



FAR Part 150 Update – Duluth (DLH)

Planning Advisory Committee Meeting #4 | February 2021



Agenda

- Noise Abatement Measures
- Land Use Mitigation Measures
 - Corrective
 - Preventative
- Program Management Measures
- NCP Recommendations & Costs
- Next Steps
- Neighborhood Environmental Survey (NES)

Polling Walkthrough

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Enter Code: 11 44 34 3

Alternatives Analysis

1. Noise Abatement Alternatives

*Purpose: To **abate** noise levels in surrounding communities*

2. Land Use Mitigation Alternatives

*Purpose: To **mitigate** noise levels in surrounding communities*

3. Program Management Alternatives

*Purpose: To **provide** administrative and management actions to allow the airport to maintain land use compatibility in surrounding communities*

Noise Abatement – Recommendations

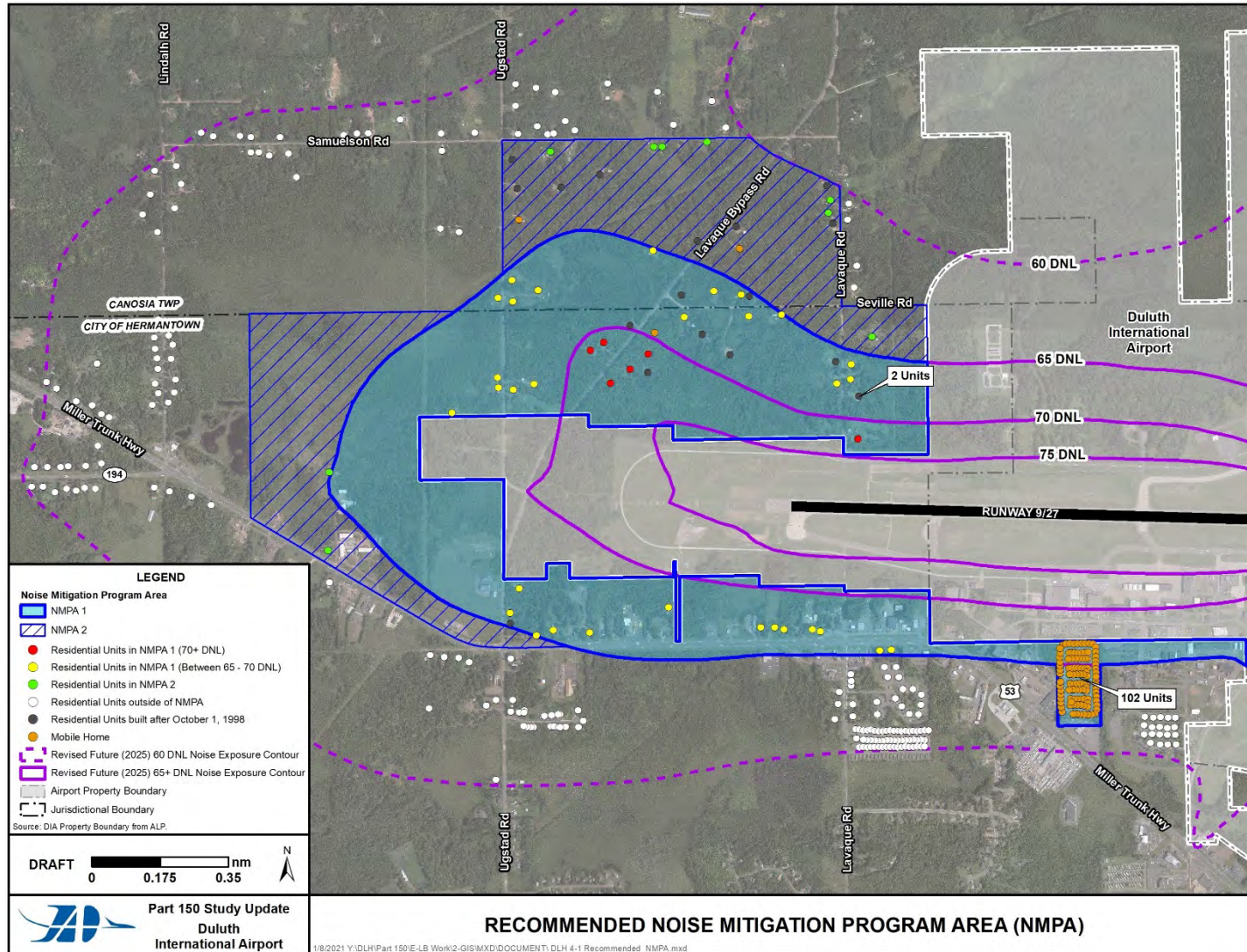
- No recommended Noise Abatement Alternatives
 - Extension of Runway 03/21 was analyzed to determine noise reduction benefits
 - Abatement measure would not significantly reduce the number of impacts, while impacting properties that are not currently impacted south and north of the 03/21 runway ends.

