PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA **Item No.** 6c

Date of Meeting March 31, 2009

DATE: February 27, 2009

TO: Tay Yoshitani, Chief Executive Officer

FROM: George England, Program Leader, Aviation Project Management Group
Elizabeth Leavitt, Manager, Aviation Environmental Programs
Richard Ottele, General Manager, Aviation Facilities and Infrastructure

SUBJECT: Perform design and construction of the North Snowmelt and North Cargo Pump Station Improvements under the Adaptive Management phase of the Comprehensive Stormwater Management Program (CSMP).

ACTION REQUESTED:

Request for authorization for the Chief Executive Officer, using previously authorized funds under the CSMP, to complete design and contract documents; amend, execute, and award outside professional services agreements for engineering and construction management; for Central Procurement Office to advertise for and award the pre-purchase of equipment; for Port Construction Services to advertise for bids, execute, and award Small Works construction contracts; perform contract administration and execution; for the improvements to the North Snowmelt and North Cargo pump stations for an estimated total project cost of $350,000.

SYNOPSIS:

The proposed project involves capital improvements to the North Snowmelt and North Cargo pump stations located at the northeast corner of the airport, east of runway 16L/34R (east runway). The improvements are intended to reduce the potential for pump station malfunctions to keep the flows moving to the Industrial Wastewater System plant for treatment rather than the resulting overflows to a stormwater outfall regulated by the Airport's stormwater National Pollution Discharge Elimination System (NPDES) permit. This project is necessary to gain compliance with NPDES permit conditions. The proposed project will be implemented as an element of the Adaptive Management phase of the Airport's CSMP.

PROJECT DESCRIPTION AND JUSTIFICATION:

The North Snowmelt and North Cargo pump stations were identified as facilities needed to meet requirements of the Airport's NPDES permit issued by the Washington State Department of Ecology (Ecology). The two pump stations are located in a drainage sub-basin at the northeast corner of the airport, east of runway 16L/34R. Both pump stations pump stormwater runoff into the industrial wastewater system for treatment and discharge. However, if one or both of the

pump stations fail to operate properly, unintended overflows may occur at a stormwater outfall regulated by the NPDES permit. Several pump system malfunctions occurred during 2008 storms resulting in three permit non-compliance conditions that required reporting to Ecology. While no fines or penalties were levied by Ecology, the Port committed to evaluate the malfunctions and to implement measures to reduce the probability of future non-compliance conditions.

Port staff investigated the pump station failures via a "root cause analysis" and identified several corrective actions, including capital improvements and maintenance measures, which would enhance system reliability and work towards preventing future malfunctions and corresponding overflows. As part of the reporting process to Ecology, the Port committed to implement all corrective actions by October 15, 2009.

Previously the Port Commission authorized the entire CSMP, which included $12,400,000 for the adaptive management phase of the program. Funding for this project request is included within this previous authorization. The Aviation Maintenance Department will also perform corrective maintenance measures estimated to cost approximately $5,000. Funding for this maintenance work is within the annual approved expense budget and is not part of this request.

Project Statement:

Design and construct capital improvements to the North Snowmelt and North Cargo pump stations, including an additional pump and wet well, enhanced telemetry, and associated civil, mechanical, and electrical work, to increase system reliability by October 15, 2009 for a total project budget of $350,000.

Project Objectives:

Increase reliability of the pump stations by providing pumping redundancy and enhancing operational monitoring systems, and enhancing the capability to respond quickly to potential malfunctions, thus reducing potential future NPDES permit non-compliance conditions.

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work:

The North Snowmelt pump station includes installation of an additional pumping unit and wet well, water level sensor, an enhanced telemetry system and associated civil, mechanical, and electrical site work. The North Cargo pump station includes installation of a water level sensor and an enhanced telemetry system. The project design will be performed by Port Engineering; however, if Port Engineering is not available then an outside engineer will be used.

Project construction and construction management will be performed by Port Construction Services (PCS) as a small works project. In order to meet the schedule, PCS plans to implement

the project using a combination of lump sum bid and for critical path items and selective use of an open order contractor roster.

In addition, long-lead items, such as the pump and other appurtenances may be pre-ordered as owner-furnished equipment to allow the schedule to be met.

Schedule:

- Design completion: May 15, 2009
- Bid and award: May 16 to July 10, 2009
- Construction and commissioning: July 11 to October 15, 2009

STRATEGIC OBJECTIVES:

This project supports the following Port-wide strategies to exhibit Environmental Stewardship through our Actions and become the cleanest and greenest most energy efficient in the world.

The project also supports SeaTac Airport's Environmental strategies:

- Improve Water Quality: Implement stormwater best management practices to improve stormwater runoff quality.

- Meet Environmental Obligations: The Port is obligated as a steward within the community to comply with all environmental regulations. In addition, the conditions within the 401 Certification and other permits are mandatory and must be complied with as part of the implementation of the Master Plan Update.

