

CHAPTER FOUR

AFFECTED ENVIRONMENT

The purpose of this chapter is to describe the character of the environment in which the proposed action would occur. Characteristics of the surrounding area are given to familiarize the reader with the geography, land use, demographics, and general environmental conditions.

The description of the affected environment is presented under the following categories:

- Airport Location and Study Areas
- Existing Land Use and Land Use Planning
- Demographics and Socioeconomic Profile
- Physical and Natural Environment
- Past, Present, and Reasonably Foreseeable Future Actions

Chapter 5, Environmental Consequences presents the existing or baseline conditions associated with the specific environmental resources noted in FAA guidance. For purposes of this EIS, baseline conditions are for the year 2002.

4.1 AIRPORT LOCATION AND STUDY AREAS

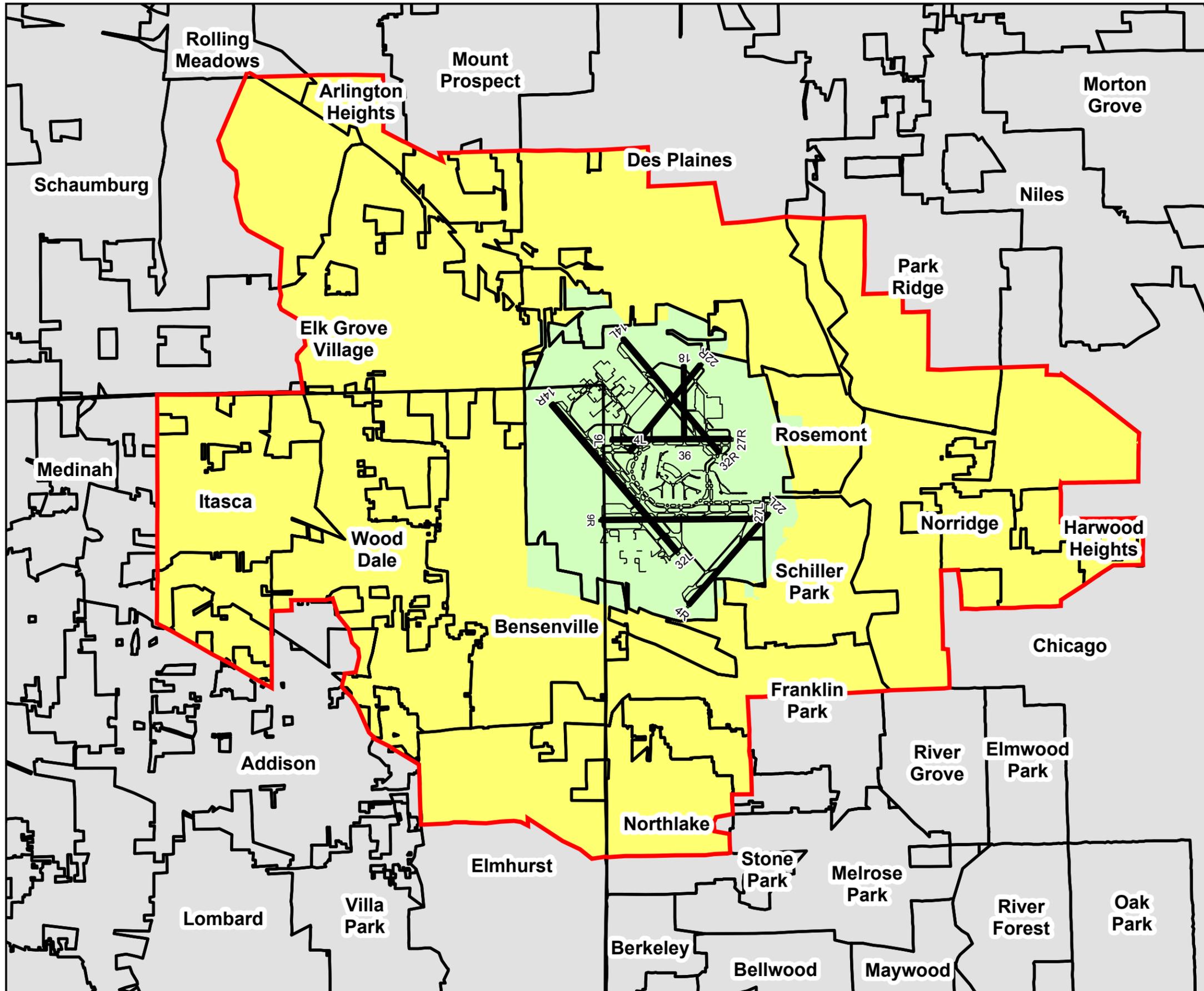
O'Hare International Airport (O'Hare or the Airport) is located within the Chicago metropolitan area, approximately 17 miles northwest of Chicago's downtown central business district. The Airport, located on the border of Cook and DuPage counties within the City of Chicago, is bounded by the communities of Des Plaines, Rosemont, Schiller Park, Franklin Park, Bensenville, and Elk Grove Village. For the purposes of describing the affected environment within the vicinity of O'Hare, three study areas have been defined. These study areas are described in the following bullets. Further descriptions of these study areas are also presented in **Section 5.0, Introduction**, to identify the specific environmental resources associated with the applicable study area. The study areas are:

