

Sound Mitigation Briefing

Highline Forum

July 31, 2019

Part 150 Overview

- Code of Federal Regulations 14 (CFR14) Part 150 – FAA established guidelines
- Voluntary program
- Airports must follow to get federal grants for mitigation projects
- The focus of Part 150 is to address noise and land use incompatibilities
- Educate the public about the airport
- FAA Approved mitigation measures become eligible for AIP funding at 80%

Part 150 is an airport noise and land use planning tool

Sea-Tac Part 150

- Original program began in 1985
- Completed 3 updates
- Last update completed in 2014
 - Extensive public involvement
 - Public workshops
 - Highline Forum updates
 - City council presentations
 - Commission updates
 - Technical Review Committee

Sea-Tac airport has been mitigating for more than 30 years

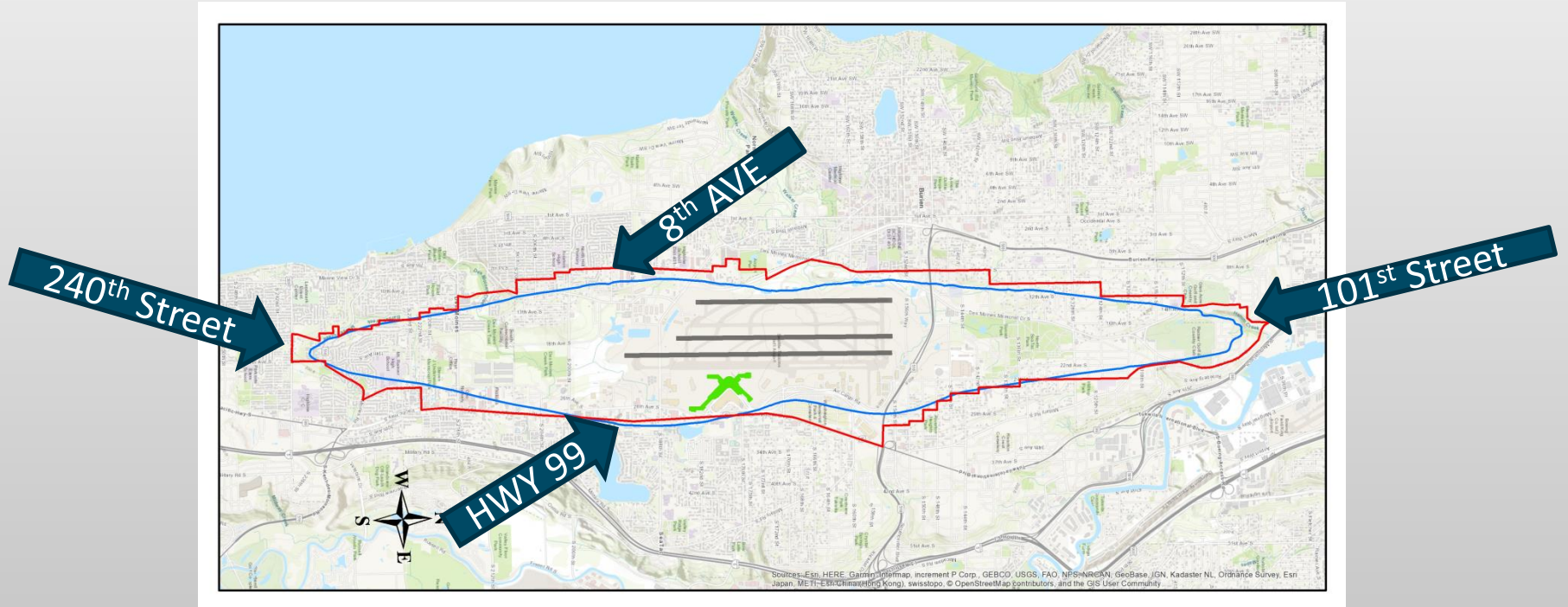
DNL Noise Contour

- Day Night Level (DNL) – Annual cumulative average of noise emitted from aircraft operating at Sea-Tac airport
 - 10 dB penalty for aircraft operating between 10pm and 7am
- Contours **MUST** be developed using the FAA Airport Environmental Design Tool (AEDT)
- The FAA will not allow airports to use noise monitoring recorded decibel levels for production of DNL contours
- Contours must be submitted to and approved by the FAA
- The 65 DNL Contour is the basis for land use analysis in the Part 150