Land Use Mitigation - Recommendations

Land Use Mitigation Alternatives (Corrective)

- **Measure M-A:** Sound insulate 64 eligible residential units within the 65+ DNL (NMPA #1) and (NMPA #2).
- **Measure M-B:** Acquire 7 single-family homes within 70+ DNL (NMPA#1).
- **Measure M-C:** Acquire 103 mobile homes within NMPA #1.
- **Measure M-D:** Offer avigation easement to owner-occupied single-family homes within NMPA #1 and NMPA #2 if acquisition and/or sound insulation is declined.
- **Measure M-E:** Offer avigation easement to 1 owner-occupied mobile home within NMPA #1 if acquisition is declined. No easements will be offered to the 102 mobile homes located in the Birchwood Mobile Estates.
- **Measure M-F:** Offer avigation easement to 2 owner-occupied mobile homes within NMPA #2.

Land Use Mitigation - Recommendations

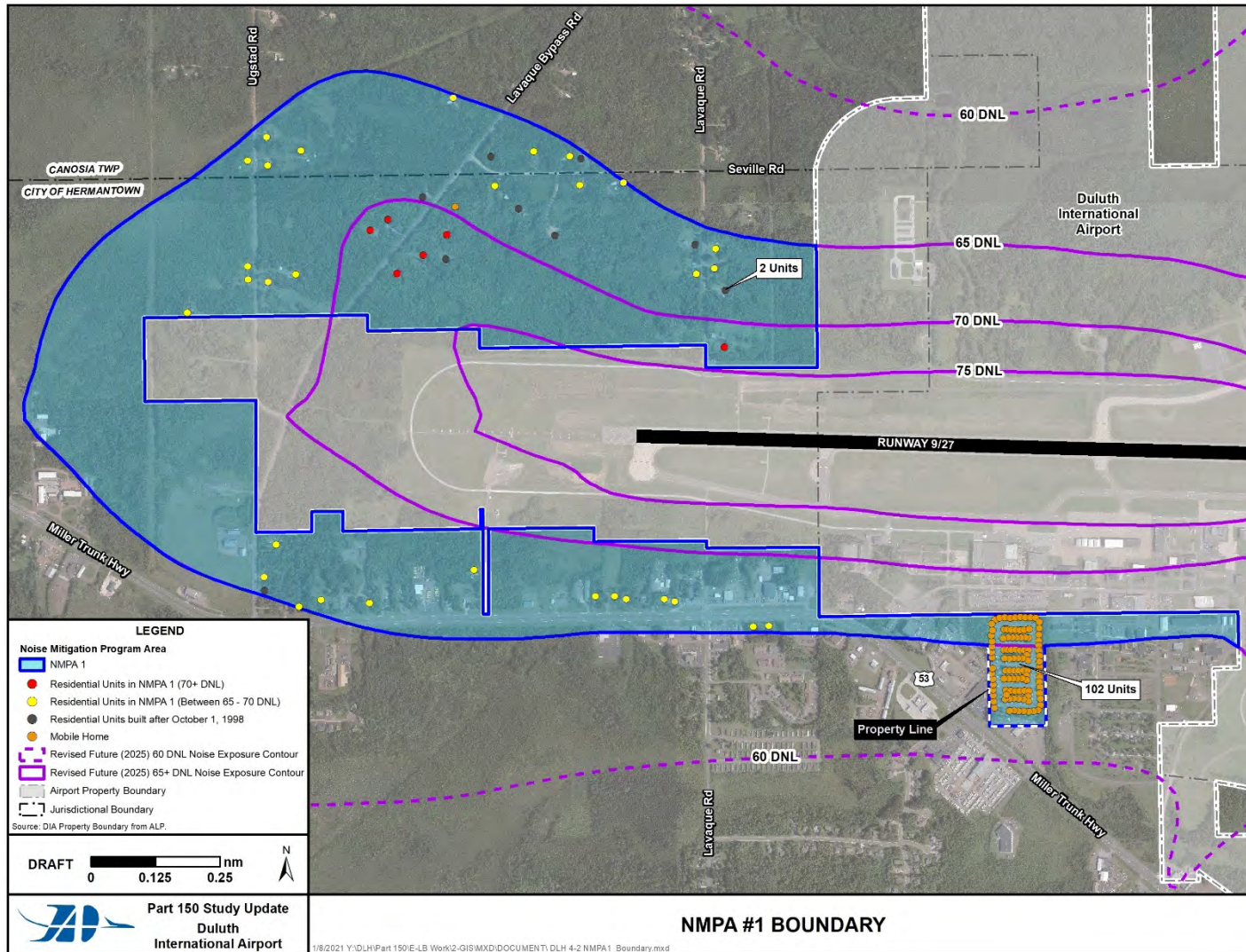


- Noise Mitigation Program Areas (NMPA)
 - **NMPA #1** – Area inside 65+ DNL Noise Contour
 - NMPA #1 extended to include entire Birchwood Mobile Estate property
 - **NMPA #2** – Area outside of the 65+ DNL Contour w/ potential FAA funding for mitigation through block rounding
- Not all properties will meet eligibility requirements during testing phases of the Sound Insulation Program

