 0.020 mg/L
Conductivity – 50,000 µS/L
Nitrate+Nitrite (N) – 0.500 mg/L
pH – 7.8
Phosphorus (Total) – 0.03 mg/L

Outfall Alternatives Prepared Winter of 2023

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