



## CHAPTER 4



# NOISE COMPATIBILITY PROGRAM



## 4 Noise Compatibility Program

The culmination of the Title 14 Code of Federal Regulations (14 CFR) Part 150 Study planning process is the development of a set of measures designed to enhance the compatibility between an airport and its surrounding environs. This chapter presents new measures that are being recommended for implementation. Recommended measures for the Chicago-Rockford International Airport (RFD or Airport) also includes previous measures being continued or continued with modification. Collectively, these measures are referred to as the RFD 2023 Noise Compatibility Program (NCP). These measures include noise abatement, land use mitigation and program management measures designed to reduce or mitigate the impact of aircraft noise upon the surrounding community and enhance the administration of the overall program. The measures recommended for implementation in the RFD 2023 NCP have resulted from the planning process described throughout this document.

**Appendix F, Noise Abatement Alternatives** and **Appendix G, Land Use Mitigation Alternatives**, includes a list of all alternatives assessed for potential inclusion in this NCP update. **Appendix G, Public Involvement** contains a discussion of the public consultation process that was conducted for this NCP update.

The RFD 2003 NCP included thirteen (13) noise abatement measures. All previously recommended abatement measures are considered implemented on a voluntary basis as conditions allow. Modifications to and the withdrawal of existing abatement measures are recommended in this NCP update. Two (2) abatement measures are recommended for withdrawal from the RFD 2023 NCP, six (6) abatement measures are recommended for continuation with modification and five (5) measures are recommended for continuation. A further nine (9) alternative measures were analyzed, however no alternative measures are recommended to move forward in the RFD 2023 NCP. The currently implemented abatement measures reduce noise impacts within the 65+ DNL noise contour to the fullest extent possible.

The RFD 2003 NCP included seven (7) land use mitigation measures. Five (5) mitigation measures are recommended for continuation with modifications, one (1) mitigation measure is recommended for continuation and one (1) mitigation measure recommended for withdrawal from the NCP as it is considered fully implemented. An additional five (5) mitigation alternatives were analyzed for inclusion in this NCP update. Of those, four (4) mitigation alternatives were recommended for inclusion in the RFD 2023 NCP.

The RFD 2003 NCP included seven (6) program management (other) measures. All previously approved program management measures are recommended for continuation while one (1) new program management measure is recommended for inclusion in the RFD 2023 NCP.

In total for this NCP update, there are eleven (11) abatement measures, ten (10) mitigation measures, and seven (7) program management measures that were recommended for inclusion in the RFD 2023 NCP.

### » 4.1 Noise Compatibility Program Map

Through the previous Part 150 Studies, RFD has developed and implemented several voluntary noise abatement measures that minimize noise impacts without placing undue restrictions on operations at the Airport. This Part 150 Study update reviewed these noise abatement measures and determined the currently implemented noise abatement measures reduce noise to the fullest extent possible. Potential new noise abatement measures were assessed, and several noise abatement measures were recommended for either withdrawal from the RFD 2023 NCP or continued and continued with modifications. The modifications to the existing noise abatement measures were recommended in an effort to update the measures to reflect the current operating conditions at the Airport



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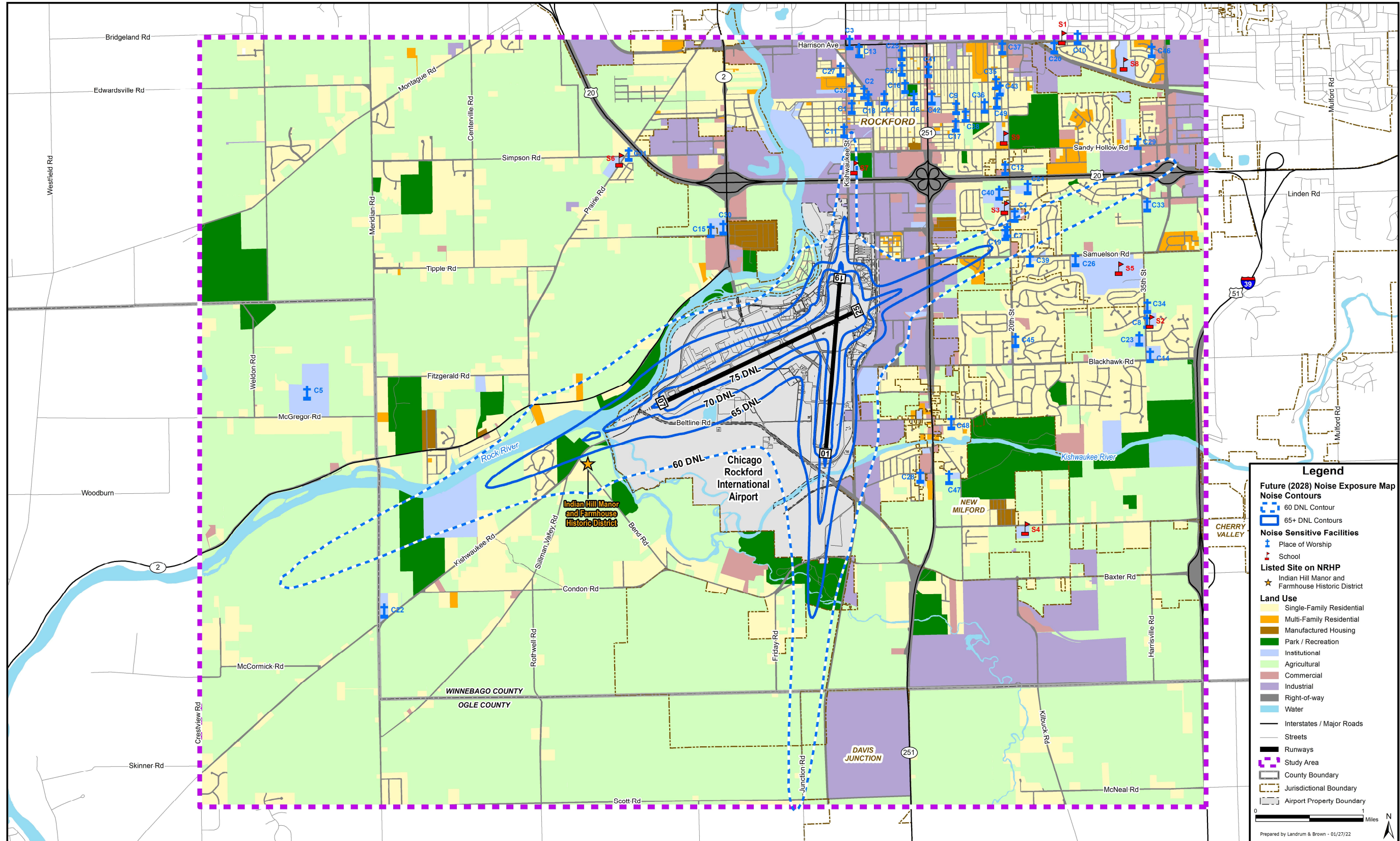
and to better illustrate the true intent of the measures. The full noise abatement analysis is included in **Appendix E, Noise Abatement Alternatives**. As a result, the Future (2028) NCP Noise Exposure Map (NEM) noise contours are the same as the Future (2028) Baseline noise exposure contours.

Since there are no new noise abatement measures and no recommended modifications would significantly impact the current operating conditions at RFD, implementation of the recommended NCP measures would not have any effect on the 65+ DNL noise exposure contours. **Exhibit 4-1, Future (2028) Noise Compatibility Program – Noise Exposure Map**, constitutes the noise contours shown on the official NEM for the year 2028.

**Table 4-1, Future (2028) NCP NEM Land Use Incompatibilities**, presents the noise impacts for the Future (2028) NCP NEM. There are 61 total housing units and an estimated 161 residents located within the 65+ DNL of the Future (2028) NCP NEM noise contour. Of those 61 housing units, 41 units are single-family units, and 20 are multi-family units.

There are no schools, places of worship, hospitals, nursing homes or any other noise-sensitive public facilities located within the 65+ DNL of the Future (2028) NCP NEM. The names and addresses for the noise-sensitive public facilities shown on **Exhibit 4-1** can be found in **Appendix E**.

**EXHIBIT 4-1 | FUTURE (2028) NOISE COMPATIBILITY PROGRAM – NOISE EXPOSURE MAP**



Source: Landrum & Brown analysis, 2023.



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**TABLE 4-1 | FUTURE (2028) NCP NEM LAND USE INCOMPATIBILITIES**

LAND USE	FUTURE (2028) NCP NEM 65+ DNL	
	TOTAL HOUSING UNITS	POPULATION
<b>Runway 07 Approach End – Southwest of Airport</b>		
Single-Family Residential	30	76
Multi-Family Residential	0	0
<b>Runway 25 Approach End – Northeast of Airport</b>		
Single-Family Residential	11	30
Multi-Family Residential	20	55
<b>Total</b>	<b>61</b>	<b>161</b>

Source: Landrum & Brown analysis, 2023.



## » 4.2 Noise Compatibility Program Measures

The NCP measures recommend for implementation for RFD have resulted from the planning process described throughout this document. **Appendix F, Noise Abatement Alternatives** and **Appendix G, Land Use Alternatives**, includes a list of all alternatives assessed for this NCP update. **Appendix D, Public Involvement** contains meeting materials and summaries of the Advisory Committee (AC) meetings, public information meetings.

The NCP measures are presented as a series of “plates” that summarize pertinent information required about each of the measures by 14 CFR Part 150 guidance. This information includes:

- A description and the background and intent of the measure;
- The relationship to the previous (1990, 1994, 2003) NCP;
- Status of the existing measure;
- Recommended action in RFD 2023 NCP;
- The anticipated effect on land use compatibility;
- The party (or parties) responsible for implementation;
- The steps necessary for implementation, its anticipated cost, and the projected timing for implementation; and
- The effects, if any, to other planning programs and other measures.
- Where helpful for clarification and exhibit or table is provided.

**Table 4-2, Summary of 2023 Noise Compatibility Program Recommendations**, summarizes the measures recommended for this NCP update. Noise abatement measures are designated with an “NA”, land use mitigation measures with an “LU” and program management measures with an “PM”.

Previously-approved measures that are recommended to be continued do not require Federal Aviation Administration (FAA) re-approval and are included in the baseline condition. Measures that are recommended to not be carried forward in this NCP update or were previously withdrawn require no further FAA action. More detailed information regarding each measure is included in the pages following **Table 4-2**.

Following the plates for individual program measures is an exhibit showing the NCP measures which constitute the RFD Land Use Management plan, as well as a description of the mitigated population and housing units associated with the implementation of the measures in the RFD 2023 NCP (see **Exhibit 4-8, RFD Land Use Management Plan**). As discussed previously, the approval of the RFD 2023 NCP by the FAA does not commit the FAA or the Greater Rockford Airport Authority (GRAA) to the costs or the implementation schedule listed in this document. This information is provided here as a planning tool to assist the implementation of the NCP measures.

Implementation of the remedial land use, and program management measures is at the discretion of the GRAA and subject to available funding from both the FAA and the GRAA. Implementation of the preventive land use measures is solely at the discretion of local governments and other local agencies. All information provided in this document will be made available to the local jurisdictions to include in any future land use or comprehensive planning initiatives at their discretion.



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**TABLE 4-2 | SUMMARY OF 2023 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS**

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
<b>RECOMMENDED NOISE ABATEMENT MEASURES</b>					
<b>Measure NA-1:</b> Maintain existing noise abatement procedures per Tower Order of June 15, 1984. <i>Withdraw from NCP</i>	ATCT, Airlines, GRAA	N/A	N/A	N/A	N/A
<b>Measure NA-2:</b> Aircraft in excess of 12,500 pounds departing Runway 25 should be directed to turn 20 degrees to the right or left as soon as practicable after takeoff. <i>Previously withdrawn from NCP</i>	ATCT, Airlines, GRAA	N/A	N/A	N/A	N/A
<b>Measure NA-3:</b> All aircraft departing on Runway 7 should be fanned along three departure tracks: Left, Right, and Center. <b>Continuation</b>	ATCT, Airlines, GRAA	N/A	N/A	None	Measure implemented as conditions allow and recommended to continue
<b>Measure NA-4:</b> Direct pilots of C-130s to turn as tightly as practicable when training on Runway 19. <i>Withdraw from NCP</i>	ATCT, Airlines, GRAA	N/A	N/A	N/A	N/A
<b>Measure NA-5:</b> Direct pilots of air carrier jets when training on Runway 1, to begin turning to downwind leg after 4 distance measuring equipment (DME) from localizer and establishing the downwind leg at 5 DME. <i>Previously withdrawn from NCP</i>	ATCT, Airlines, GRAA	N/A	N/A	N/A	N/A





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**TABLE 4-2 | SUMMARY OF 2023 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS, (CONTINUED)**

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
<b>RECOMMENDED NOISE ABATEMENT MEASURES (CONTINUED)</b>					
<p><b>Measure NA-6:</b> Establish an informal preferential runway use plan, weather and operating requirements permitting, as follows for aircraft weighing more than 12,500 pounds, using a five-knot tailwind and 15-knot crosswind component for runway assignment.</p> <p><i>Previously withdrawn from NCP Measure replaced by NA-10 in 1997 when Runway 7/25 was extended to 10,000 feet.</i></p>	ATCT, Airlines, GRAA	N/A	N/A	N/A	N/A
<p><b>Measure NA-7:</b> During nighttime hours (10:00 p.m. to 7:00 a.m.) all aircraft over 12,500 pounds departing Runway 25 having departure courses that would require a right turn after departure, to turn right on course to navigational fix or heading as soon as practicable.</p> <p><b>Continuation with Modification</b></p>	ATCT, Airlines, GRAA	N/A	N/A	None	Measure implemented as conditions allow and recommended to continue with modification
<p><b>Measure NA-8:</b> During daytime hours (7:00 a.m. to 10:00 p.m.) all aircraft over 12,500 pounds departing Runway 25 having departure courses that would require a left turn after departure, to turn left on course to navigational fix or heading as soon as practicable.</p> <p><b>Continuation with Modification</b></p>	ATCT, Airlines, GRAA	N/A	N/A	None	Measure implemented as conditions allow and recommended to continue with modification



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TABLE 4-2 | SUMMARY OF 2023 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS, (CONTINUED)

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
<b>RECOMMENDED NOISE ABATEMENT MEASURES (CONTINUED)</b>					
<p><b>Measure NA-9:</b> During nighttime hours (10:00 p.m. to 7:00 a.m.) all aircraft over 12,500 pounds departing Runway 19 having departure courses requiring a left turn based on destination to maintain runway heading until reaching 3,000 feet MSL before turning on course.</p> <p><b>Continuation</b></p>	ATCT, Airlines, GRAA	N/A	N/A	N/A	Measure implemented as conditions allow and recommended to continue
<p><b>Measure NA-10:</b> Establish an informal preferential runway use plan for all daytime and nighttime operations.</p> <p><b>Continuation</b></p>	ATCT, Airlines, GRAA	N/A	N/A	N/A	Measure implemented as conditions allow and recommended to continue
<p><b>Measure NA-11:</b> For all aircraft requiring more than 8,000 feet certified takeoff length, Runway 25 preferred.</p> <p><b>Continuation</b></p>	ATCT, Airlines, GRAA	N/A	N/A	N/A	Measure implemented as conditions allow and recommended to continue
<p><b>Measure NA-12:</b> During daytime hours (7:00 a.m. to 10:00 p.m.) all aircraft over 12,500 pounds departing Runway 25 having departure courses that would require a right turn after departure, to turn right on course to navigational fix or heading as soon as practicable.</p> <p><b>Continuation with Modification</b></p>	ATCT, Airlines, GRAA	N/A	N/A	N/A	Measure implemented as conditions allow and recommended to continue with modification



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TABLE 4-2 | SUMMARY OF 2023 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS, (CONTINUED)

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
<b>RECOMMENDED NOISE ABATEMENT MEASURES (CONTINUED)</b>					
<b>Measure NA-13:</b> During nighttime hours (10:00 p.m. to 7:00 a.m.) all aircraft over 12,500 pounds departing Runway 25 having departure courses that would require a left turn after departure, to turn left on course to navigational fix or heading as soon as practicable. <b>Continuation with Modification</b>	ATCT, Airlines, GRAA	N/A	N/A	N/A	Measure implemented as conditions allow and recommended to continue with modification
<b>Measure NA-14:</b> Recommend aircraft to conduct touch and go and low approach training activity on the south and west side of the airport, when traffic conditions permit. <b>Continuation with Modification</b>	ATCT, Airlines, GRAA	N/A	N/A	N/A	Measure implemented as conditions allow and recommended to continue with modification
<b>Measure NA-15:</b> During nighttime hours (10:00 p.m. to 7:00 a.m.) all aircraft over 12,500 pounds departing Runway 1, maintain runway heading until reaching 3,000 feet MSL before turning on course. <b>Continuation</b>	ATCT, Airlines, GRAA	N/A	N/A	N/A	Measure implemented as conditions allow and recommended to continue
<b>Measure NA-16:</b> Encourage the use of noise attenuating construction standards for all new on-airport structures/facilities and use those structures as noise barriers/buffers to adjacent off-airport land uses. <b>Continuation</b>	ATCT, Airlines, GRAA	Dependent on design of structure, and effect of noise attenuation on operational efficiency.	N/A	Dependent on design of structure and effect of noise attenuation on operational efficiency.	Measure implemented and recommended to continue



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**TABLE 4-2 | SUMMARY OF 2023 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS, (CONTINUED)**

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
<b>RECOMMENDED LAND USE MITIGATION MEASURES</b>					
<b>Measure LU-1:</b> Rezoning of land south of US Route 20 Bypass and west of 20th Street from agriculture to medium-density multi-family by the city of Rockford and Winnebago County. <i>Previously withdrawn from NCP</i>	N/A	N/A	N/A	N/A	N/A
<b>Measure LU-2:</b> Adopt noise overlay zoning prohibiting development of selected noise-sensitive land uses within the 60-65 DNL noise contour, high occupancy uses in the “double-clear zone” area, and residential uses in the 65+ DNL noise contour of the 2028 NCP NEM within the “double-clear zone” of the City of Rockford and Winnebago County. <i>Continuation with Modification</i>	City of Rockford, Winnebago County	N/A	Minimal administrative costs	N/A	This measure is recommended to be continued with modification from the 2003 NCP to include the new 2028 NCP NEM.
<b>Measure LU-3:</b> Amend comprehensive plans to show planned industrial or commercial uses at interchanges of US 20 Bypass and South Main Street – city of Rockford and Winnebago County. <i>Previously withdrawn from NCP</i>	N/A	N/A	N/A	N/A	N/A



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**TABLE 4-2 | SUMMARY OF 2023 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS, (CONTINUED)**

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
<b>RECOMMENDED LAND USE MITIGATION MEASURES (CONTINUED)</b>					
<b>Measure LU-4:</b> Amend local comprehensive plans by adopting the updated Part 150 NCP as their noise compatibility elements — City of Rockford and Ogle and Winnebago counties. <i>Continuation</i>	City of Rockford, Winnebago County, Ogle County	N/A	Minimal administrative costs	N/A	Measure implemented and recommended to continue
<b>Measure LU-5:</b> Adopt guidelines for discretionary review of development projects – City of Rockford, Winnebago County, Ogle County, and the GRAA. <i>Continuation</i>	City of Rockford, Winnebago County, Ogle County, GRAA	Minimal administrative costs	Minimal administrative costs	N/A	Measure implemented and recommended to continue
<b>Measure LU-6:</b> Acquire homes off the approach end of Runway 19 – city of Rockford or the GRAA. <i>Previously withdrawn from NCP</i>	N/A	N/A	N/A	N/A	N/A
<b>Measure LU-7:</b> Encourage the Forest Preserve District to consider acquisition of land adjacent to existing Forest Preserves south of the airport. <i>Previously withdrawn from NCP</i>	N/A	N/A	N/A	N/A	N/A
<b>Measure LU-8:</b> Voluntary acquisition of single-family residences on Blackhawk Island in the NEM/NCP 65 DNL noise contour. <i>Measure Implemented</i>	N/A	N/A	N/A	N/A	N/A