Land Use Mitigation - Recommendations

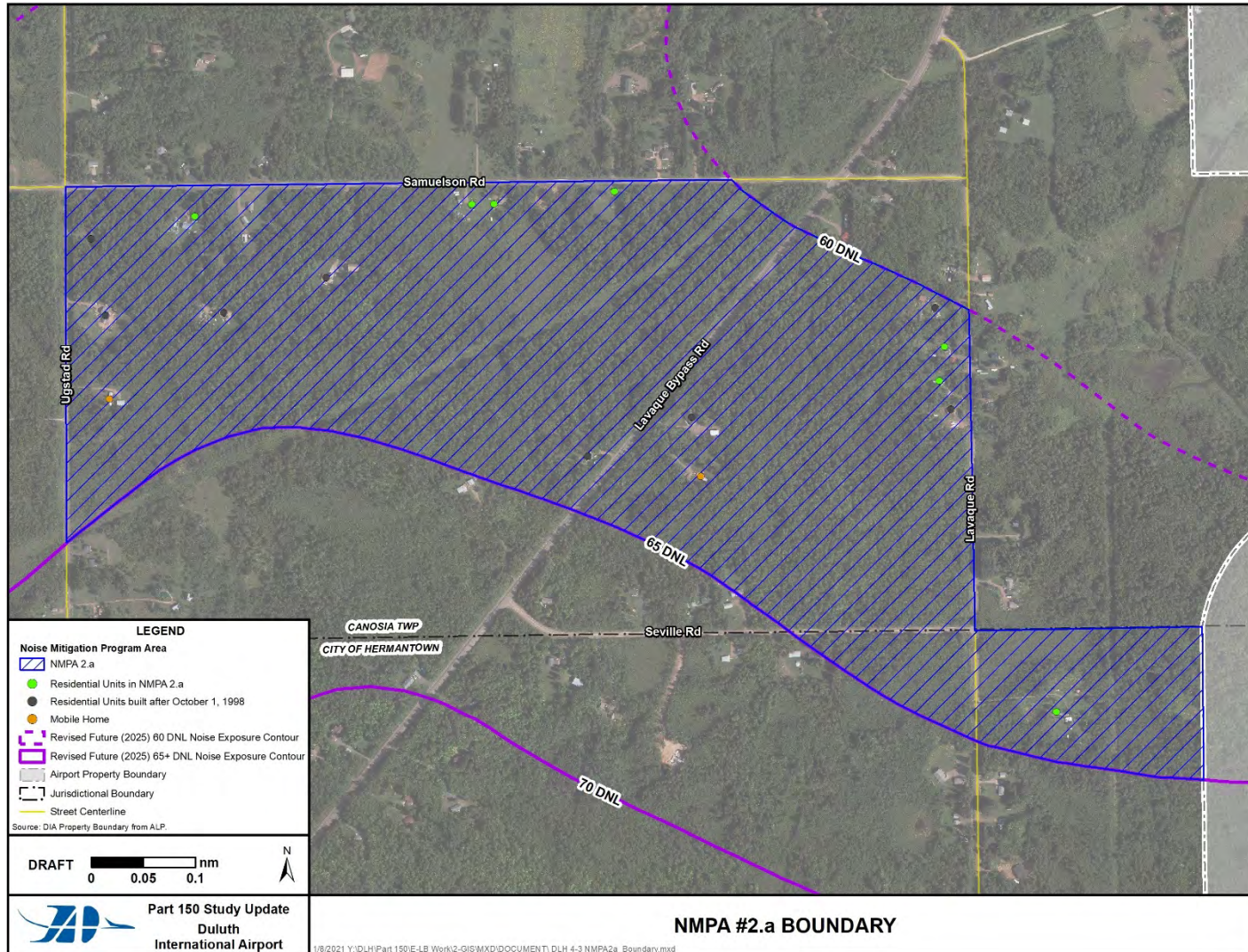
LAND USE	NMPA1		NMPA2		TOTAL	
	TOTAL HOUSING UNITS	POPULATION	TOTAL HOUSING UNITS	POPULATION	TOTAL HOUSING UNITS	POPULATION
Single-Family Residential	45	93	17	40	62	133
Multi-Family Residential	2	4	0	0	2	4
Mobile Homes	103	193	2	5	105	198
Total	150	290	19	45	169	335

