

PORT OF SEATTLE
MEMORANDUM

COMMISSION AGENDA

Item No.	6d
Date of Meeting	4/5/2011

DATE: March 18, 2011

TO: Tay Yoshitani, Chief Executive Officer

FROM: Michael Ehl, Director, Airport Operations
Wayne Grotheer, Director Aviation Project Management Group
Elizabeth Leavitt, Director Aviation Planning & Environmental Programs

SUBJECT: Airfield Stormwater Detention Pond M Modifications – Contract 3
(CIP # C100172)

Amount of This Request: \$ 0

Source of Funds: Airport Development Fund

State and Local Taxes Paid: \$294,000

Jobs Created: 10

Total Estimated Project Costs: \$4,246,000

ACTION REQUESTED:

Authorization for the Chief Executive Officer to advertise and execute a construction contract for the 2011 Stormwater Detention System (SDS) Pond M Modifications and SDS 6/7 Vault Outfall Structure at the Seattle-Tacoma International Airport in the corrected amount of \$4,246,000. The corrected amount aligns with the budgeted amount of \$4,400,000 that had been reserved for the remaining Pond M work. The Commission authorized this contract in the amount of \$1,389,000 on March 1, 2011, but the wrong cost estimate was used in determining the total project cost, necessitating the new contract authorization. No additional budget is requested since funds are available from previously authorized budget for the Third Runway Project (CIP #C100172).

BACKGROUND:

This memo corrects the total estimated project costs authorized by the Commission in the request made on March 1, 2011. The amount indicated in that memo was \$1,389,000, which was the estimated amount for the 2010 work on Pond M. The correct amount is \$4,246,000. This amount aligns with the budget amount of \$4,400,000 that had been reserved for the remaining Pond M work.

The error occurred when the project manager was out of the office for an extended period and other staff were assigned to prepare the Commission memo. An estimate found in the files was assumed to be the correct one and used for the costs in the memo. Subsequent discussions regarding the costs did not reveal the error. To insure future communication breakdowns do not occur and that all costs are identified, the AV/PMG airfield team is using a formal review

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meeting of project estimates that include the key parties that would have knowledge of potential project costs.

This authorization will allow construction bids to be obtained for the scope of work under the overall Third Runway Project. Although the runway is operational, certain projects associated with the runway must be completed as required by environmental permits and before the overall project will be complete. No additional budget is being requested. Sufficient budget for this work within the Third Runway Project has already been authorized by the Commission. This project will not increase the Airport's forecasted cost per enplanement. The cost of this work is estimated to be \$4,246,000.

ADDITIONAL BACKGROUND:

Environmental permits for the Third Runway require the Port to provide stormwater detention and water quality treatment for the Airport including the new Third Runway and all other Airport surfaces. These facilities were to be completed before the Third Runway became operational in November 2008. With the exception of the Pond M modification and an outfall structure for the SDS 6/7 vault, all facilities including eleven detention ponds and vaults along with a number of water quality facilities have been completed. In 2008, Port staff requested a delay in constructing Pond M from the Washington State Department of Ecology (Ecology). This delay allowed the site to be used for the management of construction site stormwater associated with Runway 16L reconstruction. Ecology's water quality branch granted the Port a two-year extension.

Following this extension, Port staff developed plans with the intent of constructing Pond M in the summer of 2010. Included in those plans were provisions to install an outfall structure in the SDS 6/7 stormwater vault. The Commission provided authorization for construction bid advertisement as part of the Airfield Improvement Project-2 (AIP-2) on January 12, 2010. Subsequent to that authorization, unforeseen site conditions, particularly unsuitable foundation soils, were discovered by geotechnical investigations. These conditions necessitated further analysis and design prior to obtaining a dam safety permit from the Ecology. The additional analysis and design work, in addition to a restrictive construction schedule window set by Ecology, necessitated separating the Pond M work from the 2010 contract. Ecology's water quality branch was notified of the additional design needs and extended the Third Runway's permit requirements for completing the stormwater facility until the fall of 2011. The Commission authorized a one-year delay to the construction of Stormwater Detention Pond M on May 24, 2010, in accordance with Section 4.2.3.3.(ii) of Resolution No. 3605. No additional project funds are being requested as part of this authorization. The original budget for the 2010 AIP-2, per the January 12, 2010 authorization was \$6,625,000. The estimated cost of the Pond M modifications and SDS 6/7 outfall structure installation is \$4,246,000. The additional analysis and design work did not result in the estimated cost exceeding the budgeted amount for the work.

PROJECT JUSTIFICATION:

Pond M is one of several stormwater projects that were required to fulfill Third Runway environmental permit obligations. Completion of Pond M stormwater detention facility will satisfy the outstanding permit requirements and in doing so provide flow control and additional

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water quality treatment for approximately 160 acres of Airport surfaces draining to Miller Creek. The existing SDS 6/7 vault has been constructed with an outlet that provides temporary flow control but does not meet current standards. A new control structure will provide the required hydraulic controls.

Project Objectives:

Convert the existing construction Stormwater Pond M and expand it to a permanent stormwater detention facility and install a permanent control structure in the SDS 6/7 vault the Airport.

PROJECT SCOPE OF WORK AND SCHEDULE:

Scope of Work:

The existing construction stormwater pond will be expanded through the excavation and construction of a two-celled facility with a final detention capacity of approximately 26 acre-feet. Each cell will be formed by an earthen berm, constructed to meet dam safety permit requirements. Underlying soils determined to be unsuitable for the embankment foundation will be removed. Conveyance piping spillways, hydraulic control structures, and outfall pipes to receiving waters will be installed. A heavy plastic liner will be anchored to the inner berm slopes and netting will be fitted above both cells to reduce the pond's open water attraction to wildlife. The SDS 6/7 control structure work will entail installing a baffle wall in an existing manhole with a series of orifices designed to release water at controlled rates in accordance with current standards.

