Part 150 Study Process
Elements of a Noise Compatibility Program (NCP)
Revised Baseline Noise Exposure Contours
Noise Compatibility Program Screening Overview
Recommended Land Use Mitigation Measures
  • Corrective
  • Preventative
Recommended Program Management Measures
NCP Estimated Total Cost
Next Steps
### Part 150 Study Schedule

**Task**
- Notice to Proceed
- Project Kick-off/Data Collection
- Existing Noise Exposure
- Future Baseline Noise Exposure
- Noise Abatement Alternatives
- Land Use Mitigation Alternatives
- Noise Compatibility Program
- Public Hearing /Draft Document
- Part 150 Adoption by DAA
- Submit to FAA
- NEM Maps Accepted
- FAA Decision of Approval

**Public Involvement**
- Public Roll-out
- PAC Meetings
- Public Workshops

**Timeline**
- Year 1
- Year 2
- Year 3

- Months: 1 to 12
- 180 Day FAA Review

*We are here*
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 Alternatives
  - Land Use Mitigation Alternatives
  - Program Management Alternatives

**Public Involvement**
- Planning Advisory Committee (PAC)
- Focused coordination meetings
- Public information meetings/workshops
**Elements of a Noise Compatibility Program (NCP)**

**Noise Abatement Alternatives**
- **Purpose:** To *reduce* noise levels in surrounding communities
- **Types of noise abatement alternatives**
  - Flight Location (e.g., moving arrival and departure flight corridors)
  - Runway Use Program (e.g., how often runway ends are used)
  - Ground Activity Restrictions (e.g., maintenance run-up location/times)
  - Facility Development (e.g., runway extension, noise barriers)
  - Flight Restrictions (e.g., mandatory curfews/restrictions – would require a Part 161 Study)

**Land Use Mitigation Alternatives**
- **Purpose:** To *mitigate* noise levels in surrounding communities
- **Types of land use mitigation alternatives**
  - Corrective (e.g., sound insulation, land acquisition)
  - Preventative (e.g., re-zoning program, land use management overlay/plan)

**Program Management Alternatives**
- **Purpose:** To *recommend* community outreach programs
- **Types of program management alternatives**
  - Community roundtable/noise abatement committee
  - Noise complaint website or telephone hotline
  - Regular update of NEM and review of NCP
Eight (8) Noise Abatement Alternatives Considered

(1) Modification of military flight corridors
(2) Modification of commercial aircraft runway use
(3) Optimized Profile Descents
(4) Distant Noise Abatement Departure Profiles
(5) Close-in Noise Abatement Departure Profiles
(6) Runway 03/21 extension and modification of military runway use
(7) Noise barriers/berms
(8) Restrictions to type of aircraft that can operate at airport

Extension of Runway 03/21 and modification of military runway use was recommend for further noise and impact analysis.

- Abatement measure would not significantly reduce the number of homes impacted by the 65 DNL noise contour, while potentially impacting properties that are not currently impacted south and north of the 03/21 runway ends.
- Total cost of extension estimated at $30 million
• Alternative A-A1.3 – 20% F-16 ops. on Rwy. 03/21 (0% night departures)

• Alternative A-A1.5 – 10% F-16 ops. on Rwy. 21 only (0% night departures)

<table>
<thead>
<tr>
<th>Housing Type</th>
<th>Units</th>
<th>Difference from Baseline</th>
<th>Population</th>
<th>Difference from Baseline</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUTURE (2025) BASELINE (0% F-16 ops. on Runway 03/21)</td>
<td></td>
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<tr>
<td>Single-Family</td>
<td>48</td>
<td>--</td>
<td>99</td>
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<tr>
<td>Multi-Family</td>
<td>2</td>
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<td>4</td>
<td>--</td>
</tr>
<tr>
<td>Mobile Homes</td>
<td>33</td>
<td>--</td>
<td>62</td>
<td>--</td>
</tr>
<tr>
<td>ALTERNATIVE A-A1.3 (40% F-16 arrival/departure ops. on Runway 03 (20%)/21 (20%) &amp; 0% night ops.)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single-Family</td>
<td>36</td>
<td>-12</td>
<td>74</td>
<td>-25</td>
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<tr>
<td>Multi-Family</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>0</td>
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<tr>
<td>Mobile Homes</td>
<td>31</td>
<td>-2</td>
<td>58</td>
<td>-4</td>
</tr>
<tr>
<td>ALTERNATIVE A-A1.5 (10% F-16 arrival/departure ops. on Runway 21 only &amp; 0% night ops.)</td>
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<td></td>
</tr>
<tr>
<td>Single-Family</td>
<td>39</td>
<td>-9</td>
<td>81</td>
<td>-18</td>
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<tr>
<td>Multi-Family</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Mobile Homes</td>
<td>30</td>
<td>-2</td>
<td>58</td>
<td>-4</td>
</tr>
</tbody>
</table>
Five (5) Corrective Land Use Mitigation Alternatives Considered

