

2022_11_08_RM_8j_Memo_Catch-Basin-Cleaner-Vehicle.pdf

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COMMISSION

AGENDA MEMORANDUM Item No. 8i

ACTION ITEM Date of Meeting November 8, 2022

DATE: October 10, 2022

TO: Stephen P. Metruck, Executive Director

FROM: Stephanie Jones Stebbins, Managing Director, Maritime

Delmas Whittaker, Director Marine Maintenance

Shannon Zink, Marine Maintenance Sr. Manager, Fleet and Facilities Levi Clark, Marine Maintenance, Manager, Fleet and Transportation SUBJECT: Marine Maintenance Catch Basin Cleaner Vehicle Replacement

Amount of this request: \$700,000

Total estimated project cost: \$700,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to authorize the purchase of one industrial catch basin cleaning truck, to replace an existing and obsolete catch basin cleaning truck located at Marine Maintenance.

EXECUTIVE SUMMARY

This project will replace an existing asset that is fifteen years old and at the end of its useful mechanical life. This new asset will be used jointly by Marine Maintenance and the Storm Water Utility to clean storm water drain infrastructure, vacuum catch basins, clear clogged lines (stormwater, industrial wastewater), and perform pothole excavations. The current equipment has become mechanically unreliable and has been augmented with the use of rented equipment. The expected useful mechanical lifecycle of this new asset is 12 years. This project aligns with the Port Sustainable Fleet Plan by utilizing renewable and low carbon fuel (R99), it will have a fuel-saving single engine design (outgoing asset is dual engine), and the latest exhaust aftertreatment technology.

JUSTIFICATION

This project gives Marine Maintenance and the Storm Water Utility access to a reliable catch basin cleaner truck granting the ability to quickly clean stormwater and combined system infrastructure and allow immediate 24/7 spill response to our properties. This new asset will increase our regulatory compliance to respond and capture spills, and debris, before they reach our waterways from our Maritime properties.

Template revised January 10, 2019.

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This project will increase the capacity of Port staff to meet the Long-Range Plan Century Agenda Goal 4, Objective 10 - "to meet or exceed agency requirements for stormwater leaving portowned or operated facilities." Another key metric listed in the Stormwater Utility 5-year strategic plan, Category 1, Strategy #1, Task 2 is to rehabilitate 75% of the stormwater system by 2035. Additionally, Marine Maintenance crafts will have access to a machine that will allow them to pothole and hydro excavate as needed during maintenance functions and infrastructure repairs, reducing the manual labor and additional machinery traditionally used during precise excavations.

Diversity in Contracting

Diversity in Contracting has reviewed and found that a WMBE Goal is not feasible on an equipment purchase such as this.

DETAILS

Port staff has dedicated labor to clean, assess, and repair stormwater and combined sewer infrastructure including pipe assets. This equipment is the only means to recover the debris associated with this required regulatory maintenance. Additionally, this equipment is the main asset needed to recover spills that enter our MS4.

The Port currently owns two catch basin cleaner trucks that support the Stormwater Pollution Prevention Plan (SWPPP), Marine Maintenance repair functions, and emergency work. One catch basin cleaner truck is fully utilized by the Storm Water Utility and therefore not available for the work in question. This project will replace the second truck at Marine Maintenance that is shared between Marine Maintenance led repair projects and the Storm Water Utility crew to supplement their peak seasonal work. This second unit has recently failed, mechanically, and is



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past its useful life cycle.

This equipment will run on renewable diesel (R99), utilize the latest exhaust aftertreatment technology, and will have a single engine design to comply with the Port's Sustainable Fleet Plan guidelines. This project also aligns the port to meet Century Agenda goals related to emissions standards while minimizing total cost of ownership.

The scope of work for the project is to develop vehicle and equipment specifications that meet the project requirements and procure the equipment in a timely fashion. This type of equipment is currently available on Washington State Department of Enterprise Services Contracts, as well as Sourcewell National Cooperative Contracts, therefore there may be opportunity to reduce acquisition time.

Schedule

Complete acquisition and receive operational system as soon as possible. The market for this type of equipment is volatile due to supply chain constraints, so delivery times vary.

Template revised June 27, 2019 (Diversity in Contracting).

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Cost Breakdown This Request Total Project Purchase \$700,000 \$700,000 Total \$700,000 \$700,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 - Rent industrial catch basin cleaner truck on an annual basis in lieu of replacement.

