

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

**COMMISSION AGENDA**

**Item No.** \_\_\_\_\_ 5b

**Date of Meeting** \_\_\_\_\_ June 2, 2009

**DATE:** May 7, 2009

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

**FROM:** Michael Ehl, Director Airport Operations  
Robert F. Riley, Director, Aviation Capital Improvement Program  
Richard Ottele, General Manager, Aviation Facilities and Infrastructure

**SUBJECT:** Trash Handling & Recycling System at Seattle-Tacoma International Airport.

**ACTION REQUESTED**

Request Port Commission authorization for the Chief Executive Officer to advertise for construction bids for the sixth site of the Trash Handling & Recycling System project at Seattle-Tacoma International Airport (Airport), for an additional amount of \$136,000 and a total project cost of \$1,612,000.

**SYNOPSIS**

The Commission previously authorized full design and construction funding and to advertise for bids on a construction contract to install sets of trash and recycling compactors at five sites on the airfield ramp area. The location of the sixth site is now confirmed and will be located at C1 airfield ramp area. The sixth site will be included in the construction contract along with the other five sites. This request will authorize the full project budget of \$1,612,000.

**BACKGROUND**

Several air carriers at the Airport have started recycling off-aircraft waste which reduces landfill waste disposal requirements. They see this as one way of demonstrating their environmental commitment. Recent studies of off-aircraft waste indicate as much as forty percent of the waste stream can be recycled. Industry-wide, airlines and airports are working to divert these recyclables from landfill disposal in an effort to reduce negative impacts on the environment and reduce waste disposal costs. Examination of the Airport's ramp facilities and operations has identified opportunities to support airline recycling efforts as well as to reduce threats to airfield operations from Foreign Object Damage (FOD) and bird-strike hazards that result from open top dumpsters.

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The project will also reduce vehicular congestion resulting from numerous trash and recycle haul trucks. Each airline currently manages its own waste stream, using various containers, which are maintained and serviced through separate contracts. Unlike the passenger terminal, the airfield ramp areas are not utilizing a centralized waste management and recycling system. This project will extend the Airport's award-winning trash and recycling program to the airfield ramp areas, and support the Port's commitment to becoming the cleanest, greenest port in the United States.

The Commission authorized \$752,000 on April 22, 2008 (Item 8b) to complete purchase of twelve trash handling compactors and the design for six sites. At this time, five locations are designed and ready for construction bidding. The design for the sixth site is nearing completion and will be included in the final construction bid package. Four of the twelve compactors are completed and ready to be delivered to the Port. The remaining compactors will be completed mid July 2009.

### **PROJECT DESCRIPTION/SCOPE OF WORK**

#### ***Project Statement:***

The purpose of this project is to centralize trash handling and recycling on the airfield, encourage and extend recycling opportunities to airlines, and reduce the negative effects of the existing trash handling methods. The Airport will install, operate, and maintain large-capacity trash and recycling compactors at six convenient locations throughout the airfield ramp areas. Compactor sites selected to achieve optimal use by the airlines and their ramp service personnel are at Concourses A, B, C, D, North Satellite, and South Satellite.

Each site will be equipped with the following:

- A pair of self-contained 30 yard compactors, including one trash compactor and one recycling compactor.
- Electrical service to power compactor hydraulic system and local control system for each compactor.
- Automatic monitoring systems that will sense the pressure within each compactor and alert the hauler when the compactor is near capacity, optimizing hauling frequency and thereby minimizing truck traffic in the aircraft areas.
- Electronic key systems, which will record usage by each tenant, airline, or concessionaire.

The operation and maintenance costs of these compactors will be recovered by charging use-based fees. Each user will be charged a per-toss fee for use of the trash compactor, while a toss in the recycling compactor will be free. This system of charging costs to users was established within the terminal to create an incentive to recycle while recovering costs, and has been a cornerstone of our successful recycling program. Airlines that are currently paying for independent recycling services will be able to eliminate those costs, and recognize a net overall savings.

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### ***Project Objectives:***

- Improve the recycling program at the Airport.
- Reduce the airlines' trash handling costs.
- Reduce vehicle traffic on the airfield.
- Ensure no project impacts to flight operations on the airfield ramp area during the development and construction of each site.

### ***Scope of Work:***

Develop infrastructure to accommodate the installation and operation for six compactor sites on the airfield ramp area. See the attached site plan. Infrastructure development will, at a minimum, include:

- 1) Site preparation for installation of bollards, steel plates and anchoring system.
- 2) Installation of electrical power and control systems.
- 3) Installation of communication system.
- 4) Re-striping driveways and parking areas.
- 5) Installation of signage.
- 6) Commissioning of each set of compactors.
- 7) Training to Airport and airline staff.
- 8) Closeout of completed project.