Land Use Mitigation - Recommendations



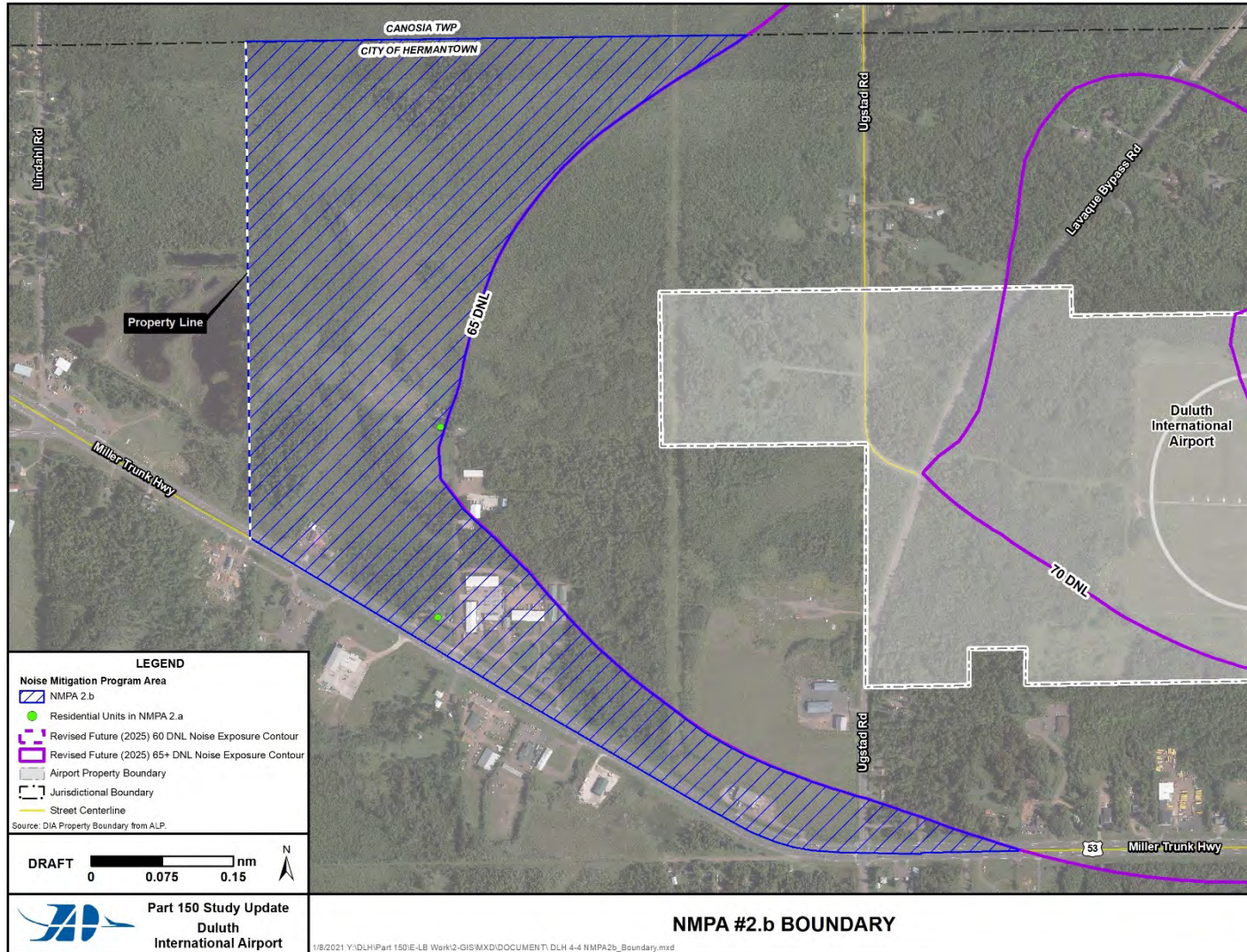
- Proposed NMPA #1
 - 45 Single-Family Properties
 - Sound insulation or avigation easement recommended
 - 8 properties with build date after October 1998. May not be eligible for sound insulation, avigation easement recommended.
 - 7 properties within 70 DNL recommended for acquisition. May choose sound insulation/avigation easement instead.
 - 1 Multi-Family Property (2 units)
 - Build date after October 1998.
 - Avigation easement recommended.
 - 103 Mobile Homes
 - 102 Mobile Homes located in Birchwood Mobile Estates. Acquisition of entire parcel recommended.
 - 1 Mobile Home located to the east of Lavaque Bypass Rd. Acquisition or avigation easement recommended.

Land Use Mitigation - Recommendations



- Proposed NMPA #2.a
 - 15 Single-Family Properties
 - 8 properties with build dates after October 1998. May not be eligible for sound insulation, aviation easement recommended.
 - 2 Mobile Homes
 - Aviation easement recommended.

Land Use Mitigation - Recommendations



- Proposed NMPA #2.b
 - 2 Single-Family Home
 - Sound insulation or avigation easement recommended.

