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#### COMMISSION

AGENDA MEMORANDUM Item No. 11b

BRIEFING ITEM Date of Meeting October 25, 2022

DATE: October 5, 2022

TO: Stephen P. Metruck, Executive Director

FROM: Stan Shepherd, Sr Manager, Airport Noise Programs

Tom Fagerstrom, Airport Noise Programs Coordinator

Sarah Cox, Director, Aviation Environment & Sustainability

SUBJECT: Briefing on the SEA Part 150 Noise and Land Use Compatibility Study Update

#### EXECUTIVE SUMMARY

A Part 150 Noise and Land Use Compatibility Study is required by the Federal Aviation Administration (FAA) to update airport noise compatibility programs and establish eligibility for Airport Improvement Program (AIP) grant funds. SEA's last Part 150 update was completed and approved by the FAA in 2014.

In 1985 the Port completed the first Part 150 Study at SEA. Since that time there have been three other updates to the Study in 1993, 2002, and 2014. Through our Part 150 noise mitigation programs, flight tracking, noise monitoring, and airline outreach incentive programs, the Port has been a national leader in both sound mitigation and noise abatement. To date we have spent over \$400 million on total mitigation programs including home and school insulation, and property acquisition and relocations associated with the Third Runway project. Noise Abatement programs have encouraged airline usage of newer and quieter aircraft, promoted high FAA compliance levels with noise abatement flight paths and procedures, and deployed a comprehensive flight tracking and noise monitoring system.

A Part 150 Study is a multi-year effort that assesses current and future aircraft noise levels and their associated effects within impacted areas of the surrounding communities. The study establishes land use guidelines and identifies areas of significant aircraft noise and incompatible land uses. Part 150 regulation establishes that an area is considered impacted by aircraft noise when located within a 65 DNL noise contour. DNL is an annual average of aircraft noise and is the FAA required noise metric to be used in Part 150 studies. The study process includes extensive community involvement, including the scheduling of multiple public meetings.

A consulting team will be chosen to lead the study and will typically consist of professionals in land use planning, public relations, aviation noise, and environmental issues. In addition to consultants, Port employees will participate in the update in the areas of land use planning, GIS applications, community outreach, environmental evaluations, and noise. The work that will be

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performed by the consulting team is highly technical and must be consistent with federal regulations and address a wide array of community interests.

#### JUSTIFICATION

Since the completion of the previous Part 150 update in 2014, many changes have taken place in the airport's noise environment. Airline fleets have changed due to the introduction of many newer generation aircraft. Regional population growth has led to steadily increasing passenger demands on SEA. Aircraft operations (takeoffs and landings) have increased, and associated noise is a concern for local communities.

#### DETAILS

##### Scope of Work

The major focus of the Part 150 Noise and Land Use Compatibility Study update will be to determine and analyze any changes in the 65 DNL noise environment compatibility since the completion of the previous update in 2014 to determine if any additional sound insulation programs could be eligible. Other areas of focus will include analysis of SEA's noise abatement programs, noise monitoring locations and possible opportunities for improved deployment. Once a consultant is hired, a detailed full project scope of work will be developed using their expertise in the prescriptive Part 150 process outlined in the regulation and will be discussed with the commission before finalizing.

Elements of a Part 150 process typically include:

- Developing a Public Involvement Plan

- Developing an inventory of existing conditions
- Preparing (or evaluating existing) Aviation Demand Forecasts
- Evaluating the need for additional noise measurements
- Preparing an existing conditions DNL noise contour
- Preparing a future 5-year conditions DNL noise contour
- Evaluating land use and community noise impacts based on prepared contours
- Evaluating noise abatement procedure alternatives
- Preparing a final Noise Compatibility Plan (NCP)

#### Schedule

Part 150 studies are multi-year efforts that include extensive community outreach and involvement. An initial schedule of milestones leading to project kickoff is included in this section. Staff will return to the Commission in November for project authorization and to contract for the consultant team. Commission will be briefed multiple times throughout the

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Part 150 study to provide updates on the progress, associated costs, and community involvement.

#### Activity Timeframe

Commission authorization to contract 2022 Quarter 4

Consultant Advertisement 2022 Quarter 4

Consultant selection 2023 Quarter 2

Project scope agreement & data collection 2023 Quarter 3

Full project kickoff/public outreach 2024 Quarter 1

#### Estimated Cost Breakdown

To be Authorized Total Project Estimate

Project Cost \$6,000,000 \$7,000,000

Total \$6,000,000 \$7,000,000

\*Previous authorization of \$1M was included with the April 12, 2022, legal settlement agreement (see Previous Commission Actions listed below)

#### Annual Budget Status and Source of Funds

This project will be included in the Noise Programs department operating expense budget on an annual basis during the project. The Port anticipates it will be reimbursed approximately 80% through the FAA's Airport Improvement Program (AIP) grant with the remaining 20% being funded by the Airport Development Funds (ADF). The spending cashflow is anticipated to be approximately \$500K in 2023, \$2M in 2024, \$2M in 2025 and \$2.5M in 2026.

#### ENVIRONMENTAL SUSTAINABILITY/COMMUNITY BENEFITS

This update will enable the Airport to evaluate any operational changes, and associated noise effects, as a result of increased operations and airline fleet changes. Prior noise contours will be compared with current contours to determine if greater or lesser noise impacts exist. If greater impacts exist, that information will be useful to planning future Port and FAA noise mitigation efforts for the community.

#### ATTACHMENTS TO THIS BRIEFING

(1) Part 150 Study Update Resolution No. 3683

(2) Presentation slides

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#### PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

April 12, 2022 – The Commission authorized a legal settlement agreement that included a commitment to engage a consultant to conduct a full Part 150 update for SEA Airport which will include noise contours for the airport and to make a budget commitment in 2023 for funding commencement of the update. This action also included the authorization of \$1M to begin the Part 150 Study Update.

October 22, 2013 – The Commission approved Resolution No. 3683, which updated the Part 150 program by adding operational and land use elements to the Airport's Noise Compatibility Plan, which was formally approved by the FAA in 2014.

December 12, 2000 – The Commission approved Resolution 3443, which updated the Part 150 program by adding operational and land use elements to the Airports Noise Compatibility Plan, which was formally approved by the FAA in 2002.

July 13, 1993 – The Commission adopted Resolution No. 3144 which Amended the Part 150 program to include additional operational and land use elements to the Airports Noise Compatibility Plan.

January 8, 1985 – The Commission adopted Resolution No. 2943; creating the first Seattle-Tacoma International Airport Part 150 program which established the Port's Noise Acquisition and Insulation programs.

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