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TABLE 4-2 | SUMMARY OF 2023 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS, (CONTINUED)

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
<b>RECOMMENDED LAND USE MITIGATION MEASURES (CONTINUED)</b>					
<b>Measure LU-9:</b> Redevelop airport-owned land parcels located along Kishwaukee Street south of Research Parkway. <i>Continuation</i>	GRAA	N/A	Minimal administrative costs	N/A	Measure implemented and recommended to continue
<b>Measure LU-10:</b> Revoke consideration of transfer of GRAA land of high natural value along the Kishwaukee River to the Forest Preserve or park district to be maintained as a natural area and airport noise buffer. <i>Previously withdrawn from NCP</i>	N/A	N/A	N/A	N/A	N/A
<b>Measure LU-11:</b> Acquire development and overflight rights via purchase of land use and aviation easement over undeveloped parcel in Runway 7L approach area on south side of Kishwaukee River. <i>Measure Implemented</i>	N/A	N/A	N/A	N/A	N/A
<b>Measure LU-12:</b> Offer options of voluntary sale to GRAA or sound insulation to owner of one [single family] residence south of the airport in the 65 DNL contour of the 1993 NCP [near term plan]. <i>Measure Implemented</i>	N/A	N/A	N/A	N/A	N/A



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TABLE 4-2 | SUMMARY OF 2023 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS, (CONTINUED)

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
<b>RECOMMENDED LAND USE MITIGATION MEASURES (CONTINUED)</b>					
<p><b>Measure LU-13:</b> Encourage the city of Rockford and Winnebago County to require plat notes on new subdivision plats and to record the notes on deeds for new subdivisions within the Airport Noise Overlay Zones AC-1 and AC-2.</p> <p><b>Continuation with Modification</b></p>	City of Rockford, Winnebago County, Ogle County, GRAA	N/A	Minimal administrative costs	N/A	This measure is recommended to be continued with modification from the 2003 NCP to include the new 2028 NCP NEM.
<p><b>Measure LU-14:</b> Encourage Winnebago County, the city of Rockford, the Village of New Milford, and the Village of Davis Junction not to allow an increase in the residential density in the Agricultural Priority (AG) or Rural Residential (RR) zoning districts (Winnebago County) in the 2028 NCP NEM 60+ DNL noise contour.</p> <p><b>Continuation</b></p>	City of Rockford, Winnebago County, Ogle County, Village of New Milford, Village of Davis Junction	N/A	N/A	N/A	This measure is recommended to be continued with modification from the 2003 NCP to include the new 2028 NCP NEM.
<p><b>Measure LU-15:</b> Noise Mitigation Program Area (NMPA)</p> <p><b>NMPA 1:</b> Offer Residential Sound-insulation Program to Single- and Multi-Family Homes (61 units) within the 65+ DNL noise contour.</p> <p><b>NMPA 2:</b> Offer Residential Sound-insulation Program to Single- and Multi-Family Homes (87 units) within the block rounding area outside of the 65 DNL noise contour.</p> <p><b>New Measure</b></p>	GRAA	<p>It is estimated 61 homes are located within the 65+ DNL noise contour plus an additional 87 homes in the block rounding area outside the 65 DNL. If 100% of all homes are eligible and participated the cost to insulate all homes is estimated at \$9,250,000 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	This is a new measure. Properties undergoing sound-insulation would have an avigation easement placed on the property and attached to the deed.



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**TABLE 4-2 | SUMMARY OF 2023 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS, (CONTINUED)**

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
<b>RECOMMENDED LAND USE MITIGATION MEASURES (CONTINUED)</b>					
<b>Measure LU-16:</b> Offer Avigation Easements to owner-occupied Single- and Multi-Family Homes within NMPA 1 and NMPA 2 if sound-insulation is declined.  <b>New Measure</b>	GRAA	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. Properties would have an avigation easement placed on the property and attached to the deed.
<b>Measure LU-17:</b> Adopt improved building codes.  <b>New Measure</b>	GRAA, City of Rockford, Winnebago and Ogle County	Minimal costs of up to \$50,000	Minimal administrative costs	None	This is a new measure.
<b>RECOMMENDED PROGRAM MANAGEMENT MEASURES</b>					
(former 2003 NCP Measure OM-1) <b>Measure PM-1:</b> Noise Compatibility Plan (NCP) implementation compliance.  <b>Continuation</b>	GRAA	Minimal administrative costs	None	None	Measure implemented and recommended to continue
(former 2003 NCP Measure OM-2) <b>Measure PM-2:</b> Noise complaint response system and computer database.  <b>Continuation with Modification</b>	GRAA	Minimal administrative costs to answer telephones and to log noise complaints.	None	None	Measure is implemented and recommended to be continued with modifications.
(former 2003 NCP Measure OM-3) <b>Measure PM-3:</b> Perform regular updates to the Noise Exposure Maps (NEM) and review of the Noise Compatibility Plan (NCP).  <b>Continuation</b>	GRAA	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	Measure implemented and recommended to continue





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TABLE 4-2 | SUMMARY OF 2023 NOISE COMPATIBILITY PROGRAM RECOMMENDATIONS, (CONTINUED)

MEASURE	RESPONSIBLE PARTY	COST TO AIRPORT	COST TO LOCAL GOVERNMENTS	COST TO USERS	IMPLEMENTATION STATUS
<b>RECOMMENDED PROGRAM MANAGEMENT MEASURES (CONTINUED)</b>					
(former 2003 NCP Measure OM-4) <b>Measure PM-4:</b> Establish a Pilot/Community Awareness Program. <b>Continuation</b>	GRAA	Cost to develop, print, and distribute outreach material: \$10,000 to \$20,000, subject to GRAA and FAA funding availability.	None	None	This measure is not implemented and is recommended for implementation.
(former 2003 NCP Measure OM-5) <b>Measure PM-5:</b> Publication of Instrument Departure Procedures for Runways 1, 19, and 25	GRAA	Minimal administrative costs to ensure approval and publication.	None	None	This measure is not implemented and is recommended for implementation.
(former 2003 NCP Measure OM-6) <b>Measure PM-6:</b> Update airport information in the <i>Airport Facilities Directory</i> <b>Continuation</b>	GRAA	Minimal administrative costs to ensure approval and publication.	None	None	Measure implemented and recommended to continue
<b>Measure PM-7:</b> Initiate Community Roundtable or Noise Abatement Committee <b>New Measure</b>	GRAA	Minimal administrative costs to attend meetings and to document meetings and distribute agendas/other material. .	Minimal time to attend meetings	None	This is a new measure

Source: Landrum &amp; Brown analysis, 2023.



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### NOISE COMPATIBILITY PROGRAM MEASURE: NA-1

**Description:** Maintain existing noise abatement procedures per Tower Order of June 15, 1984.

**Background and Intent:** This previously approved measure is currently implemented. Measure NA-1 recommended maintaining existing noise abatement procedures per a Tower Order of June 15, 1984. This order states that touch and go operations (when aircraft traffic land and depart without stopping or exiting the runway for the purposes of pilot training) or traffic pattern activity (the flow prescribed for landing, or takeoff, in this case used for the purposes of pilot training) on Runways 1/19 shall be directed to turn so as to keep aircraft west of the airport. Aircraft over 12,500 pounds shall be directed to climb to 2,500 feet MSL (1,750 feet above field elevation) whenever traffic permits. Aircraft making circling approaches shall be kept west of the airport and shall not be permitted to make passes over the airport. For late night training, as winds permit, full stop landings should be made on Runway 1 and takeoffs should be made on Runway 19.

The original intent of this measure was to abate the effects of nighttime aircraft noise and overflight that would occur during airline pilot training between the hours of 10:00 p.m. to 7:00 a.m.

**Relationship to 2003 NCP:** Measure NA-1 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP.

**2023 NCP Action:** Measure NA-1 is to be withdrawn. Intent of measure is now included in the modified Measure NA-14.

**Land Use Compatibility Improvement:** Measure NA-1 is to be withdrawn. Intent of measure is now included in the modified Measure NA-14.

**Responsible Implementing Parties:** ATCT, Airlines, GRAA

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** The withdraw of this measure is not expected to adversely affect any other programs or measures.



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## NOISE COMPATIBILITY PROGRAM MEASURE: NA-2

**Description:** Measure previously revoked: Aircraft in excess of 12,500 pounds departing Runway 25 should be directed to turn 20 degrees to the right or left as soon as practicable after takeoff. Withdrawal of this measure was approved in the 1994 NCP.

**Background and Intent:** This measure was previously approved in the 1990 NCP and subsequently withdrawn in the 1994 NCP. Measure NA-2 recommended that departure turns off Runway 25 in excess of 12,500 pounds make a 20-degree turn either left or right as soon as practicable after takeoff. The procedure applied to all jets and almost all multi-engine turboprop and piston aircraft operating at RFD.

The measure was intended to ensure that departures by large aircraft would not overfly the Woodcrest Estates subdivision and other residential development immediately north of Woodcrest Estates across the Rock River. This measure was withdrawn in favor of other, more effective measures (NA-7, NA-8, NA-12 and NA-13).

**Relationship to 2003 NCP:** N/A

**Status:** N/A

**2023 NCP Action:** N/A

**Land Use Compatibility Improvement:** N/A. However, land use compatibility would be achieved in this area with the implementation of recommended Measures NA-7, NA-8, NA-12, and NA-13.

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A



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## NOISE COMPATIBILITY PROGRAM MEASURE: NA-3

**Description:** All aircraft departing on Runway 7 should be fanned along three departure tracks: Left, Right, and Center.

**Background and Intent:** This previously approved measure is currently implemented on a voluntary basis. Measure NA-3 recommends that all aircraft departing on Runway 7 be fanned along three departure tracks: Left, Right, and Center (see Exhibit 4-2, Runway 7 Departure Flight Corridors). The aircraft are routed due east on the center track, to the southwest on the track turning to the right, and to the northwest on the track turning to the left.

The intent of this measure is to reduce noise along the centerline and reduce overflights of the communities west of the airport.

**Relationship to 2003 NCP:** Measure NA-3 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP, as conditions allow.

**2023 NCP Action:** Measure NA-3 is to be continued.

**Land Use Compatibility Improvement:** Reduces aircraft noise impacts along the extended centerline of Runway 7 and reduces frequency of overflights over residential land uses to the east of the airport.

**Responsible Implementing Parties:** ATCT, Airlines, GRAA

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** The continuation of this measure is not expected to adversely affect any other programs or measures.



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

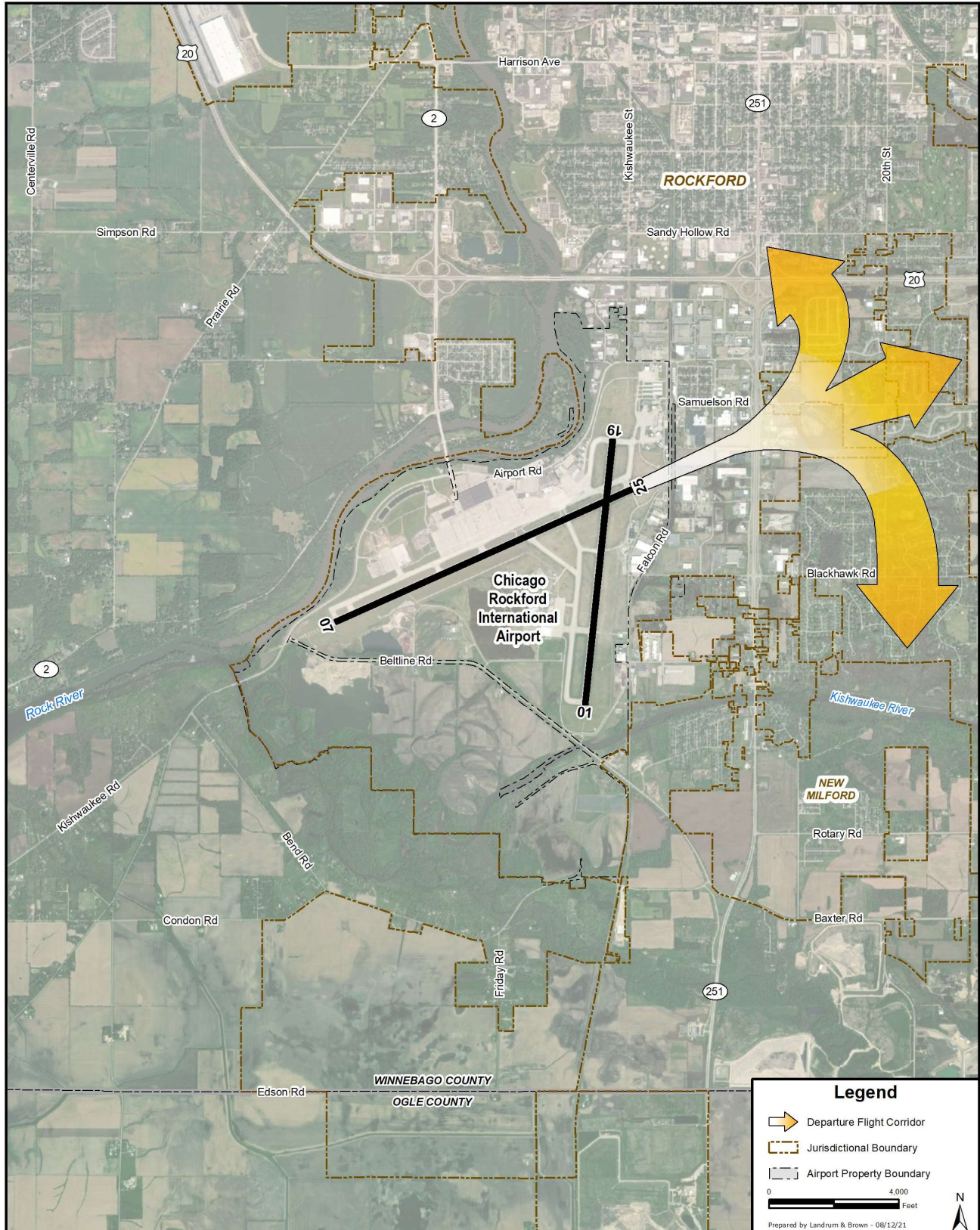
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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

## EXHIBIT 4-2 | RUNWAY 7 DEPARTURE FLIGHT CORRIDORS



Source: Landrum & Brown analysis, 2023





# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

## NOISE COMPATIBILITY PROGRAM MEASURE: NA-4

**Description:** Direct pilots of C-130s to turn as tightly as practicable when training on Runway 19.

**Background and Intent:** Measure NA-4 recommends that pilots of C-130 aircraft practicing short-field landings and takeoffs (using a short amount of runway length) on Runway 19 be directed to turn as soon and as tightly as practicable after takeoff. The aircraft should remain as close to the airport as possible when flying through the pattern, provided aircraft maintain pattern altitude of 2,500 feet MSL per existing Tower Order.

This intent of this measure is to direct aircraft traffic to the northwest and away from residential areas southwest of the airport, including the Woodcrest Estates subdivision and the area north of the Rock River near Woodcrest Estates. In addition, the floodplain northwest and adjacent to the airport is a broad, noise-compatible area, and it would be desirable for the C-130s to remain over this area to the extent practical.

**Relationship to 2003 NCP:** Measure NA-4 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP as conditions allow.

**2023 NCP Action:** Measure NA-4 is to be withdrawn. Intent of measure is now included in the modified Measure NA-14.

**Land Use Compatibility Improvement:** N/A. However, land use compatibility would be achieved in this area with the implementation of recommended modified Measure NA-14.

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

## Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: NA-5

**Description:** Measure previously revoked: Direct pilots of air carrier jets, when training on Runway 1, to begin turning to downwind leg after 4 DME from localizer and establishing the downwind leg at 5 DME. Withdrawal of this measure was approved in the 1994 NCP.

**Background and Intent:** This measure was previously approved in the 1990 NCP and subsequently withdrawn in the 1994 NCP. Measure NA-5 directed pilots of air carrier jets, when training on Runway 1, to begin turning to the downwind leg after 5 DME from the localizer.

This measure was intended to establish a training pattern, which would avoid residential areas between two and three miles west of the airport by moving the pattern further to the west. In order to avoid undue inconvenience to air carriers, aircraft would turn to the southeast directly west of the south end of Runway 1/19. This would then reestablish the downwind leg one to two miles west of the extended runway centerline. This measure was revoked on the basis that the recommended traffic pattern would result in repeated transfers of aircraft between local airport traffic control (ATC) and center ATC. This measure was withdrawn in favor of another more effective measure, Measure NA-15.

**Relationship to 2003 NCP:** N/A

**Status:** N/A

**2023 NCP Action:** N/A

**Land Use Compatibility Improvement:** N/A. However, land use compatibility would be achieved in this area with the implementation of recommended Measure NA-15.

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## NOISE COMPATIBILITY PROGRAM MEASURE: NA-6

**Description:** Revoke the establishment of an informal preferential runway use plan, weather and operating requirements permitting, as follows for aircraft weighing more than 12,500 pounds, using a five knot tailwind and 15-knot crosswind component for runway assignment. Measure NA-6 has been replaced by NA-10.

**Background and Intent:** This measure was previously approved in the 1994 NCP, but expired in 1997. Measure NA-6 recommended an informal preferential runway use program to delineate the preferred runway use and order of runway selection. The order stated that, weather and operating conditions permitting, aircraft weighing more than 12,500 pounds, use a five-knot tailwind and 15-knot crosswind component for runway assignment.

The intent of this measure was to reduce noise impacts. This measure was replaced by Measure NA-10 when Runway 7/25 was extended to the current length of 10,000 feet in 1997, changing the preferred arrival and departure runway during daytime hours from Runway 19 to Runway 25, the longest runway. Therefore, Measure NA-6 should be withdrawn from the 2003 NCP.

**Relationship to 2003 NCP:** N/A

**Status:** N/A

**2023 NCP Action:** N/A

**Land Use Compatibility Improvement:** N/A. However, land use compatibility would be achieved in this area with the implementation of recommended Measure NA-10.

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## NOISE COMPATIBILITY PROGRAM MEASURE: NA-7

**Description:** During nighttime hours (10:00 p.m. to 7:00 a.m.) all aircraft over 12,500 pounds departing Runway 25 having departure courses that would require a right turn after departure, to turn right on course to navigational fix or heading as soon as practicable.

**Background and Intent:** This measure, as approved in the 2003 NCP, required the ATCT to issue instructions to pilots when departing Runway 25 in order to minimize overflight of residential land use (Woodcrest Estates) along the extended runway centerline (see Exhibit 4-3, Runway 25 Right Turn Departure Flight Corridors). The recommended modification to the previously approved Measure NA-7 would change the ATCT instructions for Runway 25 departures from the two fixes, Dubuque (DBQ) or Nodine (ODI) to turn right as soon as practicable.

While the approved instruction is that nighttime aircraft weighing in excess of 12,500 pounds to turn right to the (DBQ) or Nodine (ODI) fixes. Because the pilot instructions to a specific fix may change over time due to airspace changes, it is recommended that this previously approved measure be modified.

Modified Measure NA-7 is a companion to modified Measure NA-12, which provides for departure turns from Runway 25 for daytime operations. To allow for performance and destination differences between the cargo carriers, which operate at RFD during the nighttime hours, and the general aviation traffic, which operates at RFD during the daytime hours, this measure should be retained for nighttime use.

The intent of Measure NA-7, as modified in this 2023 NCP, would continue to minimize overflight of Woodcrest Estates by large aircraft departing Runway 25. Therefore, this measure should be modified and continued as noted for nighttime use.

