



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 7a

**BRIEFING ITEM**

**Date of Meeting** February 25, 2020

**DATE:** February 18, 2020  
**TO:** Stephen P. Metruck, Executive Director  
**FROM:** Elizabeth Leavitt, Senior Director Engineering, Environment & Sustainability  
Arlyn Purcell, Director Aviation Environment & Sustainability  
Stan Shepherd, Manager, Airport Noise Programs  
**SUBJECT:** Noise Programs Briefing

**EXECUTIVE SUMMARY**

This briefing is intended to inform the Commission about (1) the ongoing airport sound insulation and other noise programs and (2) the concept of accelerating sound insulation not currently in the 5-year Capital Improvement Program (CIP) but approved through the 2014 Part 150 Study update. Acceleration would provide the community with noise reduction benefits sooner than current funding and staffing rates allow but would require funding without a guarantee of federal reimbursement. If the Commission decides to move forward with acceleration, the work already planned for 2020 would continue, and staff would also start acceleration planning including identifying staff organization and program structure and developing cost estimates. These early tasks would require consultant assistance. In 2020 there would be a need to hire one additional Noise Program Manager and one additional AVPMG Project Manager to begin implementation planning. Additional staffing would be assessed for inclusion in the 2021 budget.

**BACKGROUND**

Code of Federal Regulations (CFR) Title 14, Part 150 governs Airport Noise Compatibility Planning. Part 150 describes the processes by which airports identify and reduce exposure of communities to airport noise. The completion of a Part 150 study and FAA approval of the Noise Compatibility Program qualify noise mitigation measures, including sound insulation, for federal funding.

The Port Commission established Sea-Tac Airport's Part 150 noise mitigation program in 1985 as one of the first voluntary airport noise mitigation programs in the country. The original sound insulation program was based on an estimate of the year 2000 noise impacts and included approximately 10,000 homes as potentially eligible.

Since 1985, the Port has sound insulated approximately 9,400 homes at an approximate cost of \$300 million. The Port also has provided funding to help sound insulate noise impacted schools

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at an approximate cost to date of \$70 million. The Port also acquired and relocated residents from approximately 1,828 homes for noise and 3<sup>rd</sup> runway construction at an approximate cost of \$100 million.

In 2014, the FAA approved the most recent Part 150 update, which was a culmination of several years of land use studies and public involvement. The Part 150 evaluated the current noise impacts on the community and concluded that the contours showing average cumulative noise levels had decreased from previous years, based primarily on the utilization of predominantly newer, quieter aircraft within the fleet mix. Due to the reduction in noise, the FAA required that Sea-Tac Airport redraw its noise remedy boundary to reflect the smaller noise footprint.

The current noise remedy boundary encompasses approximately 3,771 residential units (including apartments, condominiums, and single-family homes) of which approximately 1,298 residential units have not been sound insulated by the Port. For the remaining 1,298 residential units, Port staff and consultants evaluated additional criteria including the date built and structure type. Based on that evaluation, approximately 1,176 residential units are potentially eligible.

Due to current FAA Airport Improvement Program (AIP) grant funding limitations, Port staffing resources, and airport business priorities, the airport has made progress on implementation of the Part 150 approved mitigation measures, but many residences remain to be treated. Remaining sound insulation and acquisition projects include:

- Continued sound insulation for single-family homes – 140 (As of 2/4/2020)
- Continued sound insulation for condominiums – 3 complexes / 133 units
- Future sound insulation of apartment complexes – 18 complexes / 903 units
- Future sound insulation of places of worship – 7 structures
- Future voluntary acquisition of residential units in the South Approach Transition Zone – approximately 16 homes and 6 apartment complexes

Today's briefing will update Commission on the status of each measure and recommend acceleration of the remaining proposed work that is not in the Port's 5-year CIP or the FAA's Airport Improvement Program (AIP) grant funding plan. The estimated costs of sound insulation under current practice range from \$150 million to \$259 million; the estimated costs of an accelerated program range from \$132 million to \$227 million. The cost estimate ranges are wide because the program is at the concept stage. Acceleration would provide benefits to the Port including: reducing community noise impacts sooner at a potential lower overall cost savings to the Port by completing projects in less time. The challenges of accelerating include: staffing, logistic resources, and project funding. It is unlikely that the FAA could fully fund the accelerated program based on nationwide availability of discretionary AIP noise funding. Sound insulation and acquisition projects are typically eligible for FAA reimbursement at later dates if

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funding becomes available. The Port would need to determine how projects could be funded upfront at risk of not receiving FAA AIP grants.

**Risks**

There are several risks associated with accelerating the sound insulation program. FAA AIP grant funding presents the greatest risk, as the timing and amount of available funding are not known.

Noise program costs are incorporated into the airfield movement area cost center and recovered from the airlines through landing fees. Capital costs paid by AIP grants (and Passenger Facility Charges) are excluded from the airline rate base. Under the terms of the airline lease agreement, capital projects with rate base capital costs of \$10 million or more are subject to airline disapproval through the majority-in-interest (MII) provisions. In prior years, the Port’s approach has been to proceed with Noise program projects to the extent AIP grants are available. The airlines have generally been supportive of this approach. Even though accelerating the program may result in lower total construction costs, if the Port receives less AIP grant funding, the airline rate base costs could be higher. The Noise program projects discussed above, will likely be subject to airline review through a MII vote.

Other risks and challenges include:

- Scaling the program up and hiring staff for program management and oversight will take time
- Obtaining contractors in today’s hot market can be challenging and costly
- Product availability – noise rated specialty products aren’t widely available and often have long lead order times
- Homeowner participation is not guaranteed
- All residential properties must pass a strict FAA required noise audit

**ATTACHMENTS TO THIS BRIEFING**

- (1) Presentation slides

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

**July 10, 2018** – The Commission authorized contracting for Sound Insulation Architect & Project Oversight Consulting for Condominiums

**October 11, 2016** – The Commission authorized contracting for Sound Insulation Architect & Project Oversight Consulting Services and Job Order Contracting (JOC) for Single-Family Homes

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**October 22, 2013** – Second Reading and Final Passage of Resolution No. 3683 concluding the Federal Aviation Regulation (FAR) Part 150 Noise and Land Use Compatibility Study Update for Seattle-Tacoma International Airport.

**October 8, 2013** – First Reading of Resolution No. 3683 concluding the Federal Aviation Regulation (FAR) Part 150 Noise and Land Use Compatibility Study Update for Seattle-Tacoma International Airport.

**April 23, 2013** – The Commission authorized contracting for Sound Insulation Consulting Services and Job Order Contracting (JOC) for Single-Family Homes.