



LOUISVILLE MUHAMMAD ALI INTERNATIONAL AIRPORT

Noise Compatibility Program Update

Public Open House

**August 4, 2026
5:00 – 7:00 p.m.**

Airport Noise Compatibility Planning

REGULATION

Title 14 of the Code of Federal Regulations Part 150 (14 CFR Part 150 or “Part 150”), “Airport Noise Compatibility Planning”

- Voluntary FAA-defined process for airport noise studies
 - Over 250 airports have participated
- Sets national standards for analysis
- Provides access to FAA funding of some approved measures

COMPONENTS

Part 150 has two technical elements:

1. Noise Exposure Map (NEM)

- Louisville Muhammad Ali International Airport (SDF) NEM updated in 2024 and submitted to FAA December 23, 2024
- Obtained FAA acceptance in 2026

2. Noise Compatibility Program (NCP)

- This project will update the existing 2003 SDF NCP

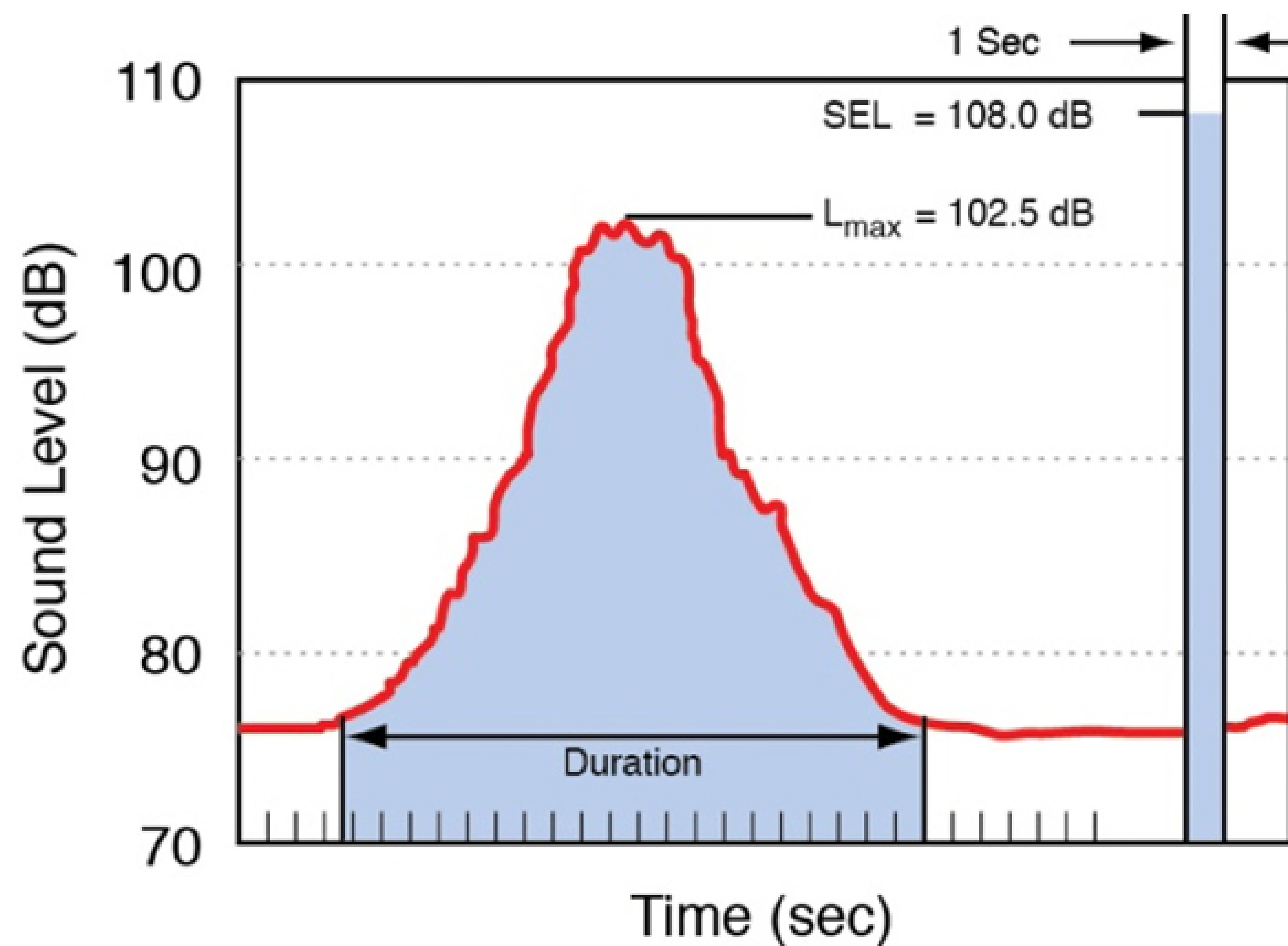
Noise Exposure Map

The NEM describes:

-  Airport layout and operation
-  Aircraft-related noise exposure
-  Land uses in the airport environs
-  Noise/land use compatibility

- SDF NEM provides information for two timeframes:
 - Year of submission (2024)
 - Five-year forecast (2029)
- An FAA checklist identifies NEM requirements and documentation
- Annual average daily noise exposure (DNL) is depicted using contour lines on a map

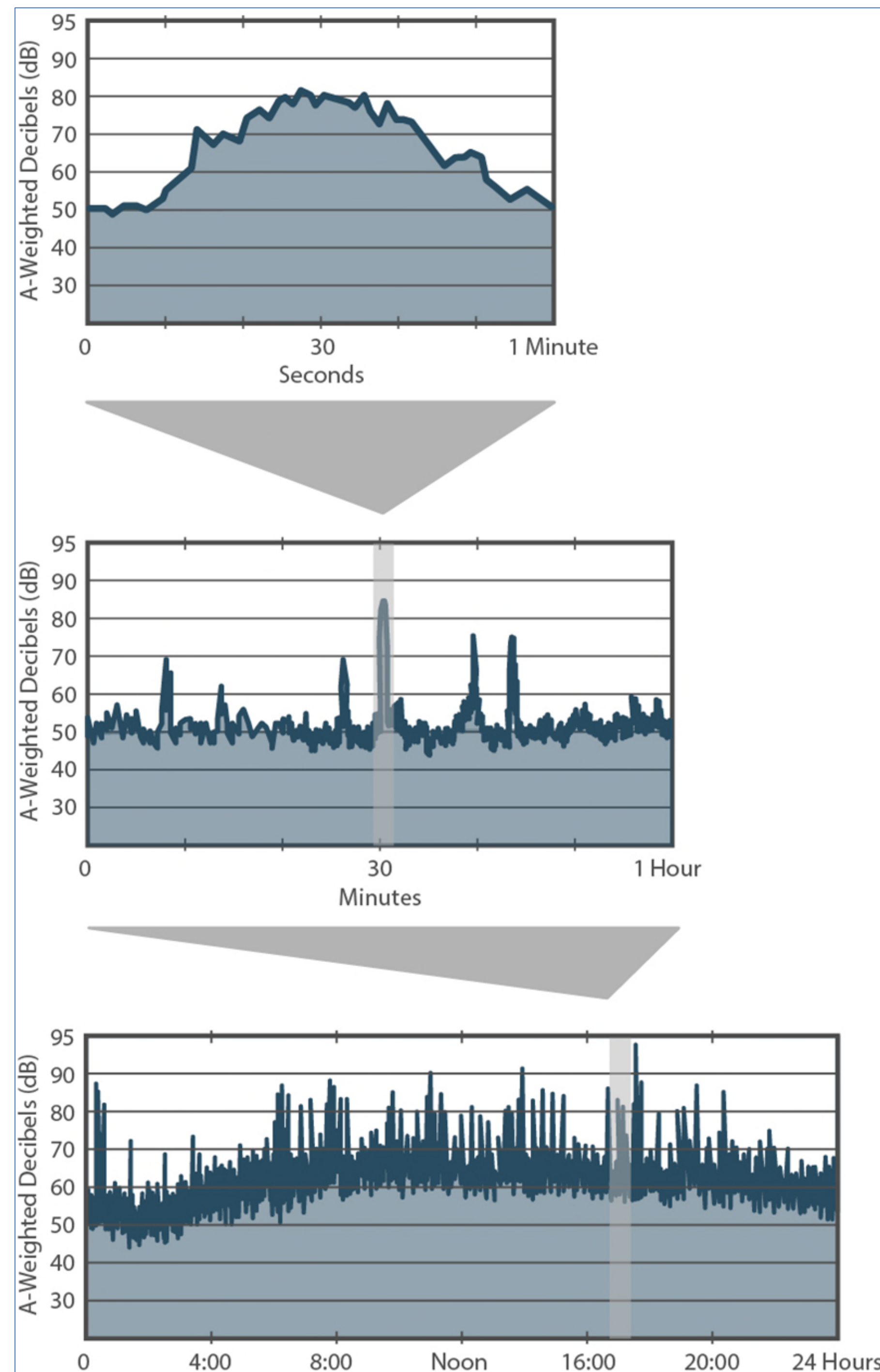
Aircraft Noise Terminology



Noise levels can be expressed in many ways, including but not limited to:

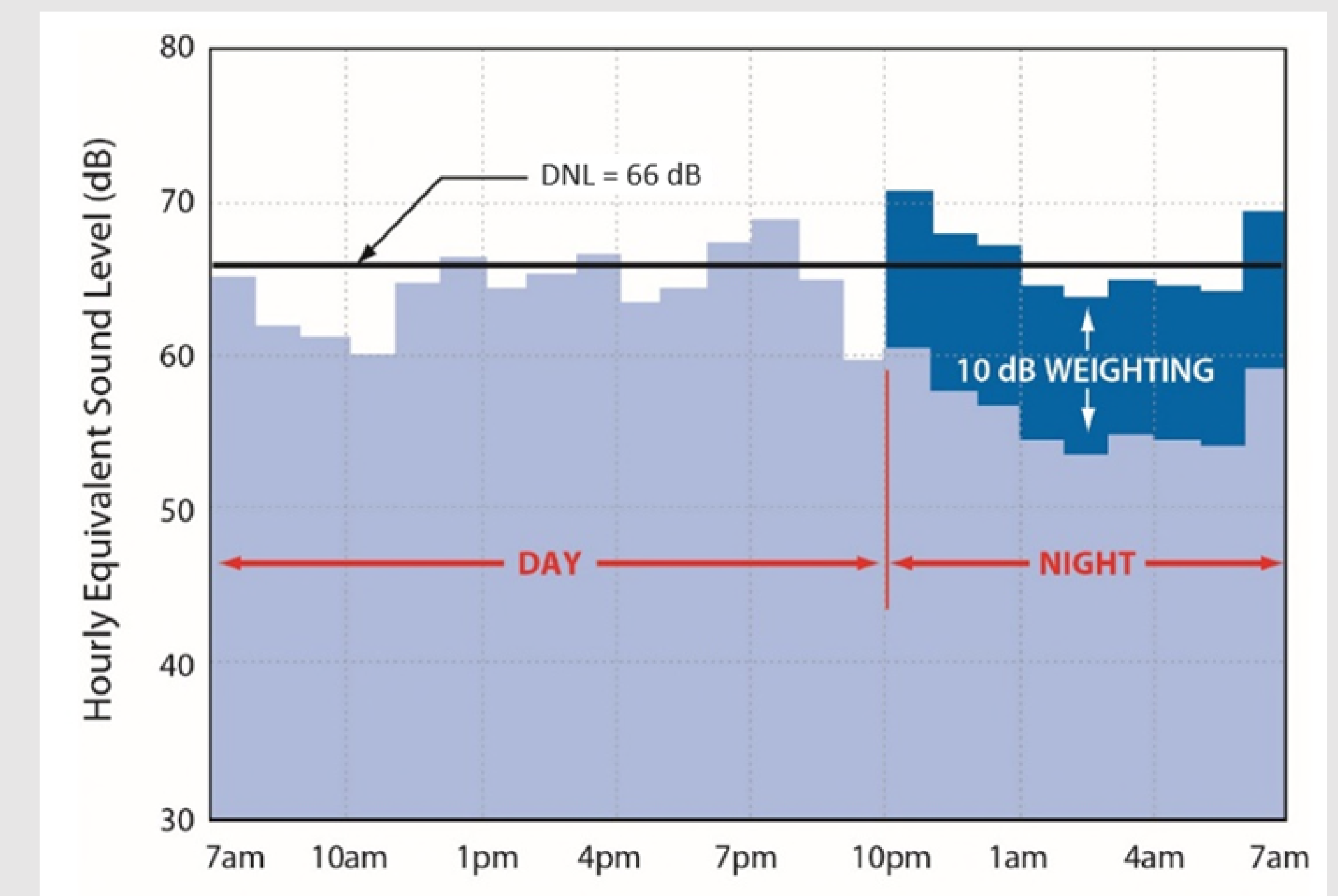
- Maximum Noise Level ($L_{\max}$)
- Sound Exposure Level (SEL)
- Day-Night Average Sound Level (DNL)

