



## CHAPTER 2



# AFFECTED ENVIRONMENT



# 14 CFR PART 150 NOISE COMPATIBILITY STUDY UPDATE

Greater Rockford Airport Authority

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## 2 Affected Environment

Identifying and evaluating land uses within the airport environs is an important step in the Part 150 process. This evaluation is necessary to identify residential and other noise-sensitive land uses around the Chicago Rockford International Airport (RFD or Airport). The land use mapping methodology and detailed zoning information is provided in **Appendix E, Land Use Methodology**.

### » 2.1 Existing Land Use

This section describes the airport environs, existing land uses, and significant development trends.

#### 2.1.1 Airport Environs

The airport environs is the regional area around RFD that may experience the broader effects from the noise of aircraft and overflights. The airport environs for this 2023 Part 150 Study Update, shown on **Exhibit 2-1, Airport Environs**, is a 150+ square mile area that extends between five and seven miles off of each runway end and includes portions of the city of Rockford; the villages of New Milford and Cherry Valley, Rockford and Cherry Valley townships in southern Winnebago County; Marion, Byron, Scott, and Monroe townships in northeastern Ogle County; and the villages of Davis Junction and Stillman Valley. The airport environs exhibit shows an area between Meridian Road to the west, Mulford Road to the east, Auburn Street to the north, and IL 72 to the south. This exhibit also identifies local roads and major highways; city, village, and township boundaries; and unincorporated areas in the airport environs.

The study area, shown on **Exhibit 2-2, Study Area Boundary**, is the area that experiences the more direct effects from the noise of aircraft overflights. Three primary criteria were used to define the study area boundary: (1) the expected existing and future 60 Day Night Average Sound Level (DNL) (for land use planning purposes) and the 65+ DNL noise contour boundaries; (2) aircraft flight tracks; and (3) primary areas of noise complaint data. In addition, the study area boundary is delineated to include communities potentially affected by future aircraft operational procedures. The boundaries of the study area generally follow: IL 251 and Harrison Avenue to the north, Interstate 39 to the east, Scott Road to the south, and North Crestview Road to the west.

According to *Appendix A, Table 1 of FAR Part 150 Airport Noise Compatibility Planning*, reproduced in **Appendix A, FAA Policies Regulations and Guidance**, of this document as **Table A-1, Land Use Compatibility Guidelines – 14 CFR Part 150** states that all land uses exposed to aircraft noise below 65 DNL are generally considered compatible with aircraft and airport operations. At RFD, the Greater Rockford Airport Authority (GAA) has chosen to also show the 60 DNL noise contour. While the land uses between the 60 and 65 DNL noise contours are not defined in 14 Code of Federal Regulations (CFR) Part 150 as being significantly impacted by aircraft noise, this area receives aircraft overflights. Therefore, the analysis of land uses in the 60-65 DNL noise contour provides information to local planning agencies that can assist in the development of local land use policies, plans, and development standards.