**Relationship to 2003 NCP:** Measure NA-7 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP, as conditions allow.

**2023 NCP Action:** Measure NA-7 is to be continued with modification.

**Land Use Compatibility Improvement:** Direct aircraft to overfly the generally more compatible land uses northwest of the airport. Residential land uses on the extended centerline of Runway 25 would experience fewer aircraft overflights than if departures were conducted straight out.

**Responsible Implementing Parties:** ATCT, Airlines, GRAA

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** The continuation of this measure is not expected to adversely affect any other programs or measures.





# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

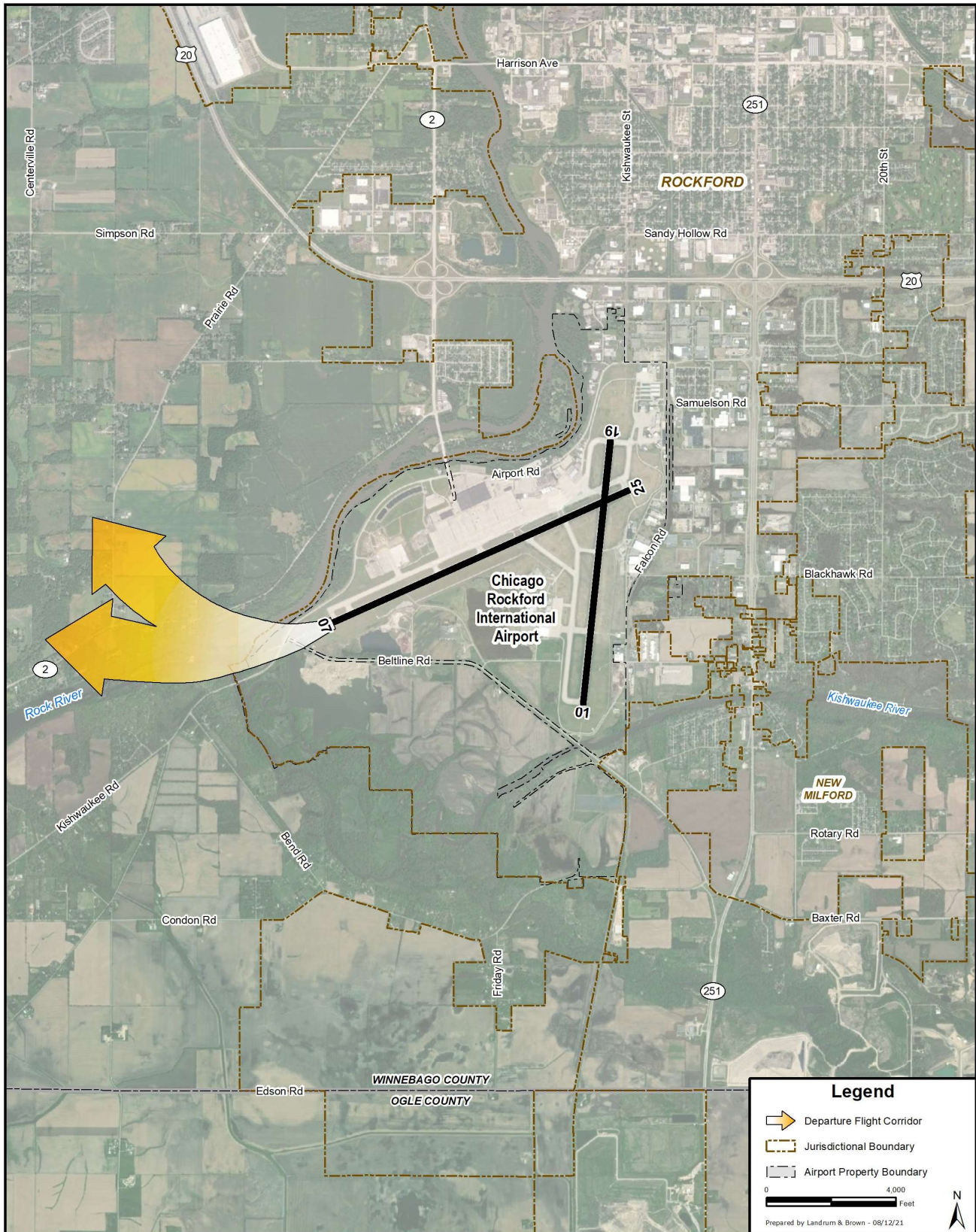
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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

## EXHIBIT 4-3 | RUNWAY 25 RIGHT TURN DEPARTURE FLIGHT CORRIDORS



Source: Landrum & Brown analysis, 2023



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## NOISE COMPATIBILITY PROGRAM MEASURE: NA-8

**Description:** During daytime hours (7:00 a.m. to 10:00 p.m.) all aircraft over 12,500 pounds departing Runway 25 having departure courses that would require a left turn after departure, to turn left on course to navigational fix or heading as soon as practicable.

**Background and Intent:** This measure, as approved in the 2003 NCP, recommends that all daytime aircraft departures to the southwest and west from Runway 25 use this procedure to avoid overflying existing residential land uses along the extended centerline of Runway 25 (see Exhibit 4-4, Runway 25 Left Turn Departure Flight Corridors). The ATCT would direct traffic to turn on course toward navigational fixes as soon as practicable.

This previously approved measure is currently implemented on a voluntary basis. As modified, this measure recommends that all daytime aircraft departures to the southwest and west from Runway 25 use this procedure to avoid overflying existing residential land uses along the extended centerline of Runway 25. The ATCT would direct traffic to turn on course toward navigational fix or heading as soon as practicable.

Modified Measure NA-8 is a companion to modified Measure NA-13, which provides for departure turns to the southwest from Runway 25 for nighttime operations. To allow for performance and destination differences between the cargo carriers, which operate at RFD during nighttime hours, and the general aviation traffic, which operates at RFD during the daytime hours, this measure should be retained for daytime use. Therefore, this measure should be retained and modified as noted.

The intent of Measure NA-8, as modified in this 2023 NCP, would continue to minimize overflight of Woodcrest Estates by large aircraft departing Runway 25. Therefore, this measure should be modified and continued as noted for daytime use.

**Relationship to 2003 NCP:** Measure NA-8 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP, as conditions allow.

**2023 NCP Action:** Measure NA-8 is to be continued with modification.

**Land Use Compatibility Improvement:** Reduces aircraft noise impacts along the extended centerline of Runway 25 and reduces frequency of overflights over residential land uses to the west of the airport.

**Responsible Implementing Parties:** ATCT, Airlines, GRAA

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** The continuation of this measure is not expected to adversely affect any other programs or measures.



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

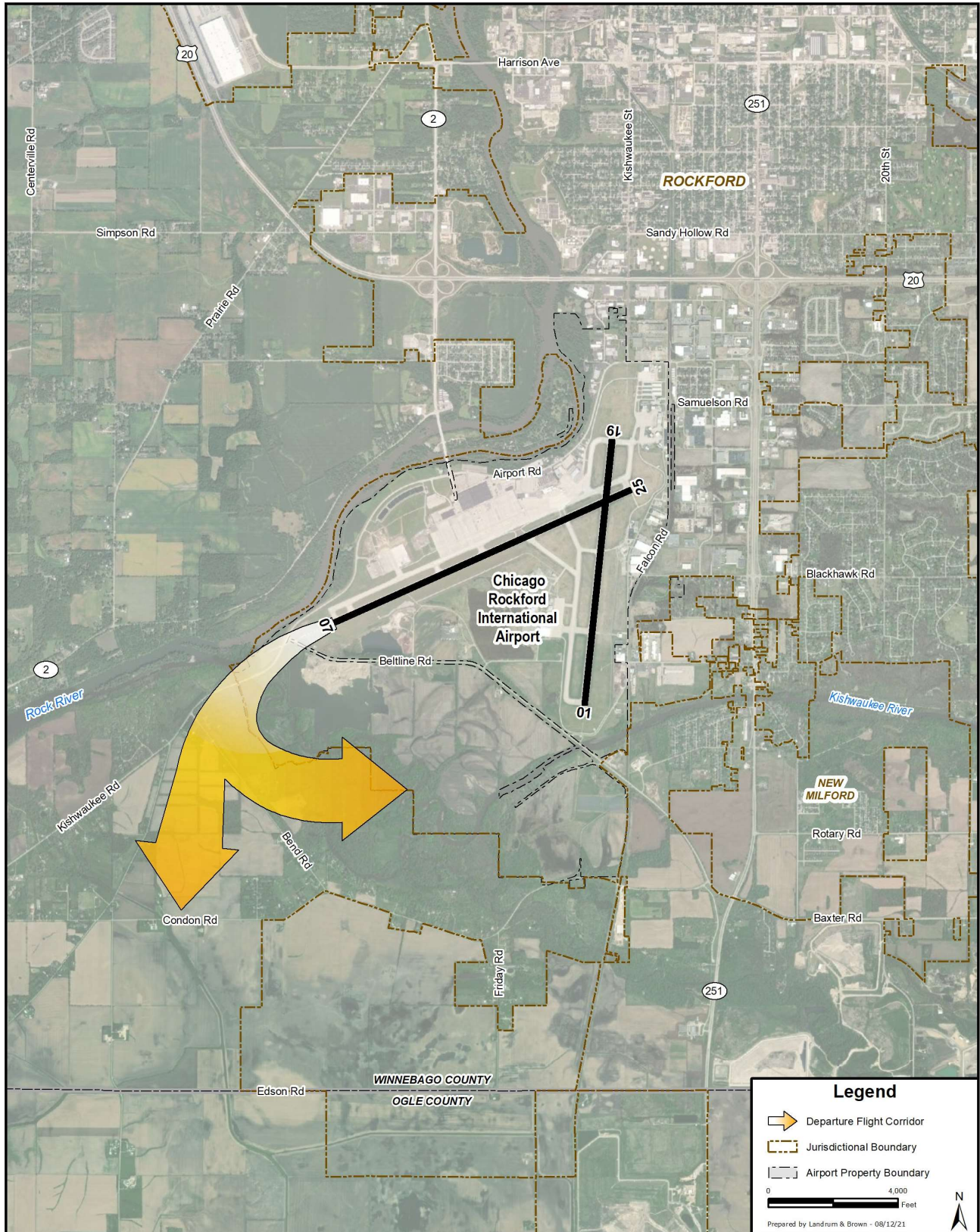
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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

## EXHIBIT 4-4 | RUNWAY 25 LEFT TURN DEPARTURE FLIGHT CORRIDORS



Source: Landrum & Brown analysis, 2023



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

## NOISE COMPATIBILITY PROGRAM MEASURE: NA-9

**Description:** During nighttime hours (10:00 p.m. to 7:00 a.m.) all aircraft over 12,500 pounds departing Runway 19 having departure courses requiring a left turn based on destination to maintain runway heading until reaching 3,000 feet MSL before turning on course to heading or navigational fix.

**Background and Intent:** This measure, as approved in the 2003 NCP, directed all jet aircraft weighing more than 12,500 pounds maintain runway heading until reaching 3,000 feet MSL before turning on course (see Exhibit 4-5, Runway 19 Left Turn Departure Flight Corridors). The proposed modification to this measure would remove the course headings and direct aircraft requiring a left turn to maintain runway heading until reaching 3,000 feet MSL before turning on course to heading or navigational fix, as soon as practicable.

Maintaining runway heading to 3,000 feet MSL (rather than 2,000 or 2,500 feet MSL as assessed in the alternatives analysis) would provide the most operational benefit because 3,000 feet MSL is a standard noise abatement altitude used by ATCT controllers. Therefore, it would simplify controller instructions to the pilot during peak traffic periods.

The intent of Measure NA-9, as modified in this 2023 NCP, would continue to minimize overflight of residential areas to the southeast of the Airport and along the Kishwaukee River, by large aircraft departing Runway 19. Therefore, this measure should be modified as noted.

**Relationship to 2003 NCP:** Measure NA-9 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP, as conditions allow.

**2023 NCP Action:** Measure NA-9 is to be continued.

**Land Use Compatibility Improvement:** Utilizes the Forest Preserve to the southeast of the airport and other generally compatible areas south of the airport. Residential land use to the east of the airport would experience a decrease in overflights and less overall noise exposure.

**Responsible Implementing Parties:** ATCT, Airlines, GRAA

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** The continuation of this measure is not expected to adversely affect any other programs or measures.





# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

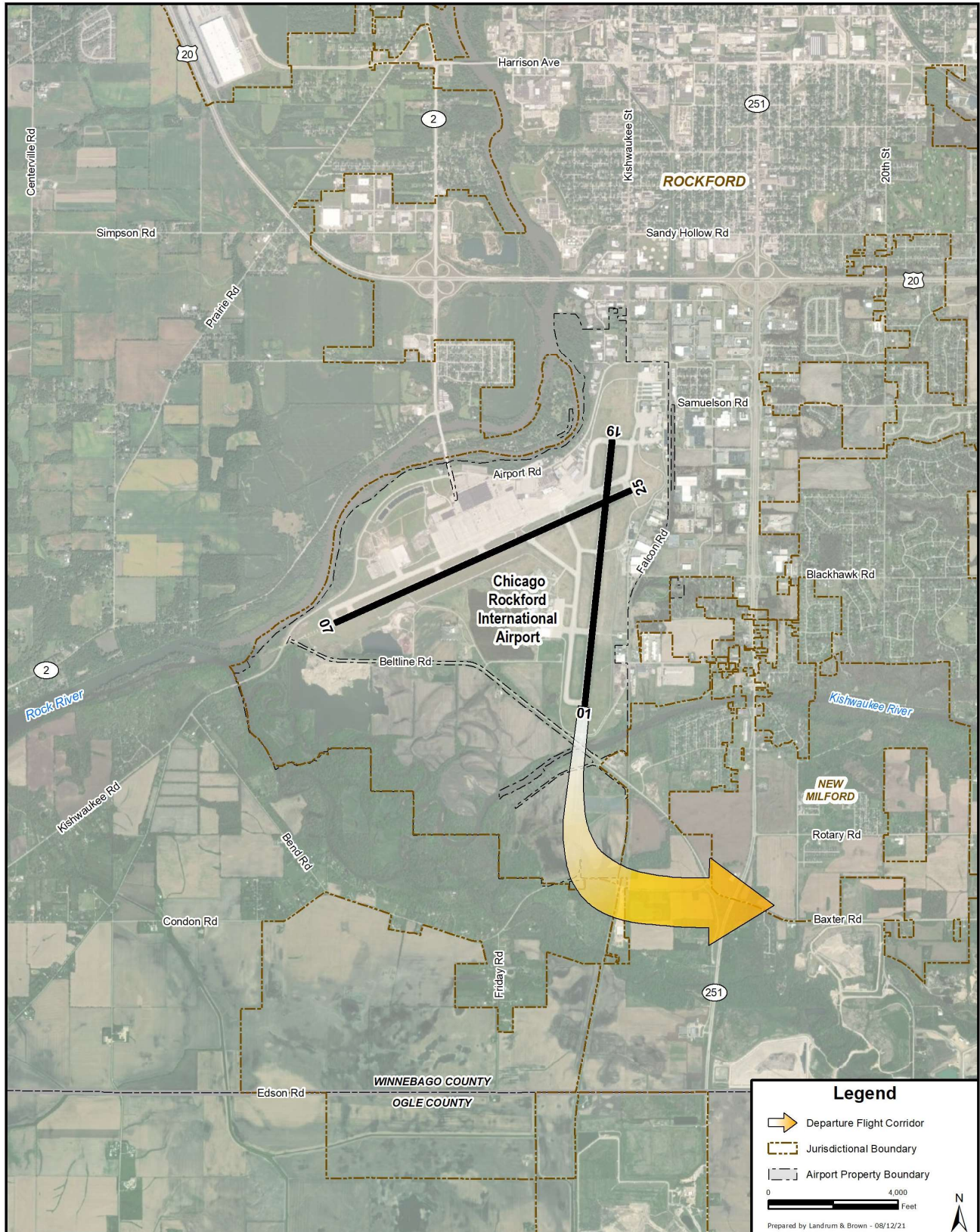
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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

## EXHIBIT 4-5 | RUNWAY 19 NIGHTTIME LEFT TURN DEPARTURE FLIGHT CORRIDORS



Source: Landrum & Brown analysis, 2023



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## NOISE COMPATIBILITY PROGRAM MEASURE: NA-10

**Description:** Recommends an informal runway use program to delineate the preferred runway use and order of runway selection to reduce aircraft noise impacts.

**Background and Intent:** Measure NA-10, as approved in the 1994 and 2003 NCP, recommended an informal runway use program to delineate the preferred runway use and order of runway selection to reduce aircraft noise impacts. The recommended runway use program is outlined below:

### All Departures

Runway 19 preferred for all departures.

Runway 19 preferred for all departures.

Runway 25 would be used for departures when use of Runway 19 could not be used due to wind, weather, or operational necessity.

Runway 1 would be used for departures when both Runway 19 and Runway 25 could not be used due to wind, weather, or operational necessity.

### Daytime Arrivals

The runway that would maximize traffic flow would be used for arrivals.

### Nighttime Arrivals

Runway 1 preferred for all arrivals.

Runway 25 would be used for arrivals when use of Runway 1 could not be used due to wind, weather, or operational necessity.

This measure would retain all other elements of the approved program; Runway 7 is being used as the second preferred arrival runway because it is equipped with ILS and arrivals on both Runway 1 and Runway 7, during peak arrival times, are the most operationally efficient. The ATCT would use this preferred runway use program when weather, safety, or operational conditions are favorable. The intent of this measure is to result in a large proportion of departures being made to the south or west of the airport taking advantage of the most compatible land uses.

**Relationship to 2003 NCP:** Measure NA-10 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP, as conditions allow.

**2023 NCP Action:** Measure NA-10 is to be continued.

**Land Use Compatibility Improvement:** Directs aircraft to overfly land uses south of the airport that are generally compatible with aircraft noise.

**Responsible Implementing Parties:** ATCT, Airlines, GRAA

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** The continuation of this measure is not expected to adversely affect any other programs or measures.



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: NA-11

**Description:** For all aircraft requiring more than 8,000 feet certified takeoff length, Runway 25 preferred.

**Background and Intent:** This previously approved measure recommends that all aircraft requiring more than 8,000 feet certified take-off length use Runway 25. Measure NA-11 was implemented after Runway 7/25 was extended by 3,500 feet to its current length of 10,000 feet. Occasionally heavily-loaded large aircraft may not be able to safely take off on an 8,000-foot runway (Runway 1/19 is 8,199 feet long). When these circumstances preclude the use of Runway 19, the preferred runway for takeoff, Runway 25 should be used. The intent of this measure was to establish Runway 25 as the preferred runway for all aircraft requiring more than 8,000 feet certified take-off length.

**Relationship to 2003 NCP:** Measure NA-11 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP, as conditions allow.

**2023 NCP Action:** Measure NA-11 is to be continued.

**Land Use Compatibility Improvement:** Routes departure traffic over the second most compatible land use corridor, which is northwest of the airport.

**Responsible Implementing Parties:** ATCT, Airlines, GRAA

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** The continuation of this measure is not expected to adversely affect any other programs or measures.



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: NA-12

**Description:** During daytime hours (7:00 a.m. to 10:00 p.m.) all aircraft over 12,500 pounds departing Runway 25 having departure courses that would require a right turn after departure, to turn right on course to navigational fix or heading as soon as practicable.