- **Construction Impact Area** - This area is bound by the future Airport property boundary associated with any of the alternatives and includes areas where proposed navigation aids (NAVAIDS) would be required off Airport property (see **Exhibit 4.1-1**). For greater detail of the offsite NAVAID locations included in the Construction Impact Area, which are not shown in the exhibit due to the scale of the drawing, see **Appendix O, Solid and Hazardous Waste**.
- **Project Area** - This area includes portions of 18 communities surrounding O'Hare in which aircraft noise exposure has the potential to reach FAA levels of significance.¹

¹ Noise exposure based on the composite of all noise contours for each alternative under consideration. Noise impacts will be discussed further in **Section 5.2, Compatible Land Use**.

These 18 communities, or portions thereof, include: Addison, Arlington Heights, Bensenville, Chicago, Des Plaines, Elk Grove Village, Elmhurst, Franklin Park, Harwood Heights, Itasca, Mount Prospect, Norridge, Northlake, Park Ridge, Rolling Meadows, Rosemont, Schiller Park, Wood Dale, and portions of unincorporated Cook and DuPage counties (see **Exhibit 4.1-1**).

- **Expanded Project Areas** - There are also various expanded project areas depending on the specific resource category that is being assessed. These expanded project areas primarily relate to surface transportation, supplemental noise metrics, air quality and socioeconomic impacts. Further descriptions of the expanded project areas are included in **Chapter 5, Environmental Consequences**.



Source: Census 2000, U.S. Census Bureau



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**O'Hare Modernization
Environmental Impact Statement**

- Project Area
- Community Boundaries
- Construction Impact Area
- Potentially Affected Communities



**Construction Impact and
Project Areas**

► Exhibit 4.1-1

4.2 EXISTING LAND USE AND LAND USE PLANNING

The following section highlights land use in the project area. A generalized land use map for the project area is illustrated in **Exhibit 4.2-1**.

4.2.1 Existing Land Use in the Project Area

Residential development is nearest to the north and northeast as well as the southeast and southwest boundaries of the Airport. The nearby residential land is within the following communities:

- North: Rosemont and Des Plaines
- Northeast: Rosemont
- Southeast: Schiller Park and Franklin Park
- Southwest: Bensenville