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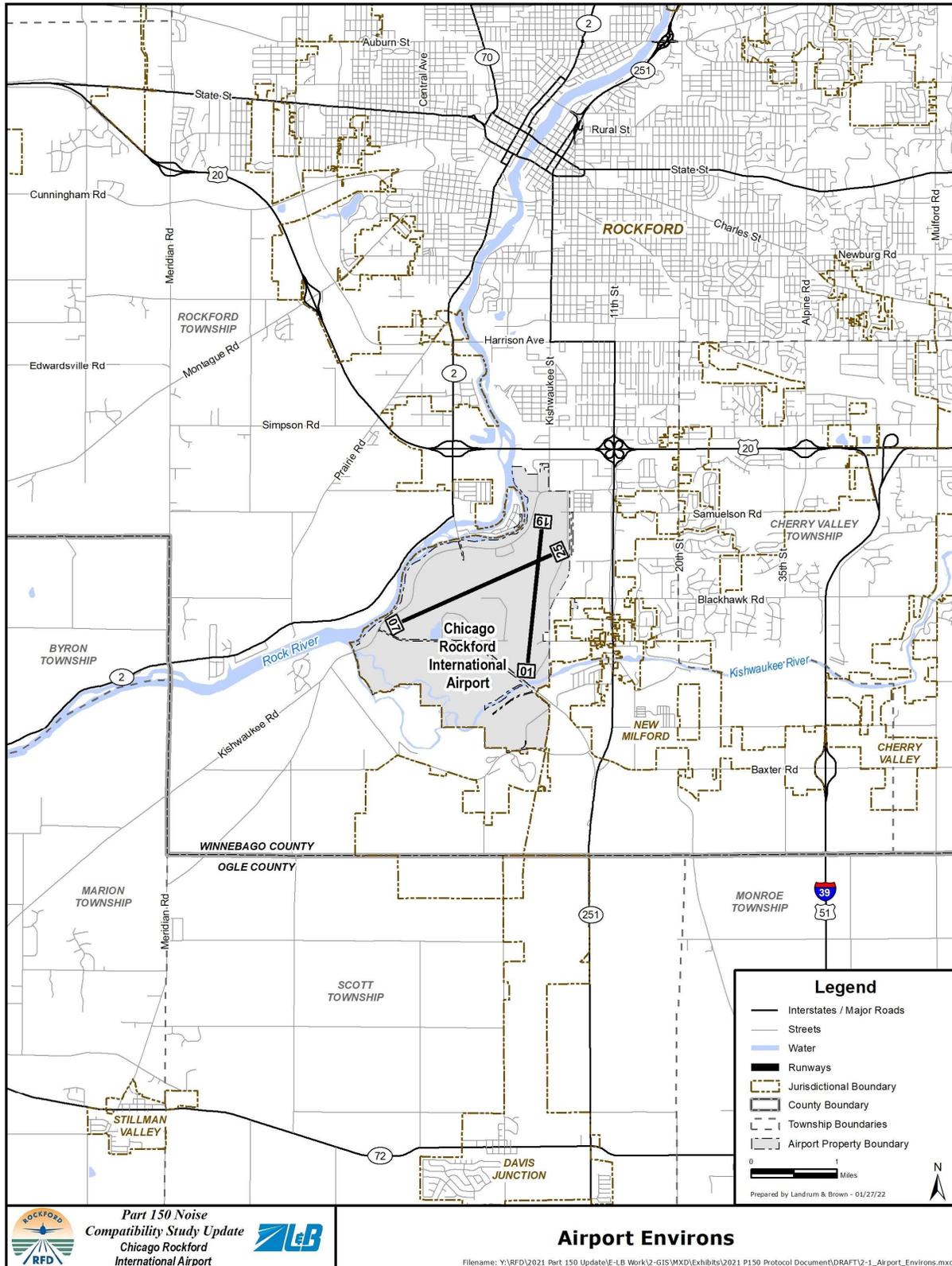
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## EXHIBIT 2-1 | AIRPORT ENVIRONS




**Part 150 Noise Compatibility Study Update**  
 Chicago Rockford International Airport


**Airport Environs**

Filename: Y:\RFD\2021 Part 150 Update\E-LB Work\2-GIS\MXD\Exhibits\2021 P150 Protocol Document\2021-1\_Airport\_Environs.mxd

Source: Winnebago & Ogle County GIS data, 2022, Landrum & Brown analysis, 2023.



