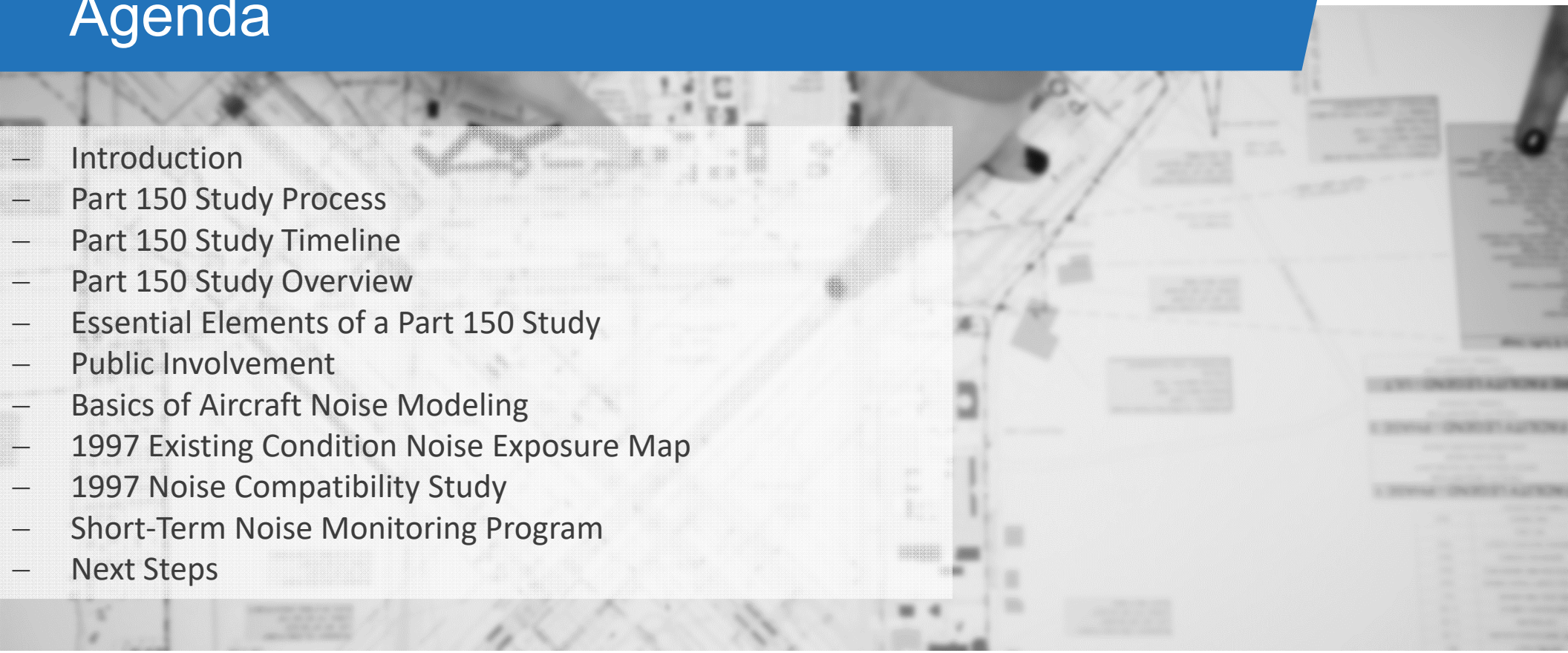
FAR Part 150 Update – Duluth (DLH)