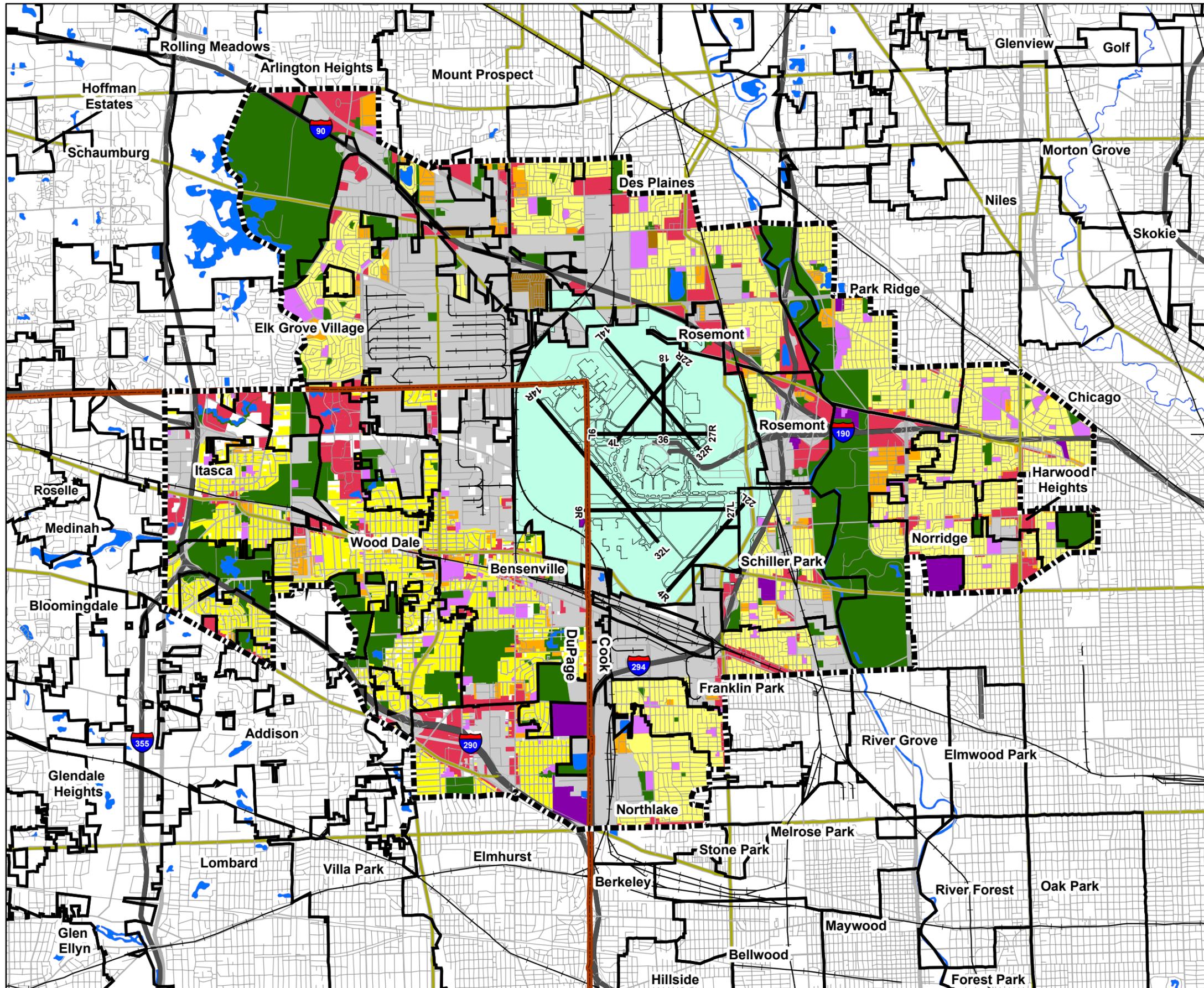
A considerable amount of industrial land is present to the north and northwest of the Airport in Des Plaines, Mount Prospect, and Elk Grove Village; to the west in Wood Dale and Bensenville; and to the south in Bensenville, Franklin Park, and Schiller Park. Smaller areas of industrial development are scattered throughout the entire project area. Parks, open space, and undeveloped land are present in varying degrees in the project area. The largest individual areas of open space are the forest preserves along the Des Plaines River, the Ned Brown Forest Preserve to the northwest of the Airport, and the preserves to the north and northeast of the Airport.

Commercial land uses are scattered throughout the entire project area, particularly along major thoroughfares. Institutional land uses are also distributed throughout the communities in the project area. Land surrounding the Airport is highly urbanized. The percentages of land use, by type, in the project area are depicted in **Exhibit 4.2-1**.

4.2.2 Land Use and Future Planned Development for Communities in the Project Area

Development surrounding O'Hare in the project area includes residential, commercial, retail, and industrial uses. It is anticipated that future land uses immediately adjacent to the Airport will resemble the existing zoning classifications as shown in **Exhibit 4.2-2**. Future development in the project area is expected primarily to involve infill of existing commercial and residential areas. **Chapter 6, Cumulative Impacts**, provides a discussion of any identified future planned development in the project area. A discussion of compatibility or conflicts with any available local comprehensive plans will also be presented in **Section 5.2, Compatible Land Use**.