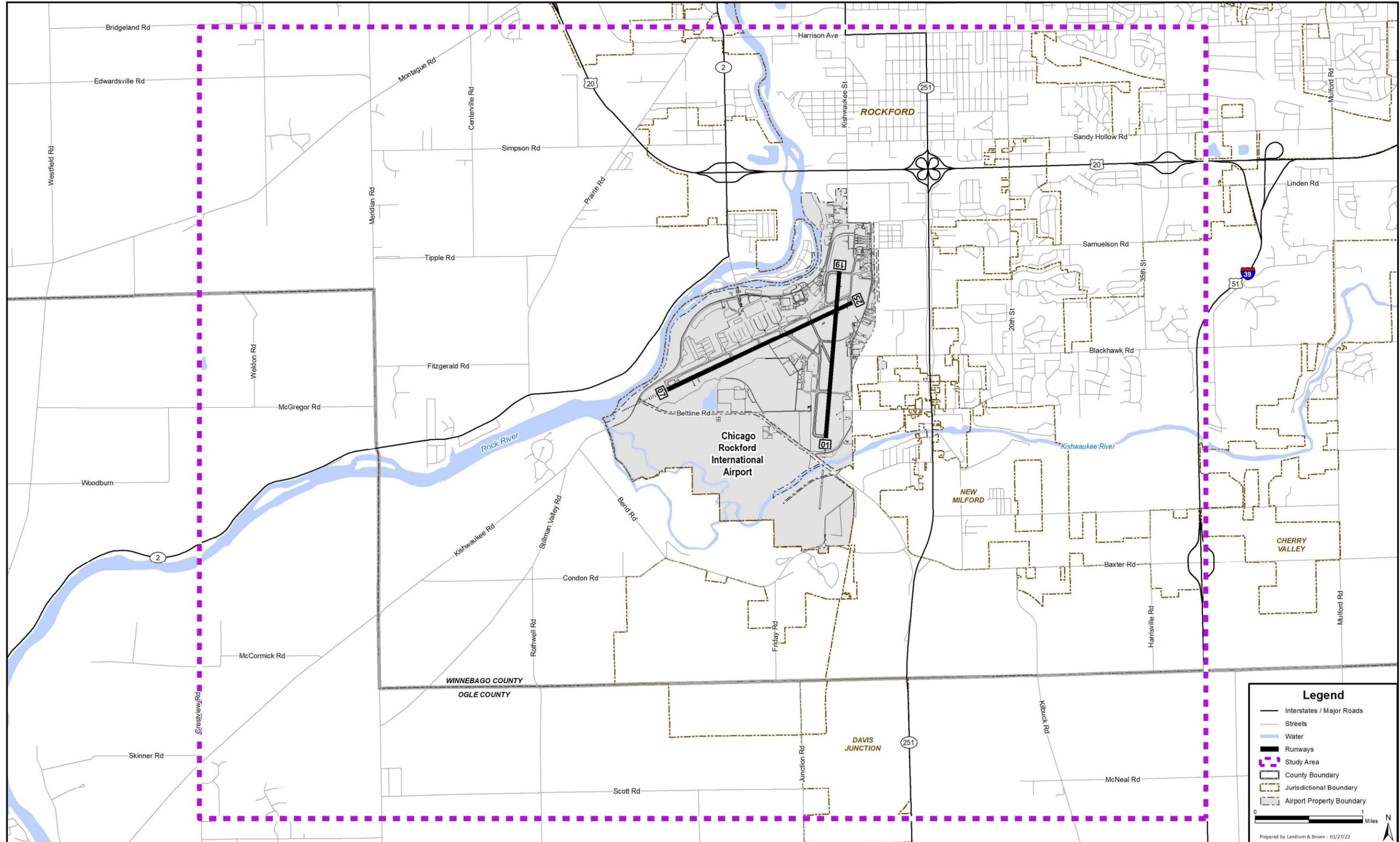
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EXHIBIT 2-2 | STUDY AREA BOUNDARY



Source: Winnebago & Ogle County GIS data, 2022, Landrum & Brown analysis, 2023.



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### 2.1.2 Existing Land Uses

Most of the land uses to the west and south of the airport are agricultural, with scattered residential in-fill development occurring along roadway frontages. RFD is located in southwestern Winnebago County and is part of the city of Rockford. The majority of the city of Rockford lies to the north of the airport. Ogle County lies to the south of the Airport and includes the nearby communities of Davis Junction and Stillman Valley. Compatible mixed use industrial and commercial areas border the airport and transitions into incompatible single-family and multi-family residential land uses.

For the purposes of this 2023 Part 150 Study Update, existing land uses were categorized in terms of the general land use classifications as outlined in 14 CFR Part 150 and shown in **Appendix E, Table E-1, Generalized Existing Land Use Classifications**. These classifications include residential (single, multi-family and manufactured housing), commercial, industrial and utility (e.g., manufacturing and production), institutional (e.g., public use, churches, schools, government offices), park/recreational, agricultural/open space/vacant. These land uses were identified based on each jurisdiction's GIS database, published land use and zoning maps and were verified as necessary with aerial photography and current assessment records. The land uses within the study area boundary are shown in **Exhibit 2-3, Generalized Existing Land Uses**. Land uses within the 65+ DNL noise contour that are considered incompatible with airport operations, per Part 150 guidelines, include: residential and noise-sensitive facilities (i.e., churches, schools, nursing homes, hospitals, and libraries).

