



**COMMISSION
AGENDA MEMORANDUM**

Item No. 6c

ACTION ITEM

Date of Meeting April 25, 2017

DATE: February 13, 2017

TO: Dave Soike, Interim Chief Executive Officer

FROM: Srin Pendikatla, Program Manager Marine Stormwater Utility
Curtis Stahlecker, Capital Project Manager

SUBJECT: Terminal 18 Stormwater Outfall Renewal and Replacement (CIP #C800895)

Amount of this request: \$ 920,000

Total estimated project cost: \$4,000,000

ACTION REQUESTED

Request Commission authorization for the Chief Executive Officer to: (1) execute service agreements for the Terminal 18 Stormwater Outfall Renewal and Replacement project; (2) prepare design and construction documents; (3) prepare and apply for permits; and (4) utilize Port crews and small works contracts for preliminary work for an amount not to exceed \$920,000 out of a total estimated project cost of \$4,000,000.

EXECUTIVE SUMMARY

This is the first capital project under the Marine Stormwater Utility (Utility) and will repair and replace stormwater outfalls located at Terminal 18. The project is funded by revenue collected from Port and Northwest Seaport Alliance (NWSA) tenants based on current approved rates. The work focuses at the end of the stormwater drainage systems from the last manhole to the outfall and includes re-grading the pipes, replacing nonfunctioning tide gate valves and repairing broken pipes. The effort will keep tidal waters from entering and flowing within the drainage system; prevent ground water and soil from migrating into the stormwater system and ultimately entering Puget Sound protecting water quality.

Due to the operational impacts on tenant operations, the work will be phased over the next four years.

JUSTIFICATION

The Marine Stormwater Utility was organized as a separate program in November 2014, and an Interlocal Agreement (ILA) with the City of Seattle was signed on November 9, 2016. The Utility has jurisdiction over both the NWSA North Harbor properties and Port of Seattle facilities.

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In addition to collecting drainage fees, Utility began a comprehensive investigation of the stormwater infrastructure with T-18 at the forefront due to the system size, importance to the container shipping network, and the requirement for improved treatment systems, which the tenant is in the process of installing in a number of performing upland basins.

There are 13 outfalls located at Terminal 18, installed in the 1960s and 1970s that are owned and maintained by the Port. Given the age of the systems, the outfalls have performed well over the years; however, there are a number of deficiencies that need to be addressed to protect the Port's assets and maintain the water quality of Puget Sound.

DETAILS

Most of the 13 outfalls located on the East Duwamish Waterway of Terminal 18 have nonfunctioning or missing tide gate valves, several of the pipes are broken where they pass through the bulkhead, and other pipes have settled, causing ponding to occur within the pipes. This project will repair the broken pipes, correct the grade issues, and install new tide gate valves.

Benefits of this project include maintaining the integrity of the environmental controls established by the Superfund record of decision. Additional benefits include preventing infiltration of groundwater and flow of tidal waves into the stormwater system improving the water quality of the East Duwamish Waterway; reducing corrosion within the pipes from more corrosive ocean salt water; reducing maintenance and cleaning within the stormwater pipes and contributing to meeting Century Agenda Strategy 4, Objective 13 – Meet or exceed agency requirements for stormwater.

Scope of Work

The scope for this project will concentrate on making repairs to the outfalls from the tide gate valve at the end of the pipe to the first manhole upstream and will include the following:

- (1) New tide gate valves,
- (2) Realign the grade to correct the drainage slope,
- (3) Repair broken pipes, and
- (4) Line pipes to prevent groundwater infiltration where feasible.

Small Business

In conjunction with the Port of Seattle's Small Business Generator Program's (PortGen) outreach activities, the leveraging of Small Works contracts will maximize small business participation for this project. Historically, Small Works have produced high levels of small business participation for the Port.

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Schedule

Design and site investigation work will begin in the second quarter of 2017. Installation of cure-in-place pipe lining of up to two stormwater lines is planned during the third quarter of 2017, with the balance of construction phased over the next four years. Phasing of the project will be necessary because the work will be located very near and under the dock and be disruptive to the terminal operations. To mitigate the terminal disruptions, the work will be closely coordinated with tenant, and phased where practical to coincide with construction that the tenant is conducting to install stormwater treatment systems.

Commission design authorization	Q2 2017
Commission construction authorization	Q3 2017
Construction start	Q3 2017
In-use date	Begin Q4 2017

Cost Breakdown

	This Request	Total Project
Design	\$800,000	\$800,000
Construction	\$215,000	\$3,200,000
Total	\$1,015,000	\$4,000,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Postpone action and monitor the condition of Terminal 18 Outfalls for future action

Cost Implications: \$25,000 to \$50,000 annual monitoring costs

Pros:

- (1) Allows Utility funds to be used at other facilities.

Cons:

- (1) Does not address the current conditions.
- (2) Current conditions will continue to deteriorate.
- (3) Would not provide the opportunity to phase the work with the tenant construction of stormwater treatment, minimizing terminal disruptions.

This is not the recommended alternative.

Alternative 2 – Move forward with the T-18 Outfall Project

Cost Implications: Project costs are estimated to be \$4 million

Pros:

- (1) Corrects the identified system deficiencies of inoperable tide gate valves, broken pipes and grade.
- (2) Improves the water quality entering Puget Sound.
- (3) Protects the existing infrastructure from further damage.

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- (4) Expected life of rehabilitated infrastructure is 50 years.
- (5) Capital funds for this project are budgeted in the 10-year budget forecast and 10- year cash spending forecast.

Cons:

- (1) Requires the expenditure of \$4 million in capital costs.
- (2) The execution of this project may limit funding of other Utility supported projects.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
COST ESTIMATE			
Original estimate	\$4,000,000	\$0	\$4,000,000
AUTHORIZATION			
Previous authorizations	\$95,000	0	\$95,000
Current request for authorization	\$920,000	0	\$920,000
Total authorizations, including this request	\$1,015,000	0	\$1,015,000
Remaining amount to be authorized	\$2,985,000	\$0	\$2,985,000

Annual Budget Status and Source of Funds

The project was included in the 2017 plan of finance under CIP #C800895 in the amount of \$4,000,000. This project will be funded by the Marine Stormwater Utility fund from revenue collected from Port and NWSA tenants based on current approved rates.

Financial Analysis and Summary

Project cost for analysis	\$4,000,000
Business Unit (BU)	Marine Stormwater Utility
Effect on business performance (NOI after depreciation)	This project will increase depreciation expense by \$80,000 per year after the project is completed in 2020.
IRR/NPV (if relevant)	The NPV of this project is the present value of the project cost and annual maintenance costs.
CPE Impact	NA

Future Revenues and Expenses (Total cost of ownership)

No future revenues are anticipated as a result of this project. The expenses for maintenance are estimated to be \$25,000 in 2021 with 3.5% inflation rate thereafter.

ADDITIONAL BACKGROUND

The Port of Seattle and the City of Seattle entered into an interlocal agreement regarding the coexistence of a Port of Seattle Marine Stormwater Utility and a City of Seattle Stormwater

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Utility. With the establishment of the Marine Stormwater Utility, the stormwater drainage fees that were previously paid to the City of Seattle are now collected and retained by the Port to support the Marine Stormwater Utility’s objectives. These objectives include:

- Assess condition of Stormwater lines and related structures
- Identify urgent repairs, and prioritize and complete those repairs
- Identify and characterize longer term capital improvements that could contribute to system rehabilitation and improved stormwater quality from Port Properties

ATTACHMENTS TO THIS REQUEST

(1) Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

None