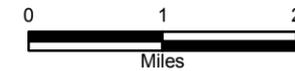
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**O'Hare Modernization
Environmental Impact Statement**

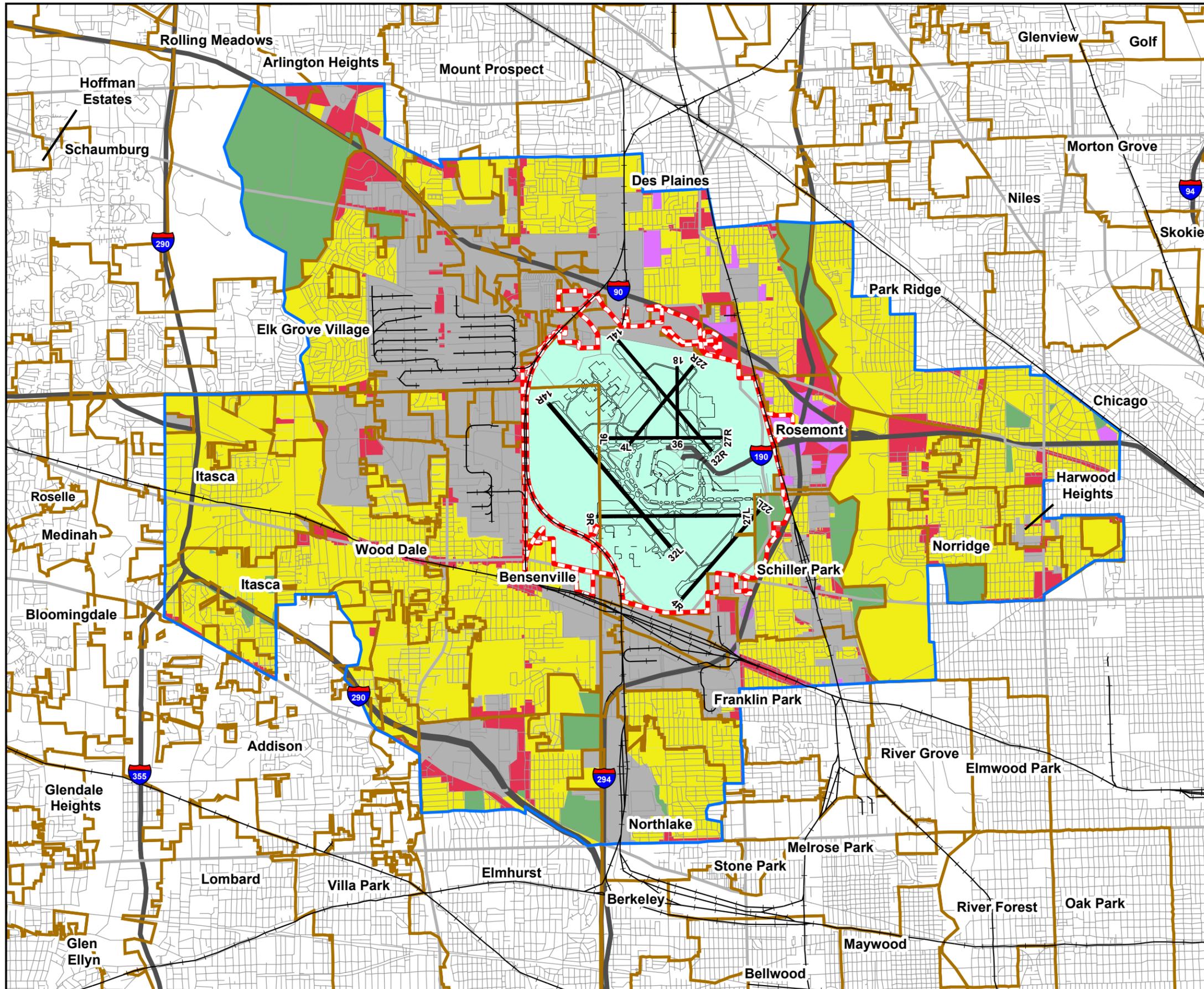
- +— Railroads
- Freeways
- Secondary Roads
- Local Streets
- Light Blue Airport Property (13.86%)
- Yellow Single-Family (25.04%)
- Orange Multi-Family (2.40%)
- Brown Mobile-Homes (0.36%)
- Pink Institutions (2.20%)
- Red Commercial/Mixed Use (7.33%)
- Grey Industrial (28.86%)
- Purple Cemetery (1.19%)
- Green Parks, Forests, and Controlled Open Spaces (15.30%)
- White Vacant/Agriculture (2.60%)
- Blue Water (0.86%)
- Dashed Line Project Area
- Thin Solid Line Community Boundaries
- Thick Solid Line County Boundary



