

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA
ACTION ITEM

Item No.	6a
Date of Meeting	May 6, 2014

DATE: April 29, 2014
TO: Tay Yoshitani, Chief Executive Officer
FROM: Mike Burke, Director Seaport Leasing & Asset Management
Mark Longridge, Project Manager, Capital Development Division
SUBJECT: Terminal 115 Stormwater Improvements (CIP #C800689)

Amount of This Request:	\$473,000	Source of Funds:	General Fund
Est. Total Project Cost:	\$548,000		

ACTION REQUESTED

Request authorization for the Chief Executive Officer to design, advertise, and construct stormwater modifications and upgrades at Terminal 115 in the amount of \$473,000 for a project total of \$548,000 and use Port crews in the performance of the work.

SYNOPSIS

This project is to separate stormwater originating from the Port leased area and the Common Use Area on Terminal 115 from the area exclusively used by Northland Services. The goal of the project is to intercept the stormwater collected from the Port areas and the Common Use Area and route it to an alternative existing conveyance system located in the northwestern corner of the Terminal 115 property to reduce the volume of water to the Northland services treatment system currently under design.

The project schedule driven by Northland Services requires that the stormwater separation be completed by September 30, 2014. In order to meet this deadline this request is for both the design and construction funding of this work. Port Construction Services will perform this project using a combination of small works contracts and Port crews.

BACKGROUND

Stormwater discharges from the Northland premises are covered under Washington State Department of Ecology (Ecology) Industrial Stormwater General Permit (ISGP) number WAR000471. Northland reached the Level 3 corrective action stage for the ISGP in 2011. Ecology has required Northland to install and have operational a permanent treatment system that is designed with the goal of achieving benchmarks by September 30, 2014. Northland is completing the installation of stormwater conveyance infrastructure to meet requirements of

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Industrial Stormwater General Permit and Ecology Administrative Order. The costs for these improvements are estimated to be \$5,000,000.

The Port has approximately 3 acres up gradient of the Northland leasehold. Of this 3-acre area, approximately 1.5 acres contribute stormwater volume to Northland's 70 acre stormwater system. Northland has requested the Port contribute upwards of \$1,500,000 for its stormwater volume. This adjacent Port area does not fall under the ISGP held by Northland, and is used for a different tenant and different operations.

The Port is taking the necessary steps to isolate the stormwater system from the Northland system prior to the action date set by Ecology on Northland of September 30, 2014. Stormwater volume coming from outside Northland's leasehold would increase the capital and maintenance costs of Northland's system. Isolation of stormwater systems will eliminate this additional cost.

Under the Port's Phase I permit, all Port property is required to have best management practices implemented on site. The property up gradient of the Northland property has a Stormwater Pollution Prevention Plan (SWPPP) and is implementing the best management practices required by City Stormwater Code. Because Northland is under the ISGP, their site is required to have an ISGP SWPPP and associated best management practices.

PROJECT JUSTIFICATION AND DETAILS

Project Objectives

- Complete full design of the stormwater conveyance system.
- Construct the necessary catch basin and piping runs, and install all equipment and associated utilities.

Scope of Work

Several options were considered in the preliminary design and planning. Staff has considered both gravity and pumped or force main systems and has selected to proceed with the following option for several reasons.

The stormwater work would consist of constructing a force main conveyance system parallel to the existing conveyance systems including the replacement of two catch basins, installation of a submersible pump, and construction of approximately 900 linear feet of piping. The new catch basins will be placed at the existing location and rim elevation to maintain current drainage patterns. The force main can be constructed of either ductile iron piping or HDPE piping.

This option has the greatest amount of flexibility since the force main can change grade and alignment to avoid obstructions. It also disrupts a smaller area than any of the possible gravity options, and the disrupted area is further from the rail spurs. The main drawback to this option is the additional maintenance associated with a pump system. The capital costs for this system are anticipated to be less than the gravity options, but there will be additional costs and labor

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associated with operations and maintenance of the system. However, the proposed design has the lowest total cost of ownership including all expected costs.

PCS crews will perform this work with some work performed by small works contractors, which provides excellent opportunities for small business utilization. Using Port crews and existing contracts to perform this work will allow us to start work immediately, complete this work in a timely manner to meet the deadline of September 30, and provide the greatest flexibility in coordinating with our tenant to maintain their operation of the active rail spurs adjacent to the project area.