Land Use Mitigation - Recommendations

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
CORRECTIVE LAND USE MITIGATION MEASURES					
<p><i>(formerly 1997 NCP Measure M-1)</i> Measure M-A: Offer Residential Sound Insulation Program to Single- and Multi-Family Homes (47 units) within the 65+ DNL Noise Contour.</p> <p>Offer Residential Sound Insulation Program to Single-Family Homes (17 units) within the Block Rounding Area Outside of the 65 DNL Noise Contour</p>	DAA	<p>It is estimated 47 homes are located within the 65+ DNL noise contour plus an additional 17 homes in the block rounding area outside the 65 DNL. If 100% of all homes participated the cost to insulate all homes is estimated at \$4,000,000 which includes all hard costs (construction) and soft costs (administrative)</p> <p>Federal AIP funding likely available (80% FAA share/20% local airport share)</p>	None	None	<p>This is a measure that was never implemented from the 1997 NCP and should be continued with modification to include all properties identified within the 65+ DNL and the properties identified in the block rounding area outside the 65 DNL.</p>
<p>Measure M-B: Offer Land Acquisition Program to Single-Family Homes (7 homes) within the 70+ DNL Noise Contour</p>	DAA	<p>It is estimated at \$2,450,000 if 100% of homes participated.</p> <p>Federal AIP funding likely available (80% FAA share/20% local airport share)</p>	Loss of tax base	None	This is a new measure
<p>Measure M-C: Offer Land Acquisition Program to Mobile Homes within NMPA #1 (103 Mobile Homes)</p>	DAA	<p>It is estimated at \$11,568,000 depending upon the level of participation. It includes the cost of the 102 mobile homes and loss of income for owner of the mobile home park (cost of mobile homes and mobile home park), and 1 mobile home property located to the east of Lavaque Bypass Road within the 65 DNL contour (cost of single mobile home and property).</p> <p>Federal AIP funding likely available (80% FAA share/20% local airport share)</p>	Loss of tax base	None	This is a new measure

Land Use Mitigation - Recommendations

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
CORRECTIVE LAND USE MITIGATION MEASURES					
Measure M-D: Offer avigation easement to owner occupied single-family homes within NMPA #1 and NMPA #2 if acquisition and/or sound insulation is declined.	DAA	The estimated cost of each avigation easement is up to \$3,000 per home. Since the final cost of the measure is dependent on the number of property owners that decline acquisition and/or sound insulation an estimated overall total was not calculated. Federal AIP funding likely available (80% FAA share/20% local airport share)	None	None	This is a new measure
Measure M-E: Offer avigation easement to 1 owner occupied mobile home within NMPA #1 if acquisition is declined.	DAA	The estimated cost of each avigation easement is up to \$3,000 per home. Federal AIP funding likely available (80% FAA share/20% local airport share)	None	None	This is a new measure
Measure M-F: Offer avigation easement to 2 owner occupied mobile homes within NMPA #2.	DAA	The estimated cost of each avigation easement is up to \$6,000 (\$3,000 max per mobile home). Federal AIP funding likely available (80% FAA share/20% local airport share)	None	None	This is a new measure