**Generalized Existing
Land Use**

► Exhibit 4.2-1

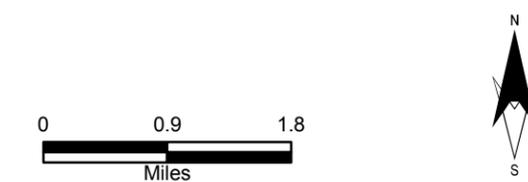
Source: Streets: StreetMapUSA 2002, ESRI. Land Use: DuPage Co. March 2002. Cook County: Northeastern Illinois Planning Commission Land Use Files, 1993. Park Ridge, Land Use Map, Adopted July 1996.



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**O'Hare Modernization
Environmental Impact Statement**

- Railroads
- Freeway
- Secondary Roads
- Local Streets
- Airport Property Line
- Project Area
- Community Boundaries
- Industrial
- Parks, Forest Preserves, and Open Spaces
- Airport Property
- Residential
- Commercial
- Government and Institutional



**Generalized Zoning
in Project Area**

► Exhibit 4.2-2

Source: Municipal Boundaries: 2000 U.S. Census. Streets: StreetMapUSA, ESRI, 2003. Zoning: Cook Co. Planning Department, DuPage Co. Planning Department, Municipal Zoning Maps

Continued development of commercial facilities, such as hotels, restaurants, and business services, in support of the traveling and business community, is anticipated in the communities surrounding O'Hare.

Although most of the municipalities surrounding the Airport are largely developed with residential and commercial development, some municipalities are still growing. Communities in the project area that are continuing to increase the number of residential units include Arlington Heights, Elk Grove Village, Elmhurst, and Park Ridge.

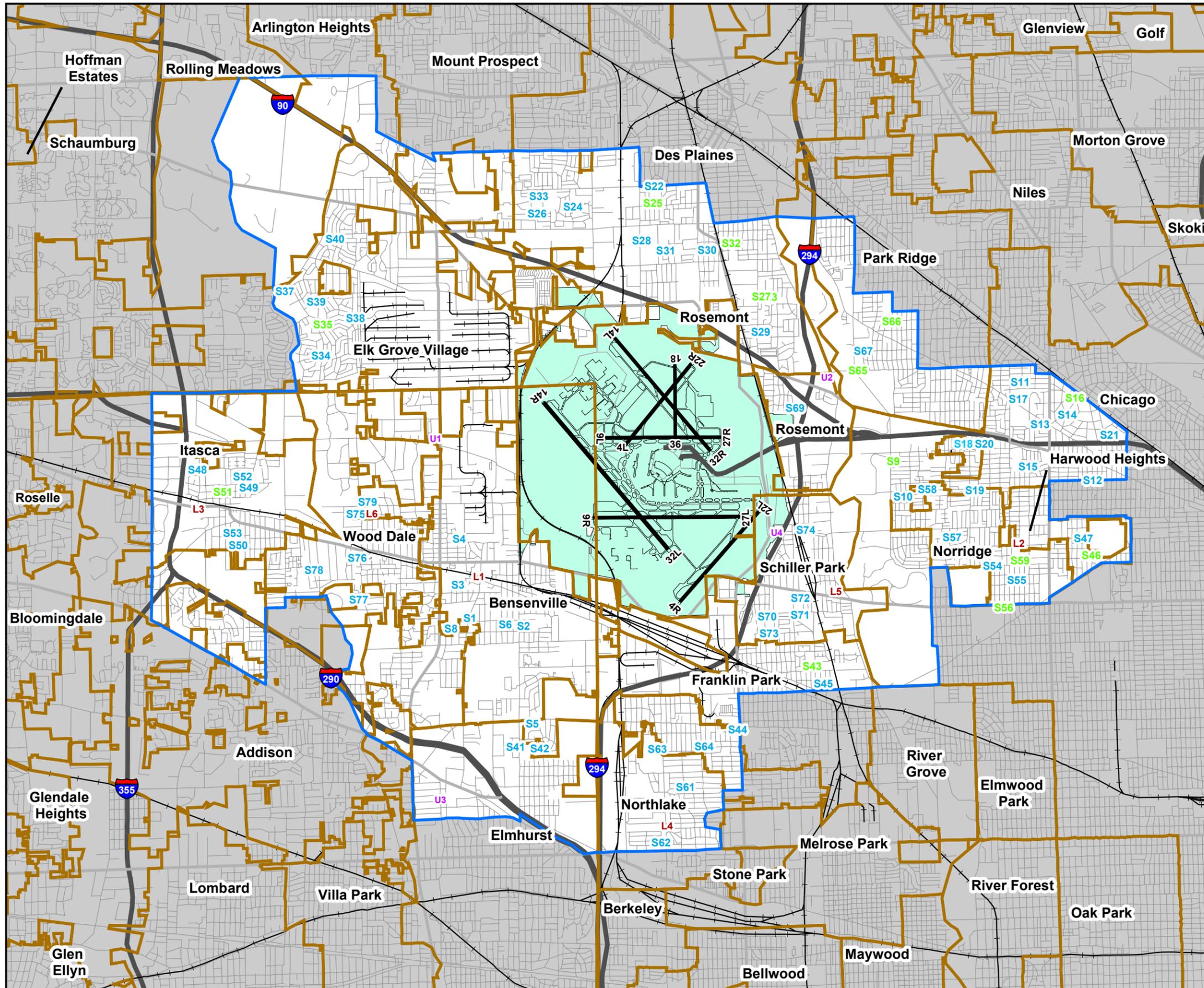
4.2.3 Noise Sensitive Non-Residential Facilities