**Background and Intent:** This measure, as approved in the 2003 NCP, required the ATCT to issue instructions to pilots when departing Runway 25 in order to minimize overflight of residential land use (Woodcrest Estates) along the extended runway centerline (see Exhibit 4-3, Runway 25 Right Turn Departure Flight Corridors). The recommended modification to the previously approved Measure NA-12 would change the ATCT instructions for Runway 25 departures from the two fixes, Dubuque (DBQ) or Nodine (ODI) to turn right as soon as practicable. While the approved instruction is that nighttime aircraft weighing in excess of 12,500 pounds to turn right to the (DBQ) or Nodine (ODI) fixes. Because the pilot instructions to a specific fix may change over time due to airspace changes, it is recommended that this previously approved measure be modified. Modified Measure NA-12 is a companion to modified Measure NA-7, which provides for departure turns from Runway 25 for nighttime operations. To allow for performance and destination differences between the cargo carriers, which operate at RFD during the nighttime hours, and the general aviation traffic, which operates at RFD during the daytime hours, this measure should be retained for daytime use. The intent of Measure NA-12, as modified in this 2023 NCP, would continue to minimize overflight of Woodcrest Estates by large aircraft departing Runway 25. Therefore, this measure should be modified and continued as noted for daytime use.

**Relationship to 2003 NCP:** Measure NA-12 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP, as conditions allow.

**2023 NCP Action:** Measure NA-12 is to be continued with modification.

**Land Use Compatibility Improvement:** Direct aircraft to overfly the generally more compatible land uses northwest of the airport. Residential land uses on the extended centerline of Runway 25 would experience fewer aircraft overflights than if departures were conducted straight out.

**Responsible Implementing Parties:** ATCT, Airlines, GRAA

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** The continuation of this measure is not expected to adversely affect any other programs or measures.





# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: NA-13

**Description:** During nighttime hours (10:00 p.m. to 7:00 a.m.) all aircraft over 12,500 pounds departing Runway 25 having departure courses that would require a left turn after departure, to turn left on course to navigational fix or heading as soon as practicable.

**Background and Intent:** This measure, as approved in the 2003 NCP, recommends that all nighttime aircraft departures to the southwest and west from Runway 25 use this procedure to avoid overflying existing residential land uses along the extended centerline of Runway 25 (see Exhibit 4-4, Runway 25 Left Turn Departure Flight Corridors). The ATCT would direct traffic to turn on course toward navigational fixes as soon as practicable.

This previously approved measure is currently implemented on a voluntary basis. As modified, this measure recommends that all nighttime aircraft departures to the southwest and west from Runway 25 use this procedure to avoid overflying existing residential land uses along the extended centerline of Runway 25. The ATCT would direct traffic to turn on course toward navigational fix or heading as soon as practicable.

Modified Measure NA-13 is a companion to modified Measure NA-8, which provides for departure turns to the southwest from Runway 25 for daytime operations. To allow for performance and destination differences between the cargo carriers, which operate at RFD during nighttime hours, and the general aviation traffic, which operates at RFD during the daytime hours, this measure should be retained for daytime use.

The intent of Measure NA-13, as modified in this 2023 NCP, would continue to minimize overflight of Woodcrest Estates by large aircraft departing Runway 25. Therefore, this measure should be modified and continued as noted for nighttime use.

**Relationship to 2003 NCP:** Measure NA-8 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP, as conditions allow.

**2023 NCP Action:** Measure NA-8 is to be continued with modification.

**Land Use Compatibility Improvement:** Reduces aircraft noise impacts along the extended centerline of Runway 25 and reduces frequency of overflights over residential land uses to the west of the airport.

**Responsible Implementing Parties:** ATCT, Airlines, GRAA

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** The continuation of this measure is not expected to adversely affect any other programs or measures.



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: NA-14

**Description:** All aircraft conduct touch and go and low approach training activity on the south and west side of the airport, when traffic permitting.

**Background and Intent:** This previously approved measure required aircraft weighing more than 12,500 pounds conduct touch and go and low approach training activity on the south side of the airport when using Runways 7 or 25.

The 3,500-foot extension of Runway 7/25 in 1997, which extended this runway to 10,000 feet, provided the opportunity for more southwesterly traffic flows, thus resulting in more frequent pattern traffic north or south of the airport. This measure was intended to minimize the effects of aircraft training overflights to the more densely populated land uses to the north and east of the airport and thus reduce the potential for noise complaints to occur.

As modified Measure NA-14 will require all aircraft to conduct touch and go and low approach training activity to the south and west of the Airport, when traffic permitting. This measure as modified will also replace measure NA-1 and Measure NA-4, that required C-130 and smaller general aviation aircraft to perform training activities to the south and west of the airport, when traffic permitting.

**Relationship to 2003 NCP:** Measure NA-12 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP, as conditions allow.

**2023 NCP Action:** Measure NA-12 is to be continued with modification.

**Land Use Compatibility Improvement:** Reduces touch and go and low approach operations from flying over more heavily populated areas to the north and east of the airport.

**Responsible Implementing Parties:** ATCT, Airlines, GRAA, Pilots

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** The continuation of this measure is not expected to adversely affect any other programs or measures.



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: NA-15

**Description:** During nighttime hours (10:00 p.m. to 7:00 a.m.) all aircraft over 12,500 pounds departing Runway 1, maintain runway heading until reaching 3,000 feet MSL before turning on course to heading or navigational fix.

**Background and Intent:** This measure requires all nighttime departures of aircraft weighing more than 12,500 pounds to maintain runway heading until reaching 3,000 feet MSL before turning on course (see Exhibit 4-6, Runway 1 Departure Flight Corridor). This measure places the aircraft at a location and altitude where the turn on course would occur beyond the extent of the future 2028 NEM/NCP 65 DNL noise contour and it would therefore minimize aircraft overflight of residential land uses on Blackhawk Island.

This measure is intended to minimize overflight of residential land uses to the west of the airport on Blackhawk Island. Maintaining runway heading to 3,000 feet MSL would provide an operational benefit because 3,000 feet MSL is a standard noise abatement altitude used by ATCT controllers. Therefore, it simplifies controller instructions to the pilot during peak traffic periods.

**Relationship to 2003 NCP:** Measure NA-15 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP, as conditions allow.

**2023 NCP Action:** Measure NA-15 is to be continued.

**Land Use Compatibility Improvement:** Directs aircraft over generally compatible land use to the northwest of the airport.

**Responsible Implementing Parties:** ATCT, Airlines, GRAA

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** The continuation of this measure is not expected to adversely affect any other programs or measures.



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

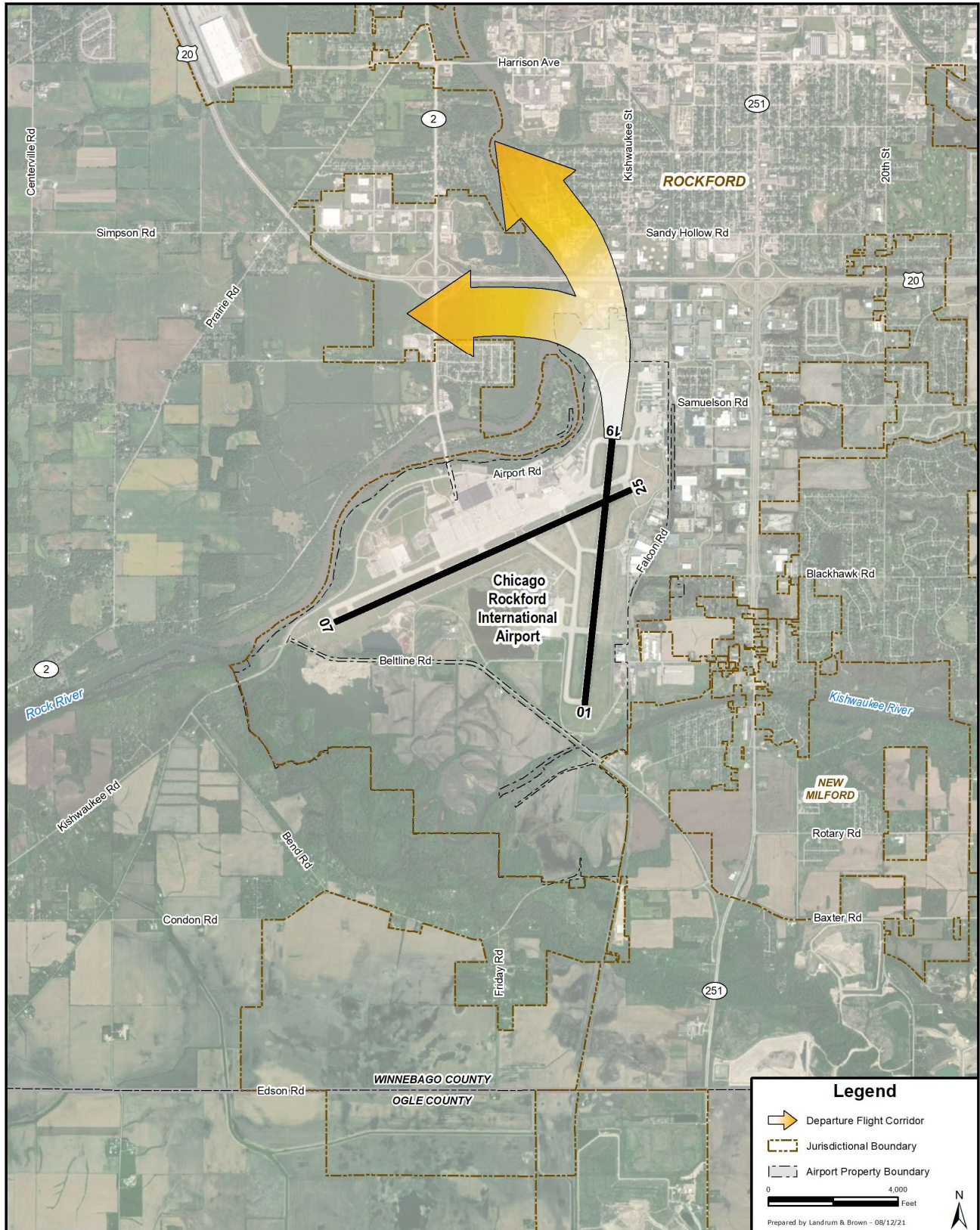
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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

EXHIBIT 4-6 | RUNWAY 1 NIGHTTIME DEPARTURE TURN FLIGHT CORRIDORS



Source: Landrum & Brown analysis, 2023





# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: NA-16

**Description:** Encourage the use of noise attenuating construction standards for all new on-airport structures/facilities and use those structures as noise barriers/buffers to adjacent off-airport land uses.

**Background and Intent:** This measure would encourage GRAA to consider noise reduction benefits derived from the design, location, and positioning of structures and facilities to use as barriers to residential land uses adjacent to the airport. The structure height, type of materials, shape, and placement on the airport could reduce ground noise for the communities nearest the airport.

**Relationship to 2003 NCP:** Measure NA-16 was approved as voluntary in the 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP, as conditions allow.

**2023 NCP Action:** Measure NA-16 is to be continued.

**Land Use Compatibility Improvement:** Noise attenuating construction standards can reduce noise levels by up to 5-10 dB depending on the design and location of the structure. This measure would enhance the good planning practices of the GRAA for future airport planning and the design of on-airfield development, which is sensitive to adjacent residential land uses.

**Responsible Implementing Parties:** GRAA, potential developers

**Implementation Steps, Costs, and Schedule:** Cost is entirely dependent upon the design of the structure and the effect that the modification for use as a passive noise barrier would have on the operational efficiency of its use. Costs for considering the measure in building design are inconsequential.

**Effects on Other Programs/Measures:** The continuation of this measure is not expected to adversely affect any other programs or measures.



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

## NOISE COMPATIBILITY PROGRAM MEASURE: LU-1

**Description:** Measure previously revoked: Rezoning of land south of US Route 20 Bypass and west of 20th Street from agricultural to medium-density multi-family by the city of Rockford and Winnebago County. Withdrawal of this measure was approved in the 1994 NCP.

**Background and Intent:** The original intent of Measure LU-1 was to preclude highly noise-sensitive single-family residential development in an area of future marginal noise impact by encouraging multi-family development. Measure LU-1 was disapproved for the purpose of FAR Part 150 in the 1994 NCP because it did not conform to the statutory and regulatory criteria of reducing or preventing non-compatible land uses within the area covered by the noise exposure map (NEM) (it was outside of the 65 DNL noise contour). This area is currently located outside the 60 DNL noise contour. The land is currently zoned R1, single-family residential.

**Relationship to 2003 NCP:** N/A

**Status:** N/A

**2023 NCP Action:** N/A

**Land Use Compatibility Improvement:** N/A

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## NOISE COMPATIBILITY PROGRAM MEASURE: LU-2

**Description:** Adopt noise overlay zoning prohibiting development of selected noise-sensitive land uses within the 60-65 DNL noise contour, high occupancy uses in the “double-clear zone” area, and residential uses in the 65+ DNL noise contour of the 2028 NCP NEM within the “double-clear zone” area of the City of Rockford and Winnebago County.

**Background and Intent:** Previously approved Measure LU-2 recommended the adoption of noise overlay zoning using the 2000 NCP noise contour; however, neither the city of Rockford nor Winnebago County have adopted noise overlay zoning. This measure would be modified to use the 2028 NCP NEM to implement this measure (see **Exhibit 4-7**).

GRAA should encourage the City of Rockford and Winnebago County to adopt noise overlay zoning because both jurisdictions would lie within the 2028 NCP NEM 60 DNL noise contour. It is recommended that three overlay districts be established. All three of these districts were approved in the 2003 NCP and are shown in **Exhibit 4-7**. The most restrictive zone should follow an area 5,000 feet long and 2,500 feet wide, centered on the runway and beginning 200 feet from the physical end of the runway.<sup>1</sup> This area is also known as the “double-clear zone” area and is not related to a noise contour. The outer boundaries of the other two overlay districts should be based on the 60 DNL and 65 DNL noise contours of the 2028 NCP NEM. To provide flexibility in the administration and enforcement of a noise overlay zone, the City of Rockford and Winnebago County should work with GRAA to define the overlay zones using legal boundaries, such as roadways.

Within the AC-1 zone, corresponding to the 2028 NCP NEM 60-65 DNL noise contour, the zoning ordinance would prohibit mobile homes, hospitals, nursing homes, amphitheatres, resorts, and group camps, as shown in the table.

Within the AC-2 zone, corresponding to the 2028 NCP NEM 65+ DNL noise contour, the ordinance would prohibit all non-transient residences that are also located in the “double-clear zone” area of Zone AC-3, as well as uses prohibited in the AC-1 zone. Sound insulation would be required for new residential units built within the 2028 NCP NEM 65 DNL noise contour, as described in **Table 4-3, Land Use Compatibility Standards for Greater Rockford Airport – Airport Noise Overlay Zones**.

Within the AC-3 zone, corresponding to the “double-clear zone” area, the AC-1 and AC-2 prohibitions would also apply. In addition, schools, and all forms of residential land use, both transient and non-transient, would be prohibited. The standards in the AC-3 zone are intended to avoid the development of uses that typically involve large numbers of occupants, in addition to avoiding noise-sensitive uses. Currently, there are no residences within the AC-3 zone.

The noise compatibility standards of the zoning ordinance would exceed the Part 150 guidelines in that hospitals, nursing homes, and other medical facilities inside the 2028 NCP NEM 60 DNL noise contour would be prohibited. The prohibition of mobile homes, amphitheatres, resorts, and group camps compares with the Part 150 guidelines for land use within the 65 DNL noise contour. Part 150 does not prohibit residences in the 65 DNL noise contour, but recommends other uses or, as a last resort, sound attenuation of residences.

It is also recommended that the noise overlay zoning provisions incorporate a discretionary review process (as discussed in Measure LU-5) whereby the GRAA staff would be notified of any land use development proposals within the overlay zone that require discretionary review or approval by the zoning boards of appeals, the planning commission, the county board, or the city council.

The intent of this measure is to establish special standards within a noise-impacted area to help mitigate the effects of aircraft noise. These standards supplement the underlying zoning classifications and would apply only to new development.

<sup>1</sup> FAA Memorandum, Action: Land Acquisition – eligible Runway Protection, Object Free Area, and Approach and Transitional Zones, dated April 30, 1991.



## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

**Relationship to 2003 NCP:** Measure LU-2 was approved in the 2003 NCP.

**Status:** Measure LU-2 was not implemented

**2023 NCP Action:** Measure LU-2 is to be continued with modification to include the 2028 NCP NEM.

**Land Use Compatibility Improvement:** Prevents new future incompatible development in the 60-65 DNL noise contour, 65+ DNL noise contour, and in the double-clear zone of each runway end.

**Responsible Implementing Parties:** City of Rockford and Winnebago County.

### **Implementation Steps, Costs, and Schedule:**

**Steps:** The GRAA should work with the city of Rockford Planning Division and Winnebago County Planning and Economic Development to request that the Rockford City Council and the Winnebago County Board adopt a noise overlay zoning ordinance as a measure to improve land use compatibility in the airport environs. When comprehensive plans are next updated for each jurisdiction those plans should include the updated 2028 NCP NEM 60+ DNL noise contour.

**Costs:** None to GRAA. Minimal administrative costs would accrue to the city and county.

**Schedule:** Implementation could begin immediately.

**Effects on Other Programs/Measures:** The continuation of this measure as modified is not expected to adversely affect any other mitigation programs or measures and it will enhance the compatibility of land uses surrounding the airport. This measure should be implemented in conjunction with Measures LU-4, LU-5, LU-13, and LU-14 because all of these measures pertain to local zoning ordinances and land use planning.



