

# Aircraft Noise Footprints

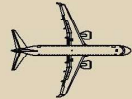
Cirrus SR22



De Havilland DHC830



Embraer EMB190



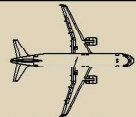
Bombardier CRJ-900/700/200



Airbus A319-100



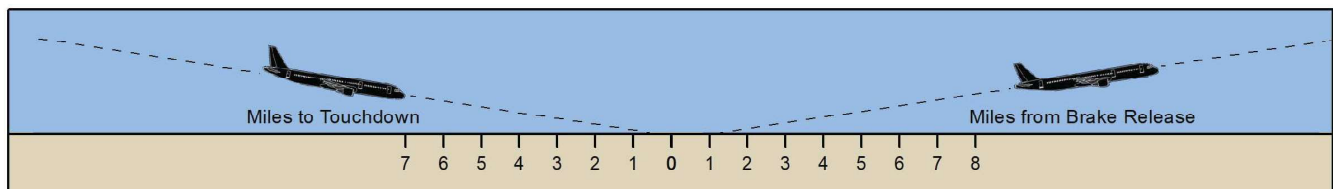
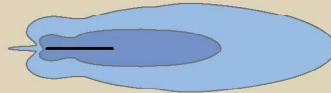
Airbus A320-200



Boeing B737-800



General Dynamics  
F-16 Fighting Falcon



# Comparison of Noise Levels

## COMMON OUTDOOR SOUND LEVELS

NOISE LEVEL  
dB (A)

## COMMON INDOOR SOUND LEVELS

B747-200 Takeoff\*



110



Rock Band  
Inside Subway Train

Gas Lawn Mower at 3 ft.



100



Food Blender  
Garbage Disposal at 3 ft.

Diesel Truck at 150 ft.

DC-9-30 Takeoff\*



90



Shouting at 3 ft.

Noisy Urban Daytime

B757 Takeoff\*



80



Vacuum Cleaner at 10 ft.  
Normal Speech at 3 ft.

Commercial Area



70



Large Business Office

Quiet Urban Daytime

Quiet Urban Nighttime



60



Dishwasher Next Room

50

Small Theater

40

Large Conference Room (Background)

Quiet Rural Nighttime



30



Library  
Bedroom at Night  
Concert Hall (Background)

20

Broadcast and Recording Studio

Threshold of Hearing

10


0

\* As measured along the takeoff path 2 miles from the overflight end of the runway.

# Land Use Noise Sensitivity Matrix

**Per Part 150:**

 Compatible

 Compatible with Sound Insulation

 Incompatible

**OUTDOOR NOISE LEVEL**

**< 65  
DNL**













**65-75  
DNL**

**75+  
DNL**



## Residential


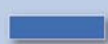

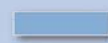








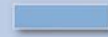


- 1-2 Family
- Multi-Family
- Mobile Homes
- Dorms, etc.



## Institutional







- Schools
- Place of Worship
- Hospitals
- Nursing Homes
- Libraries



## Recreational

- Sports/Play
- Amphitheaters, Music Shells
- Camping

## Commercial\*

All Uses

		
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## Industrial\*

All Uses

		
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## Agricultural

All Uses

		
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\*Appropriate noise level reduction must be incorporated into the design of areas where the public is received, office areas, and other noise-sensitive areas.

# *Next Steps*

1. Planning Advisory Committee approval
2. Public Comment Period  
(Ends November 26, 2021)
3. NCP adoption by DAA Board
4. Submit Final Document to FAA  
(December 2021)
5. FAA 180 day review period
6. Record of Approval (ROA)