The FAA has published guidelines relating the compatibility of land use types to airport sound levels. These guidelines are defined in Federal Aviation Regulations (FAR), 14 CFR Part 150. These guidelines delineate the compatibility parameters for residential, public, commercial, manufacturing and production, and recreational land uses, and determines the various types of noise-sensitive facilities. The following are considered noise-sensitive non-residential facilities:

- Learning Institutions (public and private schools, universities, and libraries): **Exhibit 4.2-3** shows 79 public and private schools (K-12), 4 colleges/universities, and 6 libraries in the project area.
- Healthcare Facilities (hospitals and nursing homes): **Exhibit 4.2-4** shows that there are two hospitals and six nursing homes in the project area.
- Places of Worship (churches, temples, and synagogues): **Exhibit 4.2-5** shows 87 places of worship in the project area.

Tables listing all noise-sensitive facilities in the project area are included in **Appendix F, Noise**.

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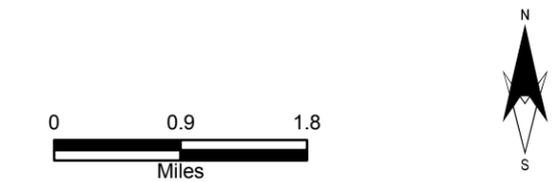
Source: Municipal Boundaries: US Census Bureau, Census 2000. Streets: StreetMapUSA Schools: Smartpages.com