Committee Polling and Q&A

Please provide level of support on each item

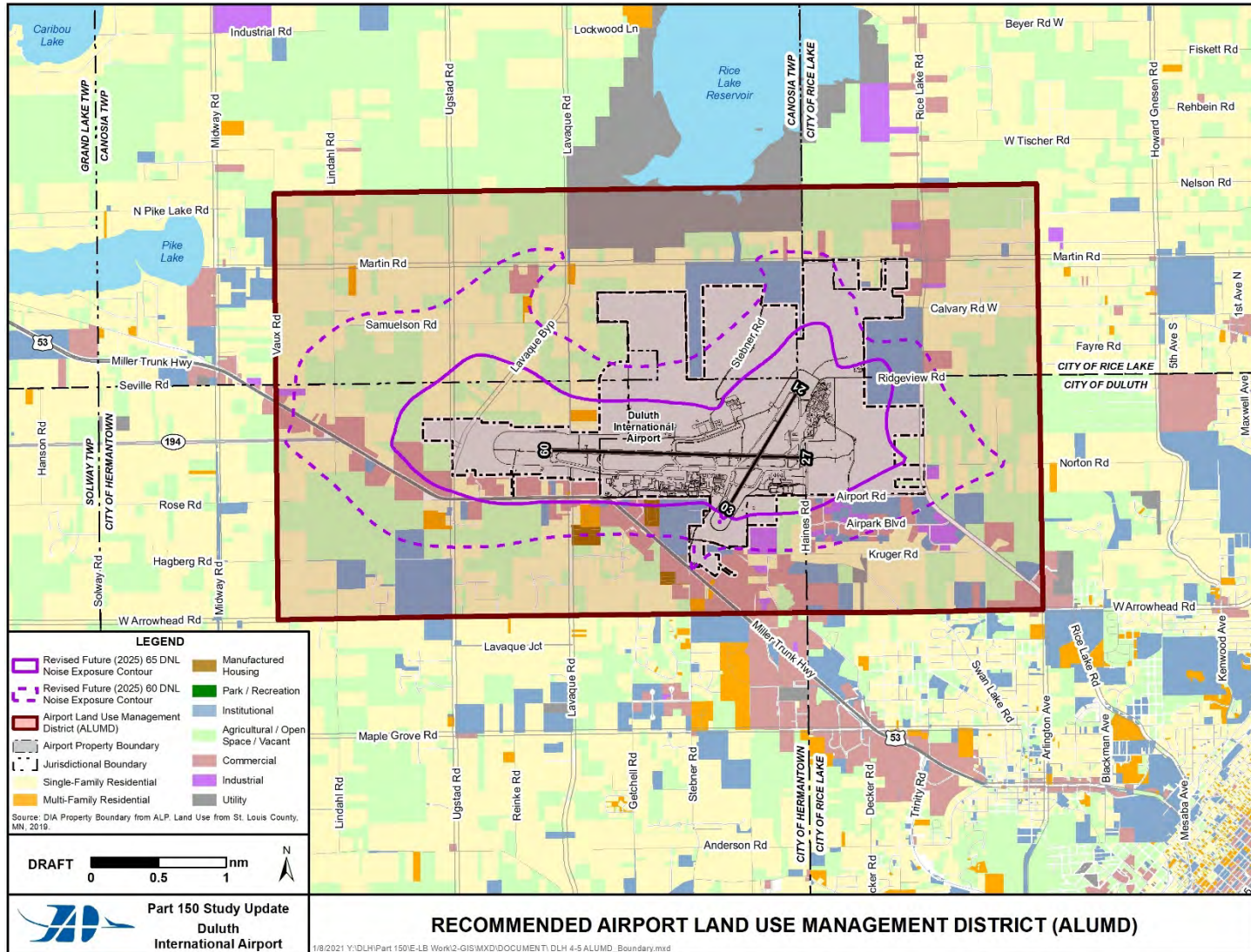
- **Measure M-A:** Residential sound insulation program (up to 64 residential units)
- **Measure M-B:** Residential acquisition program (up to 7 single-family units)
- **Measure M-C:** Mobile home acquisition program
- **Measure M-D:** Avigation easement of owner occupied residential units (# of units dependent on property owners participation in sound insulation and/or acquisition programs)
- **Measure M-E:** Avigation easement for owner occupied mobile home within NMPA #1 (up to 1 mobile home unit - dependent on owner participation in acquisition program)
- **Measure M-F:** Avigation easement for owner occupied mobile homes within NMPA #2 (up to 2 owner-occupied mobile homes)

Land Use Mitigation - Recommendations

Land Use Mitigation Alternatives (Preventative)

- **Measure M-G:** Review & Adopt Boundaries of ALUMD
 - The ALUMD would encompass the area to implement Measures M-H, M-I and M-J.
- **Measure M-H:** Updated Subdivision Regulations
 - Review of plats and site plans by public entities
 - Increased open space
 - Reduced development density
 - Planned infrastructure
- **Measure M-I:** Improved Building Codes
 - Update existing building codes to meet current sound insulation guidelines
 - Reduces interior noise levels
 - For new development or major remodeling
- **Measure M-J:** Voluntary Fair Disclosure Program
 - Property sales subjected to notification
 - Probability of safety or aircraft noise impacts
 - Formal measure would require recording of a notice either on plat of new subdivisions or notice at time of sale
 - Informal measure could be mailings of disclosure notices within community

Land Use Mitigation - Recommendations



- Proposed Airport Land Use Management District (ALUMD)
 - West Boundary – Vaux Rd. & Ext.
 - South Boundary – Arrowhead Rd.
 - East Boundary – Drake Rd. & Ext.
 - North Boundary – Nelson Rd. & Ext.

Land Use Mitigation - Recommendations

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
PREVENTATIVE LAND USE MITIGATION MAEASURES					
<i>(formerly 1997 NCP Measure M-1)</i> Measure M-G: Develop an Airport Land Use Management District (ALUMD)	DAA, Cities of Duluth, Hermantown, Rice Lake, Saint Louis County	Minimal costs of up to \$50,000	None	None	This is a new measure
Measure M-H: Adopt Updated Subdivision Regulations	DAA, Cities of Duluth, Hermantown, Rice Lake, Saint Louis County	Minimal costs of up to \$50,000	Loss of tax base	None	This is a new measure
Measure M-I: Adopt Improved Building Codes	DAA, Cities of Duluth, Hermantown, Rice Lake, Saint Louis County	Minimal costs of up to \$50,000	Minimal administrative costs	None	This is a new measure
Measure M-J: Develop a Voluntary Fair Disclosure Program	Duluth Board of Realtors, Lake Superior Area Realtors, Cities of Duluth, Hermantown, Rice Lake, Saint Louis County	Minimal costs of up to \$50,000	Minimal administrative costs	None	This is a new measure