Aircraft Noise Terminology - DNL



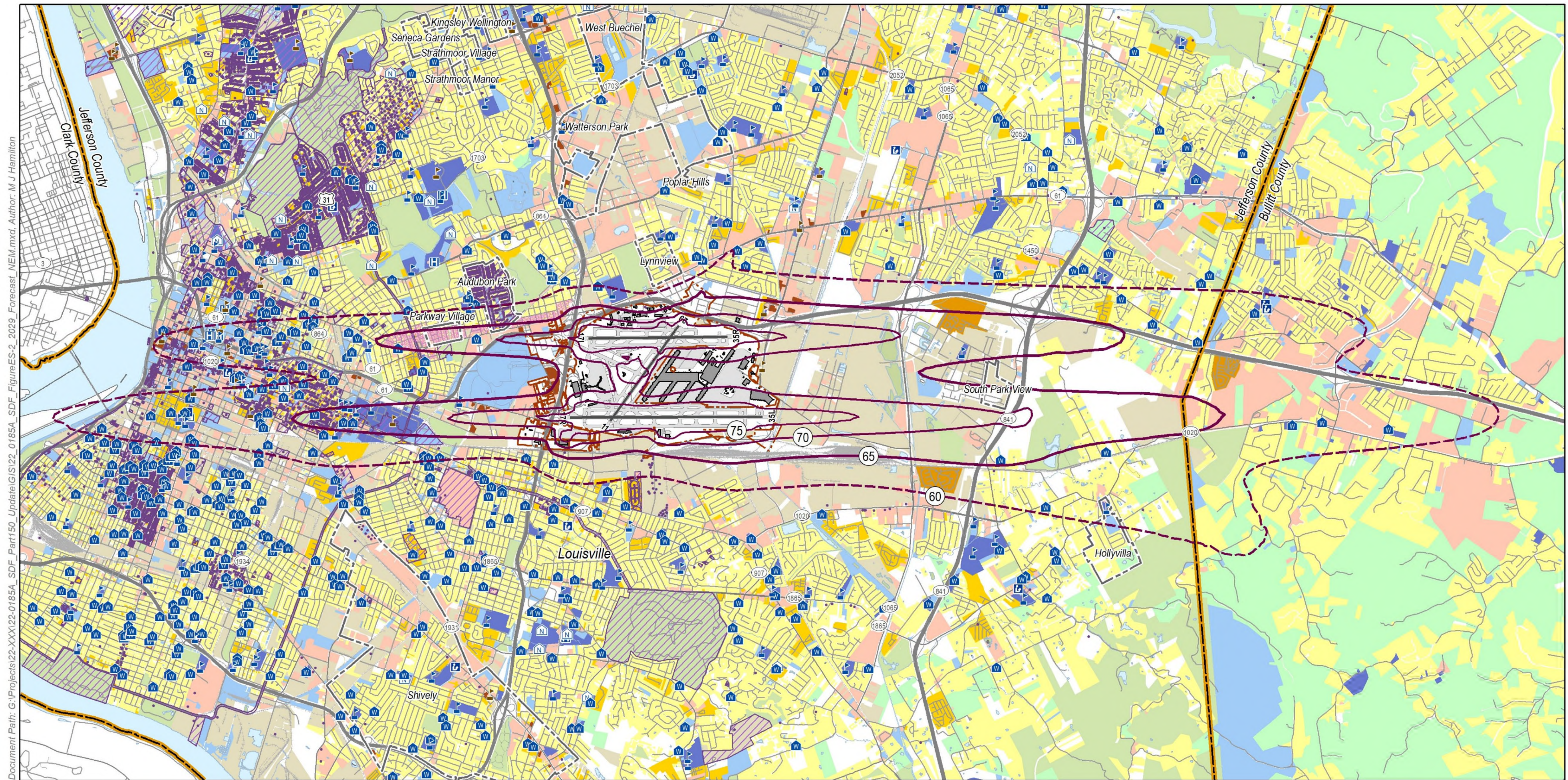
FAA requires the use of the Day-Night Average Sound Level (DNL) for airport noise compatibility planning