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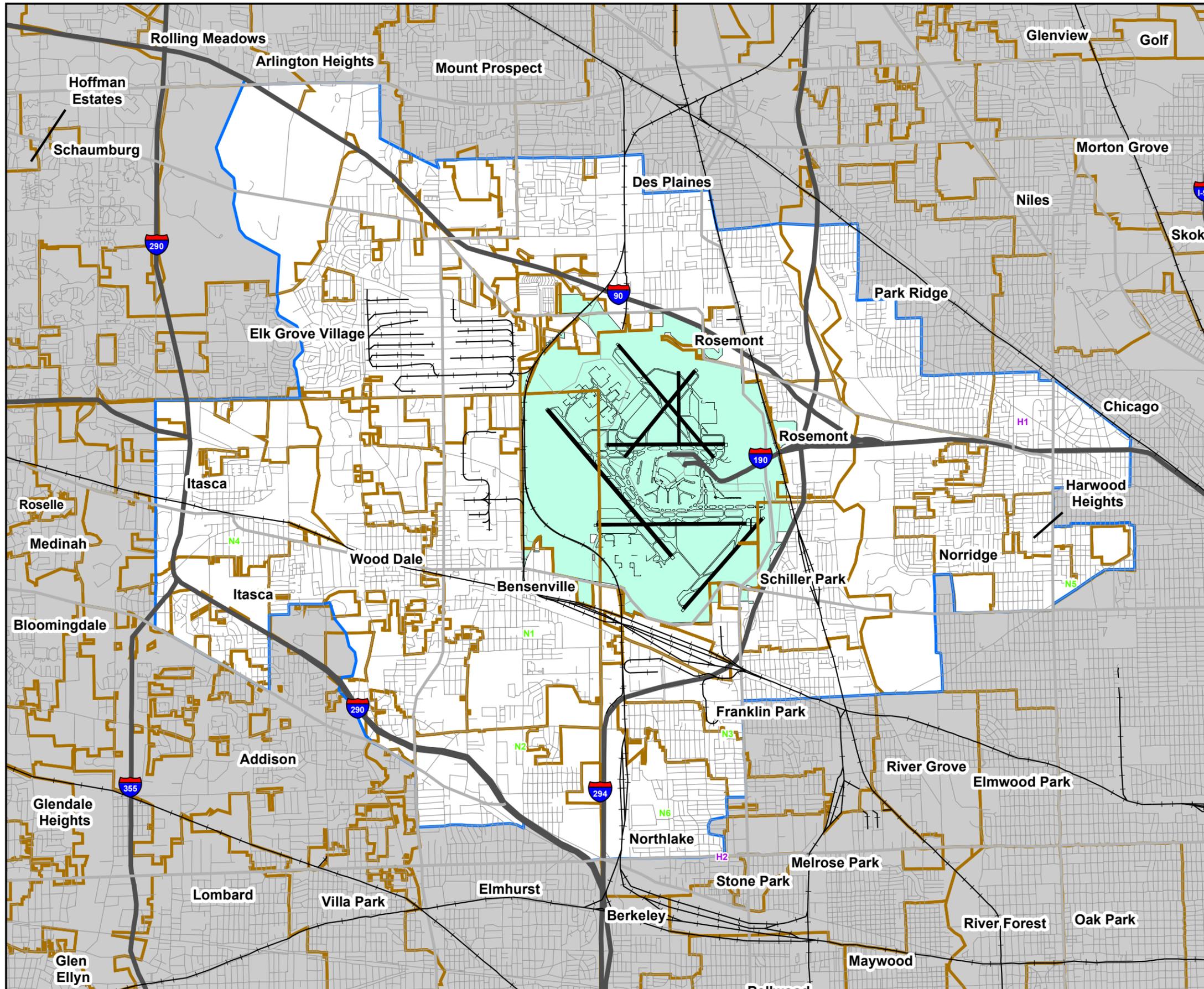
**O'Hare Modernization
Environmental Impact Statement**

- S(#) Schools
- S(#) Schools in SSIP as of 06/2005
- U(#) Colleges and Universities
- L(#) Libraries
- Railroads
- Freeway
- Secondary Roads
- Local Streets
- Light Green Area: Airport Property
- Orange Outline: Community Boundaries
- Blue Outline: Project Area



**Noise-Sensitive Facilities
Learning Institutions**

► Exhibit 4.2-3



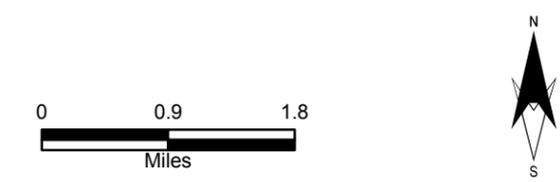
Source: Municipal Boundaries: 2000 U.S. Census. Streets: StreetMapUSA, ESRI, 2003. Hospitals and Nursing Homes: www.smartpages.com