## » 2.2 Land Use Planning and Zoning

Local planners and elected officials are typically responsible for local land use planning and zoning. They review and implement zoning and land use regulations, and prepare comprehensive plans. The responsibility of regulating land use around an airport, in order to prevent future land use incompatibilities, is traditionally delegated to state and local governments. In the case of RFD, the state of Illinois does not directly implement and administer land use controls, but has delegated this authority to the local governments that include the city of Rockford, Winnebago County, and Ogle County.

In addition to regulating land uses, local municipalities may facilitate the acquisition of property or the initiation of sound insulation programs as a means to mitigate and prevent future incompatible land uses resulting from airport noise. At airports with an approved Part 150 Study, an airport sponsor may apply directly to the FAA for funding of noise mitigation projects.

**Section 2.2.1** details local land use plans for each jurisdiction, and **Section 2.2.2** discusses zoning ordinances for each.

### 2.2.1 Local Land Use Plans

#### City of Rockford

The city of Rockford current comprehensive plan was originally adopted by the City Council in 2004, with amendments in 2009 and 2011. In 2015 the City Council concluded a review of the comprehensive plan and approved a 5-year implementation plan concluding in 2020.

Planning elements discussed in the city of Rockford comprehensive plan include: the environment, population, economy, public facilities and services, housing, and land use. The plan specifically mentions the Airport and the important role it plays in the community's economy. Recommendations are made to encourage additional passengers service at the Airport while expanding growth in the freight sector supported by the existing and planned infrastructure.

