

**PORT OF SEATTLE**  
**MEMORANDUM**

**COMMISSION AGENDA – STAFF BRIEFING**

**Item No.** 6a  
**Date of Meeting** April 14, 2009

**DATE:** April 3, 2009

**TO:** Tay Yoshitani, Chief Executive Officer

**FROM:** Charles Sheldon, Seaport Managing Director  
Stephanie Jones Stebbins, Senior Mgr., Seaport Environmental Programs

**SUBJECT:** Agreement with the Puget Sound Clean Air Agency to support the Northwest Clean Air Strategy

**ACTION REQUESTED:**

Request for authorization for the Chief Executive Officer to enter into an agreement with Puget Sound Clean Air Agency to transfer \$2.3 million from the Port's 2009 operating budget to support the implementation of the Northwest Ports Clean Air Strategy

**SYNOPSIS**

The purpose of this memo is to request authorization for the Chief Executive Officer to enter in to an agreement with Puget Sound Clean Air Agency to transfer \$2.3 million from the Port's 2009 operating budget to support the implementation of the Northwest Ports Clean Air Strategy.

The Port of Seattle and PSCAA have a long history of collaborative partnerships to quantify, understand, and reduce emissions from port-related operations. Examples of these partnerships include the 2005 Puget Sound Maritime Air Emissions Inventory, the Northwest Ports Clean Air Strategy, the Holland America Line and Princess Cruises shore power projects at the Terminal 30 Cruise Facility, and numerous projects to retrofit and replace cargo-handling equipment at the container terminals. This request builds on these successful collaboration to reduce emissions from port operations and protect public health in the Puget Sound region.

The Port intends to make a series of unrestricted grants to the PSCAA so it can advance its efforts to improve air quality in Elliott Bay and the Puget Sound airshed. PSCAA may spend the funds when and where it deems necessary. The Port would receive reports on how the funds are spent. Additionally, PSCAA will present their staff recommendations on a truck buy back and scrap program.

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## **BACKGROUND**

On January 22, 2008, the Port of Seattle Commission adopted the Northwest Ports Clean Air Strategy, a voluntary and collaborative effort of the Ports of Seattle, Tacoma and Vancouver (B.C.) to reduce maritime and port-related emissions that affect air quality and climate change in the Pacific Northwest. Developed in close collaboration with the Puget Sound Clean Air Agency, Washington Department of Ecology, US Environmental Protection Agency, and Environment Canada with input from stakeholders, customers, and citizens, the Strategy will result in emission reductions to further improve air quality throughout the region.

The strategy has three primary emissions reduction objectives:

- Reduce maritime and port-related air quality impacts on human health, the environment and the economy;
- Reduce contribution to climate change through co-benefits associated with reducing air quality impacts; and
- Help the Georgia Basin-Puget Sound region continue to meet air quality standards and objectives.

The Strategy builds on the significant efforts the Ports of Seattle, Tacoma and Vancouver, BC have invested in emission reductions and establishes common short-term (2010) and long-term (2015) performance measures for further reducing emissions from cargo-handling equipment, rail, harbor vessels, ocean-going vessels, and trucks.

## **ENVIRONMENTAL BENEFITS**

Puget Sound Clean Air Agency has identified reduction of diesel particulate matter (DPM) emissions as one of their top priorities because of the associated public health and environmental impacts. In 2005, the Port of Seattle conducted the Puget Sound Maritime Air Emissions Inventory (EI), which located and quantified DPM from maritime sources in the greater Puget Sound region. Based on the results of the EI, in 2005 the Port of Seattle operations accounted for 9% of all of the DPM emitted in the four county Puget Sound Clean Air Agency region (the relative contributions to that 9% included ocean-going vessel hotelling: 44%, cargo-handling equipment: 32%, rail: 12%, ocean-going vessel maneuvering: 9%, trucks: 3%, fleet vehicles <1%, and harbor vessels <1%).

The expected environmental benefits of implementation of the Northwest Ports Clean Air Strategy performance measures for trucks, cargo-handling equipment, rail, harbor vessels, and ocean-going vessels is a reduction in air pollutants of DPM, oxides of nitrogen (NO<sub>x</sub>), volatile organic compounds (VOCs), and sulfur oxides (SO<sub>x</sub>), as well as a reduction in fuel consumption and emissions of greenhouse gases (GHGs).

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**Trucks:** A truck that meets 1994 U.S. EPA particulate matter (PM) emission standards is 6 to 2.5 times cleaner than a truck built before 1994. Similarly, a truck that meets 2007 U.S. EPA PM standards is 10 times cleaner than a truck built between 1994 and 2006, and 5 to 60 times cleaner than a truck built before 1994.