Schedule

The proposed project schedule is as follows:

Preliminary Design & Planning	March-May 2014
Commission Authorization for Design and Construction	May 2014
Design (Under Existing IDIQ)	May 2014
Construction	August-September 2014

FINANCIAL IMPLICATIONS

Budget/Authorization Summary

	Capital	Expense	Total Project
Original Budget	\$0	\$0	\$0
Previous Authorizations	\$75,000	\$0	\$75,000
Current request for authorization	\$473,000	\$0	\$473,000
Total Authorizations, including this request	\$548,000	\$0	\$548,000
Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Project Cost	\$548,000	\$0	\$548,000

Project Cost Breakdown

	This Request	Total Project
Construction	\$308,000	\$308,000
Construction Management	\$47,000	\$47,000
Design	\$57,000	\$117,000
Project Management	\$22,000	\$37,000
Permitting	\$10,000	\$10,000
State & Local Taxes (estimated)	\$29,000	\$29,000
Total	\$473,000	\$548,000

Budget Status and Source of Funds

This project was not anticipated in the capital budget and 2014 Draft Plan of Finance because the need to intercept stormwater from this area was not known at the time. The \$548,000 required to fund this project is available under CIP C800002 Contingency Renewal & Replace.

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This project will be funded by the General Fund.

Financial Analysis and Summary

CIP Category	Renewal/Enhancement				
Project Type	Infrastructure Upgrade				
Risk adjusted discount rate	N/A				
Key risk factors	<ul style="list-style-type: none">• Project Costs could exceed current estimates.• Pump maintenance costs could exceed current estimates.				
Project cost for analysis	\$548,000				
Business Unit (BU)	Seaport Industrial Properties				
Effect on business performance	<p>This project preserves annual revenues of \$78K generated by the Port's tenant that is located on the 3 acres up gradient of Northland.</p> <p>Incremental savings of \$952K is created by pursuing this \$548K project in lieu of contributing \$1.5 million to participate in Northland's stormwater solution.</p> <p>Annually, this project will increase depreciation by \$11K (based on a 50-year depreciable life) and will reduce Net Operating Income by a corresponding amount. Every 10th year after installation, incremental maintenance expense is estimated to increase \$15K and Net Operating Income will decrease by a corresponding amount.</p>				
IRR/NPV	<p>Net present value calculation reflects savings created by investing \$548K in this project in lieu of contributing \$1.5 million to the Northland project as well as increased maintenance expenses.</p> <table border="1"><thead><tr><th>NPV (in \$000's)</th><th>IRR (%)</th></tr></thead><tbody><tr><td>\$913</td><td>NA</td></tr></tbody></table>	NPV (in \$000's)	IRR (%)	\$913	NA
NPV (in \$000's)	IRR (%)				
\$913	NA				

Lifecycle Cost and Savings

In considering the alternative designs, the lifecycle cost analysis of the pump system was considered versus gravity system. Even conservatively assuming full pump replacement every 5 years, the pump system has a favorable net present value over the gravity flow system.

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STRATEGIES & OBJECTIVES

This work supports the Port's Century Agenda objective to be the greenest and most energy efficient port in North America by meeting or exceeding agency requirements for storm water leaving Port-owned or operated facilities.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1) – Do nothing. Continue to operate the system in its current state. This alternative would negatively impact the tenant by increasing the volume of water they would include in their treatment system. This is not the recommended alternative.

Alternative 2) - Contribute \$1,500,000 to tenant system. This is more expensive and maintains the Port contributing to the tenant system and being exposed to further improvement costs in the future. This also may require the Port to take the lead on construction as a public works. This is not the recommended alternative.

Alternative 3) – Design and construct a gravity flow system. Due to very flat grades and minimal fall in the existing system, this alternative would result in replacement of much more of the existing system and significantly higher initial capital costs. This is not the recommended alternative.

Alternative 4) – Design and construct a force main pumped system utilizing as much of the existing infrastructure as possible, minimizing tenant site impacts, along with construction costs and risks. In addition, the Port will monitor the tenant operations to ensure they are continuing to do best management practices at the site. **This is the recommended alternative.**

ATTACHMENTS TO THIS REQUEST

- Aerial Photo

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

- None.