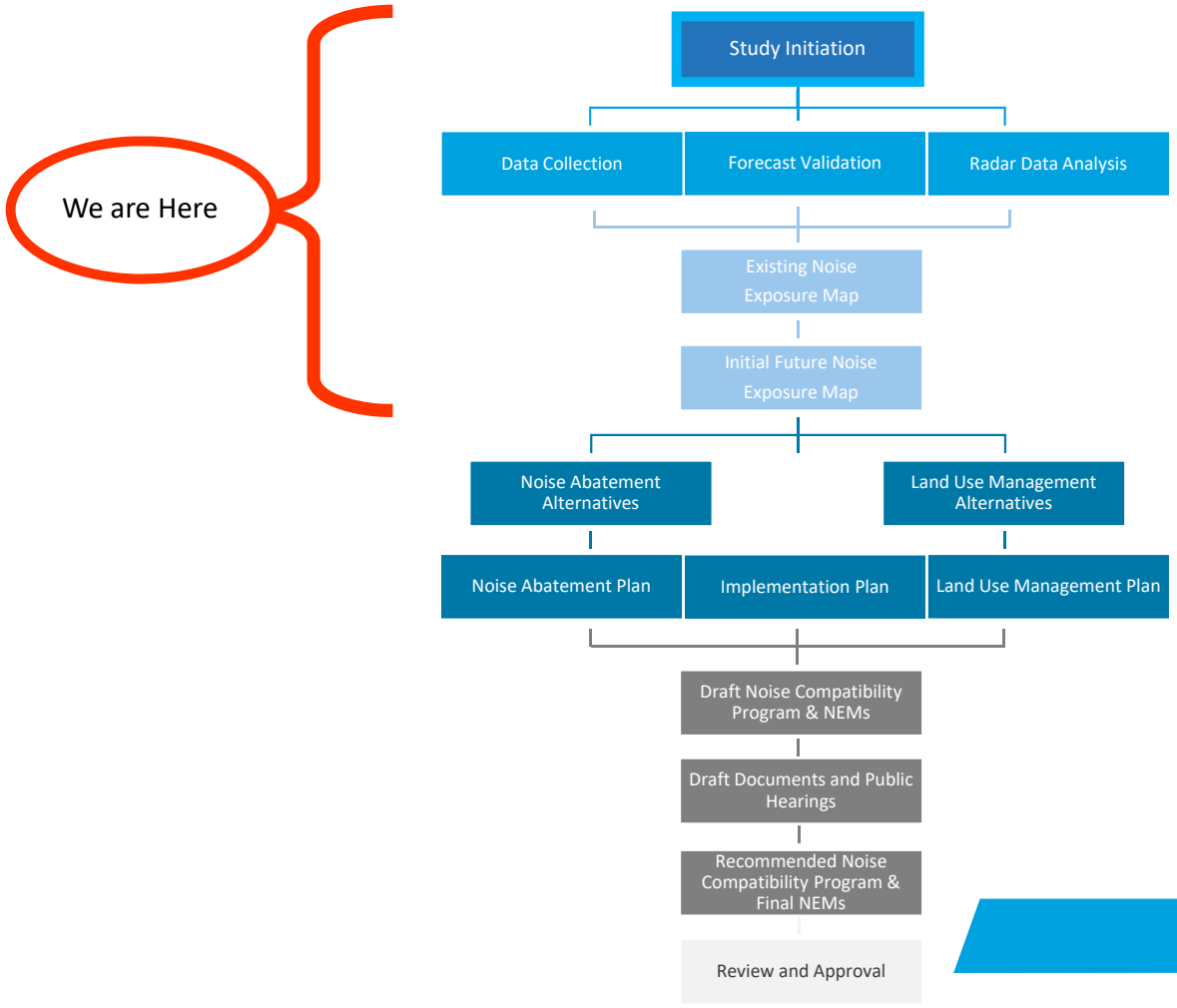
Public Information Workshop | October 2019