Schedule:

- Complete Design 1st Quarter 2011
- Bid and Award 2nd Quarter 2011
- Start Construction 3rd Quarter 2011
- In-Use Date 4th Quarter 2011
- Project Completion 4th Quarter 2011

FINANCIAL IMPLICATIONS:

The funds to pay for the Pond M modifications are part of the Third Runway Program budget previously authorized by the Port Commission. No additional project budget is being requested.

Budget/Authorization Summary:

Original Budget	\$587,362,000
Budget Additions	\$541,594,000
Total Budget	\$1,128,956,000
Returned Savings	-\$130,621,738
Revised Budget	\$932,408,802

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Previous Authorizations	\$1,128,956,000
Current Request for Authorization	\$0
Total Authorizations, including this request	\$1,128,956,000
Remaining Budget to be Authorized	\$0

Project Cost Breakdown:

Construction costs	\$3,391,000
Sales tax	\$294,000
Aviation Project Management and other soft costs	\$ 855,000
Total	\$4,246,000

Budget Status and Source of Funds:

This project is included in the 2011-15 capital budget and Plan of Finance within the Third Runway Program (CIP # C100172). The funding source will be the Airport Development Fund.

Financial Analysis and Summary:

These estimated costs will not cause the total projected costs to exceed the revised budget, and will not affect cost per enplanement (CPE) as these projects were already included in the CPE forecast.

OPERATION & MAINTENANCE IMPLICATIONS:

O&M costs for Pond M will be comparable to other recently modified storm water ponds. Costs would include a monthly inspection, a more detailed six month inspection and a yearly cleaning of the pond. Estimate includes approximately 105 hours of labor per year or approximately \$5,500 to \$6,000.

ENVIRONMENT AND SUSTAINABILITY:

As a condition of the permits issued for the Third Runway Project, rigorous environmental standards for the quality of the fill material, construction stormwater treatment and air quality were established. These include requirements to retrofit the existing Airport surfaces and newly created surfaces to current standards for stormwater runoff flow control and water quality treatment. These current standards are designed to sustain a healthy aquatic habitat in downstream receiving waters. Once completed, this project in combination with other stormwater facilities will reduce erosion in local streams caused by uncontrolled runoff from impervious surfaces. In addition this facility will provide supplemental water quality treatment of pollutants associated with Airport operations.

STRATEGIC OBJECTIVES:

This request supports the Port's Strategic Objective to Exhibit Environmental Stewardship by meeting required environmental permit obligations.

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TRIPLE BOTTOM LINE SUMMARY:

This action links to the overall completion of the Third Runway Project, which was developed in an environmentally responsible way and overall is a vital regional transportation facility that supports economic growth in many ways.

ALTERNATIVES CONSIDERED AND THEIR IMPLICATIONS:

Option 1 – Do Nothing. This option would result in the Port not being in compliance with environmental permits and likely result in sanctions being issued by the environmental regulatory agencies. The existing undersized Pond M would remain in place, potentially allowing excessive flows to cause erosion in Miller Creek. Discharges from the SDS 6/7 Vault would not meet current standards specified in the permits. This is not the recommended option.

Option 2 – Modify Pond M and install the SDS 6/7 control structure. This option would result in the Port fulfilling environmental commitments for stormwater management and provide a stormwater facility that meets current standards. This is the recommended option.

OTHER DOCUMENTS ASSOCIATED WITH THIS REQUEST:

None.

PREVIOUS COMMISSION ACTION:

On August 1, 1996, the Commission adopted Port Resolution No. 3212, as Amended, approving the Master Plan Update for Airport, including development of a new dependent air carrier runway, and authorizing initial development work for the Runway project.

On May 27, 1997, the Commission authorized \$587,362,000 for completion of the Runway project to be completed by 2004.

On June 22, 1999, the Commission authorized an additional \$186,000,000, increasing the total authorization to \$773,362,000. At that time, it was estimated permitting would be finalized by December 1999 and the Runway project would be complete by fall 2006.

On June 24, 2003, the Commission was briefed on additional costs from delays, permit conditions, market conditions, scope of project, and FAA requirements. At that time, the Runway project was scheduled to be completed at the end of 2008.

On October 11, 2005, the Commission authorized an additional \$125,000,000 increasing the total authorization to \$898,362,000.

On September 26, 2006, the Commission authorized an additional \$219,594,000 increasing the total authorization to \$1,128,956,000.

On April 21, 2009, the Commission authorized the advertisement for construction bids for the Lora Lake Demolition, Des Moines Nursery Mitigation and the Third Runway Stormwater Pond Projects.

On July 28, 2009, the Commission authorized design for Miller Creek Relocation Revisions, 160th Street Culvert Removal, and Third Runway Environmental Mitigation at Seattle-Tacoma International Airport.

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On January 12, 2010, the Commission authorized the advertisement for construction bids for Third Runway Mitigation, including Miller Creek Relocation Revisions and Restoration; 160th Street Bridge/Culvert Removal; and Third Runway Permanent Stormwater Detention Facility at the Airport.

On June 1, 2010, the Commission authorized the separation of Stormwater Retention Pond M (Pond M) from the other 2010 Airfield Improvement Projects – Contract 2 (AIP-2) and delay construction until 2011.

On March 1, 2011, the Commission authorized the advertisement and execution of a construction contract for the 2011 Stormwater Detention System (SDS) Pond M Modifications and SDS 6/7 for a total estimated project cost of \$1,389,000.