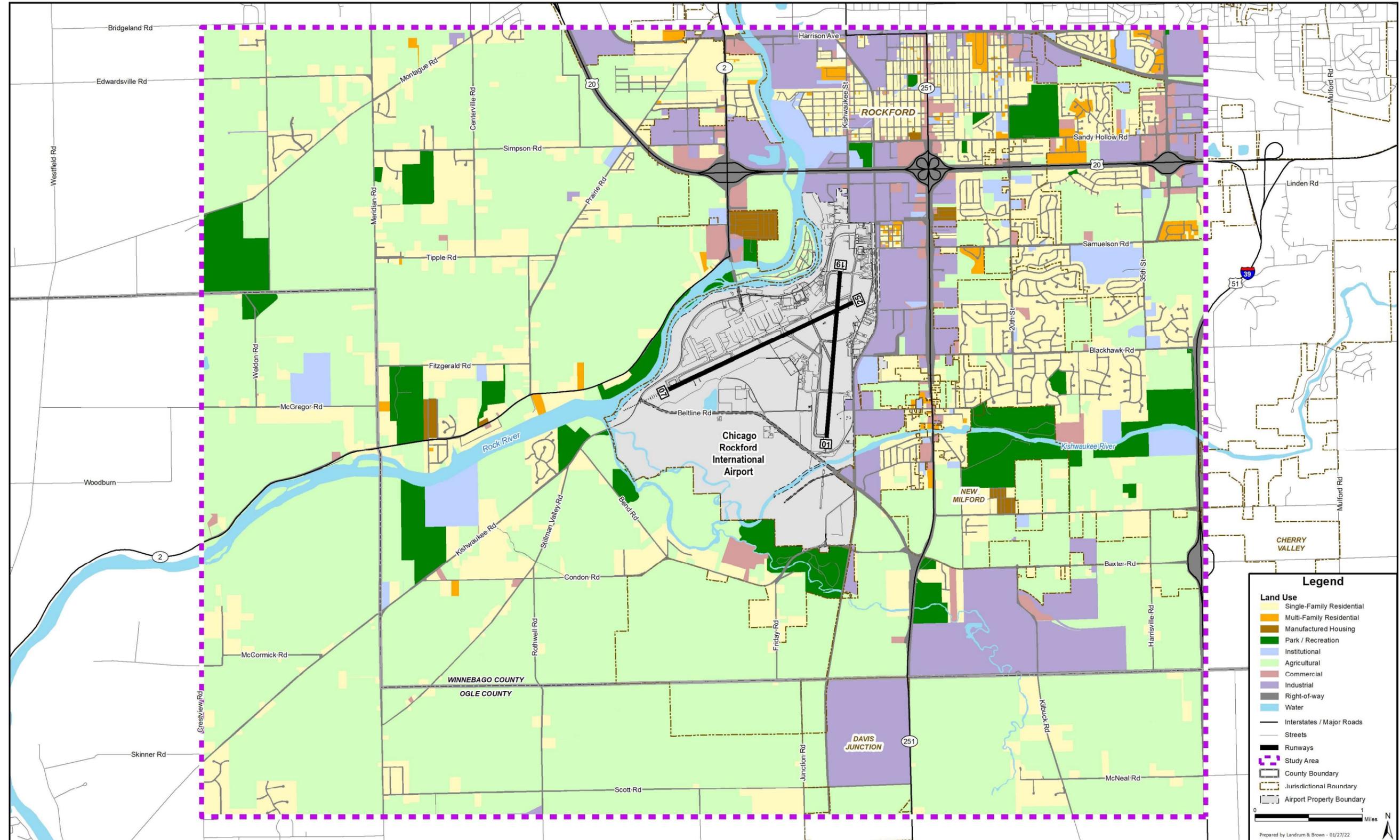


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EXHIBIT 2-3 | GENERALIZED EXISTING LAND USES



Source: Winnebago & Ogle County GIS data, 2022, Landrum & Brown analysis, 2023.



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### Winnebago County

Winnebago County adopted the 2030 Land Resource Management Plan in 2009. The plan is a vision of how growth and development will affect areas in unincorporated Winnebago County through the year 2030. The plan details the counties growth goals, objectives and policies through the target 2030 year. The plan incorporates existing or updated land use plans of local municipalities and townships to the extent possible. There is no direct reference to planning objectives related to the Airport within the 2030 Land Resource Management Plan, but does mention the Airport as a important factor in the economic development and transportation services in the county.

### Ogle County

The Ogle County Amendatory Comprehensive Plan was adopted on May 21, 1996 and was most recently amended August 2012 and adopted in October 2012. One of the policies of the plan is for Ogle County to maintain an active presence in RFD activities. In previous versions of the plan Ogle county had incorporated elements of the 1994/2003 NCP with regards to land use planning districts based on noise levels around RFD.

### Metropolitan Planning Organization

The Metropolitan Planning Organization (MPO) for the Rockford area includes a 22-member Technical Committee comprised of planners and or engineers from the surrounding communities and townships along with representatives from Rockford Mass Transit District, RFD staff and other local partners. In 2017, the MPO transitioned under the umbrella of the Illinois Region 1 Planning Council with a similar objective of planning and coordinating decisions regarding the Rockford regions major transportation systems.

### Capital Improvement Programs

Neither Ogle County nor Winnebago County has a traditional capital improvement program. Both counties have relatively limited capital improvement responsibilities, maintenance, and construction of county roads. The city of Rockford has a five-year capital improvement program (2021-2025) with roadway, water service, and stormwater management elements that are consistent with land use compatibility for RFD. The Rock River Reclamation District provides sanitary sewer services to the city of Rockford and Winnebago County, but does not serve in a planning role. It responds to requests from developers.

## 2.2.2 Local Zoning Ordinances

Zoning is one of the primary tools available to local communities to ensure land use compatibility. Zoning ordinances and regulations are intended to promote public health, safety, and welfare by regulating the use of the land within a jurisdiction based on factors such as existing and expected socioeconomic conditions. Local jurisdictions have the responsibility to implement zoning ordinances. Zoning ordinances and regulations are important tools in preventing incompatible land uses around an airport.

The following sections summarize the zoning districts of Ogle and Winnebago counties and the City of Rockford. Because of the complexity and uniqueness of the zoning classification in each jurisdiction, the zoning districts for each jurisdiction in the airport environs have been assigned to a generalized zoning category for the purposes of this 2023 Part 150 Study Update. The generalized zoning categories are listed in **Table 2-1, Generalized Zoning Categories** and a generalized zoning map is shown in **Exhibit 2-4, Generalized Existing Zoning**