1. Sound Insulation Program – single-family and multi-family units (up to 64 units)
2. Property Acquisition Program – single-family units (up to 7 units)
3. Property Acquisition Program – mobile home units (up to 103 units)
4. Avigation Easements – owner occupied single-family units
5. Avigation Easements – owner occupied mobile home units (up to 3 units)

All corrective land use mitigation alternatives were recommended for further analysis
Four (4) Preventative Land Use Mitigation Alternatives Considered

1. Airport Land Use Management District (ALUMD)
2. Update to subdivision regulations if necessary
3. Improved building codes if necessary
4. Voluntary fair disclosure program

All preventative land use mitigation alternatives were recommended for further analysis

Three (3) Program Management Alternatives Considered

1. Continued logging of noise complaints
2. Create community round table to address noise related issues
3. Regular updates to NEMs and NCP

All program management alternatives were recommended for further analysis
Please provide comments or questions in the chat functionality.
Increased Thrust Characteristics

• Based upon ongoing coordination between project staff, 148th personnel, and pilot observations.

• Departure thrust values were increased while the aircraft was in afterburner and military power mode, in order to better represent F-16 maximum power flight profiles.

• Afterburner Mode
  • Previous Value (94%)
  • Revised Value (103%)

• Military Power Mode (used for departure and low approach operations)
  • Previous Value (91%)
  • Revised Value (100%)

• Based on these adjusted thrust values changes to the noise contour were anticipated, requiring re-calculation of the Existing (2020) Baseline and Future (2025) Baseline Noise Contours and associated housing and population impacts.
Contour Input Parameters

- 60,341 annual operations
- 4,916 F-16 annual F-16C operations
- Bombardier CRJ-900/700 and Airbus 319-131 account for 83% (1,792 annually) of all large jets

60 DNL Contour shown for informational purposes only
### Impacted Homes and Population

<table>
<thead>
<tr>
<th>Category</th>
<th>Type</th>
<th>DNL 65-70 dB</th>
<th>DNL 70-75 dB</th>
<th>DNL 75+ dB</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Housing</strong></td>
<td>Single-Family Residential</td>
<td>33</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Multi-Family Residential</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Manufactured Housing</td>
<td>29</td>
<td>0</td>
<td>0</td>
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<tr>
<td></td>
<td><strong>Total Housing Units</strong></td>
<td><strong>64</strong></td>
<td><strong>7</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td>Single-Family Residential</td>
<td>69</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Multi-Family Residential</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Manufactured Housing</td>
<td>54</td>
<td>0</td>
<td>0</td>
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<tr>
<td></td>
<td><strong>Total Population</strong></td>
<td><strong>127</strong></td>
<td><strong>14</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

Note: Population estimates are based on the United States Census Bureau 2017 American Community Survey (ACS) average household size per number of housing units per census block group. Prison Housing statistics are not included in impacted housing or population counts.
Revised Future (2025) Baseline Noise Exposure Contours

Contour Input Parameters

- 69,509 forecasted annual operations
- 5,296 forecasted annual F-16C operations
- Bombardier CRJ-900/700 and Airbus 319-131 account for 86% (2,659 annually) of all large jets
Population estimates are based on the United States Census Bureau 2017 American Community Survey (ACS) average household size per number of housing units per census block group. Prison Housing statistics are not included in impacted housing or population counts.

### Impacted Homes and Population

<table>
<thead>
<tr>
<th>Category</th>
<th>Type</th>
<th>DNL 65-70 dB</th>
<th>DNL 70-75 dB</th>
<th>DNL 75+ dB</th>
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</thead>
<tbody>
<tr>
<td><strong>Housing</strong></td>
<td>Single-Family Residential</td>
<td>41</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Multi-Family Residential</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Manufactured Housing</td>
<td>33</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Total Housing Units</strong></td>
<td><strong>76</strong></td>
<td><strong>7</strong></td>
<td><strong>0</strong></td>
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<tr>
<td><strong>Population</strong></td>
<td>Single-Family Residential</td>
<td>85</td>
<td>14</td>
<td>0</td>
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<tr>
<td></td>
<td>Multi-Family Residential</td>
<td>4</td>
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<td>0</td>
</tr>
<tr>
<td></td>
<td>Manufactured Housing</td>
<td>62</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td><strong>Total Population</strong></td>
<td><strong>151</strong></td>
<td><strong>14</strong></td>
<td><strong>0</strong></td>
</tr>
</tbody>
</table>