Agenda

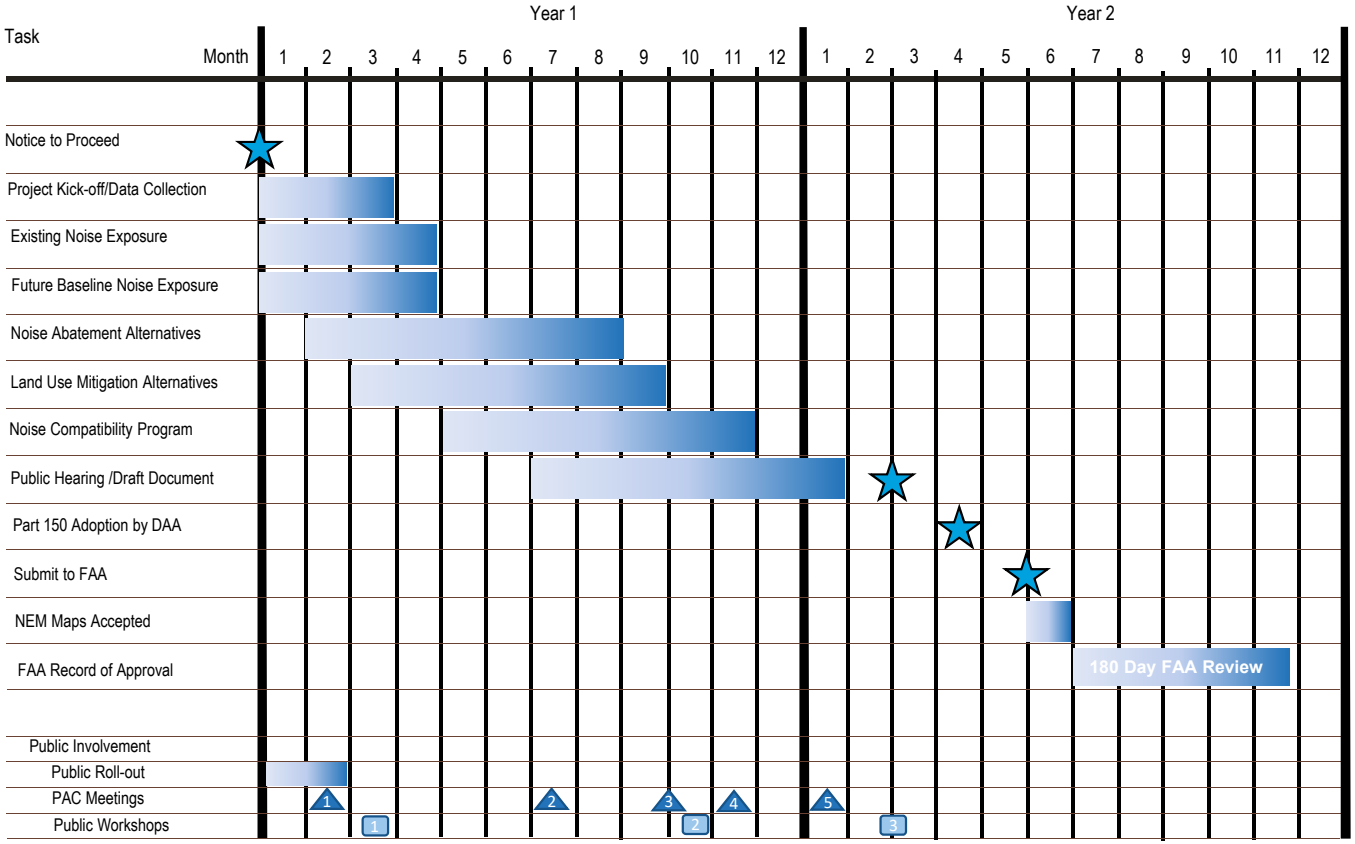


- Introduction
- Part 150 Study Process
- Part 150 Study Timeline
- Part 150 Study Overview
- Essential Elements of a Part 150 Study
- Public Involvement
- Basics of Aircraft Noise Modeling
- 1997 Existing Condition Noise Exposure Map
- 1997 Noise Compatibility Study
- Short-Term Noise Monitoring Program
- Next Steps

Part 150 Study Process



Part 150 Study Timeline



Part 150 Study Overview

- Part 150 Studies are Planning Studies
  - Identify noise and land use impacts that exist today and in the future
  - Work to develop solutions within the FAA's framework
- Part 150 Studies can open funding sources
  - Following FAR Part 150 guidelines makes airport eligible for grants for implementing recommendations of the study
  - Funding is not guaranteed
- Part 150 Studies do not:
  - Recommend closing an airport or implementing mandatory restrictions on aircraft
  - Give environmental approval for implementing noise abatement or land use programs