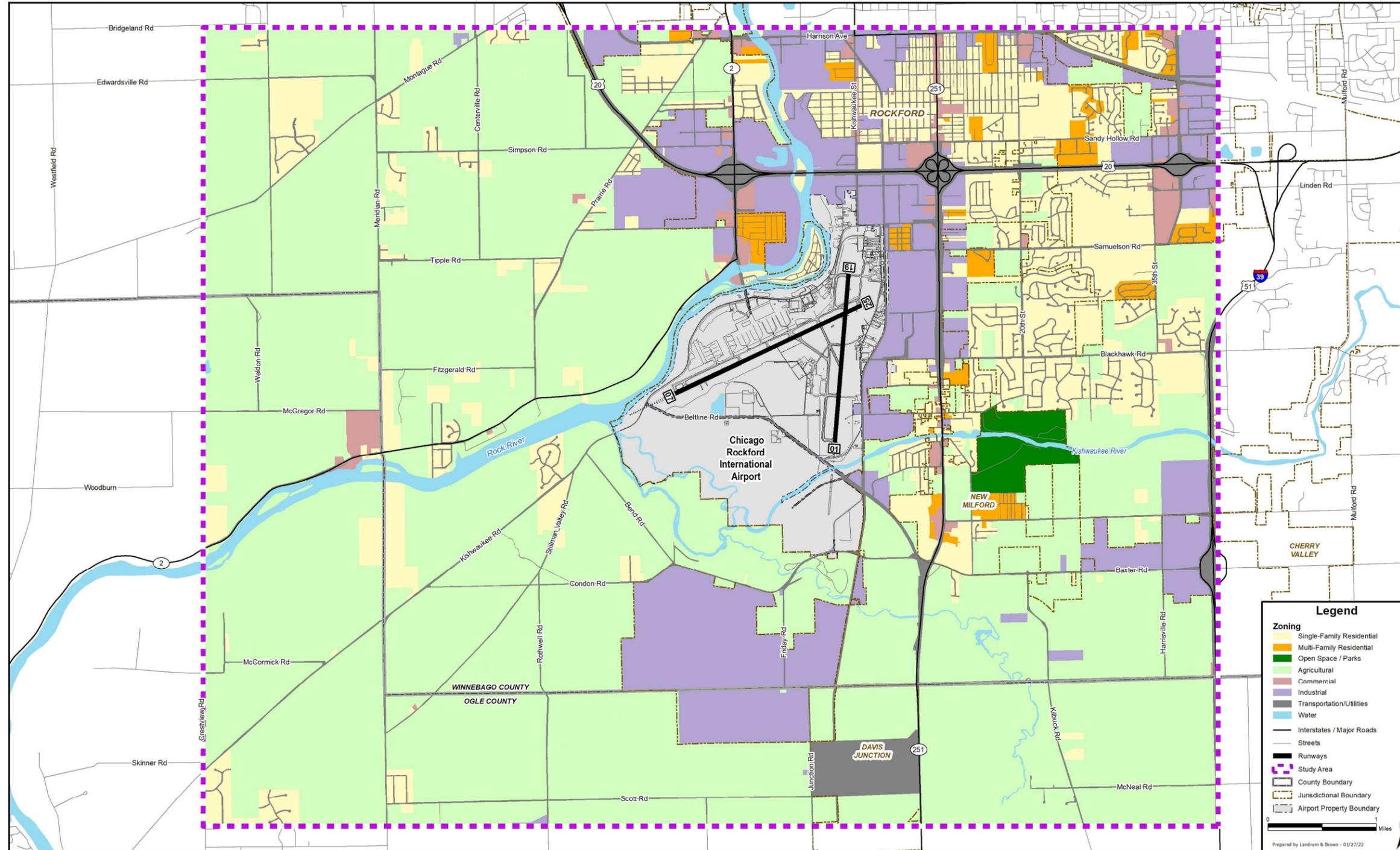


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**EXHIBIT 2-4 | GENERALIZED EXISTING ZONING**



Source: Winnebago & Ogle County GIS data, 2022, Landrum & Brown analysis, 2023.



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**TABLE 2-1 | GENERALIZED ZONING CATEGORIES**

Generalized Zoning Category	Land Uses
<b>Compatible Zoning</b>	
Commercial	Retail Centers, Office Space, Entertainment, Hotel/Motel
Industrial	Manufacturing, Warehouse
Agricultural/Vacant	Farmland, Vacant
Transportation/Utilities	Landfill, Stormwater Management, Aviation, Railway and Roadway transportation facilities
Open Space/Parks	Golf Course, Trail or Greenway, Parks and Conservation
<b>Incompatible Zoning</b>	
Single-Family Residential	Single-Family Attached and Detached
Multi-Family Residential	Apartments, Condominiums, Mobile Home Parks

Source: Winnebago & Ogle County GIS data, 2022, Landrum & Brown analysis, 2023.