- DNL represents noise as it occurs over a 24-hour period, with 10 decibels (dB) added to noise events occurring at night (10 p.m. to 7 a.m.)
- Nighttime operations are weighted to represent the greater sensitivity for most people by nighttime sounds



Part 150 guidelines consider all land uses below DNL 65 as compatible

2029 SDF Noise Exposure Map



Document Path: G:\Projects\22-XXX\22-0185A_SDF_Part150_Update\GIS\22_0185A_SDF_FigureES-2_2029_Forecast_NEM.mxd, Author: M J Hamilton



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DNL 60 dB contour (dashed line) is shown for informational purposes only.
Land use compatibility analysis focuses on areas exposed to DNL greater than 65 dB



0 6,000 12,000 Feet

Legend

- 2029 Forecast DNL Contour (60 dB)
- 2029 Forecast DNL Contour (65-75 dB)
- Sound Insulation Completed
- Airport Boundary
- Runway / Pavement
- Buildings

- Municipal Boundary
- County Boundary
- Expressway
- Arterial
- Collector
- Local
- Railroad

- College/University
- Schools
- Hospital
- Nursing Home
- Library
- Place of Worship
- Historic District
- Non-District Historic Site
- Water / Wetland

- Single Family Residential
- Multi-Family Residential
- Mobile Home
- Transient Lodging
- Public Use 1 (Non-Compatible)
- Public Use 2 (Compatible)
- Agriculture
- Open Space / Cemeteries / Recreation
- Commercial Use
- Manufacturing, Production and Utility
- Vacant / Undefined



LOUISVILLE
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Figure: ES-2

Forecast Condition (2029) Noise Exposure Map



Land Use Assessment for 2029 Forecast Conditions

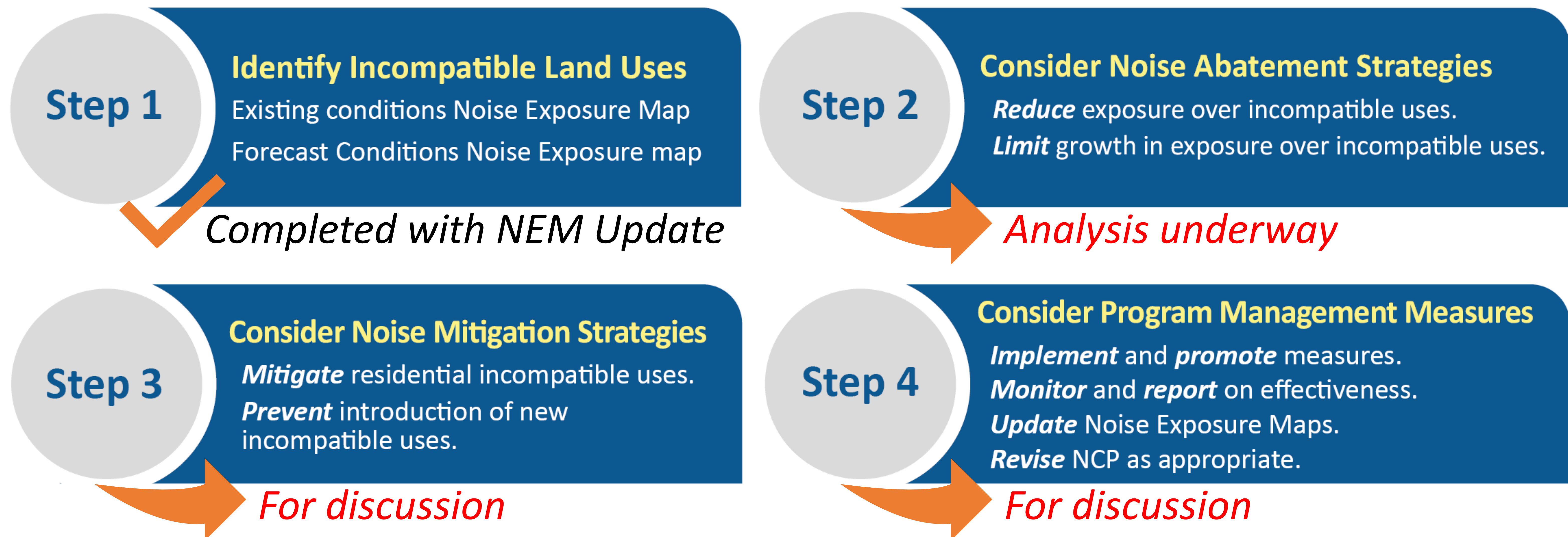
Contour Interval	Estimated Population	Estimated Total Housing Units	Estimated Incompatible Housing Units
2029 Forecast Condition			
65-70 DNL	5,286	2,640	2,111
70-75 DNL	54	37	37
> 75 DNL	0	0	0
Total	5,340	2,677	2,148
<i>Note: Population and housing units estimated using 2020 US Census data</i>			