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

**TABLE 4-3 | LAND USE COMPATIBILITY STANDARDS FOR AIRPORT NOISE OVERLAY ZONES**

SLUCM NO.	Land Use Name	OVERLAY ZONING DISTRICTS		
		AC-1 60-65 DNL	AC-2 65+ DNL	AC-3 (approach areas)
<b>10</b>	<b>Residential</b>			
11	Household units	Y	Y <sup>1,2</sup>	N
11.11	Single units - detached	Y	Y <sup>1,2</sup>	N
11.12	Single units - semi-detached	Y	Y <sup>1,2</sup>	N
11.13	Single units - attached row	Y	Y <sup>1,2</sup>	N
11.21	Two units - side-by-side	Y	Y <sup>1,2</sup>	N
11.22	Two units - over-under	Y	Y <sup>1,2</sup>	N
11.31	Apartments - walk-up	Y	Y <sup>1,2</sup>	N
11.32	Apartments - elevator	Y	Y <sup>1,2</sup>	N
12	Group quarters	Y	Y <sup>1,2</sup>	N
13	Residential hotels	Y	Y <sup>1,2</sup>	N
14	Mobile home parks	N	Y <sup>1,3</sup>	N
15	Transient lodgings, hotels, motels	Y	Y <sup>1,4</sup>	N
16	Other residential	Y	Y <sup>1,2</sup>	N
<b>20</b>	<b>Manufacturing</b>			
21	Food and kindred products	Y	Y	Y
22	Textile mill products	Y	Y	Y
23	Apparel and other finished products made from fabrics, leather and similar materials	Y	Y	Y
24	Lumber and wood products (except furniture)	Y	Y	Y
25	Furniture and fixtures	Y	Y	Y
26	Paper and allied products	Y	Y	Y
27	Printing, publishing, and allied industries	Y	Y	Y
28	Chemicals and allied products	Y	Y	Y
29	Petroleum refining and related industries	Y	Y	Y
<b>30</b>	<b>Manufacturing (continued)</b>			
31	Rubber and miscellaneous plastic	Y	Y	Y
32	Stone, clay and glass products	Y	Y	Y
33	Primary metal industries	Y	Y	Y
34	Fabricated and metal products	Y	Y	Y
35	Fabricated, scientific, and controlling instruments; photographic and optical goods; watches, and clocks	Y	Y	Y
39	Miscellaneous manufacturing	Y	Y	Y
<b>40</b>	<b>Transportation, communication, and utilities</b>			
41	Rail transportation	Y	Y	Y
42	Motor vehicle transportation	Y	Y	Y
43	Aircraft transportation	Y	Y	Y
44	Marine craft transportation	Y	Y	Y
45	Highway and street right-of-way	Y	Y	Y
46	Automobile parking	Y	Y	Y
47	Communication	Y	Y	Y
48	Utilities	Y	Y	Y
49	Other transportation, communication and utilities	Y	Y	Y





# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

**TABLE 4-3 | LAND USE COMPATIBILITY STANDARDS FOR AIRPORT NOISE OVERLAY ZONES**  
(CONTINUED)

SLUCM NO.	Land Use Name	OVERLAY ZONING DISTRICTS		
		AC-1 60-65 DNL	AC-2 65+ DNL	AC-3 (approach areas)
<b>50</b>	<b>Trade</b>			
51	Wholesale trade	Y	Y	Y
52	Retail trade - building materials, hardware and farm equipment	Y	Y	Y
53	Retail trade - general merchandise	Y	Y	Y
54	Retail trade - food	Y	Y	Y
55	Retail trade - auto	Y	Y	Y
56	Retail trade - apparel and accessories	Y	Y	Y
57	Retail trade - furniture home furnishings	Y	Y	Y
58	Retail trade - eating and drinking	Y	Y	Y
59	Other retail trade	Y	Y	Y
<b>60</b>	<b>Services</b>			
61	Finance, insurance and real estate services	Y	Y	Y
62	Personal services	Y	Y	Y
62.4	Cemeteries	Y	Y	Y
63	Business services	Y	Y	Y
64	Repair services	Y	Y	Y
65	Professional services	Y	Y	Y
65.1	Hospitals, nursing homes	N	N	N
65.1	Other medical facilities	Y	N	N
66	Contract construction services	Y	Y	Y
67	Governmental services	Y	Y	Y
68	Educational services	Y	N	N
69	Miscellaneous services	Y	Y	Y
<b>70</b>	<b>Cultural, entertainment, and recreational</b>			
71	Cultural activities (including churches)	Y	N	N
71.2	Nature exhibits	Y	Y <sup>4</sup>	Y
72	Public assembly	Y	Y	N
72.1	Auditoriums, concert halls <sup>1</sup>	Y	N	N
72.11	Outdoor music shells, amphitheaters	N	N	N
72.2	Outdoor sports arenas, spectator sports	Y	Y	N
73	Amusements	Y	Y	N
74	Recreational activities (including golf courses, riding stables, water recreation)	Y	Y <sup>4</sup>	Y
75	Resorts and group camps	N	N	N
76	Parks	Y	Y	Y
79	Other cultural, entertainment and recreation	Y	Y <sup>4</sup>	Y

SLUCM Standard Land Use Coding Manual, U.S. Urban Renewal Administration and Bureau of Public Roads, 1965.

Y (Yes) Land use and related structures are permitted.

N (No) Land use and related structures are not comparable and shall be prohibited.

1 Not permitted if also in Zone AC-3.

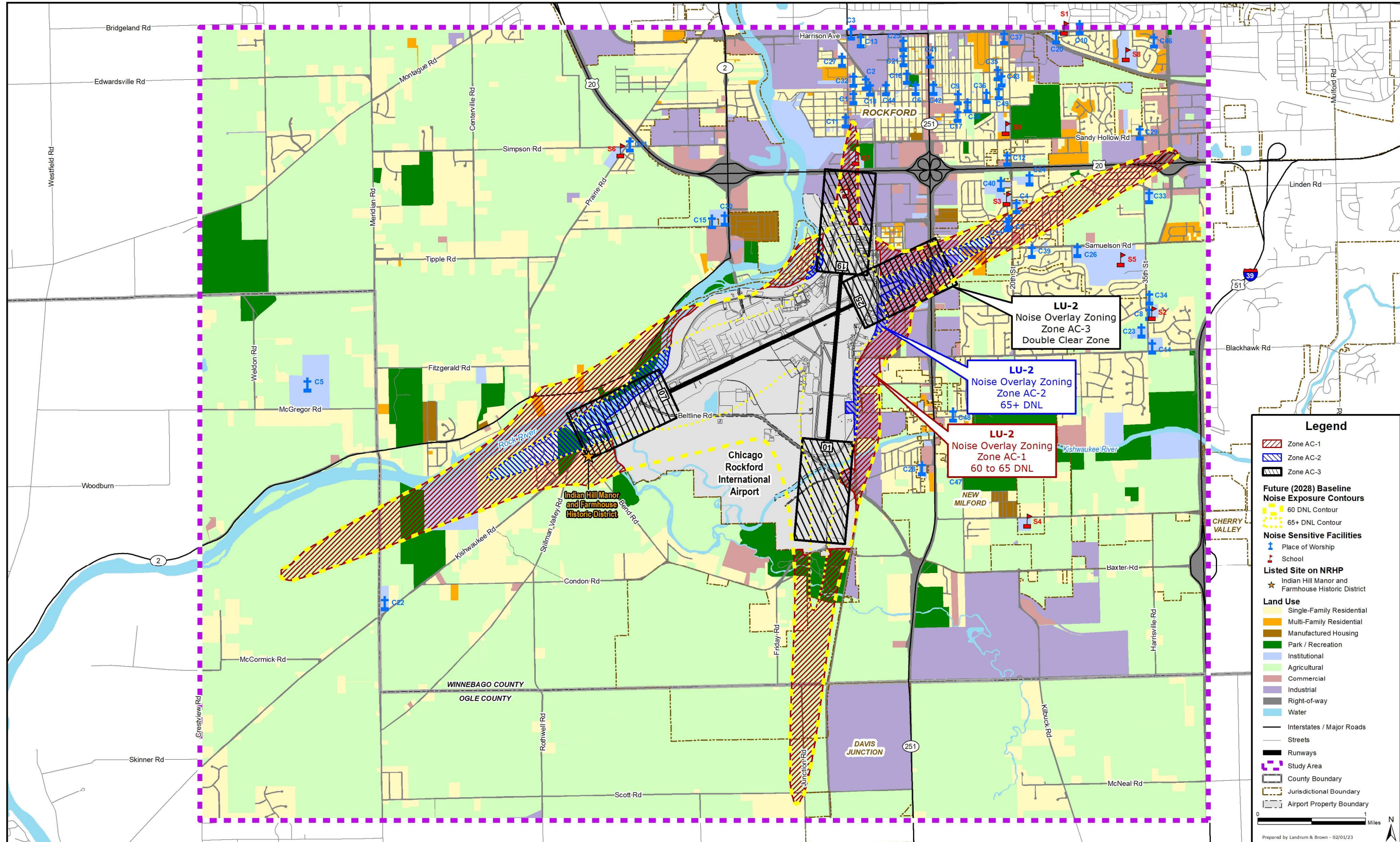
2 Sound attenuation measures to achieve a noise level reduction of 25 dB (outdoor to indoor) are required.

3 Measures to achieve NLR of 30 must be incorporated into the design and construction of mobile homes.

4 Measures to achieve NLR of 25 must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, sleeping areas, and other noise-sensitive areas.

Source: Adapted from Guidelines For Considering Noise In Land Use Planning and Control, Federal Interagency Committee on Urban Noise, June 1980.

EXHIBIT 4-7 | AIRPORT NOISE OVERLAY ZONES



**Legend**

- Zone AC-1
- Zone AC-2
- Zone AC-3
- Future (2028) Baseline Noise Exposure Contours**
  - 60 DNL Contour
  - 65+ DNL Contour
- Noise Sensitive Facilities**
  - Place of Worship
  - School
- Listed Site on NRHP**
  - Indian Hill Manor and Farmhouse Historic District
- Land Use**
  - Single-Family Residential
  - Multi-Family Residential
  - Manufactured Housing
  - Park / Recreation
  - Institutional
  - Agricultural
  - Commercial
  - Industrial
  - Right-of-way
  - Water
- Interstates / Major Roads
- Streets
- Runways
- Study Area
- County Boundary
- Jurisdictional Boundary
- Airport Property Boundary

0 1 Miles

Prepared by Landrum & Brown - 02/01/23

Source: Landrum & Brown analysis, 2023



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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

## NOISE COMPATIBILITY PROGRAM MEASURE: LU-3

**Description:** Measure previously revoked: Amend comprehensive plans to show planned industrial or commercial uses at interchanges of US 20 Bypass and South Main Street – city of Rockford and Winnebago County. Withdrawal of this measure was approved in the 1994 NCP.

**Background and Intent:** Measure LU-3 was disapproved by FAA in the 1990 NCP because the measure did not conform to the statutory and regulatory criteria of reducing or preventing non-compatible land uses within the area covered by the NEM (area was beyond the 65 DNL noise contour). Measure LU-3 was withdrawn in the 1994 NCP. The area referenced in this measure is located outside of the 2008 NEM/NCP 60 DNL noise contour.

**Relationship to 2003 NCP:** N/A

**Status:** N/A

**2023 NCP Action:** N/A

**Land Use Compatibility Improvement:** N/A

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: LU-4

**Description:** Amend local comprehensive plans by adopting the updated 2028 NCP NEM noise contours as their noise compatibility elements in the plans – City of Rockford and the Counties of Ogle and Winnebago.

**Background and Intent:** Previously approved Measure LU-4 recommends amending local comprehensive plans by adopting the updated 2023 NCP as the noise compatibility element in those documents. It is recommended that the City of Rockford, Winnebago County, and Ogle County implement this measure. The GRAA should encourage the City of Rockford, Winnebago County, and Ogle County to incorporate the 2028 NCP NEM 60 DNL and 65 DNL noise contours and the 2023 NCP into the next update of local comprehensive plans.

A comprehensive plan establishes goals, objectives, and policies for the future development of a community. Comprehensive plans reflect the values of the community and serve as a guide for decision-making. These plans usually include specific recommendations and policies that are used to guide future land use decisions and capital investment strategies in the community. Because a community's goals and priorities may change over time, comprehensive plans should be periodically reviewed and updated.

The activities that occur in one community may directly or indirectly impact neighboring jurisdictions. This is particularly true with airports, where the operations often impact areas beyond the boundaries of the host community. The intent of this measure is that a community's comprehensive plan should identify to what extent these activities may impact its jurisdiction and residents. Based on the findings, objectives and policies should be defined in the plan to assure compatibility with airport operations and implement strategies to avoid or mitigate aircraft noise impacts to residents.

**Relationship to 2003 NCP:** Measure LU-4 was initially approved in the 1990 NCP and subsequently approved for continuation in the 1994 NCP and the 2003 NCP.

**Status:** This measure is partially implemented. Ogle and Winnebago Counties and the City of Rockford have referenced the previous RFD NCPs in comprehensive planning documents historically.

**2023 NCP Action:** Measure LU-4 is to be continued with modification to use the 2028 NEM and 2023 NCP.

**Land Use Compatibility Improvement:** Provides awareness to local planners and the community of potential aircraft noise impacts and overflights. Provides information to planners and community leaders as decisions are being made about land use and future development. Provides the opportunity for GRAA to work with local planners to ensure compatible development.

**Responsible Implementing Parties:** City of Rockford, Winnebago County, Ogle County.



## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### **Implementation Steps, Costs, and Schedule:**

**Steps:** The GRAA should forward the adopted NCP and updated 2028 NCP NEM noise contours to the City of Rockford, Winnebago County, and Ogle County, requesting that the updated NCP and NEM be approved as the airport noise compatibility element of the City of Rockford, Winnebago County, and Ogle County comprehensive plans. The next comprehensive plan update for each of the jurisdictions should include the 2028 NCP NEM 60+ DNL noise contour and or reference to the RFD 2023 NCP.

**Costs:** None to GRAA. Minimal administrative costs would accrue to the City of Rockford, Winnebago County, and Ogle County.

**Schedule:** Because this is a continuation of an approved land use management measure, implementation could begin immediately.

**Effects on Other Programs/Measures:** The implementation of this measure is not expected to adversely affect any other mitigation programs or measures and it will enhance the compatibility of land uses surrounding the airport. The implementation of this measure would ensure the effectiveness of Measures LU-2, LU-5, LU-13, and LU-14 because all of these measures pertain to local zoning ordinances and land use planning.



## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: LU-5

**Description:** Adopt guidelines for discretionary review of development projects for the City of Rockford, Counties of Ogle and Winnebago, and the GRAA.

**Background and Intent:** Measure LU-5 recommends discretionary review of development projects for the City of Rockford, Winnebago County, and Ogle County. This would provide GRAA staff an opportunity to review and comment on applications for variance, conditional use, rezoning, and subdivision plan approval. This special notification requirement is not intended to apply to simple applications for building and zoning permits and occupancy certificates. Modifications to Measure LU-5 are recommended to include the 2028 NCP NEM 60+ DNL noise contours.

The noise overlay zones defined in Measure LU-2 could be used as a reference for the City of Rockford, Winnebago County, and Ogle County planners to decide whether or not a proposed development would be located in an area subject to aircraft noise or overflights. If the proposed development would be located in such an area, the planners should include GRAA in the review process. The intent of this measure is to prevent future development of incompatible land uses.

**Relationship to 2003 NCP:** Measure LU-5 was initially approved in the 1990 NCP and subsequently approved for continuation in the 1994 and 2003 NCP.

**Status:** Measure LU-5 was not implemented.

**2023 NCP Action:** Measure LU-5 is to be continued and modified to include 2028 NCP NEM and 2023 NCP.

**Land Use Compatibility Improvement:** May prevent future development of incompatible land use within the 2028 NCP NEM 60+ DNL noise contour.

**Responsible Implementing Parties:** City of Rockford, Winnebago County, Ogle County, GRAA.

#### Implementation Steps, Costs, and Schedule:

This measure was implemented and subsequently modified in the 2003 NCP to include the GRAA.

**Steps:** The GRAA should encourage the city of Rockford, Winnebago County, and Ogle County to coordinate with the GRAA on development projects that would occur within the updated 2028 NCP NEM 60+ DNL noise contour. When comprehensive plans are next updated for each jurisdiction those plans should include the 2028 NCP NEM 60 DNL and 65 DNL noise contours to aid in identifying those areas, which should be included in the discretionary review process.

**Costs:** Minimal administrative costs would accrue to the GRAA. Minimal administrative costs would accrue to the City of Rockford, Winnebago County, and Ogle County.

**Schedule:** The GRAA should officially request that the city and counties establish this policy after it has approved the NCP.

**Effects on Other Programs/Measures:** The continuation of this measure as modified is not expected to adversely affect any other mitigation programs or measures and it will enhance the compatibility of land uses surrounding the airport. This measure should be implemented in conjunction with Measures LU-2, LU-4, LU-13, and LU-14 because all of these measures pertain to local zoning ordinances and land use planning.





# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

## Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: LU-6

**Description:** Measure previously revoked: Acquire homes off the approach end of Runway 19 – city of Rockford and the GRAA. Withdrawal of this measure was approved in the 1994 NCP.

**Background and Intent:** Measure LU-6 was initially approved in the 1990 NCP and subsequently withdrawn in the 1994 NCP because the measure was completed before the 1994 NCP was approved by the FAA. This measure consisted of the purchase of 12 single-family residences north of the airport and south of Research Parkway, located in the 65 DNL noise contour.

The intent of this measure was to remove incompatible land uses from the 65 DNL noise contour.

**Relationship to 2003 NCP:** N/A

**Status:** N/A

**2023 NCP Action:** N/A

**Land Use Compatibility Improvement:** N/A

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

## Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: LU-7

**Description:** Measure previously revoked: Encourage Forest Preserve District to consider acquisition of land adjacent to the existing Forest Preserves south of the airport. Withdrawal of this measure was approved in the 1994 NCP.

**Background and Intent:** Measure LU-7 was approved by the FAA as a local prerogative. It recommended that the GRAA encourage the Forest Preserve District to consider the expansion of the three existing forest preserves on the south side of the airport. Since the formulation of this recommended measure, the GRAA embarked on a major airport expansion program. As part of that effort, GRAA was in the process of acquiring large tracts of property south and southwest of the airport, between the present facility and the Kishwaukee River during the 1994 NCP. In view of the possibilities for simultaneously preserving land of high natural value and providing a noise buffer, this measure was recommended to be revoked and substituted by Measure LU-10 in the 1994 NCP.

**Relationship to 2003 NCP:** N/A

**Status:** N/A

**2023 NCP Action:** N/A

**Land Use Compatibility Improvement:** N/A

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

## Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: LU-8

**Description:** Voluntary acquisition of single-family residences on Blackhawk Island in the 2008 NEM/NCP 65 DNL noise contour.

**Background and Intent:** This previously approved measure recommended that the GRAA “acquire homes and land on Blackhawk Island, relocate residents, redevelop as a park.” Five single-family residences and 16 vacant parcels in the 2000 (future) NCP were acquired after the FAA issued a ROA on the 1994 Part 150 Study. Measure LU-8 would be modified to remove the language concerning the acquisition of vacant land zoned for residential use in the 65 DNL noise contour and redevelopment of the property as a park. Measure LU-8, in the 2003 NCP, recommends only the voluntary acquisition of existing single-family residences on Blackhawk Island in the 2008 NEM 65 DNL noise contour. The homeowners of these residences would be relocated pursuant to 49 CFR Part 24, Uniform Relocation Assistance and Real Property Acquisition Regulations For Federal and Federally Assisted Programs, and FAA Order 5100.37A, Land Acquisition and Relocation Assistance for Airport Projects.

Fifteen single-family residences were located in the 2008 NEM 65 DNL noise contour. Therefore, as modified, Measure LU-8 will continue the voluntary acquisition program for single-family residences in the 65 DNL noise contour. The homeowners would be relocated to a residence not significantly impacted by aircraft noise if they chose to participate in the program. The GRAA would request that Winnebago County change the zoning on all acquired property from residential to a zoning district that is compatible with airport operations.

**Relationship to 2003 NCP:** Measure LU 8 was initially approved in the 1990 NCP and was subsequently approved for revision in the 1994 and 2003 NCP.

**Status:** Measure LU-8 was implemented.

**2023 NCP Action:** Measure LU-8 was implemented. No further FAA action is required.

**Land Use Compatibility Improvement:** Participation in a voluntary acquisition program removed approximately 15 single-family residences and its residents from Blackhawk Island that were impacted by the 2008 NEM 65 DNL noise contour. The zoning on the property has been changed from residential to a zoning district compatible with airport operations.

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## NOISE COMPATIBILITY PROGRAM MEASURE: LU-9

**Description:** Redevelop airport-owned land parcels located along Kishwaukee Street south of Research Parkway

**Background and Intent:** This previously approved measure recommended that the GRAA redevelop airport-owned properties along Kishwaukee Street south of Research Parkway (see Exhibit 4-8). The intent of this measure is to redevelop existing vacant, airport-owned land into revenue-generating uses that are compatible with aircraft operations. This measure has not been implemented, but it is still a viable option for compatible land use.

**Relationship to 2003 NCP:** Measure LU-9 was initially approved in the 1994 NCP and subsequently continued in the 2003 NCP.

**Status:** Measure LU-9 was not implemented.

**2023 NCP Action:** Measure LU-9 is to be continued.

**Land Use Compatibility Improvement:** Allows parcels to be consolidated, resold, and developed with uses compatible with aircraft operations. Ensures land use compatibility near an airport, while at the same time, promoting economic development.

**Responsible Implementing Parties:** GRAA

### Implementation Steps, Costs, and Schedule:

**Steps:** The GRAA should seek a tenant and a developer for this site. GRAA should take steps to ensure that the proposed use of the property is compatible with aircraft noise.

**Costs:** The implementation of Measure LU-9 would result in a net gain to the FAA and GRAA, due to the redevelopment of the property. Currently, GRAA is not obtaining revenue from this property. If the property were redeveloped and offered building space, GRAA could lease out the property and generate revenue, resulting in a net gain.

**Schedule:** Because this measure is a continuation of an already approved land use management measure, implementation could begin immediately.

