

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

**COMMISSION AGENDA**  
**ACTION ITEM**

**Item No.** 5e  
**Date of Meeting** October 22, 2013

**DATE:** September 25, 2013  
**TO:** Tay Yoshitani, Chief Executive Officer  
**FROM:** John Christianson, General Manager Aviation Maintenance  
Luisa Bangs, Senior Manager Facilities, Fleet, Systems, and Ground  
**SUBJECT:** Purchase of Snow Removal Equipment (CIP #C800557)

<b>Amount of This Request:</b>	\$ 2,200,000	<b>Source of Funds:</b>	Airport Development Fund
<b>Est. Total Project Cost:</b>	\$ 2,200,000		
<b>Est. State and Local Taxes:</b>	\$ 409,000	<b>Est. Jobs Created:</b>	N/A
<b>Net Proceeds to the Port:</b>	N/A		

**ACTION REQUESTED**

Request Commission authorization for the Chief Executive Officer to execute procurement contracts for the purchase of three pieces of runway snow removal equipment at Seattle-Tacoma International Airport for a total authorization of \$2,200,000.

**SYNOPSIS**

This memorandum requests authorization for the Airport to acquire three pieces of runway snow removal equipment: one deicer truck and two snow blowers. The Airport needs to replace two (2) 38 year-old snow blower units with new higher capacity equipment that can keep up with the removal fleet during heavy snowfalls. It is also necessary to replace an older 1986 model 2000 gallon chemical deicer truck with a higher capacity 4000 gallon unit in order to meet the anti-icing and de-icing requirements of two (2) dedicated runway removal teams. The purchase of the additional equipment will increase runway availability and reduce departure and arrival delays during snow and ice control activities.

This project was included in the 2013 – 2017 capital budget and plan of finance.

**BACKGROUND**

Based on the requested improvement in runway snow removal clearance times in order to minimize departure delays to the greatest extent possible during snow events, multiple snow removal scenarios were reviewed. It was agreed that the Airport's current snow removal program of two (2) dedicated runway removal teams, first implemented in 2012 will continue. It was also decided that introducing new equipment gradually into the fleet was the best approach to

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accomplish continued clearance operations on all runways during the snow and ice control season.

### **PROJECT JUSTIFICATION AND DETAILS**

The purchase of the identified three (3) pieces of snow removal equipment will improve the timeliness and effectiveness of snow and ice control activities on the Airport's runways and taxiways.

#### **New Deicer Truck:**

In order to keep up with the removal fleet and achieve the desired anti-icing and deicing applications, we need to replace an older 2000 gallon truck that has a 50' application boom with a 4000 gallon unit that has a 75'-80' application boom. With this purchase we will have three (3) 4000 gallon or large deicer units all equipped with 75' or greater application booms. In a one-pass removal or anti-icing operation before the snow accumulates, two units are used (one on each side of the runway) to achieve full width and length chemical applications very quickly. We intend to keep the 1986, 2000 gallon unit as back-up equipment.

#### **Snow Blowers:**

During a snow event, snow build-up along the edge of the runways could exceed the twelve inch height limit during continues snow removal operations. When this occurs, snow is collected and blown up and over the berms and past the runway edge lights. High capacity snow blowers will maximize runway availability by clearing the edge berms faster and more effectively than the capabilities of our current snow blowers.

We will be replacing two (2) older snow blowers, which are approximately 38 years old (vehicles 318 and 319) and have reached the end of their dependable life spans. The intent is to surplus both of these units when their replacements are delivered and accepted.

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

The primary objective is to increase runway availability and reduce departure and arrival delays during snow and ice control events. The purchase of the three identified pieces of removal equipment will improve the Airport's ability achieve this objective.

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

Purchase one (1) runway snow deicer truck in 2014, one (1) runway snow blower truck in 2015, and one (1) runway snow blower truck in 2016 for improved snow and ice control efforts at Seattle-Tacoma International Airport for a total authorization of \$2,200,000.