**Cargo-Handling Equipment:** Exhaust retrofits installed on cargo-handling equipment reduce emissions of particulate matter (PM) and oxides of nitrogen (NO<sub>x</sub>). Switching from off-road diesel fuel (500 parts per million sulfur [ppm]) to ultra-low sulfur diesel fuel (15 ppm) reduces emissions of sulfur oxides (SO<sub>x</sub>).

**Ocean-Going Vessels:** The At-Berth Clean Fuels Vessel Incentive Program (ABC Program) incentivizes the use of lower-sulfur marine fuels, not to exceed 0.5% sulfur content, in auxiliary engine operations while at a Port of Seattle berth. Switching from high-sulfur marine fuels (~2.7% sulfur) to lower-sulfur marine fuels (not to exceed 0.5% sulfur) is expected to reduce emissions of sulfur dioxide (SO<sub>2</sub>) by 95% and particulate matter (PM) by 60%.

## **FINANCIAL IMPLICATIONS**

### **Source of Funds**

The 2009 Seaport Operating Budget included \$800,000 (\$600,000 in Operating Expense and \$200,000 in Non-Operating Public Expense) for the implementation of the Northwest Ports Clean Air Strategy. The additional \$1,500,000 amount requested will create an unfavorable expense in 2009 to the extent it is used in 2009. If costs are anticipated for 2010 they will be included in the budget for 2010.

### **Financial Analysis Summary**

|                                    |  |
|------------------------------------|--|
| <b>CIP Category</b>                | Not applicable   |
| <b>Project Type</b>                | Environmental  |
| <b>Risk adjusted Discount rate</b> | N/A  |
| <b>Key risk factors</b>            | <ul style="list-style-type: none"><li>• Since the grants are unrestricted and the reporting of expenditures is subsequent to disbursement, there is a risk that the funds are not spent in way that the Port might consider most effective and efficient.</li><li>• There is a risk that the proposed uses do not reduce emissions to the extent expected. This risk is mitigated by the expertise and past successes of the Port and PSCAA in understanding and reducing emissions.</li></ul> |
| <b>Project cost for analysis</b>   | \$2,300,000  |
| <b>Business Unit (BU)</b>          | Containers   |

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| <b>Effect on business performance</b> | The estimated total project costs will have the following impact on Net Operating Income (NOI) to the extent funds are expended in 2009:<br><table border="1" data-bbox="613 485 1219 642"><thead><tr><th><b>NOI (in \$000's)</b></th><th><b>2009</b></th><th><b>2010</b></th><th><b>2011</b></th></tr></thead><tbody><tr><td>NOI*</td><td>(\$2,300)</td><td>\$0</td><td>\$0</td></tr><tr><td>Depreciation</td><td>\$0</td><td>\$0</td><td>\$0</td></tr><tr><td>NOI After Depreciation</td><td><u>(\$2,300)</u></td><td><u>\$0</u></td><td><u>\$0</u></td></tr></tbody></table> <p data-bbox="613 659 1458 716">*To the extent that some or any of the uses qualify, certain of the expenses may be recorded as a Non-Operating Public Expense.</p> | <b>NOI (in \$000's)</b> | <b>2009</b> | <b>2010</b> | <b>2011</b> | NOI* | (\$2,300) | \$0 | \$0 | Depreciation | \$0 | \$0 | \$0 | NOI After Depreciation | <u>(\$2,300)</u> | <u>\$0</u> | <u>\$0</u> |
|---------------------------------------|---|-------------------------|-------------|-------------|-------------|------|-----------|-----|-----|--------------|-----|-----|-----|------------------------|------------------|------------|------------|
| <b>NOI (in \$000's)</b>               | <b>2009</b>   | <b>2010</b>             | <b>2011</b> |             |             |      |           |     |     |              |     |     |     |                        |                  |            |            |
| NOI*                                  | (\$2,300)   | \$0                     | \$0         |             |             |      |           |     |     |              |     |     |     |                        |                  |            |            |
| Depreciation                          | \$0   | \$0                     | \$0         |             |             |      |           |     |     |              |     |     |     |                        |                  |            |            |
| NOI After Depreciation                | <u>(\$2,300)</u>  | <u>\$0</u>              | <u>\$0</u>  |             |             |      |           |     |     |              |     |     |     |                        |                  |            |            |
| <b>IRR/NPV</b>                        | N/A   |                         |             |             |             |      |           |     |     |              |     |     |     |                        |                  |            |            |

## **PREVIOUS COMMISSION ACTION**

On February 16, 2007, the Commission passed a series of environmental motions that required, in part, that staff present an air quality action plan for Commission approval.

On January 22, 2008, the Commission adopted the Northwest Ports Clean Air Strategy.