**Effects on Other Programs/Measures:** The implementation of this measure is not expected to adversely affect any other mitigation programs or measures and it will enhance the compatibility of land uses surrounding the airport.





# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

## Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: LU-10

**Description:** Measure previously revoked: Revoke consideration of transfer of GRAA land of high natural value along the Kishwaukee River to the Forest Preserve or park district to be maintained as a natural area and airport noise buffer.

**Background and Intent:** Measure LU-10 from the 1994 NCP recommended that GRAA consider the transfer of the management of GRAA land of high natural value along the Kishwaukee River to the Forest Preserve or park district to be maintained as a natural area and airport noise buffer.

At the time the 1994 NCP was developed and approved, the Winnebago County Forest Preserve District had expressed strong interest in assuming responsibility for this land to preserve wildlife habitat. In addition, because portions of this land area are forested, wetland, and/or riparian, and are within the Floodway for the Kishwaukee River, the land cannot be used for aviation, commercial, or industrial use. However, no further discussions had occurred for several years, nor have any been initiated by the Forest Preserve or park district, regarding a potential land transfer.

The mitigation of potential impacts resulting from airport development projects nationwide has become more stringent since the FAA issued the ROA on the 1994 NCP. If the management of this land were transferred to a park district, it could be subject to future environmental analysis and potential Section 303(c)<sup>2</sup> impacts, should future airport development projects be proposed. Also, if the GRAA retains ownership of this land, it could be used to mitigate future potential wetland and floodplain impacts that could result from airport development projects. Thus, given the current environmental regulatory climate, it is in the best interest of the GRAA to retain management and ownership of this land. In addition, by withdrawing this measure from the 2003 NCP and not transferring the management of this land, the Winnebago County Forest Preserve District would not incur additional operating costs.

The intent of this measure was to transfer ownership of land that could not be used for aviation, commercial, or industrial use to the Forest Preserve District.

**Relationship to 2003 NCP:** This measure was withdrawn from the 2003 NCP.

**Status:** N/A

**2023 NCP Action:** N/A

**Land Use Compatibility Improvement:** N/A

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A

<sup>2</sup> Federal statute Title 49 USC 303(c) was previously known as Section 4(f) of the Department of Transportation Act of 1966. The Department of Transportation Act of 1966 was one of the earliest and most significant pieces of transportation legislation relative to environmental protection. Under this Act, it is stated that: "The Secretary shall not approve any program or project which requires the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance as determined by the Federal, state, or local officials having jurisdiction thereof, or any land from an historic structure of national, state, or local significance as so determined by such officials unless: there is no feasible and prudent alternative to the use of such land; and, the project includes all possible planning to minimize harm to the land resulting from such use."



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: LU-11

**Description:** Acquire development and overflight rights via purchase of land use and avigation easement over undeveloped parcel in Runway 7L approach area on south side of Kishwaukee River.

**Background and Intent:** Measure LU-11 applied to a 20-acre parcel of land located between Woodcrest Estates and the Kishwaukee River, and between Kishwaukee Road and the Rock River. Its use was open land, with a small cabin for private recreational use.

This area was primarily located within the 60 DNL noise contour of the proposed 2000 NCP and was zoned to permit low-density residential development, which would be marginally compatible with the future noise exposure levels. The proposed Noise Overlay Zone in Measure LU-2 of the 1994 NCP would not have prohibited residential development in the 65 DNL noise contour. If the contour were to increase in size, a land use control problem would still exist because overlay zoning, which prohibits residential development, must be accompanied by an underlying zone that does not have residences as its principal use. Because this property was not suitable for agricultural, commercial, or industrial uses, it was not likely that the Noise Overlay Zone could protect the airport from future incompatible development of this property.

Outright acquisition of the property by the GRAA would not be required, because the property has no aviation value. Additionally, the present owner did not desire to sell the property. Therefore, an interest in the land, which protected the GRAA from a charge of inverse condemnation and ensured that the land was used for noise-compatible purposes, appeared to fulfill the needs of the GRAA and the current owner if the 65 DNL noise contour were to lengthen to the southwest.

Purchase of a land use and avigation easement over the property by the GRAA would permit the owner and heirs to use the property as it has been used for many years while simultaneously guaranteeing to the GRAA that the property will not be developed for incompatible land use. The property owner did sell a land use and avigation easement to the GRAA.

**Relationship to 2003 NCP:** N/A

**Status:** Measure LU-11 implemented

**2023 NCP Action:** Measure LU-11 was implemented. No further FAA action is required.

**Land Use Compatibility Improvement:** N/A

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A



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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: LU-12

**Description:** Offer options of voluntary sale to GRAA or sound insulation to owner of one (single-family) residence south of the airport in the 65 DNL contour of the 1993 NCP.

**Background and Intent:** One single-family residence, located south of Baxter Road, beneath the centerline of Runway 19 departures was temporarily exposed to noise levels above 65 DNL noise contour in the 1994 NCP. This condition was to only occur in the period after the establishment of the UPS hub, but was to end after the extension of Runway 7/25. The homeowner chose to participate in voluntary acquisition.

**Relationship to 2003 NCP:** N/A

**Status:** N/A

**2023 NCP Action:** Measure LU-12 was implemented. No further FAA action is required.

**Land Use Compatibility Improvement:** N/A

**Responsible Implementing Parties:** N/A

**Implementation Steps, Costs, and Schedule:** N/A

**Effects on Other Programs/Measures:** N/A



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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: LU-13

**Description:** Encourage the City of Rockford and Winnebago County to require plat notes on new subdivision plats and to record the notes on deeds for new subdivisions within the Airport Noise Overlay Zones AC-1 and AC-2.

**Background and Intent:** Measure LU-13 would encourage the city of Rockford and Winnebago County to require plat notes on new subdivision plats and to record the notes on deeds for new subdivisions within Airport Overlay Districts AC-1 and AC-2, which would be based on the 2028 NCP NEM 60-65 and 65+ DNL noise contours as described in Measure LU-2. The intent of this measure is to disclose to a prospective buyer that a plat is located in an area where aviation activity occurs.

Subdivision regulations apply where a parcel is proposed to be subdivided into two or more building lots or tracts. Regulations are established to ensure the orderly and efficient layout and use of land, proper alignment and design of streets, the location and adequacy of public utilities, the availability of open space, and the protection of environmentally-sensitive areas. Subdivision regulations can be used to enhance noise-compatible land development by requiring developers to plat and develop land to minimize noise impacts or reduce the noise sensitivity of new construction.

Establishing certain requirements to include airport compatibility (i.e., the disclosure of aircraft noise exposure and noise levels) as part of the subdivision plat approval process is a strategy that can be implemented by communities. The inclusion of plat notes on subdivided parcels is an administrative responsibility of each jurisdiction that can be achieved with little or no additional cost to the community. Its success as a method of disclosure may be limited because many homebuyers may not review the approved plat map prior to purchasing the property. A more effective mechanism would be to require that the plat note also be recorded on the individual plot plans and recorded on the property deed of all newly subdivided parcels. An example of the language to include as a plat note and in the deed is as follows:

*“This parcel is located in an area where aviation activity occurs. Such activity may include, but is not limited to, aircraft overflights at all times of the day and night, noise, vibration and other associated activities. A study describing this impact in detail is available for inspection at the city of Rockford Planning Division and Winnebago County Planning and Economic Development offices or at the offices of the Greater Rockford Airport Authority.”*

**Relationship to 2003 NCP:** This measure was originally approved in the 2003 NCP.

**Status:** This measure has not been implemented.

**2023 NCP Action:** Measure LU-13 is to be continued with modification to include the 2028 NCP NEM 60+ DNL noise contours.

**Land Use Compatibility Improvement:** This measure would not improve land use compatibility per se, but it would promote disclosure to prospective homebuyers of the airport noise situation in the area.

**Responsible Implementing Parties:** City of Rockford and Winnebago County.





## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### Implementation Steps, Costs, and Schedule:

With the publication and FAA Record of Approval of the 2023 NCP Update, this information will be conveyed to Winnebago County, the City of Rockford, the Village of New Milford, and the Village of Davis Junction for implementation at their discretion.

**Steps:** The GRAA should request that the city of Rockford and Winnebago County amend the subdivision regulations after the 2023 NCP is approved. The city and county could adopt the amendments through local ordinances after review by local officials.

**Costs:** This measure would be funded by the operating budgets of the city of Rockford and Winnebago County. It would involve minimal administrative expenses to the city and county.

**Schedule:** The GRAA should request that the city of Rockford and Winnebago County amend the subdivision regulations after the 2023 NCP approval to include the areas within the 2028 NCP NEM 60+ DNL noise contour. Several months are expected to be necessary for review and refinement of the amendment by the city and the county.

**Effects on Other Programs/Measures:** The implementation of this measure is not expected to adversely affect any other mitigation programs or measures.



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

## NOISE COMPATIBILITY PROGRAM MEASURE: LU-14

**Description:** Encourage Winnebago County, the City of Rockford, the Village of New Milford, and the Village of Davis Junction not to allow an increase in the residential density in the Agricultural Priority (AG) or Rural Residential (RA-RR) zoning districts (Winnebago County) in the 2028 NCP NEM 60+ DNL noise contour.

**Background and Intent:** The Winnebago County AG zoning district allows 0.3 dwelling units per acre, while the RA-RR zoning district allows 1.7 dwelling units per acre. Both of these zoning districts are within the 2028 NCP NEM 60+ DNL noise contour.

In order to minimize the potential number of people exposed to aircraft noise in the future, GRAA should encourage Winnebago County, and the planning departments of city of Rockford, Village of New Milford and the Village of Davis Junction, which are within one and one-half miles of these two county zoning districts, not to permit zoning changes that would allow a higher density of residential development on parcels within the 2028 NCP NEM 60+ DNL noise contour. This measure should be implemented along with Measure LU-2 to ensure that if new residential development does occur within the 2028 NEM 65+ DNL noise contour it is compatible with aircraft noise.

The intent of this measure is to discourage the encroachment of incompatible land uses toward areas experiencing aircraft noise.

**Relationship to 2003 NCP:** This measure was originally approved in the 2003 NCP.

**Status:** This measure has been implemented.

**2023 NCP Action:** Measure LU-14 is to be continued with modification to include the 2028 NCP NEM 60+ DNL noise contours.

**Land Use Compatibility Improvement:** Minimizes the future number of residences that could be built within the 2028 NCP NEM 60+ DNL noise contour.

**Responsible Implementing Parties:** City of Rockford, Winnebago County, Village of New Milford, Village of Davis Junction, GRAA.



## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### **Implementation Steps, Costs, and Schedule:**

With the publication and FAA Record of Approval of the 2003 NCP Update on November 3, 2003, this information was conveyed to Winnebago County, the City of Rockford, the Village of New Milford, and the Village of Davis Junction for implementation at their discretion. To date the residential density has not been increased in the AG or the RA-RR zoning districts.

Steps: The GRAA should formally encourage Winnebago County, the city of Rockford, the Village of New Milford, and the Village of Davis Junction not to increase the residential density in the AG or RA-RR zoning districts, particularly within the 2028 NCP NEM 60+ DNL noise contour. This formal request could be in the form of a letter from GRAA to Winnebago County Planning and Economic Development, City of Rockford Department of Community Development, Village of New Milford, and Village of Davis Junction.

Costs: None

Schedule: This measure could be implemented immediately.

**Effects on Other Programs/Measures:** The continuation of this measure as modified is not expected to adversely affect any other mitigation programs or measures and it will enhance the compatibility of land uses surrounding the airport. This measure should be implemented in conjunction with Measures LU-2, LU-4, LU-5, and LU-13 because all of these measures pertain to local zoning ordinances and land use planning.



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

## Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: LU-15

**Description:** Offer Residential Sound-Insulation Program for single- and multi-family homes within the 2028 NCP NEM 65+ DNL noise contours and in the defined block rounding areas outside of the 2028 NCP NEM 65 DNL noise contour.

**Background and Intent:** Due to increased cargo operations, especially at night, the noise exposure contours developed for this Part 150 Study update are larger than the noise exposure contours developed for the previous Part 150 Study Update.

This measure includes sound-insulation for eligible single- and multi-family residences within the Noise Mitigation Program Area (NMPA) #1 and #2. The NMPA #1 and #2 were established as part of the 2023 NCP.

The NMPA #1 will include 61 single- and multi-family units located within the 2028 NEM 65+ DNL. NMPA #2 will include 87 single- and multi-family properties located within the block rounding area, as defined, outside of the 65 DNL. The NMPAs were designed based on the 2028 NCP NEM noise contour and local geographical features such as property boundaries, jurisdictional boundaries and roadways (see **Section 4.2.2** and **Exhibit 4-9**, **Exhibit 4-10** and **Exhibit 4-11**).

**Relationship to 2003 NCP:** Measure LU-15 is a new measure.

**Status:** This is a new measure.

**2023 NCP Action:** Measure LU-15 is a new measure.

**Land Use Compatibility Improvement:** This measure converts incompatible single- and multi-family housing units into compatible uses.

**Responsible Implementing Parties:** GRAA

#### Implementation Steps, Costs, and Schedule:

FAA Requested Action: FAA funding will be requested to implement this program.

Steps: This measure should be implemented for eligible housing units within the recommended NMPA #1 and #2 (see **Section 4.2.2** and **Exhibit 4-9**, **Exhibit 4-10** and **Exhibit 4-11**).

Costs: Estimated construction cost to sound insulate units is approximately \$50,000 per unit with an additional 25% (\$12,500 per unit) for administrative costs. These costs will vary significantly depending on construction, age, and condition of individual residences. Total cost (assuming 100% participation) is approximately \$9,250,000 if all 148 properties participate, but will vary depending on the number of participating properties. It is likely some property owners will decline participation, some will not meet interior eligibility criteria, and others will not be eligible due to the age of the property. Specific review of each unit has not been undertaken.

Schedule: This measure could be implemented following receipt of the FAA Record of Approval and based on the availability of funding.

**Effects on Other Programs/Measures:** This measure is not expected to impact other measures or existing programs. However, homeowners located within the NMPA #1 and #2 may have an option to select an avigation easement as an alternate mitigation option. In addition, properties undergoing sound-insulation would have an avigation easement placed on the property and attached to the deed.



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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

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### NOISE COMPATIBILITY PROGRAM MEASURE: LU-16

**Description:** Offer Avigation Easements to owner-occupied single-family homes within NMPA #1 if sound-insulation is declined.

**Background and Intent:** This measure will offer a cash payment in exchange for the avigation easement in the event owners decline sound-insulation. The avigation easement would be placed on the property and would be attached to the deed for all future owners. It ultimately deems the property compatible land use.

**Relationship to 2003 NCP:** Measure LU-16 is a new measure.

**Status:** N/A. This is a new measure.

**2023 NCP Action:** Measure LU-16 is a new measure.

**Land Use Compatibility Improvement:** This measure converts incompatible single- and multi-family housing units into compatible uses.

**Responsible Implementing Parties:** GRAA.

#### Implementation Steps, Costs, and Schedule:

**FAA Requested Action:** FAA funding will be requested to implement this program.

**Steps:** This measure should continue for eligible housing units within the 2028 NCP NEM 65+ DNL (see **Section 4.2.1** and **Exhibit 4-9**).

**Costs:** Total costs would be dependent on the number of units that choose to participate and the Fair Market Value (FMV) for each unit, among other expenses.

The cost of the avigation easement is set based on a percentage of the FMV for each unit. The easement almost always does not exceed \$3,000 per unit.

For the single- and multi-family homes the avigation easement cost is estimated at \$183,000. However, that cost is based on all 61 residential units participating as they would have to decline sound-insulation.

**Schedule:** This measure could be implemented following receipt of the FAA Record of Approval and based on the availability of funding.

**Effects on Other Programs/Measures:** This measure is not expected to impact other programs or measures. However, the owners of the single- or multi-family residential units would have to decline sound-insulation. They would be offered an avigation easement that would be placed on the property and attached to the deed.



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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

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## NOISE COMPATIBILITY PROGRAM MEASURE: LU-17

**Description:** Adopt Improved Building Codes.

**Background and Intent:** This measure would update the existing building codes to ensure that any new or remodeled residential construction would meet or exceed FAA criteria for sound-insulation.

**Relationship to 2003 NCP:** Measure LU-17 is a new measure.

**Status:** N/A. This is a new measure.

**2023 NCP Action:** Measure LU-17 is a new measure.

**Land Use Compatibility Improvement:** This measure has the potential to prevent the construction of incompatible structures and to reduce interior noise levels for new development or the remodeling of residential property. It would ensure that materials for doors, windows, and insulation are installed to a certain standard to upgrade noise reduction capabilities in order to meet or exceed FAA’s interior sound level reduction standards. By meeting the FAA interior noise reduction standards the property would be considered compatible.

**Responsible Implementing Parties:** GRAA.

**Implementation Steps, Costs, and Schedule:**

FAA Requested Action: FAA funding will be requested to implement this program.

Steps:

- Secure FAA funding.
- Contract with local agency to assist with the development of new building codes and to coordinate with the local jurisdictions.
- Request that all local jurisdictions incorporate the new building codes into their current land use planning documents.

Costs: The total cost of implementation would include contracting with a local agency to assist with the development of the new building codes and the coordination with local jurisdictions. While the local jurisdictions will have some minor administrative costs, most of the cost would be for the development of the new building codes. Total cost is estimated at approximately \$50,000.

Schedule: This measure could be implemented following receipt of the FAA Record of Approval and based on the availability of funding.

**Effects on Other Programs/Measures:** This measure is not expected to impact other programs or measures.





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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

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## NOISE COMPATIBILITY PROGRAM MEASURE: LU-18

**Description:** Develop a Voluntary Fair Disclosure Program

**Background and Intent:** Will disclose through regulations on the seller or their representatives at the time of sale that an existing property could be subjected to aircraft noise. Potential buyers will be made aware before they purchase the property that it is in an area that has the probability of receiving noise from aircraft.

**Relationship to 2003 NCP:** Measure LU-18 is a new measure.

**Status:** N/A. This is a new measure.

**2023 NCP Action:** Measure LU-18 is a new measure.

**Land Use Compatibility Improvement:** This measure has the potential to alert news purchasers of residential property that they are moving into an area that could be subjected to noise from aircraft.

**Responsible Implementing Parties:** GRAA, Local realtors, City of Rockford, and Winnebago County.

**Implementation Steps, Costs, and Schedule:**

FAA Requested Action: FAA approval of new measure.

Steps:

- Have the local realtors work together to develop language for the disclosure program and to coordinate with the local jurisdictions.
- Request that all local jurisdictions incorporate the new disclosure program into their current land use planning documents.

Costs: Minimal cost for the local agencies developing the program language and coordinating with jurisdictions. Total cost is estimated at approximately \$50,000.

Schedule: This measure could be implemented following receipt of the FAA Record of Approval and based on the availability of funding.

**Effects on Other Programs/Measures:** This measure is not expected to impact other programs or measures.



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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

## Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: PM-1 (formerly OM-1)

**Description:** Noise Compatibility Plan (NCP) Implementation Compliance.

**Background and Intent:** This previously approved measure provides for monitoring compliance with the recommended Noise Compatibility Plan (NCP). The GRAA staff should periodically check with the ATCT regarding operational compliance with the noise abatement part of the NCP, as well as with business users, and air carriers.

The intent of this measure is to foster the implementation of land use planning measures that are to be implemented by local planning agencies as part of the land use part of the NCP. Therefore, GRAA staff should formally request that local planning officials implement each specific land use planning measures recommended in the updated NCP. Follow-up and technical assistance should be provided to the extent required. Typically, it is the lack of direct involvement by airport sponsors that accounts for Part 150 land use planning recommendations not being implemented. This measure would disclose any future incompatible land uses that may occur as the result of changes in airport facilities or operations.

**Relationship to 2003 NCP:** Measure PM-1 was approved for continuation in 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP.