## **STRATEGIC OBJECTIVES**

The Trash Handling and Recycling Program supports several of the Port's Strategies and Objectives, notably:

### **Ensure Airport and Seaport Vitality**

This project will provide a lower cost and a more efficient trash and recycling system for Airport tenants. In contrast to current manually operated open-top dumpsters, the closed compactors with automatic doors will prevent birds from extracting FOD items and scattering them across the ramp, reducing the risk of ingestion into aircraft engines. Available ramp space will be increased, by replacing numerous small capacity waste collection units with fewer, strategically located large capacity units.

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### **Exhibit Environmental Stewardship through Our Actions**

This project is in alignment with the Port's goal of becoming the cleanest, greenest and most energy-efficient port in the United States. By increasing the amount of recyclable material diverted from the waste stream, the Port will be helping to reduce the amount of material delivered to regional landfills. Air emissions and fuel consumption will also be reduced as a result of decreased ramp and public arterial traffic. This project supports and encourages airline environmental initiatives.

### **FINANCIAL IMPLICATIONS**

#### **Budget/Authorization Summary**

Original Budget	\$1,526,000
Budget Increase	\$86,000
Revised Budget	\$1,612,000
Previous Authorizations	\$1,476,000
Current request for authorization	\$136,000
Total Authorizations, including this request	\$1,612,000
Remaining budget to be authorized	\$0

#### **Project Cost Breakdown**

#### **This Request**

#### **Total Project**

	<b><u>This Request</u></b>	<b><u>Total Project</u></b>
Construction costs	\$83,000	\$640,000
Port furnished equipment	\$0	\$405,000
Sales tax	\$0	\$93,000
Outside professional services	\$0	\$229,000
Aviation PMG and other soft costs	\$53,000	\$245,000
Total	\$136,000	\$1,612,000

#### **Source of Funds**

This project is included in the 2009-2013 capital budget and plan of finance as CIP #C800020. The funding source will be the Airport Development Fund.

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### **Financial Analysis**

<b><i>CIP Category</i></b>	New/Enhancement
<b>Project Type</b>	Infrastructure Renewal/Replacement
<b>Risk adjusted Discount rate</b>	7.5%
<b>Key risk factors</b>	Realization of savings due to recycling.
<b>Project cost for analysis</b>	\$1,612,000
<b>Business Unit (BU)</b>	Utilities
<b>Effect on business performance</b>	NOI after depreciation will increase due to cost recovery of capital and operating costs in the utility tariff.
<b>IRR/NPV</b>	8.3% / \$187,329 IRR/NPV is based on 6 compactor locations, all associated costs and full participation from Airline partners.
<b>CPE Impact</b>	Project will not affect CPE

### **ECONOMIC IMPACTS**

From a financial analysis perspective, the positive net present value for this project is based on viewing the Airport and airlines together. The airlines are currently paying nearly \$600,000 per year for their trash and recycling activities. The Port will incur increased Operation and Maintenance (O & M) costs of about \$350,000 per year. These O & M costs are the expenses related to trash disposal and represent a savings of nearly \$250,000 per year over what the airlines are currently paying. From a financial statement perspective, the Airport will charge the airlines usage fees sufficient to recover the operating and capital costs, resulting in an increased net operating income.

### **ENVIRONMENTAL SUSTAINABILITY/COMMUNITY BENEFITS**

There are significant recycling benefits to installing a centralized waste handling and recycling system on the airfield. Airlines participating in an incentive based recycling program will reduce the amount of waste sent to regional landfills, while helping to reduce traffic via more efficient compactor hauls. Reductions in traffic will also result in lower fuel consumption, air emissions and vehicular congestion in neighboring communities.

### **TRIPLE BOTTOM LINE SUMMARY**

This project is expected to help reduce the overall operating costs of the airlines and promote recycling efforts. Reduced ramp vehicular traffic servicing existing waste collection units will result in increased ramp safety, decreased air emissions, and decreased fuel consumption. This will also help reduce vehicular traffic on neighboring public streets and highways.

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Environmental benefits include reduced waste sent to landfills, cleaner air, and improved airfield safety by reducing bird attractants and reducing FOD.

## **PROJECT SCHEDULE**

- Commission Authorization to Start Design April 2008
- Start Design May 2008
- Pre-purchase Compactors July 2008
- Commission Authorization to Bid and Increase Budget March 2009
- Commission Authorization to Bid and Increase Budget June 2009
- Bid Advertisement June 2009
- Commission Authorization to Award (if necessary) July 2009
- Construction Start September 2009
- Construction Complete at Six Sites December 2009

## **PREVIOUS COMMISSION ACTION**

Initial Commission review of the project occurred on January 15, 2008. The project was deferred until the project approval moratorium was provisionally lifted in March 2008.

The Commission authorized \$752,000 on April 22, 2008 (Item 8b) to complete purchase of twelve trash handling compactors and the design for six sites.

On March 31, 2009 (Item 6a) the Commission authorized for construction bids for five sites and to increase the project authorization by \$724,000 for a total project authorization of \$1,476,000 for the installation of five sites. At that time, the total estimated project cost was \$1,612,000.