DNL contours are an annual cumulative depiction of aircraft noise

Noise Remedy Boundary

2018 Forecasted 65 DNL Contour



FAA funds mitigation within the boundary

Part 150 Land Use Planning

- Identify noise incompatibilities within surrounding communities
 - Below 65 DNL is compatible
 - Non-compatible at or above 65 DNL without sound insulation
 - Residential
 - Schools
 - Places of Worship
 - Hospitals
 - Nursing Homes
 - Daycare facilities with licensed educators

Part 150 identifies land use that is not compatible with airport noise

Sound Insulation

- No direct cost to the homeowners
- Port receives an “Avigation Easement” in exchange for the insulation
- Sound rated windows, doors, & ventilation



Sound insulation reduces interior noise levels to DNL 45 dB or less

History of Noise Mitigation

- Sound Insulation
 - Began in 1985
 - Approximately 9,400 homes have been completed
 - 8 Highline Schools completed (POS/FAA funding assistance)
 - 5 Condominium Complexes 246 units
 - 14 Buildings on the Highline College Campus
- Acquisition
 - 5 Mobile home parks, 359 mobile home units
 - 69 Homes north of the 3rd runway
 - 1,400 single family homes including 3rd runway acquisition

Approximately \$300 million spent on sound insulation / \$100 million on noise related acquisition

Sound Insulation Requirements

- Homes have to be built prior to 1986 in Des Moines and 1987 in all other areas – Building codes met or exceeded FAA standards past these dates
- Homeowners are required to sign an aviation easement
- Homes must pass a noise audit to ensure that a DNL 45 dB interior noise level can be achieved



Single-Family Sound Insulation

- Continuation of Single Family Sound Insulation
 - Approximately 135 homes identified as potentially eligible
 - Extensive outreach to homeowners completed by certified mail in 2016
 - 48 applications received back
 - 7 homes did not qualify by year built
 - 41 homes sound tested – 34 qualified
 - 9 homes completed in 2019
 - 9 more homes starting in August
 - 16 homes remain eligible and waiting on homeowner participation
 - Potentially eligible homeowner outreach will be conducted Q4 2019

Construction in Progress

Condominiums

- 3 complexes comprised of 133 estimated units
- A&E / Construction Management Firm has been procured
- Project Kick-off meeting for 1st complex complete
- Construction anticipated to start 1st quarter 2020
- All complexes anticipated completion by 2021
- FAA grant funded at 80% of eligible costs



Condominiums, 133 units

Apartment Sound Insulation

- 18 buildings identified as potentially eligible
- Approximately 877 units
- FAA grant funded at 80% of eligible costs
- Begin project definition of pilot project of 1 building in 2022
- Complete pilot project in 2023



Apartment sound insulation, 877 units

Places of Worship Sound Insulation

- 7 structures identified as potentially eligible
- P150 recommended a feasibility study first
 - Completed April 2016
 - Begin project definition of pilot project of 1 building in 2024
 - Pilot project estimated to be completed in 2024

Places of worship insulation, 7 structures

Voluntary Purchase of Avigation Easements For Mobile Homes On Private Land

- Estimated number of eligible parcels 88
- FAA grant funded at 80% of eligible costs
- Begin easement purchase 2021



Mobile home avigation easement purchase, 88 parcels

Voluntary Home Acquisition Within The South Approach Transition Zone (ATZ)

- ATZ is an area 2500 feet off the end of the Runway Protection Zone (RPZ)
- Approximately 16 Single Family Homes & 6 apartment buildings
- Begin Project 2023
- FAA grant funded at 80% of eligible costs
- Project completion date depends on voluntary participation



Residential voluntary acquisition in south ATZ

Schools

- MOA in place with Highline School District (HSD), FAA, and the Port to sound insulate
- 8 schools have been completed
- 7 HSD schools remain to be sound insulated
- Des Moines Elementary currently under construction
- Highline High School contracting has started



Highline School District, 7 schools

What's Next?

- Evaluate current DNL contours through the SAMP Near-Term Projects Environmental Review
- Potential Part 150 update after the completion of the Environmental Review

Thank You