**2023 NCP Action:** Measure PM-1 is to be continued.

**Responsible Implementing Parties:** GRAA

#### **Implementation Steps, Costs, and Schedule:**

FAA Requested Action: FAA approval of continued measure.

Steps: The GRAA would adopt the 2023 NCP and the FAA would issue an Record of Acceptance. GRAA staff would then formally request that local planning officials implement each specific land use management measure recommended in the updated NCP. Periodically, GRAA staff will check with the ATCT to ensure operational compliance with the updated NCP.

Costs: Minimal administrative costs.

Schedule: Because this is a continuation of an approved measure, implementation could continue.

**Effects on Other Programs/Measures:** This measure is not expected to impact other programs or measures.



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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

## NOISE COMPATIBILITY PROGRAM MEASURE: PM-2 (formerly OM-2)

**Description:** Continue Noise Complaint Response System.

**Background and Intent:** The airport staff should continue to receive noise complaints on an as-required basis. Due to the low level of noise complaints, a formal system is not required. However, a more formal system of complaint logging should be used by the airport staff. Data can be categorized, and the information used as a basis for future noise abatement committee meetings.

**Relationship to 2003 NCP:** Measure PM-2 was approved for continuation in 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP.

**2023 NCP Action:** Measure PM-2 is to be continued.

**Responsible Implementing Parties:** GRAA

### Implementation Steps, Costs, and Schedule:

FAA Requested Action: FAA approval of continued measure.

Steps: The airport staff can develop a simple form to be used to record the information received by the community.

Costs: Minimal administrative costs for the airport.

Schedule: Because this is a continuation of an approved measure, implementation could continue.

**Effects on Other Programs/Measures:** This measure is not expected to impact other programs or measures.



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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: PM-3 (formerly OM-3)

**Description:** Perform Regular Updates to the Noise Exposure Maps (NEMs) and Review of Noise Compatibility Program (NCP).

**Background and Intent:** The NEMs should be updated every five years or when there are significant changes in operating levels and patterns in accordance with the FAA's guidelines for determining what constitutes a potentially significant increase in operations (1.5 decibel (dB) DNL increase in the area impacted by 65+ DNL). The NCP should be updated every five years, or as necessary, to reflect any broader changes in the nature of aircraft noise surrounding the Airport. Should any on-airport development, such as runway extensions or significant modifications to ground facilities, enlarge the area of incompatible use exposed to aircraft noise above 65 DNL, the NCP should be updated prior to the implementation of those improvements. A full update may not be required, but rather, a targeted assessment of the changes occasioned by specific development projects may suffice to bring the NCP to conformity and to qualify additional areas for NCP programs, if appropriate.

**Relationship to 2003 NCP:** Measure PM-3 was approved for continuation in 2003 NCP.

**Status:** Measure was implemented as approved in the 2003 NCP.

**2023 NCP Action:** Measure PM-3 is to be continued.

**Responsible Implementing Parties:** GRAA

#### Implementation Steps, Costs, and Schedule:

FAA Requested Action: FAA approval of continued measure.

#### Steps:

- Evaluate the need of NEM or NCP update based on conditions.
- If appropriate, retain a qualified planning consultant to conduct the update(s).
- Complete and publish the results, modifying or expanding NCP programmatic boundaries as appropriate at the time of update.

Costs: It is estimated that the NEM update could be accomplished for approximately \$350,000 to \$400,000. An NEM/NCP could be updated at an estimated cost of \$650,000 to \$700,000 (assuming only a minimal review of existing abatement measures is necessary). Both updates are eligible for funding through FAA AIP grant monies at 80 percent FAA participation.

Schedule: NEM update in 2028, with NCP update as needed based on operational changes or airfield changes that affect aircraft operations.

**Effects on Other Programs/Measures:** Reviews all other programs and measures to assure their incorporation into the description of the noise condition at the airport.





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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

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### NOISE COMPATIBILITY PROGRAM MEASURE: PM-4 (formerly OM-4)

**Description:** Establish a Pilot/Community Awareness Program.

**Background and Intent:** A Pilot/Community Awareness Program would provide information to air carriers, ATC personnel, and local communities.

Information about the noise abatement measures would be published in the form of posters and/or flyers for pilots and would also be given to the airlines and fixed-based operators (FBOs) to display in locations where pilots would pick up the materials. A brochure would be created for interested citizens and local officials to summarize the NCP measures. A summary of the NCP could be placed on the GRAA website as another means of providing information to the public.

The intent of this measure is to demonstrate to the community that the GRAA is being pro-active in addressing the concerns of local communities. This program would also provide another forum for the GRAA to share information and educate the airlines, airport tenants, and the community about the NCP.

**Relationship to 2003 NCP:** Measure PM-4 was approved for continuation in 2003 NCP.

**Status:** Measure was not implemented

**2023 NCP Action:** Measure PM-4 is to be continued.

**Responsible Implementing Parties:** GRAA

#### Implementation Steps, Costs, and Schedule:

FAA Requested Action: FAA approval of continued measure

Steps: The GRAA would adopt the 2023 NCP and the FAA would issue an ROA. Posters and flyers would be published for pilots and would be provided to the airlines and fixed-based operators (FBOs) to display in locations where pilots would pick up the materials. A brochure summarizing the NCP would be mailed to interested citizens and local officials.

Costs: Cost to GRAA of developing, printing, and distributing materials would be approximately \$10,000 - \$20,000

Schedule: This measure could be implemented following receipt of the FAA ROA, approximately 2023 - 2024. Subject to GRAA and FAA funding availability.

**Effects on Other Programs/Measures:** The implementation of this measure is not expected to adversely affect any other programs or measures.



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# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

## NOISE COMPATIBILITY PROGRAM MEASURE: PM-5 (formerly OM-5)

**Description:** Publication of Instrument Departure Procedures for Runways 1, 19, and 25.

**Background and Intent:** An instrument departure procedure (DP) is an ATC coded procedure developed to simplify the communication of pilot instructions between the ATCT and the pilot from departure to the transition to enroute airspace.

In order to assure that the noise abatement procedures recommended for Runways 1, 19, and 25 are properly implemented and executed, the GRAA staff should publish the DPs for Runways 1, 19, and 25. DPs are published in textual and graphic form in the *IFR Take-Off Minimums and Departure Procedures Section, Section C*, of the Terminal Procedures Publications that are published by the FAA National Aeronautical Charting Office. The DPs for RFD should be published graphically and named. The procedure name would be listed in Section C of the Terminal Procedures Publications by airport name and runway.

This intent of this measure is to simplify the communication of pilot instructions between the ATC and the pilot from departure to the transition to enroute airspace and assures that the noise abatement procedures recommended for Runways 1, 19 and 25 are property implemented and executed.

**Relationship to 2003 NCP:** PM-5 was approved in the 2003 NCP.

**Status:** Measure was not implemented

**2023 NCP Action:** Measure PM-5 is to be continued.

**Responsible Implementing Parties:** GRAA

**Implementation Steps, Costs, and Schedule:**

FAA Requested Action: FAA approval of continued measure.

Steps: The GRAA would adopt the 2023 NCP and the FAA would issue an ROA.

Costs: Internal GRAA administrative costs to ensure approval and publication.

Schedule: This measure could be implemented following receipt of the FAA ROA, approximately 2023-2024.

**Effects on Other Programs/Measures:** The implementation of this measure is not expected to adversely affect any other programs or measures.



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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

### NOISE COMPATIBILITY PROGRAM MEASURE: PM-6 (formerly OM-6)

**Description:** Update airport information in the *Airport Facilities Directory*.

**Background and Intent:** The *Airport Facilities Directory* contains airport-specific information including the airport identifier, the location of the nearest town or navigational aid, the number of runways, threshold crossing heights, and air traffic pattern altitudes.

The intent of this measure is to update information concerning RFD in the *Airport Facilities Directory* to include a notice of the approved noise abatement procedures and to update the air traffic pattern altitudes used at RFD.

**Relationship to 2003 NCP:** This is a continuation of an existing measure.

**Status:** Measure was implemented as approved in the 2003 NCP.

**2023 NCP Action:** Measure PM-6 is to be continued.

**Responsible Implementing Parties:** GRAA

#### Implementation Steps, Costs, and Schedule:

**FAA Requested Action:** FAA approval of continued measure.

**Steps:** The GRAA would adopt the 2023 NCP and the FAA would issue an ROA.

**Costs:** Internal GRAA administrative costs to ensure approval and publication.

**Schedule:** This measure could be implemented following receipt of the FAA ROA, approximately 2023-2024.

**Effects on Other Programs/Measures:** The implementation of this measure is not expected to adversely affect any other programs or measures.



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## 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

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### NOISE COMPATIBILITY PROGRAM MEASURE: PM-7

**Description:** Initiate Community Roundtable or Noise Abatement Committee.

**Background and Intent:** The airport staff should develop a noise abatement committee that brings together airport staff, FAA ATC personal, airline representatives, FBOs, officials of local governmental entities, and also representatives from impacted neighborhoods to review and discuss noise issues on at least a quarterly basis. The noise complaint logging, described in Measure PM-2 above, can be used as a basis for the discussion.

**Relationship to 2003 NCP:** This is a new measure.

**Status:** N/A. This is a new measure.

**2023 NCP Action:** Measure PM-7 is a new measure.

**Responsible Implementing Parties:** GRAA

#### Implementation Steps, Costs, and Schedule:

**FAA Requested Action:** FAA approval of new measure.

**Steps:** The airport staff can develop a list of interested parties to participate in the committee.

**Costs:** Minimal time for the airport and other parties to attend the meetings, plus some minimal administrative costs to document meeting minutes, distribute agendas and other material.

**Schedule:** This measure could be implemented following receipt of the FAA ROA, approximately 2023-2024.

**Effects on Other Programs/Measures:** The implementation of this measure is not expected to adversely affect any other programs or measures.





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## 4.2.2 Recommended Noise Mitigation Program Area

This section describes the recommended Noise Mitigation Program Area (NMPA) included in the RFD 2023 NCP. The NMPA encompasses two (2) general areas. **Exhibit 4-8, Recommended Noise Mitigation Program Area (NMPA)** illustrates the recommended NMPA and the Future (2028) NCP NEM contours. NMPA #1 was divided into two (2) areas within the 65 DNL noise contour. In order to assist in understanding the block rounding boundaries outside the 65 DNL noise contour, NMPA #2 was divided into four (4) areas for the purpose of this explanation. The area to the southwest of the airport within the 65 DNL is considered NMPA #1a and the area to the southwest outside the 65 DNL is considered NMPA #2a. **Exhibit 4-9, Noise Mitigation Program Area (NMPA) - West** shows only the NMPA #1a and #2a boundary, as well as geographical features that the boundary was based upon and impacted structures within the boundary. The area to the northeast of the airport inside the 65 DNL is considered NMPA #1b and the area to the northeast of the airport outside the 65 DNL is considered NMPA #2b, #2c, and #2d. **Exhibit 4-10, Noise Mitigation Program Area (NMPA) - East** shows the four (4) areas that make up the NMPA #1b and #2 b, c, & d boundaries as well as the geographical features the boundaries were based upon and the residential structures impacted within each area.

In order to define the boundaries, a broader description of these areas are described below:

- **NMPA #1** – This is defined as the area highlighted in blue and within the 65+ DNL contours. This area includes 41 single-family residential units and 20 multi-family residential units that are identified in **Exhibit 4-9** and **Exhibit 4-10** with green dots. The 61 residential units would have an avigation easement attached to the deed in exchange for participation in the sound-insulation program. In addition, if the owner of the residential units decline sound insulation, owner-occupied properties would be offered an avigation easement that would be placed on the property and attached to the deed. The description of the mitigation areas within the 65+ DNL (NMPA #1) are explained below.
- **NMPA #2** – This is defined as the area highlighted in an orange cross-hatched pattern outside of the 65 DNL noise contours. This area includes 51 single-family residential units and 36 multi-family residential units that are identified in **Exhibit 4-9** and **Exhibit 4-10** with orange dots. The 87 residential units would have an avigation easement attached to the deed in exchange for participation in the sound-insulation program. The description of the block rounding areas (NMPA #2) is also explained below.

**NMPA #1a:** Includes the properties within the 65 DNL noise contour to the southwest of the airport within the Woodcrest Estates subdivision including all the homes on Deerwood Trail, Westwood Road, and Meadowood Lane, along with some of the homes on Woodcrest Parkway, Horizon Terrace, and Horizon Drive.

**NMPA #1b:** Includes the properties within the 65 DNL noise contour to the northeast of the airport along Samuelson Road, within the Valley Pines subdivision on Revelation Lane, and within the Monarch Acres subdivision on Radnor Drive.

**NMPA #2a:** Includes the properties outside the 65 DNL noise contour to the southwest of the airport within the Woodcrest Estates subdivision including some of the homes on Woodcrest Parkway, Horizon Terrace, and Horizon Drive out to Kishwaukee Road.

**NMPA #2b:** Includes the properties outside the 65 DNL noise contour to the northeast of the airport on Samuelson Road between the Frontage Road and Revelation Lane.

**NMPA #2c:** Includes the properties outside the 65 DNL noise contour to the northeast of the airport within the Valley Pines subdivision on Revelation Lane and Valley Pines Drive.



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**NMPA #2d:** Includes the properties outside the 65 DNL noise contour to the northeast of the airport in the Monarch Acres subdivision on Radnor Drive, Carlisle Drive, Chesterfield Avenue, Wellington Road, and 20th Street.

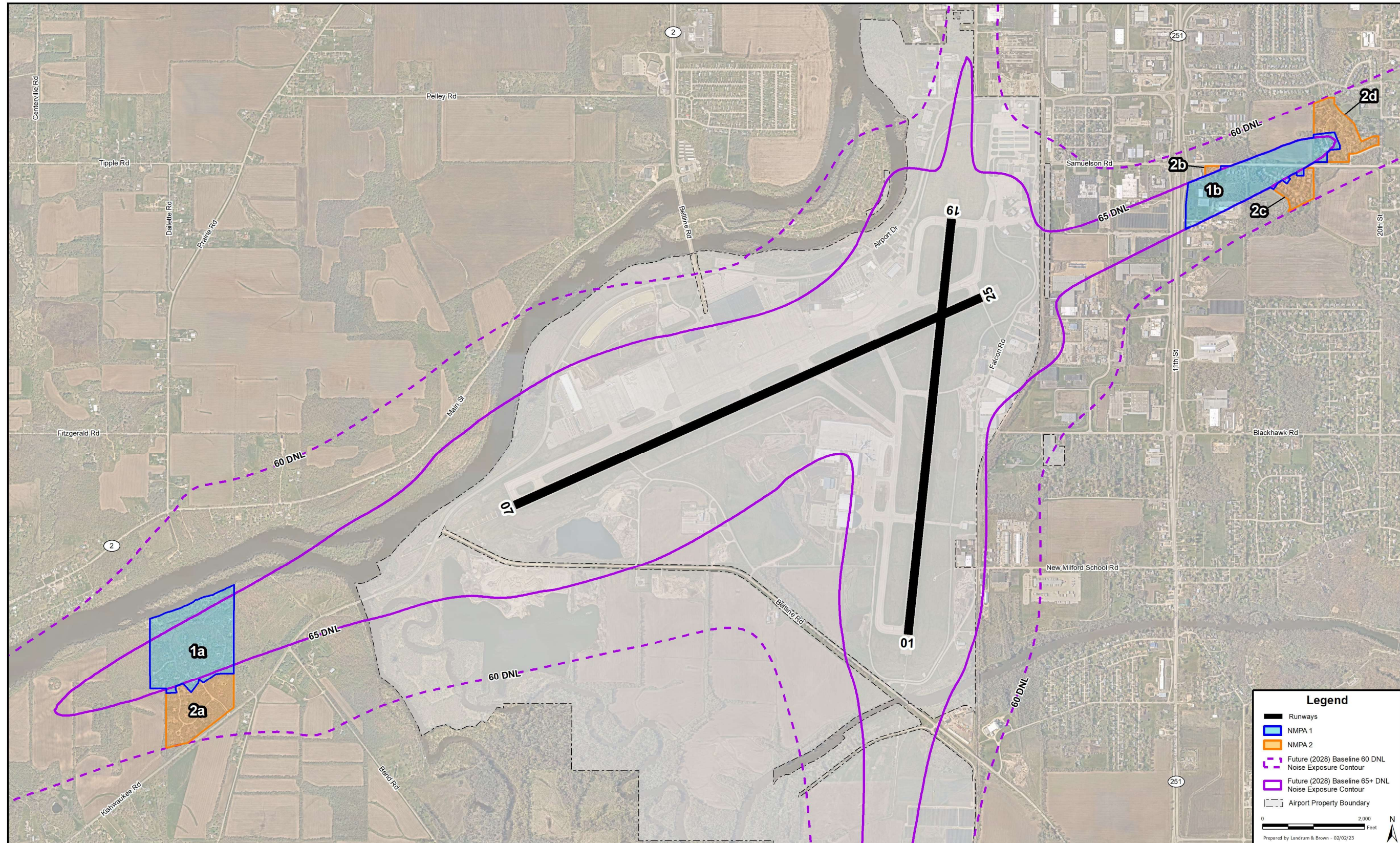
The NMPAs are based on the Future (2028) NCP NEM contours developed for this NCP update. Per FAA Order 5100.38D, noise mitigation may undertake block rounding to “...include parcels continuous to the project area .....” to include a reasonable additional number of otherwise ineligible parcels contiguous to the project area, if necessary to achieve equity in the neighborhood.<sup>3</sup> The requirements for block rounding are defined in the “*AIP Handbook, Change 1, dated September 26, 2019, Appendix R. Noise Compatibility Planning/Projects, Section R-9, Block Rounding, Table R-2, Block Rounding Requirements*”. All of the property identified both inside (NMPA #1) and outside (NMPA #2) the DNL 65 noise contour are subject to the new FAA eligibility requirements. In addition, all properties must have been built prior to October 1, 1998 to be eligible. The final eligibility determination based on the build date will be made following approval of the program and once the program is underway. **Table 4-4, NMPA Properties Considered for Sound-Insulation**, presents the summary of the single-family and multi-family properties being considered for mitigation within each of the NMPA boundaries.

**TABLE 4-4 | NMPA PROPERTIES CONSIDERED FOR SOUND-INSULATION**

Noise Mitigation Program Area (NMPA)	Single-Family Units	Multi-Family Units	Total Units
#1a	30	0	30
#1b	11	20	31
#2a	20	0	20
#2b	4	0	4
#2c	0	36	36
#2d	27	0	27
<b>Total</b>	<b>92</b>	<b>56</b>	<b>148</b>

<sup>3</sup> U.S. Department of Transportation, Federal Aviation Administration, Order 5100.38D, Airport Improvement Program Handbook, Appendix R, Noise Compatibility Planning/Projects, September 30, 2014.

**EXHIBIT 4-8 | RECOMMENDED NOISE MITIGATION PROGRAM AREAS (NMPA)**



Source: Landrum & Brown analysis, 2023.