## City of Rockford

The City of Rockford revised its zoning ordinance in March of 2008. The revised ordinance has been amended several times since 2008, the last amendment to the ordinance occurred in 2020. The revised zoning ordinance identifies 19 zoning districts in the city. The ordinance includes a rural estate district, six residential districts, a residential conservation district, five commercial districts, three industrial districts, maximum and minimum wellhead setback overlay districts and the Rock River overlay district. Those zoning districts are summarized in **Appendix E, Land Use Methodology, Table E-3, City of Rockford - Zoning Districts that include Noise-Sensitive Uses**, of this document.

The Zoning Board of Appeals is charged with enforcing the Rockford Zoning Ordinance. The Board is composed of seven Rockford citizens who are appointed by the Mayor of the city of Rockford. The Board is authorized to make decisions on zoning map amendments, pre-annexation agreements, special use permits, and variations to the zoning ordinance.

## Winnebago County

The Zoning Ordinance of Winnebago County was adopted in 1995 and has been amended several times since its adoption, with the latest amendment occurring in November 2021. The Zoning Ordinance for Winnebago County includes sixteen districts – two agricultural districts, six residential, four commercial, and three industrial districts. Those zoning districts are summarized in **Appendix E, Land Use Methodology, Table E-4, Winnebago County - Zoning Districts**, of this document.

The Winnebago County Board, the governing body for the county, appoints the Zoning Officer. The Zoning Officer administers the zoning regulations. A zoning permit, indicating conformance with the zoning ordinance, must be issued by the Zoning Officer prior to the issuance of a building permit. A Zoning Board of Appeals is authorized to rule on appeals of the decisions of the Zoning Officer.

Winnebago County administers all planning and zoning for townships within the county. As shown on **Exhibit 2-3**, the Winnebago County portion of the study area includes Rockford Township, Cherry Valley Township, and the Village of New Milford. The townships primarily provide roadway system maintenance and construction services as well as social services for the area.

## Ogle County



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The Ogle County Zoning Regulations were last amended in 2017. The latest regulations establish 13 zoning districts in the unincorporated areas of Ogle County. The zoning regulations include two agricultural districts, four residential, three commercial and one industrial district. Also included in the regulations are planned development districts, including residential, commercial and industrial development. The zoning districts are summarized in **Appendix E, Land Use Methodology, Table E-5, Ogle County - Zoning District**, of this document.

The Ogle County Zoning Regulations are administered by an appointed zoning administrator. A Zoning Board of Appeals is also established by regulation. The boards powers include: hearing and determining appeals from decisions of the Zoning Administrator, hearing and deciding on applications for variances, and hearing and recommending to the County Board on applications for special uses and zoning amendments.

The Ogle County Planning & Zoning Department is responsible for regulating construction activities in the unincorporated county. This department regulates construction through zoning ordinances, flood hazard regulations, and subdivision regulations.

Proposed amendments to the zoning ordinance are filed with the Board of Appeals which holds a hearing on the proposal and forwards a recommendation to the County Board. The County Board makes the final decision on proposed zoning amendments.

Ogle County administers all planning and zoning for townships within the county. As shown on **Exhibit 2-2**, the Ogle County portion of the study area includes Scott and Monroe townships. The townships primarily provide roadway system maintenance and construction services as well as social services for the area.

## » 2.3 Noise Sensitive Properties and Historic Resources

As discussed in **Section 2.1.1**, the FAA has identified land use compatibility guidelines relating types of land use to airport sound levels. These guidelines are defined in Federal Aviation Regulations (FAR), 14 CFR Part 150 Land Use Compatibility with Yearly Day-Night Average Sound Levels, reproduced in **Appendix A, Table A-1**, of this document. Starting at 65 DNL, below which the FAA generally considers land uses compatible with airport operations, the table shows the compatibility guidelines for residential, public (schools, churches, nursing homes, and hospitals), commercial, manufacturing and production, and recreational land uses.

Given these guidelines, a number of noise-sensitive public facilities were identified within the study area: 9 schools and 49 churches, there are no libraries or hospitals in the study area. **Appendix E, Table E-2** lists these noise-sensitive public facilities; these facilities and are also shown on **Exhibit 2-5, Existing Noise Sensitive Facilities**.

Per 14 CFR Part 150 guidance, efforts were made to identify known historic resources, including properties listed on the National Register of Historic Places (NRHP), within the study area. The National Park Service (NPS) records and Illinois Historic Architectural Resources Geographic Information System (HARGIS) were researched for known historic sites. One site within the study area is listed on the NRHP; the Indian Hill Manor and Farm is near the intersection of Kishwaukee Road and South Bend Road and shown in **Exhibit 2-5**. The historic property was added to the NRHP list in 2001 and is also known as the Charles C. Barrett House.

