



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 6a

**ACTION ITEM**

**Date of Meeting** February 28, 2017

**DATE:** February 21, 2017

**TO:** Dave Soike, Interim Chief Executive Officer

**FROM:** Michael Ehl, Director, Airport Operations  
Wayne Grotheer, Director, Aviation Project Management Group  
Clare Gallagher, Director, Capital Project Delivery/Public Affairs

**SUBJECT:** Flight Corridor Safety Program – Phase 2 and 3

**Amount of this request:** \$2,373,000

**Total estimated project cost(Ph. 2 & 3):** \$7,227,000

**ACTION REQUESTED**

Request Commission authorization for the Chief Executive Officer to prepare environmental, design and contract bid documents for the Flight Corridor Safety Program now-combined Phase 2 and Phase 3 at Seattle-Tacoma International Airport for \$2,373,000. The total estimated project cost is \$7,227,000.

**EXECUTIVE SUMMARY**

This project is part of a multi-year program to manage obstructions consisting of trees and other vegetation at and around Seattle-Tacoma International Airport, and replanting lower-height vegetation on or near the removal sites. As the operator of the airport, the Port is responsible for complying with Federal Aviation Administration (FAA) and State regulations regarding obstructions to protect flight operations into and out of the airport. Phase 1 work on some Port property is already in progress. This request allows for the environmental process for Phase 2 (public agency-owned properties) and Phase 3 (residential and commercial properties) to begin, along with preparation of design and contract documents. There is no construction activity for Phase 2 and 3 resulting from this action.

**JUSTIFICATION**

This program is necessary to meet the Aviation Division's goals of ensuring safe and secure aircraft operations. The program of obstruction removal and replanting vegetation is organized into three phases. Phase 1 occurs on Port property, Phase 2 occurs on commercial and other agency property, and Phase 3 occurs on private property.

Meeting Date: February 28, 2017

Phase 1 is currently underway with a contract executed in December 2016. Work in two areas adjacent to residences has been deferred to allow for additional evaluation of options for these sites. Work in these two areas may occur in the latter part of 2017 or be transferred to a subsequent contract. The Port conducted an environmental review under the State Environmental Policy Act (SEPA) for Phase 1 of the project and issued a Final Mitigated Determination of Non-Significance for Phase 1 in August 2016.

Regulations concerning obstruction removal at airports and justification for this program are based on the following:

1. Federal Aviation Administration Requirements for Airport Operators to Control Obstructions
  - a. Federal Aviation Regulation (FAR) Part 139, Certification of Airports
  - b. Advisory Circular (AC) AC 150/5300.13A, Maintenance of obstacle clearance surfaces
  - c. Grant Assurance 20 “Hazard Removal and Mitigation”
  - d. Grant Assurance 21 “Compatible Land Use”
  - e. Federal Aviation Administration Engineering Brief 91, “Management of Vegetation in the Airport Environment”
2. State Requirement for Airport Operators to Control Obstructions
  - a. RCW 14.12.020 “Airport hazards contrary to public interest”
3. Airport’s Strategic Goals and Objectives
  - a. Strategic Goal No. 1, Operate a world-class international airport by: Ensuring safe and secure operations.

### ***Environmental Review***

Phases 2 and 3 will be pursued as a combined phase for environmental reviews and design rather than two separate, consecutive phases. This will provide for a cumulative impacts assessment for the remaining work, and facilitate the removal of obstructions as properties become available for the removals to occur. Environmental review will be undertaken for all property within the combined Phases 2 and 3, will take into account the environmental review that occurred for Phase 1, and is anticipated to be complete in mid-2017.

The combined Phases 2 and 3 also includes additional community engagement and negotiation with property owners regarding removal and replanting on their property. Regular briefings to Commission, in advance of construction authorization, is planned to occur this spring.

### ***Public Engagement***

As part of the project approval for Phase 1 work, the Commission altered the approach to approve work beginning on select Port properties, and directing additional work to study possible modifications for the remaining properties in Phase 1. Port staff is undertaking additional site evaluation regarding the removal and replanting approach for trees on Port property near South 200th Street (Sites P-4 and P-5). Most over-height conifers are located within Sites P-4 and P-5, and both sites are also adjacent to residential properties. These factors, in part, raised community concerns regarding the obstruction management in this area and the re-evaluation of options for these sites.