- The NEM serves as the baseline inventory of land use compatibility
- FAA “accepted” the 2024/2029 Louisville International Airport (SDF) NEM as compliant with Part 150 standards

Noise Compatibility Program

- Noise Compatibility Program (NCP) must address three major categories of proposed measures
 1. Noise abatement
 2. Noise mitigation (land use)
 3. Program management/administrative
- FAA *accepts* NCP as compliant with Part 150 standards
- FAA reviews and *approves* or *disapproves* LRAA's recommended measures individually

Noise Compatibility Program Development



Objectives of Noise Compatibility Measures

- **Reduce** exposure over incompatible uses
- **Limit** growth in exposure over incompatible uses
- **Mitigate** exposure where it cannot be reduced to compatible levels
- **Prevent** introduction of new incompatible uses

Noise Abatement Strategies

- Flight tracks
- Preferential runway use
- Arrival/departure procedures
- Airport layout modifications
- Use restrictions

Noise Mitigation Strategies

- Land acquisition
- Sound insulation
- Avigation easements
- Prevention
- Land use controls
- Real estate disclosures

Program Management Measures

- Implementation
- Promotion
- Monitoring
- Reporting
- NEM updating
- NCP Revision

Analysis and Selection Process

- 1) Evaluate effectiveness in addressing objectives
- 2) Evaluate feasibility (economic, operational, safety, etc.)
- 3) Select most effective “package” of measures
- 4) Identify implementation responsibilities, schedule, etc.
- 5) If not recommended, document reason(s)

Summary of Existing 2003 NCP Measures

- 18 Noise Abatement
- 19 Noise Mitigation
- 5 Program Management

Your input matters!

Review existing NCP measures and measures currently under consideration at the stations around the room.

Submit your ideas for new or modified measures at the comment station.



Public Participation Schedule

Meetings/Milestone	Topic	Expected Timeframe
Public Open House 1	Part 150, NEM, NCP Overview	May 2026
Public Open House 2	Review Potential NCP Measures and Updates	August 2026
Submit Preliminary Draft NCP to FAA		November 2026
Public Open House 3	Present LRAA-Recommended NCP Measures	January 2027
NCP Public Comment Period and NCP Public Hearing		January/ February 2027
Submit Final NCP to FAA		Spring 2027

Public Comment Opportunities

We want your feedback on NCP measures to be considered during the 2026 NCP development process!

- Submit written comments tonight at the comment station
- Submit comments throughout the NCP development process:
 - Via email to: Engineering@flylouisville.com
 - Via U.S. mail to:
LRAA Maintenance & Support Services Bldg
c/o Darrell Watson
4320 Park Blvd
Louisville, KY 40209

Please check the project website for updates:
www.flyLouisville.com/NCPUpdate

Public Open House Organization Stations:

1. Land Use Compatibility (Part 150) Overview

2. Noise Compatibility Program Update

- Noise Abatement Measures
 - Preferential Runway Use
 - Flight Paths
 - Flight Procedures & Airport Layout
 - Noise Exposure Map
- Land Use (Mitigation) Measures
 - Land Acquisition & Sales Assistance and Easements
 - Sound Insulation and Noise Barriers
 - Land Use Planning
- Program Management Measures

3. Public Comments and Project Schedule

- View your address in relation to the NEM contours
- Talk with the study team about your ideas
- Provide written comments

Thank you!

Website: www.flyLouisville.com/NCPUpdate

Email: Engineering@flylouisville.com