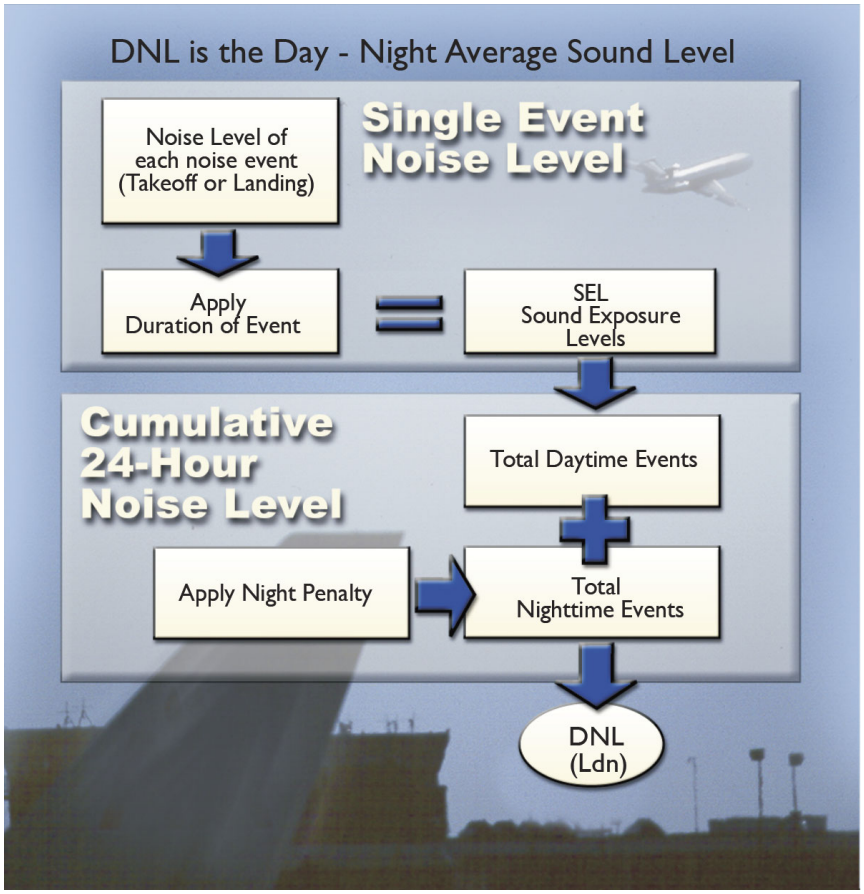
Essential Elements of a Part 150 Study

- Noise Exposure Maps
  - Description of the noise levels for existing and future conditions
    - Future condition should take into account any changes (physical or operational) that may have an effect on the noise levels around the airport
- Noise Compatibility Program
  - Recommendations for reducing, minimizing, and/or mitigating aircraft noise and land use conflicts
    - Noise Abatement
    - Land Use Mitigation
    - Implementation Measures
- Public Involvement
  - Public information meetings/workshops
  - Public hearings
  - Planning advisory committee

Public Involvement

- Special Presentations / Focus Group Meetings
  - To public bodies or focus groups affected by, or having oversight responsibilities for, matters covered by the Part 150 Study Update
- Public Information Meetings
  - Open house, informational meetings to discuss and analyze potential aviation noise, land use, and other mitigation measures
- Public Hearings
  - Public hearings to receive comments (either oral or written) from the public on the Part 150 Study Update document
- Project Website / Social Media
  - Project website and social media will be updated with study information, including images and documents pertinent to the study
  - Posting of all meeting notices
  - Posting of study process and draft findings

Basics of Aircraft Noise Modeling



User Inputs

Inputs	Source
Airport Information	Airport Layout Plan
Aircraft Flight Tracks	FAA Radar Data, Minnesota Air National Gurad (MnANG)
Aircraft Fleet	Traffic Flow Management System (TFMS), MnANG
Number of Operations	Tower, TFMS, Air Traffic Activity Data System (ATADS)
Runway Utilization	Radar/Wind Data, Radar Data
Time of Day	Radar Data, TFMS
Aircraft Climb Profiles	AEDT, Radar Data, MnANG
Departure Trip Length	TFMS
Meteorological Data	Climatic Data, AEDT
Topographic Data	Airport Layout Plan, U.S. Geological Survey

Aviation Environmental Design Tool (AEDT)

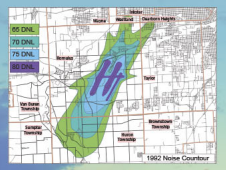
AEDT-Provided Information

- Aircraft Noise Levels
- Aircraft Performance Data

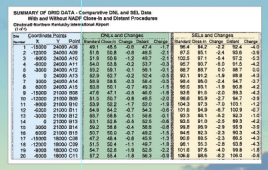
Types of Aircraft Noise Considered within AEDT

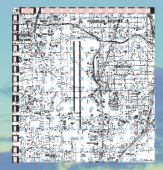
- Arrival
- Departure
- Flyover
- Reverse Thrust (Braking)
- Run-up Noise

