

Sound Mitigation Briefing

January 22, 2019

Part 150 Overview

- Code of Federal Regulations 14 (CFR14) Part 150 – FAA established guidelines
- 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

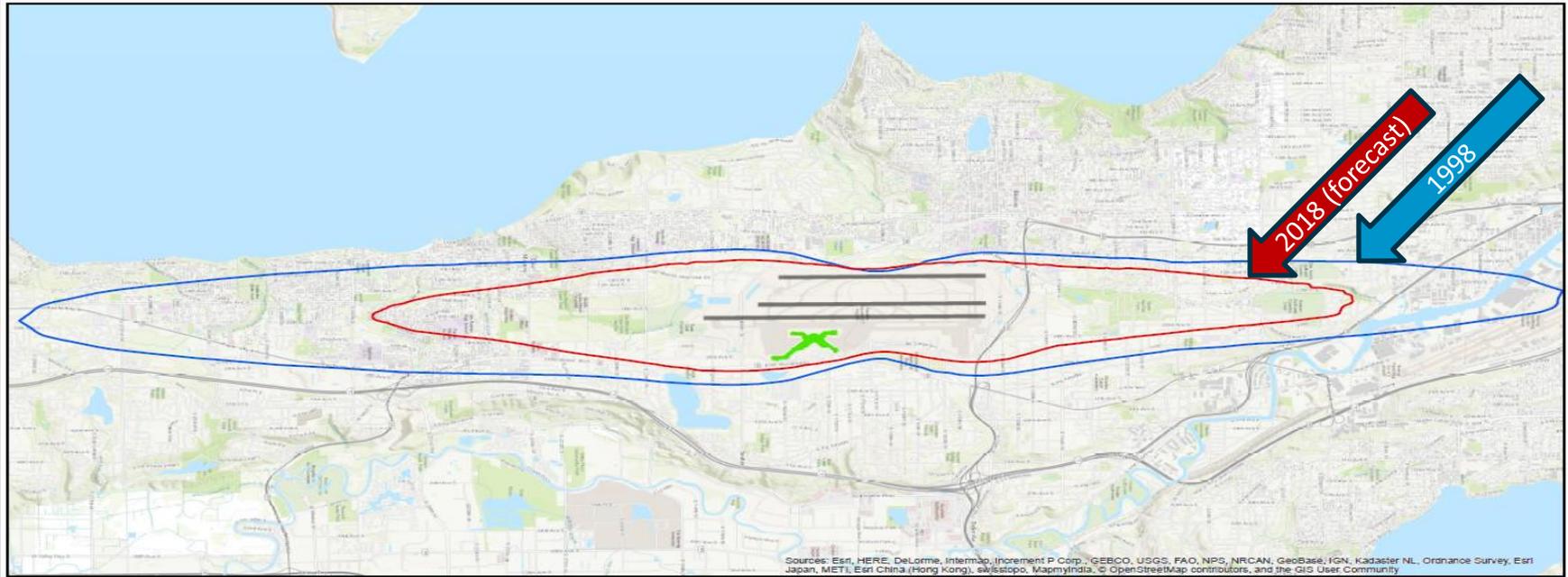
Sea-Tac airport has been mitigating for more than 30 years