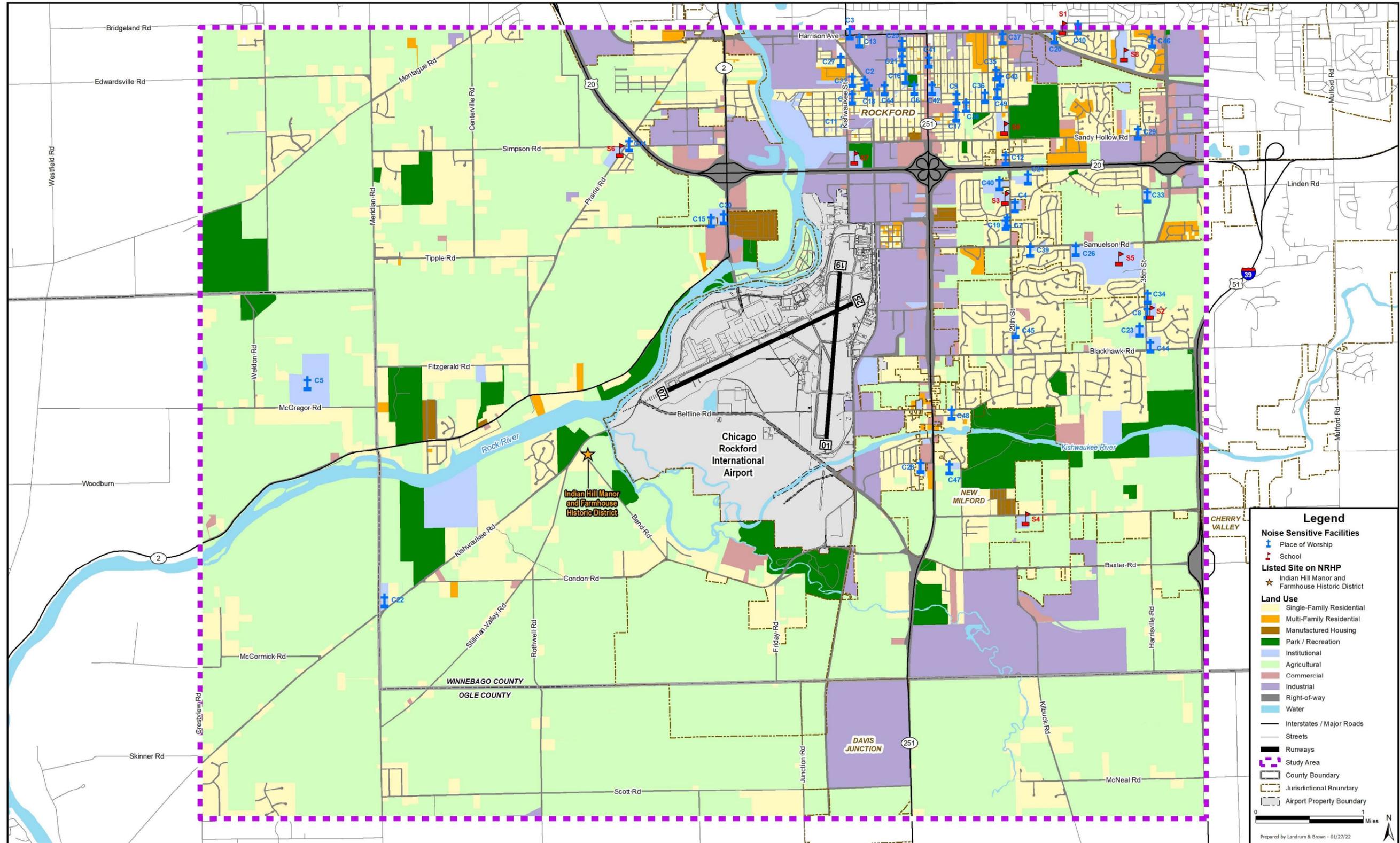


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EXHIBIT 2-5 | EXISTING NOISE SENSITIVE FACILITIES



Source: Winnebago & Ogle County GIS data, 2022, Landrum & Brown analysis, 2023.



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