Cost Implications: Catch basin cleaner trucks can be rented through the Washington State Department of Enterprise services contract at a rate of \$158,400 per year, or \$1,901,000 over the 12-year life cycle of the proposed asset. That rate is expected to increase 3-5% per year over the 12-year period we would operate the truck. Additionally, it costs \$13,800 per year to fuel an industrial catch basin cleaner. The total cost to operate a rented catch basin cleaner truck over a 12-year period is estimated to be \$2,066,600 at net present value.

Pros:

- (1) Maintenance costs are included in the annual rental fees.
- (2) Costs can be allocated directly to maintenance or capital projects.

Cons:

- (1) Highest cost alternative.
- (2) Equipment offered for rent may not be most fuel-efficient option.
- (3) Catch Basin Cleaner trucks are in high demand in the rental market and there is no guarantee that the Port could secure a long-term rental.

This is not the recommended alternative.

Alternative 2 - Contract with an outside service who provides an industrial catch basin cleaning truck and crew.

Cost Implications: Several local vendors can provide this service on an as needed basis. The Port has several contracts for similar services. Reviewing past service costs, the annual cost to hire this work out is estimated to be \$1,092,000, or \$13,104,000 over a 12-year life cycle of the proposed asset.

Pros:

- (1) The Port does not have to invest in a large capital asset
- (2) Direct maintenance costs are avoided that would have applied to the capital asset Cons:
- (1) Lack of exclusivity and priority when requesting work from the contractor
- (2) Contractor lacks institutional facility asset knowledge and expertise
- (3) Cost is higher than owning and operating our own equipment
- (4) Facility access is an issue (TWIC Badging, Customer Contacts)

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- (5) Contractor availability is an issue, lack of off hour call response or 24/7 spill response
- (6) Subpar equipment and lower maintenance standards could delay response or projects
- (7) Lack of financial transparency in the SWU fund and fees



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- (8) Inconsistent documentation of work conducted
- (9) Inconsistent proof of work conducted for regulatory compliance

This is not the recommended alternative.

Alternative 3 – Purchase a new industrial catch basin cleaner as a replacement to the existing unit that has mechanically failed.

Cost Implications: The estimated cost of purchasing a new industrial catch basin cleaner, prep work to get it ready for service, and licensing is just under \$700,000. The annual Fuel and Maintenance costs for a catch basin cleaner are \$30,500. Estimated total cost of ownership is \$1,066,000 over the 12-year life cycle.

Pros:

- (1) This asset would be built to Port specifications to meet Port specific projects and usecase.
- (2) This asset would be specified and designed to meet our Sustainable Fleet Plan and Century Agenda goals related to emissions reduction standards and minimizing cost of ownership.
- (3) This asset would assist Port crews in upholding their Stormwater pollution prevention plan (SWPPP) requirements.
- (4) This alternative provides an asset that is available and ready for use to address planned or emergent work.
- (5) This alternative is the lowest cost alternative when valued over the 12-year lifecycle of the equipment.

Cons:

- (1) High initial capital cost.
- (2) Maintenance and fuel costs expected to be approximately \$26,700 per year with NPV of \$320,400 (figured into the total cost of ownership).
- (3) This alternative requires the Port to take responsibility for maintaining the asset, which is not required in the other alternatives

This is the recommended alternative.

FINANCIAL IMPLICATIONS

Cost Estimate/Authorization Summary Capital Expense Total

COST ESTIMATE

Original estimate \$700,000 \$0 \$700,000

AUTHORIZATION

Previous authorizations 0 0 0

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Current request for authorization \$700,000 0 \$700,000

Total authorizations, including this request \$700,000 0 \$700,000

Remaining amount to be authorized \$0 \$0 \$0

Annual Budget Status and Source of Funds

This project was included in the approved 2022 Capital Plan under C801250 Catch Basin Cleaner with a total project cost of \$700,000.

This purchase will be funded by the General Fund.

Financial Analysis and Summary

Project cost for analysis \$700,000

Business Unit (BU) Marine Maintenance

Effect on business performance This project will increase depreciation expense by

(NOI after depreciation) \$70,000 per year with a 10-year depreciation schedule.

IRR/NPV (if relevant) NA

CPE Impact NA

ADDITIONAL BACKGROUND

On November 24, 2014, the Port adopted Resolution No. 3696 allowing the Port to establish a Port Stormwater Utility and adopting a Stormwater Utility charter. Services and obligations in the Port of Seattle Stormwater Utility Charter reads "The Utility shall provide services, facilities, systems, and programs for surface water and Stormwater management and pollution control to customers within the service area as set forth in this Charter

ATTACHMENTS TO THIS REQUEST

None

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

None



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