Committee Polling and Q&A

Please provide level of support on each item

- **Measure M-G:** Airport Land Use Management District (ALUMD)
- **Measure M-H:** Updated Subdivision Regulations
- **Measure M-I:** Improved Building Codes
- **Measure M-J:** Voluntary Fair Disclosure Program

Land Use Mitigation Recommendations - Costs

TYPE OF MEASURE	DIRECT COST (TOTAL)	DIRECT COST TO FAA (80% SHARE)	DIRECT COST TO AIRPORT (20% SHARE)	DIRECT COST TO LOCAL GOVERNMENT	DIRECT COST TO USERS
MITIGATION MEASURES (CORRECTIVE)					
Sound insulate 64 eligible single- & multi-family housing units	\$4,000,000	\$3,200,000	\$800,000	None	None
Acquire 7 eligible single-family housing units	\$2,450,000	\$1,960,000	\$490,000	Potential loss of tax base	None
Acquire 102 mobile homes located in Birchwood Mobile Estates	\$8,017,200 (mobile homes) \$3,420,000 (mobile home property)	\$6,413,760 (mobile homes) \$2,736,000 (mobile home property)	\$1,603,440 (mobile homes) \$684,000 (mobile home property)	Potential loss of tax base	None
Acquire 1 mobile home located east of Lavaque Bypass Road within NMPA #1	\$130,800	\$104,640	\$26,160	Potential loss of tax base	None
Offer avigation easement to owner occupied single-family homes and 3 mobile homes if acquisition and/or sound insulation is declined	\$3,000 per property	\$2,400	\$600	None	None
MITIGATION MEASURES (PREVENTATIVE)					
Develop an Airport Land Use Management District (ALUMD)	\$50,000	\$40,000	\$10,000	Minimal	None
Adopt Updated Subdivision Regulations	\$50,000	\$40,000	\$10,000	Minimal	None
Adopt Improved Building Codes	\$50,000	\$40,000	\$10,000	Minimal	None
Develop a Voluntary Fair Disclosure Program	Minimal	Minimal	Minimal	Minimal	None
SUBTOTAL	\$17,730,500 plus administrative costs (not including cost of easements)	\$14,184,400 plus administrative costs (not including cost of easements)	\$3,546,100 plus administrative costs (not including cost of easements)	Minimal administrative costs; plus loss of tax base	None

Land Use Mitigation Recommendations - Funding

- 148th Fighter Wing & Noise Mitigation
 - Advancements in technology have enabled a smaller noise footprint for the current F-16 Block 50 aircraft operated by the 148th at DLH, as compared to legacy aircraft operated by the 148th at DLH.
 - F-16 traffic patterns continue to have a predominant effect on the size and shape of the noise exposure contours at DLH.
 - Deployment of the F-35 Lightning has the potential to increase the noise footprint of the 148th aircraft operations.
- DAA is actively seeking funding support from the 148th Fighter Wing
 - Assistance in funding 20% local share if NCP measures are approved by FAA and awarded AIP funding at a later date.
 - 148th funding assistance is vital to fully implementing land use mitigation measures.
 - Assistance will likely have benefits in the form of increased public support of the 148th and the DAA.

Program Management Alternatives - Recommendations

- **Measure P-A:** Continued Logging of Noise Complaints
 - *Develop a more formal procedure for logging noise complaints by both airport and Minnesota Air National Guard (MnANG) staff to identify any potential noise issues*
- **Measure P-B:** Initiate Community Roundtable or Noise Abatement Committee
 - *Brings together all interested parties, on a regular basis, to discuss noise issues*
- **Measure P-C:** Perform Regular Updates to NEM and Review of NCP
 - *Ensures NEM/NCP remains up to date and adapts to changing conditions*

Program Management Analysis - Recommendations

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
PROGRAM MANAGEMENT MEASURES					
<p><i>(formerly 1997 NCP Measure A-1)</i> Measure P-A: Continue Logging of Noise Complaints</p>	DAA and MnANG	Minimal administrative costs to answer telephones and to log noise complaints	None	None	This is a continuation of the existing process with a slight modification to be undertaken by the DAA and MnANG
<p><i>(formerly 1997 NCP Measure A-2)</i> Measure P-B: Initiate Community Roundtable or Noise Abatement Committee</p>	DAA	Minimal administrative costs to participate on a regular basis	Minimal administrative costs to participate on a regular basis	None	This is considered a new measure since it was never implemented in the previous NCP.
<p>Measure P-C: Perform regular updates to the NEMs and review of NCP</p>	DAA	NEM Update: \$350,000 to \$400,000 NEM/NCP Update: \$650,000 to \$750,000 Federal AIP funding likely available (80% FAA share/20% local airport share)	Minimal administrative costs to participate in study	None	This is a new measure