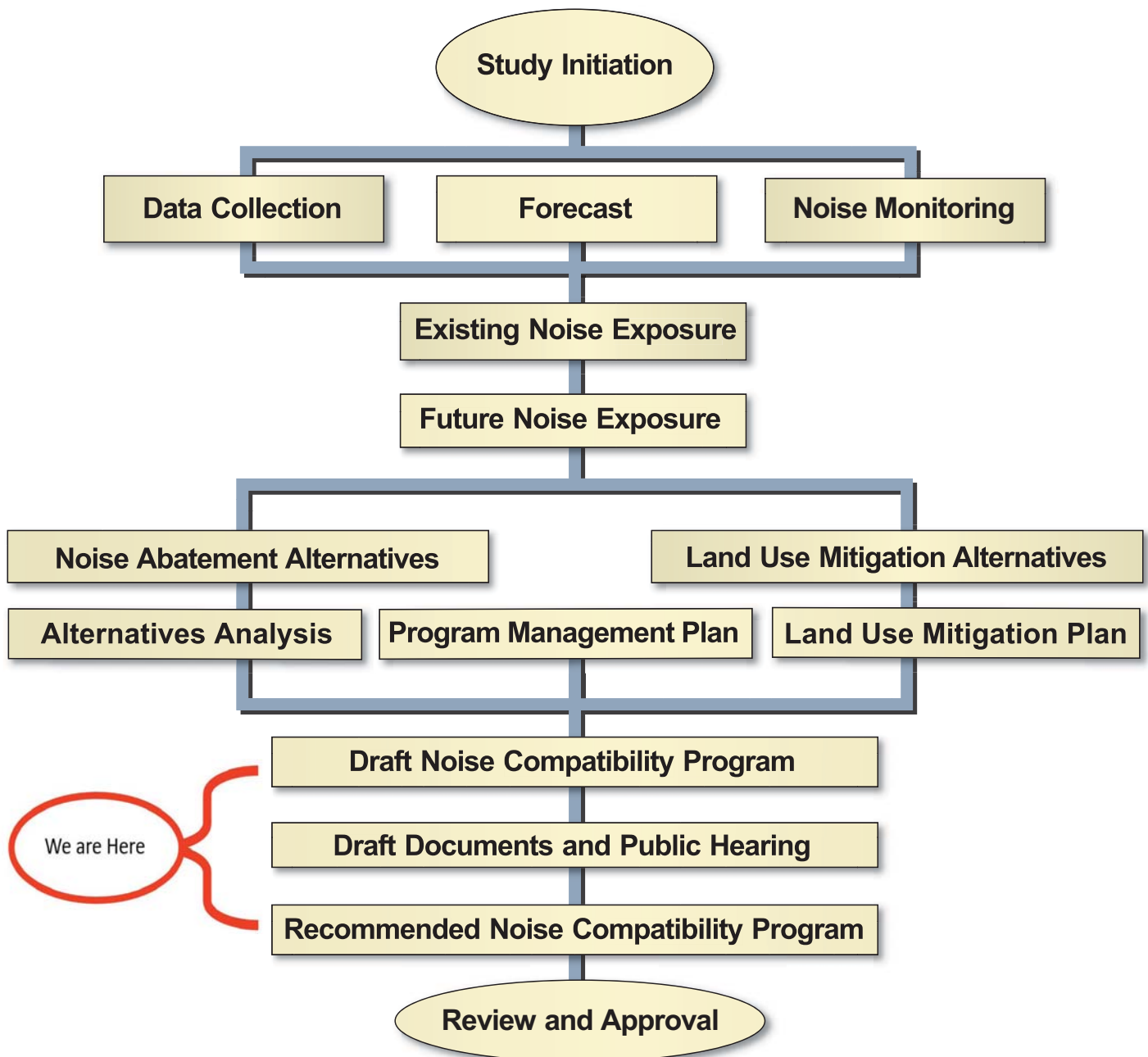
## After the Part 150 Study ROA

1. Secure funding sources
2. National Environmental Policy Act (NEPA)  
review of measures to be implemented

Public Comments will be accepted up to November 26, 2021. Comments can be mailed using the self addressed comment form, or submitted online at:

<https://duluthairport.com/noise-study/>  
or emailed to [DAA@DuluthAirport.com](mailto:DAA@DuluthAirport.com)

# Part 150 Process



# *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 Part 150 guidelines makes airport eligible from grants used to implement 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

# *Public Comments*

- All public comments submitted will be included in the final Part 150 document
- Public comments can also be submitted until November 26, 2021 online at:  
<https://duluthairport.com/noise-study/>  
by email to: [DAA@DuluthAirport.com](mailto:DAA@DuluthAirport.com)  
or via U.S. mail to:  
*Landrum & Brown*  
*Attn: Jesse Baker*  
*4445 Lake Forest Drive, Suite 700*  
*Cincinnati, OH 45242*
- To submit oral comments at this time please see Court Reporter  
OR  
Sign-up to submit oral comment during  
Public Hearing from 7:00 p.m. to 8:00 p.m.