- Monitor for Long-term Compliance (2002-2017): As a direct requirement of the 401 Certification and other permits, the Port is obligated to monitor stormwater quality and quantity and ensure protection of local creeks.

FINANCIAL ANALYSIS:

Capital Budget/Authorization Summary:

The following capital budget and authorization summary is for CIP 102030, Comprehensive Stormwater Management Program:

Original Budget	$5,125,000
Budget Transfers	$71,591,822
Revised Budget	$76,716,822
Budget Reductions	$(18,276,573)
Current Budget	$58,440,249

CIP 102030 includes $12,400,000 for the Adaptive Management phase of which approximately $164,000 has been expended to date for other adaptive management efforts

Previous Authorizations	$78,853,027
Authorization Transferred with Budget Transfers	$(2,136,205)
Net Previous Authorizations	$76,716,822
Current Request for Authorization	$0
Total Authorizations	$76,716,822
Estimate of Remaining Budget to be Authorized	$0

Project Cost Breakdown:

Construction plus sales tax	$200,000
Design	$36,000
Other	$114,000
Total	$350,000

Source of Funds:

Airport Development Fund 03040.

Financial Analysis:

CIP Category	Compliance
Project Type	Environmental
Risk adjusted discount rate	Not Applicable
Key risk factors	Not Applicable
Project cost for analysis	$350,000
Business Unit (BU)	Stormwater costs are allocated 86% to airfield cost center and 14% to Landside
Effect on business performance	NOI after depreciation for this project will be positive due to recovery of 86% of the operating and capital costs in the airfield cost center through landing fees
IRR/NPV	Not Applicable
CPE Impact	CPE will increase by less than $0.01 in 2010

SUSTAINABILITY AND LIFE CYCLE COSTS:

The annual operating costs of the pump stations are not expected to change significantly because of the project. They are expected to increase approximately $5,000 for the first year after warranty expires and increase at a rate of 4% annually there after to cover increased wages, benefits, and spare parts. Completing this project avoids long-term maintenance and regulatory reporting costs by preventing pump failures, overflows, and inappropriate discharges.

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

Alternative 1 – Do not implement pump station improvements: The pump stations would remain in their existing condition, additional system failures may occur in the future, stormwater overflows may occur, and additional violations of the Stormwater NPDES permit may result. The Department of Ecology could impose penalties for permit non-compliance. This alternative is not recommended.

Alternative 2 – Implement the pump station improvements as proposed: This alternative will substantially increase system reliability, and minimize the chance of stormwater overflows and permit non-compliance. This is the recommended alternative.

TRIPLE BOTTOM LINE:

The CSMP is driven by Port environmental stewardship, environmental regulatory requirements, and the mandatory conditions of the 401 Certification for the Master Plan Update and NPDES 402 Permit. The program provides a cost effective means of accomplishing necessary environmental regulatory requirements. Facilities completed under this program provide an overall benefit to the drainage basins, the community and the region by enhancing stormwater

detention and water quality that improves fish habitat and improves the ability for further development within the Airport and the adjacent communities.

BACKGROUND:

The Comprehensive Stormwater Management Program (CSMP) was initiated in June 2002 in response to permit conditions associated with the airport's Master Plan Update. Numerous stormwater facilities were designed and constructed to meet regulatory requirements and are currently operational. The stormwater program has now moved into its Adaptive Management phase under which additional or upgraded stormwater facilities will be implemented to meet new regulatory conditions or to resolve other stormwater problems not previously anticipated. This project is part of the Adaptive Management phase.

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS:

Previous Commission funding actions on CIP 102030 Comprehensive Stormwater Management Plan include:

- On June 11, 2002, the Commission authorized $1,000,000 to conduct preliminary studies and finalize program definition and planning for a new Comprehensive Stormwater Management Program, CIP 102030.
- On March 11, 2003, the Commission authorized $9,354,000, which included: an additional $4,125,000 for continuation of CIP 102030 Comprehensive Stormwater Management Program Plan and Definition; $3,731,000 for initiating CIP 102108 Drives Connection to IWS Project; $668,000 for initiating CIP 102109 Stormwater Pollution Prevention Project; and $830,000 for initiating CIP 102146 Low Flow Pilot Program.
- On February 10, 2004, the Commission authorized $10,000,000 for continuation of CIP 102030, Comprehensive Stormwater Management Program Plan and Definition.
- On May 5, 2005, the Commission authorized $14,981,000 for continuation of CIP 102030, Comprehensive Stormwater Management Program Plan and Definition.
- On October 25, 2005, the Commission authorized $12,408,000 for continuation of CIP 102030, Comprehensive Stormwater Management Program Plan and Definition.
- On April 11, 2006, the Commission authorized an additional cost of $36,208,000 for continuation of CIP 102030, Comprehensive Stormwater Management Program Plan and Definition. Funding for Adaptive Management phase stormwater projects was authorized by this action.