Note: Population estimates are based on the United States Census Bureau 2017 American Community Survey (ACS) average household size per number of housing units per census block group. Prison Housing statistics are not included in impacted housing or population counts.
Comparison of Future (2001 to 2025) Noise Contours

Contour Input Parameters

- 60,620 (2001) → 69,509 (2025) forecasted annual ops.
- 12,191 (2001) → 5,296 (2025) forecasted annual F-16C ops.
- 4,373 (2001) → 2,659 (2025) forecasted large jet annual ops.
- 2000 – 99% of large jets are DC9 & B727
- 2025 – 86% of large jets are CRJ-700/900 & A319
Please provide comments or questions in the chat functionality
• **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

<table>
<thead>
<tr>
<th>LAND USE</th>
<th>NMPA1</th>
<th>NMPA2</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOTAL HOUSING UNITS</td>
<td>POPULATION</td>
<td>TOTAL HOUSING UNITS</td>
</tr>
<tr>
<td>Single-Family Residential</td>
<td>45</td>
<td>93</td>
<td>17</td>
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<tr>
<td>Multi-Family Residential</td>
<td>2</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Mobile Homes</td>
<td>103</td>
<td>193</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>150</td>
<td>290</td>
<td>19</td>
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</table>
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, avigation easement recommended.
  - 2 Mobile Homes
    - Avigation easement recommended.
• Proposed NMPA #2.b
  • 2 Single-Family Home
  • Sound insulation or avigation easement recommended.
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

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>RESPONSIBLE PARTY</th>
<th>COST TO AIRPORT</th>
<th>COST TO LOCAL GOVERNMENTS</th>
<th>COST TO USERS</th>
<th>IMPLEMENTATION STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CORRECTIVE LAND USE MITIGATION MEASURES</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>(formerly 1997 NCP Measure M-1)</strong></td>
<td></td>
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<tr>
<td><strong>Measure M-A:</strong></td>
<td></td>
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</tr>
<tr>
<td>Offer Residential Sound Insulation Program to Single- and Multi-Family Homes (47 units) within the 65+ DNL Noise Contour</td>
<td>DAA</td>
<td>It is estimated that 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) Federal AIP funding likely available (80% FAA share/20% local airport share)</td>
<td>None</td>
<td>None</td>
<td>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.</td>
</tr>
<tr>
<td>Offer Residential Sound Insulation Program to Single-Family Homes (17 units) within the Block Rounding Area Outside of the 65 DNL Noise Contour</td>
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<tr>
<td><strong>Measure M-B:</strong></td>
<td></td>
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<tr>
<td>Offer Land Acquisition Program to Single-Family Homes (7 homes) within the 70+ DNL Noise Contour</td>
<td>DAA</td>
<td>It is estimated at $2,450,000 if 100% of homes participated. Federal AIP funding likely available (80% FAA share/20% local airport share)</td>
<td>Loss of tax base</td>
<td>None</td>
<td>This is a new measure</td>
</tr>
<tr>
<td><strong>Measure M-C:</strong></td>
<td></td>
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<tr>
<td>Offer Land Acquisition Program to Mobile Homes within NMPA #1 (103 Mobile Homes)</td>
<td>DAA</td>
<td>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). Federal AIP funding likely available (80% FAA share/20% local airport share)</td>
<td>Loss of tax base</td>
<td>None</td>
<td>This is a new measure</td>
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## Land Use Mitigation - Recommendations

<table>
<thead>
<tr>
<th>MEASURE</th>
<th>RESPONSIBLE PARTY</th>
<th>COST TO AIRPORT</th>
<th>COST TO LOCAL GOVERNMENTS</th>
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<tr>
<td><strong>CORRECTIVE LAND USE MITIGATION MEASURES</strong></td>
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</tr>
<tr>
<td><strong>Measure M-D:</strong> Offer avigation easement to owner occupied single-family homes within NMPA #1 and NMPA #2 if acquisition and/or sound insulation is declined.</td>
<td>DAA</td>
<td>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)</td>
<td>None</td>
<td>None</td>
<td>This is a new measure</td>
</tr>
<tr>
<td><strong>Measure M-E:</strong> Offer avigation easement to 1 owner occupied mobile home within NMPA #1 if acquisition is declined.</td>
<td>DAA</td>
<td>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)</td>
<td>None</td>
<td>None</td>
<td>This is a new measure</td>
</tr>
<tr>
<td><strong>Measure M-F:</strong> Offer avigation easement to 2 owner occupied mobile homes within NMPA #2.</td>
<td>DAA</td>
<td>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)</td>
<td>None</td>
<td>None</td>
<td>This is a new measure</td>
</tr>
</tbody>
</table>
Please provide comments or questions in the chat functionality
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