Meeting Date: February 28, 2017

On February 1, Port staff hosted a public open house near the Airport to update residents. Several stations provided information on program details, gathered feedback, and publicized an “online open house” for the program. Identical to the February 1 open house, the online version seeks public input specifically on:

- Removal and replanting approaches for Port properties near South 200<sup>th</sup> Street
- The Port’s Airport Communities Ecology Fund to invest in environmental projects and programs in SeaTac, Burien, and Des Moines

Approximately 85 people attended, and feedback is continuing to be gathered from the in-person comment forms and the online open house. Staff is reporting separately to the Commission on the ongoing work with the Ecology Fund.

Port Public Affairs is maintaining an email contact list to update residents directly regarding activity and next steps in the program, including the recent open house and upcoming Commission briefings on the program or related topics. In addition, updates also are provided by direct communication to the Highline Forum members; in the Port’s Connections e-newsletter, which reaches 12,000 recipients; the Port’s Air Mail newsletter, which reaches 31,000 households in the Airport area; and through local media and blogs.

Future Commission briefings and actions are anticipated to include briefings in second and third quarters of 2017 on proposed changes to Phase 1 following the community engagement, and design plans and SEPA environmental review for Phases 2 and 3. Construction authorization for the combined Phase 2 and 3 work is anticipated to be requested in the third quarter of 2017. The delivery method for the remaining work will be developed during the design process.

## **DETAILS**

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

Scope of work for this authorization includes the development of environmental and design bid documents for environmental review for the Flight Corridor Safety Program Phase 2 and Phase 3, now combined.

The program scope of work for combined Phase 2 and Phase 3 includes removing trees/vegetation and replanting tree and shrub vegetation. This scope also includes environmental review and permitting in compliance with applicable federal, state and local requirements. The work may include installation of temporary erosion and sediment control devices, removal of trees/vegetation, removal of invasive species, extensive tree replanting, extensive shrub replanting and restoration.

Meeting Date: February 28, 2017

**Schedule**

*Activity*

Commission design and environmental authorization	2017 Quarter 1
Design and environmental start	2017 Quarter 1
Commission briefing	2017 Quarter 2
Commission construction authorization	2017 Quarter 3
Construction start	2017 Quarter 4

**Cost Breakdown (Phase 2 and 3)**

	This Request	Total Project
Design	\$2,373,000	\$2,720,000
Execution	\$0	\$4,507,000
Total	\$2,373,000	\$7,227,000

**ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1** – Do not authorize funds to prepare environmental, design and contract bid documents, maintain work in Phase 1 only.

Cost Implications: \$0

Pros:

- (1) No expenditure required

Cons:

- (1) Phase 2 and 3 work would be delayed further into 2017, contrary to discussions with FAA
- (2) FAA could consider the Airport to be non-compliant with Federal rules and regulations. The FAA would have a number of options on how to address the non-compliance. The FAA’s options would include:
  - (a) Consider approach and/or departure procedures to be unsafe, and limit their use;
  - (b) Limit or eliminate FAA grant funding to the Airport until the obstructions are removed. FAA entitlement grant funding is estimated to be ~\$6.6 million in 2017.
  - (c) Requiring airlines to take weight penalties, with an additional effect of not serving certain markets, as aircraft would have to be lighter to take-off over the obstructions.
- (3) Does not meet the Airport’s strategic goal of ensuring safe and secure operations.

This is not the recommended alternative.

Meeting Date: February 28, 2017

**Alternative 2** – Authorization to prepare environmental, design and contract bid documents for Phase 2 and Phase 3, combined.

Cost Implications: \$2,373,000

Pros:

- (1) Complies with FAA and State regulations to manage identified obstructions in a timely manner.
- (2) Meets the Airport’s strategic goals and objectives of ensuring safe and secure operations.
- (3) Provides time for public engagement and outreach with the local communities
- (4) Provides a manageable program to meet the FAA and state regulations to remove identified obstructions. The FAA concurs with this approach.
- (5) Allows the Port to apply lessons-learned from Phase 1, to Phase 2 and Phase 3.
- (6) Allows time for coordination with local agencies and area residents.
- (7) Allows areas with obstructions to be removed with sustainable lower growth species meeting the long term goals of the community.