Output

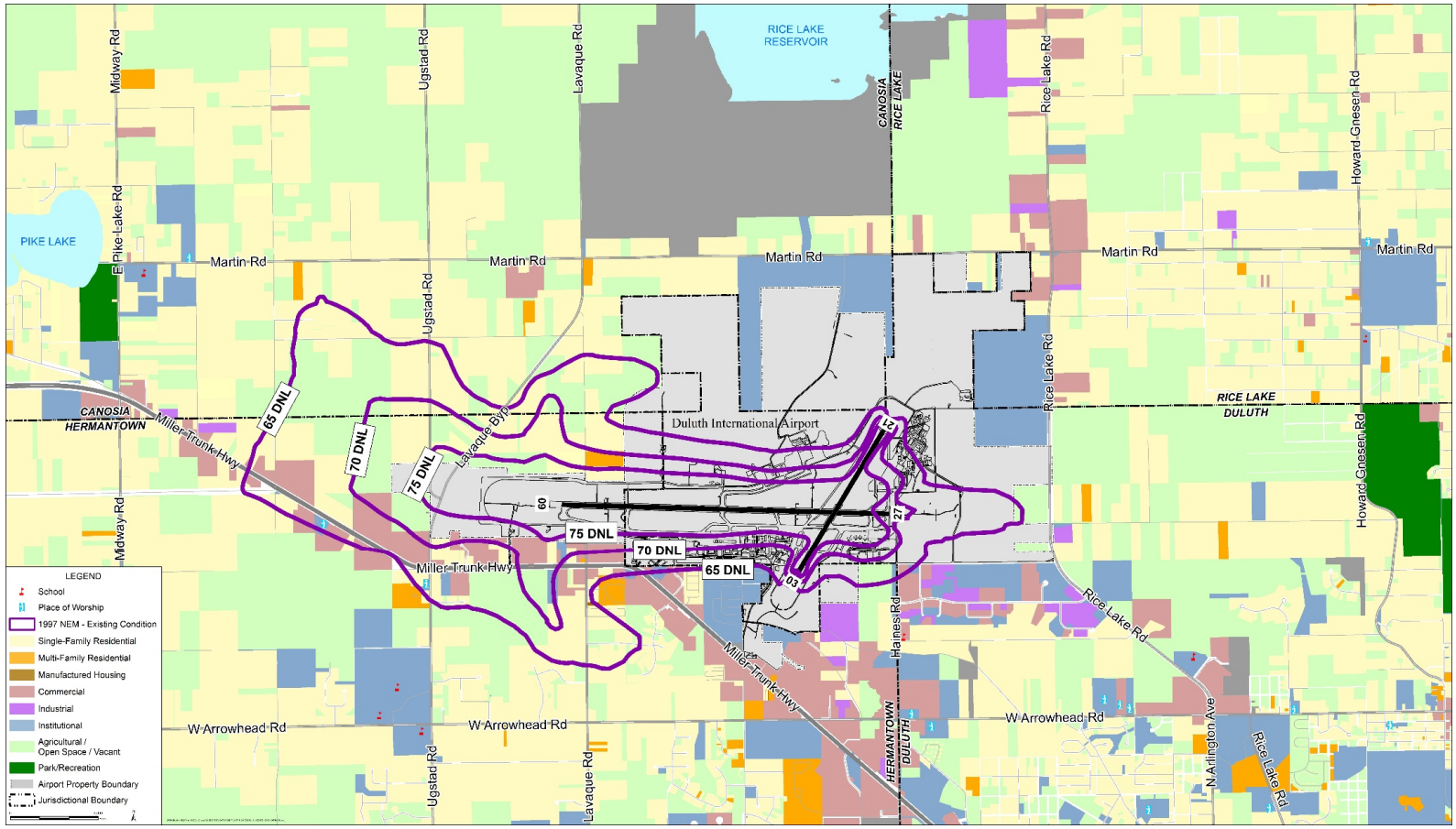


Noise Contours


Tabular Reports


Grid Point Analysis

1997 Existing Condition Noise Exposure Map



1997 Noise Compatibility Study

- Recommended Noise Abatement Procedures
  - Noise Complaint documenting and responses
  - Contingency plan for rapid creation of Noise Abatement Committee
  - Agreement between ATC and MnANG amended to include overflights of Pike Lake
- Recommended Land Use Alternatives
  - Voluntary land acquisition/relocation program
  - Creation of multi-jurisdictional Airport Zoning Board
    - Develop airport noise overlay zone

Short-Term Noise Monitoring Program

- Purpose
  - To gather actual noise and operational data for validation of study inputs
- Potential Locations
  - Secure locations at residential neighborhoods, public facilities areas of community noise concerns
  - Areas to avoid include locations with other noise sources (e.g., near highways, construction sites etc.)
  - Feedback from residents and meeting attendees – Stop by the Noise Monitor Location display
- Timeframe
  - Will be conducted in the first two weeks of November

Next Steps

- Short-Term Noise Monitoring Program
  - Early November 2019
- Develop input and model Existing 2020 Noise Exposure Contours
- Develop input and model Future 2025 Noise Exposure Contours