Program Management Analysis - Costs

TYPE OF MEASURE	DIRECT COST (TOTAL)	DIRECT COST TO FAA (80% SHARE)	DIRECT COST TO AIRPORT (20% SHARE)	DIRECT COST TO LOCAL GOVERNMENT	DIRECT COST TO USERS
PROGRAM MANAGEMENT MEASURES					
Continue Logging of Noise Complaints	Minimal Administrative Costs	None	Minimal Administrative Costs	None	None
Initiate Community Roundtable or Noise Abatement Committee	Minimal Administrative Costs	None	Minimal Administrative Costs	None	None
Perform Regular Updates to the NEMs and Review of NCP - Update NEM ONLY Or - Update NEM & NCP	\$350,000 to \$400,000 \$650,000 to \$750,000	\$280,000 to \$320,000 \$520,000 to \$600,000	\$70,000 to \$80,000 \$130,000 to \$150,000	None	None
SUBTOTAL	\$350,000 to \$750,000 plus administrative costs	\$280,000 to \$600,000 plus administrative costs	\$70,000 to \$150,000 plus administrative costs	None	None

Committee Polling and Q&A

Please provide level of support on each item

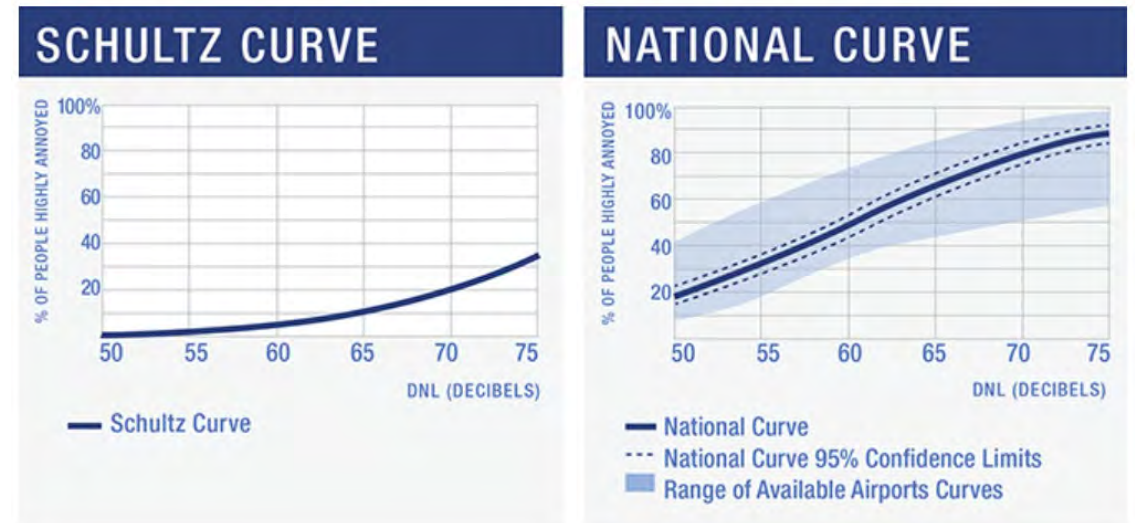
- **Measure P-A:** Continued Logging of Noise Complaints
- **Measure P-B:** Initiate Community Roundtable or Noise Abatement Committee
- **Measure P-C:** Perform Regular Updates to NEM and Review of NCP

Next Steps

- Present Final DAA Recommendations to Public
 - Virtual Public Meeting Scheduled for February 17th from 6:00 p.m. – 8:00 p.m.
 - Registration link located on the project website
 - <https://DuluthAirport.com/noise-study/#community-involvement>
- Prepare Public Workshop Meeting materials
- Prepare Draft NEM and NCP documentation

Neighborhood Environmental Survey (NES)

- **Purpose:** Develop an updated dose response curve for percent of population highly annoyed by aircraft noise (1992 Schultz Curve)
- **Findings:** Greater number of people are highly annoyed by aircraft noise as compared to the 1992 Schultz Curve
- **Recommendations:** There are no current recommendations for policy changes based on the findings of the NES. Any changes to FAA policy would require substantial time, additional studies and potentially an Act of Congress.



Potential Drivers behind increased annoyance:

- Urbanization
- Increased Telecommuting
- Social media, Internet and global information sources

Neighborhood Environmental Survey (NES)

Survey summary can be found at:

https://www.faa.gov/regulations_policies/policy_guidance/noise/survey/

Public Comments submitted at:

<https://www.federalregister.gov/documents/2021/01/13/2021-00564/overview-of-faa-aircraft-noise-policy-and-research-efforts-request-for-input-on-research-activities>