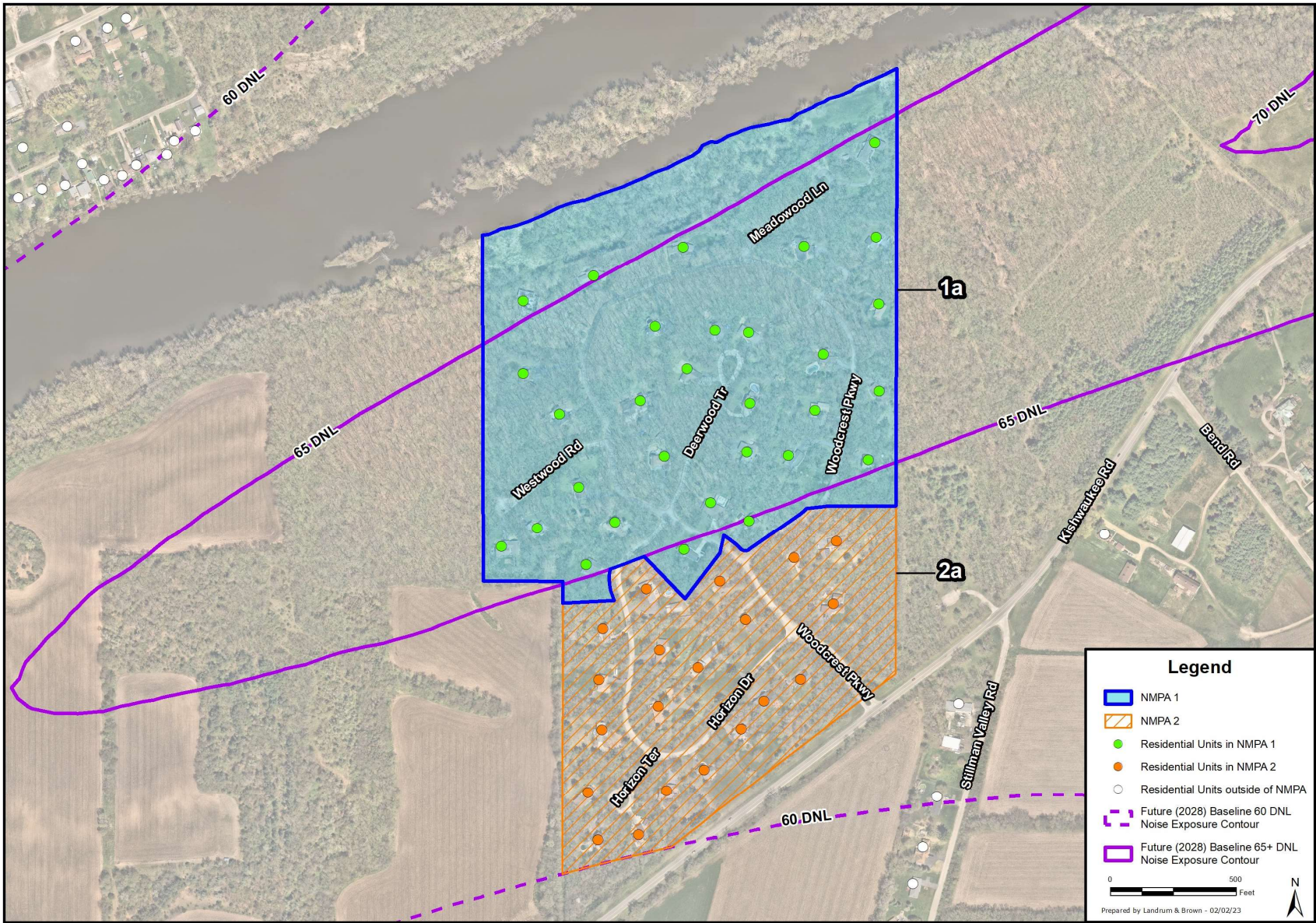
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## EXHIBIT 4-9 | NOISE MITIGATION PROGRAM AREA (NMPA) - WEST



Source: Landrum & Brown analysis, 2023.

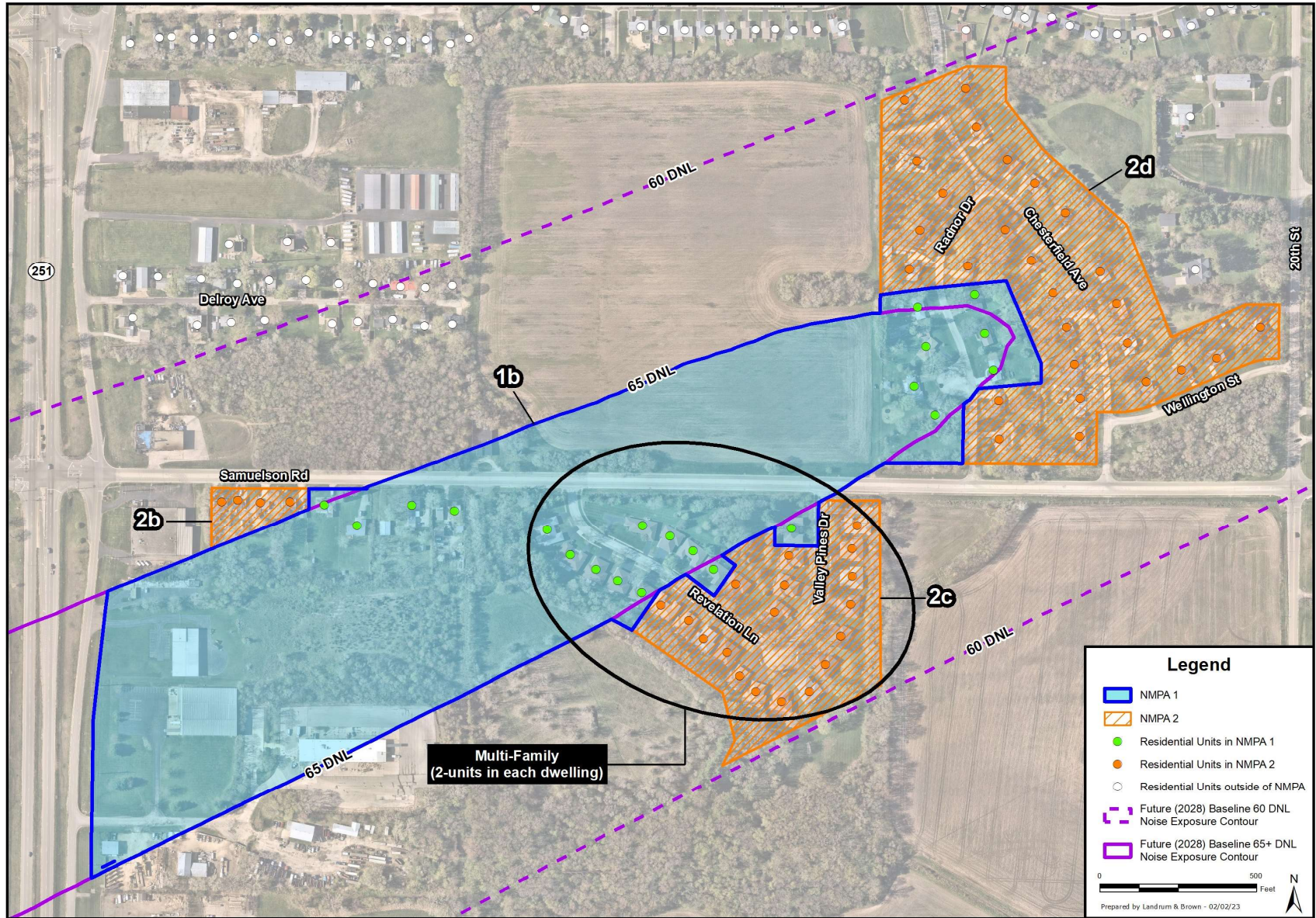


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## EXHIBIT 4-10 | NOISE MITIGATION PROGRAM AREA (NMPA) - EAST



Source: Landrum & Brown analysis, 2023.





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### 4.2.3 Recommended Land Use Management Plan

**Exhibit 4-11, *Land Use Management Plan*** illustrates the complete Land Use Mitigation measures recommended for the RFD 2023 NCP. The map illustrates LU-2, LU-4, LU-5, LU-9, LU-13, LU-14, LU-15, LU-16, LU-17, LU-18. Combined these measures constitute the Land Use Management Plan for the RFD 2023 NCP.

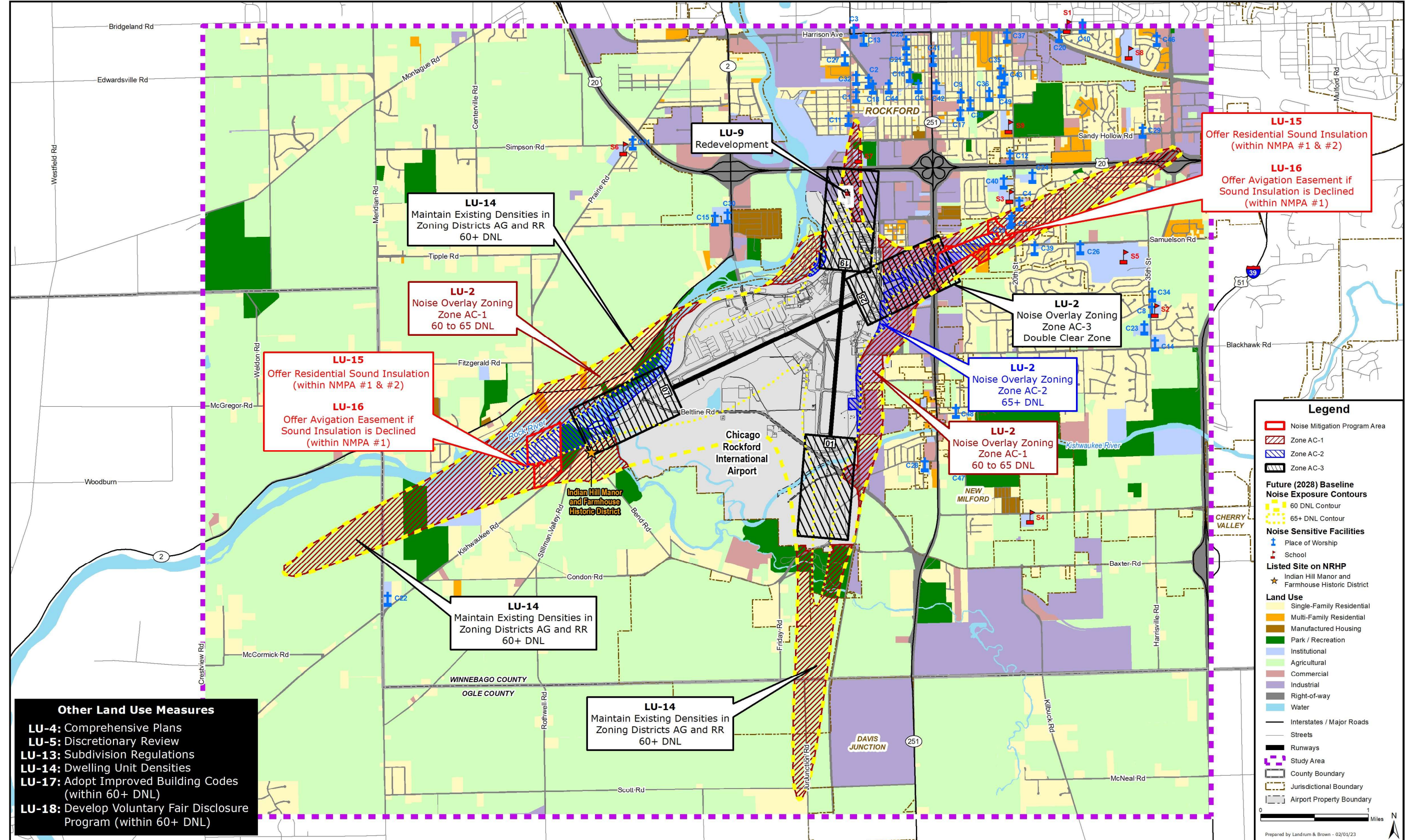


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EXHIBIT 4-11 | Land Use Management Plan



**Other Land Use Measures**

- LU-4: Comprehensive Plans
- LU-5: Discretionary Review
- LU-13: Subdivision Regulations
- LU-14: Dwelling Unit Densities
- LU-17: Adopt Improved Building Codes (within 60+ DNL)
- LU-18: Develop Voluntary Fair Disclosure Program (within 60+ DNL)

**Legend**

- Noise Mitigation Program Area
- Zone AC-1
- Zone AC-2
- Zone AC-3
- Future (2028) Baseline Noise Exposure Contours**
  - 60 DNL Contour
  - 65+ DNL Contour
- Noise Sensitive Facilities**
  - Place of Worship
  - School
- Listed Site on NRHP**
  - Indian Hill Manor and Farmhouse Historic District
- Land Use**
  - Single-Family Residential
  - Multi-Family Residential
  - Manufactured Housing
  - Park / Recreation
  - Institutional
  - Agricultural
  - Commercial
  - Industrial
  - Right-of-way
  - Water
- Interstates / Major Roads
- Streets
- Runways
- Study Area
- County Boundary
- Jurisdictional Boundary
- Airport Property Boundary

Prepared by Landrum & Brown - 02/01/23

Source: Landrum & Brown analysis, 2023



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## » 4.3 Noise Compatibility Program Costs

The airport, supplemented by funding from the FAA, would incur the vast majority of the direct costs associated with the implementation of the recommended RFD 2023 NCP measures. The majority of the costs are associated with either sound-insulation, or aviation easements of eligible housing units within the recommended NMPA boundaries. **Table 4-1** above provided the number of housing units located within the DNL 65+ dB noise exposure contour of the Future (2028) NCP NEM contours. Furthermore, the airport has committed to mitigate eligible housing units in the vicinity of the Future (2028) NCP NEM DNL 65 dB noise exposure contours that are within the block rounding areas identified as NMPA #2 (a, b, c, & d), subject to final eligibility determination.

Costs for completion of the program have been estimated in 2023 dollars and are presented in **Table 4-5, Noise Compatibility Program Implementation Costs**. The total estimated cost for all NCP recommendations, is approximately \$10,000,000 plus additional operational, maintenance, and administrative costs. Note that this cost includes the residential sound-insulation program, easement acquisition, and other measures. This cost estimate assumes 100 percent participation in the program by eligible property owners. These cost estimates are based on the consultant team's preliminary assessment and are subject to change once the measures are further evaluated prior to implementation. The airport-funded mitigation actions recommended for implementation may be eligible for Federal matching funds amounting to approximately 80 percent of the total program cost, as funding becomes available.



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**TABLE 4-5 | NOISE COMPATIBILITY PROGRAM IMPLEMENTATION COSTS**

MEASURE ID	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
<b>ABATEMENT MEASURES</b>						
No abatement measures recommended for inclusion in the NCP						
<b>SUBTOTAL</b>		--	--	--	--	--
<b>MITIGATION MEASURES (CORRECTIVE)</b>						
LU-15	Offer Residential Sound Insulation to 53 Residential Units within the 65 DNL Noise Contour (NMPA 1a & 1b) and 95 Residential Units outside the 65 DNL Noise Contour (NMPA 2a, 2b, 2c, & 2d)	\$9,250,000	\$7,400,000	\$1,850,000	None	None
LU-16	Offer Avigation Easements to Owner-Occupied Single- and Multi-Family Homes within NMPA #1 if Sound-Insulation is Declined	\$183,000	\$146,400	\$36,600	None	None
<b>SUBTOTAL <sup>(1)</sup></b>		<b>\$9,433,000</b>	<b>\$7,546,400</b>	<b>\$1,886,600</b>	<b>Minimal administrative costs; plus loss of tax base</b>	<b>None</b>





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**TABLE 4-5 | NOISE COMPATIBILITY PROGRAM IMPLEMENTATION COSTS (CONTINUED)**

MEASURE ID	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
<b>MITIGATION MEASURES (PREVENTATIVE)</b>						
LU-2	Adopt Noise Overlay Zoning	Minimal	None	None	Minimal	None
LU-4	Amend Local Comprehensive Plans	Minimal	None	None	Minimal	None
LU-5	Adopt Guidelines for Discretionary Review of Development Projects	Minimal	None	None	Minimal	None
LU-13	Encourage the City of Rockford and Winnebago County to Require Plat Notes on New Subdivision Plats	Minimal	None	None	Minimal	None
LU-14	Encourage Winnebago County, the City of Rockford, and the Villages of New Milford and Davis Junction Not to Allow an Increase in the Residential Density in the AG or RR Zoning Districts	Minimal	None	None	Minimal	None
LU-17	Adopt Improved Building Codes	\$50,000	\$0	\$50,000	Minimal	None
LU-18	Develop a Voluntary Fair Disclosure Program	\$50,000	\$0	\$50,000	Minimal	None
<b>SUBTOTAL</b>		<b>\$100,000</b>	<b>\$0</b>	<b>\$100,000</b>	<b>Minimal administrative costs; plus loss of tax base</b>	<b>None</b>



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**TABLE 4-5 NOISE COMPATIBILITY PROGRAM IMPLEMENTATION COSTS (CONTINUED)**

MEASURE ID	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
<b>PROGRAM MANAGEMENT MEASURES</b>						
PM-1	Noise Compatibility (NCP) Implementation Compliance	Minimal Administrative Costs	None	None	None	None
PM-2	Noise Complaint Response System & Computer Database	Minimal Administrative Costs	None	Minimal Administrative Costs	None	None
PM-3	Perform Regular Updates to the NEMs and Review of NCP	NEM Update: \$350,000 to \$400,000 NEM/NCP Update: \$650,000 to \$750,000	NEM Update: \$280,000 to \$320,000 NEM/NCP Update: \$520,000 to \$600,000	NEM Update: \$70,000 to \$80,000 NEM/NCP Update: \$130,000 to \$150,000	None	None
PM-4	Establish a Pilot/Community Awareness Program	Minimal Administrative Costs	None	Minimal Administrative Costs	None	None
PM-5	Publication of Instrument Departure Procedures	Minimal Administrative Costs	None	Minimal Administrative Costs	None	None
PM-6	Update Airport Information in the Airport Facilities Directory	Minimal Administrative Costs	None	Minimal Administrative Costs	None	None
PM-7	Initiate Community Roundtable or Noise Abatement Committee	Minimal Administrative Costs	None	Minimal Administrative Costs	None	None
<b>SUBTOTAL</b>		<b>\$350,000 to \$750,000</b>	<b>\$280,000 to \$600,000</b>	<b>\$70,000 to \$150,000</b>	<b>None</b>	<b>None</b>
<b>ALL NOISE COMPATIBILITY PROGRAM MEASURES</b>						
<b>TOTAL</b>		<b>\$10,283,000 to \$9,883,000</b>	<b>\$8,146,400 to \$7,826,400</b>	<b>\$2,136,600 to \$2,056,600</b>	<b>Minimal</b>	<b>Minimal</b>

Notes: (1)Total cost for land use mitigation measures is the maximum possible mitigation cost and assumes 100 percent participation in program by eligible property owners. Property owners participating would also have to ensure they meet both the eligibility requirements for interior noise levels and the year the property was built. In addition, some property owners may choose one measure over another which would reduce overall costs. All costs are in 2023 dollars

Source: Landrum & Brown analysis, 2023, and based on comparable mitigation programs at other U.S. airports.



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## » 4.4 Noise Compatibility Program Implementation

As shown in **Table 4-5**, no new Noise Abatement measures are recommended to be included in the NCP. However several previously approved measures have been modified an/or recommended to continue to remain consistent with current operating conditions and controller instructions. Noise Abatement measures NA-7, NA-8, NA-9, NA-12, NA-13, NA-14 are recommended to continue with modification and will require FAA re-approval as voluntary noise abatement measures.

The implementation of the existing Land Use Mitigation measures LU-2, LU-4, LU-5, LU-13, LU-14 will require FAA re-approval to become part of the NCP as the measures are recommended to be continued with modification to include the Future (2028) NCP NEM. New Land Use Mitigation measures LU-15, LU-16, LU-17 and LU-18 will also require FAA approval to become part of the NCP.

Recommended Program Management measures PM-1 through PM-6 are being continued with slight modifications. New Program Management measure PM-7 can be implemented at the discretion of the airport. However, this measure will require FAA approval in order to be eligible for Federal funding.

It is anticipated that the FAA will issue a Record of Approval (ROA) for all twenty seven (27) of the Noise Abatement, Land Use Mitigation and Program Management measures recommended in the RFD 2023 NCP.



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