#### ***Schedule***

##### **Deicer Unit**

- Acquisition Planning Completed August 6, 2013
- Commission Authorization October 22, 2013
- Start Design & Specification Development October 23, 2013

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- Design & Specifications Completed November 15, 2013
- Bid Advertisement Deicer Truck December 2, 2013
- Receive Bids & Award Contract – Deicer Truck December 20, 2013
- Deicer Truck Delivered and in Service June 2014

### **Snow Blowers (2)**

- Acquisition Planning Completed March 3, 2014
- Commission Authorization October 22, 2013
- Start Design & Specification Development March 17, 2014
- Design & Specifications Completed April 15, 2014
- Bid Advertisement Snow Blowers May 5, 2014
- Receive Bids and Award Contract May 23, 2014
- #1 Delivered and in Service January, 2015
- #2 Delivered and in Service January, 2016

## **FINANCIAL IMPLICATIONS**

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

	Capital	Expense	Total Project
Original Budget	\$2,200,000	\$0	\$2,200,000
Previous Authorizations	\$0	\$0	\$0
Current request for authorization	\$2,200,000	\$0	\$2,200,000
Total Authorizations, including this request	\$0	\$0	\$0
Remaining budget to be authorized	\$0	\$0	\$0
Total Estimated Project Cost	\$2,200,000	\$0	\$2,200,000

### ***Project Cost Breakdown***

	This Request	Total Project
Equipment purchase	\$1,791,000	\$1,791,000
State & Local Taxes (estimated)	\$ 409,000	\$ 409,000
Total	\$2,200,000	\$2,200,000

### ***Budget Status and Source of Funds***

This project was included in the 2013 – 2017 capital budget and plan of finance as a business plan prospective project. The funding source will be the Airport Development Fund.

### ***Financial Analysis and Summary***

<b>CIP Category</b>	Renewal and Enhancement
<b>Project Type</b>	Renewal and Replacement
<b>Risk adjusted discount rate</b>	N/A
<b>Key risk factors</b>	N/A

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<b>Project cost for analysis</b>	\$2,200,000
<b>Business Unit (BU)</b>	Airfield Movement Area
<b>Effect on business performance</b>	NOI after depreciation will increase
<b>IRR/NPV</b>	N/A
<b>CPE Impact</b>	CPE will increase by \$.01 when all equipment is acquired in 2016. No change compared to business plan forecast as this project was included.

### ***Lifecycle Cost and Savings***

The net increase over the current Operation and Maintenance Costs is estimated to be \$6,500 annually with the addition of the deicer truck and systems. The first year of operation, the O&M costs will be minimal while under warranty.

## **STRATEGIES AND OBJECTIVES**

This project supports the Port's Century Agenda objective of meeting the region's air transportation needs at Seattle-Tacoma Airport for the next 25 years. It also supports the Airports' strategy of operating a world-class international airport by ensuring safe and secure operations.

## **TRIPLE BOTTOM LINE**

### ***Economic Development***

This project provides an economic benefit by improving the timelines and cost effectiveness of snow and ice control activities and minimizing aircraft arrival and departure delays for our airline business partners and the travelling public.

### ***Environmental Responsibility***

Equipment purchased will meet EPA fuel efficiency standards.

The additional equipment helps the environment by enabling snow to be removed more quickly from the runway by mechanical removal methods and could reduce chemical applications on the runway. Improved snow removal efficiency will help reduce aircraft fuel burn by reducing departure delays.

### ***Community Benefits***

The community benefits are associated with providing a safe operating environment and minimizing arrival and departure delays for the traveling public thus minimizing impacts to our Airport business partners.

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### **ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1)** – Continue using the current equipment that is aging and growing more inadequate for current two team runway snow removal operations. This is not the recommended alternative.

**Alternative 2)** – Procure all three (3) pieces of snow removal equipment in 2014. If approved, this would result in spending all 2.2 million in 2014, which would result in higher level of capital spending in 2014 than originally planned. This is not the recommended alternative.

**Alternative 3)** – Purchase the three (3) identified pieces of additional runway snow removal equipment in a phased approach by procuring the new deicer unit in 2014 and the two snow blowers in 2015 and 2016. This approach phases the \$2.2 million of capital spending over the identified 3 year period. **This is the recommended alternative.**

### **ATTACHMENTS TO THIS REQUEST**

- None

### **PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

- January 3, 2012 – Port Commission approved the Chief Executive Officer to perform specification development and execute procurement contracts for the purchase of four (4) runway snow plow and runway snow broom combination units for snow removal equipment (CIP # 800498) at Seattle-Tacoma-International Airport for a total authorization of \$2,200,000.
- June 28, 2007 – Port Commission approved the Chief Executive Officer to authorize Av/Maintenance and Procurement Services to prepare plans, specifications, advertise and award purchasing contracts for the acquisition of five (5) pieces of snow removal equipment for Seattle-Tacoma International Airport for a total authorization of \$1,900,000.