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

<table>
<thead>
<tr>
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<tr>
<td><strong>(formerly 1997 NCP Measure M-1)</strong></td>
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<tr>
<td>Measure M-G:</td>
<td>DAA, Cities of Duluth, Hermantown, Rice Lake, Saint Louis County</td>
<td>Minimal costs of up to $50,000</td>
<td>None</td>
<td>None</td>
<td>This is a new measure</td>
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<tr>
<td>Develop an Airport Land Use Management District (ALUMD)</td>
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<td></td>
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<tr>
<td>Measure M-H:</td>
<td>DAA, Cities of Duluth, Hermantown, Rice Lake, Saint Louis County</td>
<td>Minimal costs of up to $50,000</td>
<td>Loss of tax base</td>
<td>None</td>
<td>This is a new measure</td>
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<tr>
<td>Adopt Updated Subdivision Regulations</td>
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<td></td>
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<tr>
<td>Measure M-I:</td>
<td>DAA, Cities of Duluth, Hermantown, Rice Lake, Saint Louis County</td>
<td>Minimal costs of up to $50,000</td>
<td>Minimal administrative costs</td>
<td>None</td>
<td>This is a new measure</td>
</tr>
<tr>
<td>Adopt Improved Building Codes</td>
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<tr>
<td>Measure M-J:</td>
<td>Duluth Board of Realtors, Lake Superior Area Realtors, Cities of Duluth, Hermantown, Rice Lake, Saint Louis County</td>
<td>Minimal costs of up to $50,000</td>
<td>Minimal administrative costs</td>
<td>None</td>
<td>This is a new measure</td>
</tr>
<tr>
<td>Develop a Voluntary Fair Disclosure Program</td>
<td></td>
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</tbody>
</table>
Comments & Questions?

Please provide comments or questions in the chat functionality
• **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*
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</thead>
<tbody>
<tr>
<td>(formerly 1997 NCP Measure A-1) Measure P-A: Continue Logging of Noise Complaints</td>
<td>DAA and MnANG</td>
<td>Minimal administrative costs to answer telephones and to log noise complaints</td>
<td>None</td>
<td>None</td>
<td>This is a continuation of the existing process with a slight modification to be undertaken by the DAA and MnANG.</td>
</tr>
<tr>
<td>(formerly 1997 NCP Measure A-2) Measure P-B: Initiate Community Roundtable or Noise Abatement Committee</td>
<td>DAA</td>
<td>Minimal administrative costs to participate on a regular basis</td>
<td>Minimal administrative costs to participate on a regular basis</td>
<td>None</td>
<td>This is considered a new measure since it was never implemented in the previous NCP.</td>
</tr>
<tr>
<td>Measure P-C: Perform regular updates to the NEMs and review of NCP</td>
<td>DAA</td>
<td>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)</td>
<td>Minimal administrative costs to participate in study</td>
<td>None</td>
<td>This is a new measure.</td>
</tr>
</tbody>
</table>
## NCP Estimated Total Cost

<table>
<thead>
<tr>
<th>TYPE OF MEASURE</th>
<th>DIRECT COST (TOTAL)</th>
<th>DIRECT COST TO FAA (80% SHARE)</th>
<th>DIRECT COST TO AIRPORT (20% SHARE)</th>
<th>DIRECT COST TO LOCAL GOVERNMENT</th>
<th>DIRECT COST TO USERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Use Mitigation Alternatives (Corrective)</td>
<td>$18,000,000</td>
<td>$14,400,000</td>
<td>$3,600,000</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Land Use Mitigation Alternatives (Preventative)</td>
<td>$200,000</td>
<td>$160,000</td>
<td>$40,000</td>
<td>Minimal</td>
<td>None</td>
</tr>
<tr>
<td>Program Management Alternatives</td>
<td>$350,000 - $750,000</td>
<td>$280,000 - $600,000</td>
<td>$70,000 - $150,000</td>
<td>Minimal</td>
<td>None</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>Approximately $19,000,000 - plus administrative costs</strong></td>
<td><strong>Approximately $15,200,000 plus administrative costs</strong></td>
<td><strong>Approximately $3,800,000 plus administrative costs</strong></td>
<td>Minimal administrative costs; plus potential loss of tax base</td>
<td>None</td>
</tr>
</tbody>
</table>

- **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.
Please provide comments or questions in the chat functionality.
Next Steps

• Collect comments from public workshop (30 day comment period)
• Prepare Draft NEM and NCP documentation
• Prepare materials for Public Hearing
• Comments and questions related to the Public Information Workshop may be submitted for a period of 30 days online at: https://DuluthAirport.com/noise-study/ or emailed to DAA@DuluthAirport.com