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

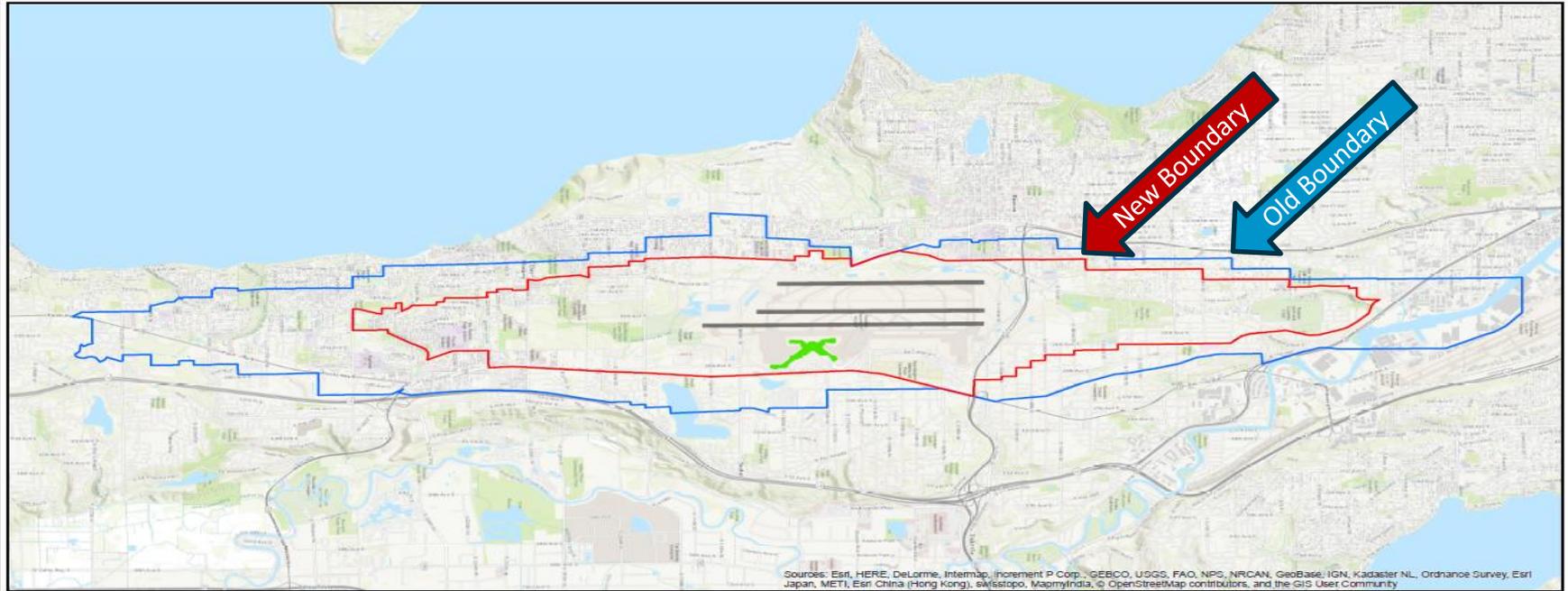
DNL contours are an annual cumulative depiction of aircraft noise

2018 65 DNL Noise Contour



Contours shrank due to quieter aircraft in the fleet mix

Noise Remedy Boundary



Noise Remedy Boundary is smaller due to shrinking noise contours

Part 150 Land Use Planning

- Identify noise incompatibilities within surrounding communities
 - Below 65 DNL is compatible
 - Non-compatible at or above 65 DNL
 - 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 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 45 dB or less

History of Noise Mitigation

- Sound Insulation
 - Began in 1985
 - Approximately 9,400 homes have been completed
 - 7 Highline Schools completed
 - 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

Current Part 150 Recommendations

- Public workshops – numerous ideas were vetted
- Ideas were narrowed down to elements that were feasible and allowable under Part 150



All new programs must be within the new 65 DNL Contour

Single Family Sound Insulation

- Continuation of Single Family Sound Insulation
 - Approximately 150 homes potentially eligible
 - Potential cost of approximately \$14.5 million
 - Project was approved by Commission and construction starts 1st quarter 2019

Construction in Progress

Condominiums

- 3 complexes comprised of 240 estimated units
- Potential cost of approximately \$20 million (costs are being refined by PMG)
- Begin project in 2019 – 1st complex
- FAA grant funded at 80% of eligible costs



Condominiums, 240 units

Apartment Sound Insulation

- 18 buildings identified as potentially eligible
- Approximately 877 units
- Potential cost of \$24 million
- FAA grant funded at 80% of eligible costs
- Part 150 recommended a feasibility study first
 - Completed April 2016
- Begin project definition of pilot project of 1 building in 2022
estimated cost of \$2,300,000



Apartment sound insulation, 877 units

Places of Worship Sound Insulation

- 7 structures identified as potentially eligible
- Potential cost of \$6.6 million
- P150 recommended a feasibility study first
 - Completed April 2016
 - Begin project definition of pilot project of 1 building in 2023 – estimated cost of \$1.1 million

Places of worship insulation, 7 structures

Voluntary Purchase of Avigation Easements For Mobile Homes On Private Land

- Estimated number of eligible parcels 88
- Potential cost of easements \$462,000
- FAA grant funded at 80% of eligible costs
- Begin easement purchase 2021



Mobile home avigation easement purchase, 88 parcels

Voluntary Home Acquisition Within The 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
- Estimated cost \$11.5 million
- Begin Project 2022
- FAA grant funded at 80% of eligible costs



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 planning has started



Highline School District, 7 schools

Thank You