***This is the recommended alternative.***

**FINANCIAL IMPLICATIONS**

***Cost Estimate/Authorization Summary***

	Phase 1	Phases 2&3	Total
<b>COST ESTIMATE (Phase 1, 2 and 3)</b>			
Original estimate	\$2,731,000	\$0	\$2,731,000
Previous changes – net	\$475,000	\$232,000	\$707,000
Current change	\$0	\$2,373,000	\$2,373,000
Future change	\$0	\$4,622,000	\$4,622,000
<b>Revised estimate</b>	<b>\$3,206,000</b>	<b>\$7,227,000</b>	<b>\$10,433,000</b>
<b>AUTHORIZATION</b>			
Previous authorizations	\$3,206,000	\$232,000	\$3,438,000
Current request for authorization	\$0	\$2,373,000	\$2,373,000
Total authorizations, including this request	\$3,206,000	\$2,605,000	\$5,811,000
Remaining amount to be authorized	\$0	\$4,622,000	\$4,622,000
Total Program	\$3,206,000	\$7,227,000	\$10,433,000

***Annual Budget Status and Source of Funds***

The Flight Corridor Safety Program costs are expense costs. This work is estimated to be within the \$3,483,535 approved operating budget for 2017. Future annual budgets will include provisions for the rest of the program.

Meeting Date: February 28, 2017

Additional funding for Phase 2 and 3 monitoring and additional plantings as needed to offset vegetation mortality will be included in the annual Aviation Operations operating budget.

The full cost of the program will be included in the Airfield Movement Area cost center in the year the costs are incurred and recovered from the airlines. The funding source is the Airport Development Fund. The incremental impact on the airline cost per enplaned passenger would be approximately \$0.14 in 2017.

**ADDITIONAL BACKGROUND**

Obstructions are any objects penetrating FAA-designated approach and departure paths at or around an airport posing a potential risk to safe aircraft operations. Obstruction studies and the related publication of obstruction charts were completed every ten years by the FAA until approximately 1994. In preparing for the activation of the Third Runway, the FAA performed an obstruction analysis in 2005 that led to the removal of trees in 2006-2008. An aerial obstruction analysis was conducted by the Port in 2015 that identified approximately 1,600 obstruction data points consisting of trees and other vegetation. Subsequent field work was performed by a third party to verify the aerial obstruction analysis data. The field verification of the aerial obstruction data resulted in identifying approximately 2,800 tree obstructions at or around the airport.

The Port has developed a comprehensive Flight Corridor Safety Program that will address the removal of obstructions in several phases and span multiple years:

- Phase 1: 2016/2017 - Port-Owned property
- Phase 2: 2017/2018 – Public agency-owned properties including Highline Public School District, Washington State Department of Transportation, Seattle Public Utilities and public right of way within the cities of Burien, Des Moines and SeaTac.
- Phase 3: 2018/2019 - Residential and Commercial properties

**ATTACHMENTS TO THIS REQUEST**

None

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

November 22, 2016 – Commission authorized (1) to award and execute a major works construction contract to the lowest responsible bidder, notwithstanding the low bid exceeding the engineer’s estimate by more than 10 percent; (2) change the contract duration as necessary and include additional scope that may be identified, including deferral of work on selected sites; (3) increase the project budget by an amount not to exceed \$475,000 for a total new project cost of \$3,206,000.

November 1, 2016 – Commission public meeting and briefing on the Flight Corridor Safety Obstruction Management program. The briefing provided an overview of state and federal

Meeting Date: February 28, 2017

laws/requirements, and staff's recommendation of options to modify the current program. The public meeting also included an extensive public comment period.

October 25, 2016 – Commission considered authorization to award the irregular bid exceeding 10 percent of the engineer's estimate to the lowest responsible bidder but took no action.

October 11, 2016 – Commission considered authorization to award the irregular bid exceeding 10 percent of the engineer's estimate to the lowest responsible bidder but took no action.

August 23, 2016 – A special announcement to Commission by Aviation Operations Director, Michael Ehl, in regards to the Port issuing the final environmental Mitigated Determination of Non-Significance (MDNS) for tree removal and replanting as part of the Flight Corridor Safety Program in Phase One.

August 9, 2016 – Commission authorized to advertise and execute a major works construction contract in the amount of \$1,831,000 for a total project cost of \$2,731,000.

February 9, 2016 – Commission authorized to design, advertise and execute a major works construction contract in the amount of \$750,000 for a total estimate project cost of \$900,000.

November 24, 2015 – Commission briefed on the Flight Corridor Safety Obstruction Management program. The briefing provided an overview of state and federal laws/requirements, and staff's recommendation of a phased delivery approach to complete the program.