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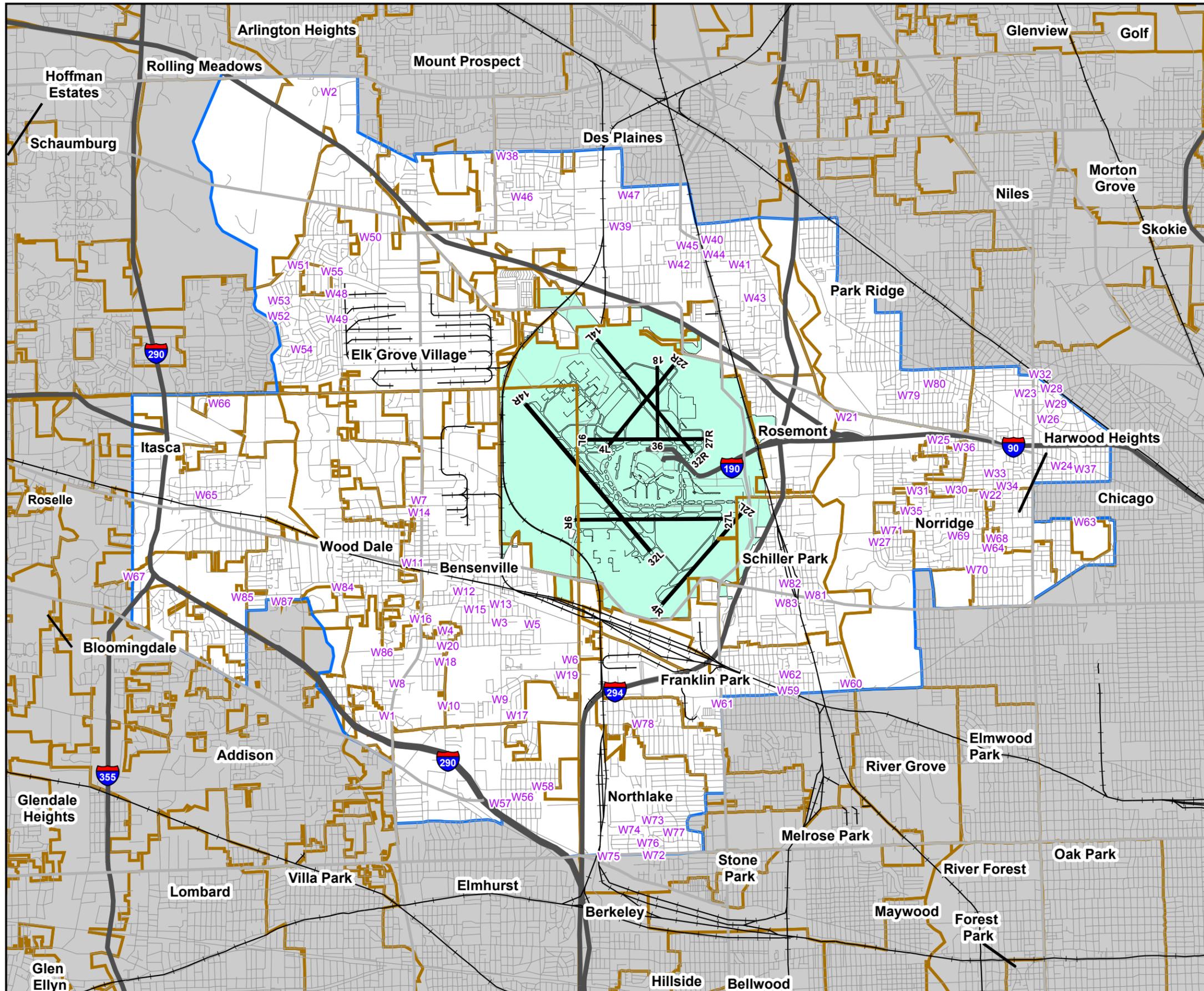
**O'Hare Modernization
Environmental Impact Statement**

- H(#) Hospitals
- N(#) Nursing Homes
- Railroads
- Freeway
- Secondary Roads
- Local Streets
- Airport Property
- Community Boundaries
- Project Area



**Noise-Sensitive Facilities
Healthcare Facilities**

► Exhibit 4.2-4



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**O'Hare Modernization
Environmental Impact Statement**

- W(#) Places of Worship
- Railroads
- Freeway
- Secondary Roads
- Local Streets
- Airport Property
- Community Boundaries
- Project Area



**Noise-Sensitive Facilities
Places of Worship**

► Exhibit 4.2-5

Source: Municipal Boundaries: US Census Bureau, Census 2000. Streets: StreetMapUSA Places of Worship: Smartpages.com

4.3 DEMOGRAPHICS AND SOCIOECONOMIC PROFILE

The area surrounding O'Hare is highly developed. The character of the area is described below in terms of community support services, population growth trends and characteristics, economic trends, and other demographic information for use in analyzing social, socioeconomic, and environmental justice impacts.

4.3.1 Communities

As discussed previously, the project area includes portions of 18 communities in the vicinity of O'Hare. These communities are located predominantly in either Cook or DuPage counties, while some communities are partially in both counties. Nine of these communities were established prior to 1900. Other municipalities are relatively new, having been established in the 1950s. **Exhibit 4.3-1** shows the locations of each jurisdiction. The following sections present information pertaining to these communities within the project area, including support services and demographics.

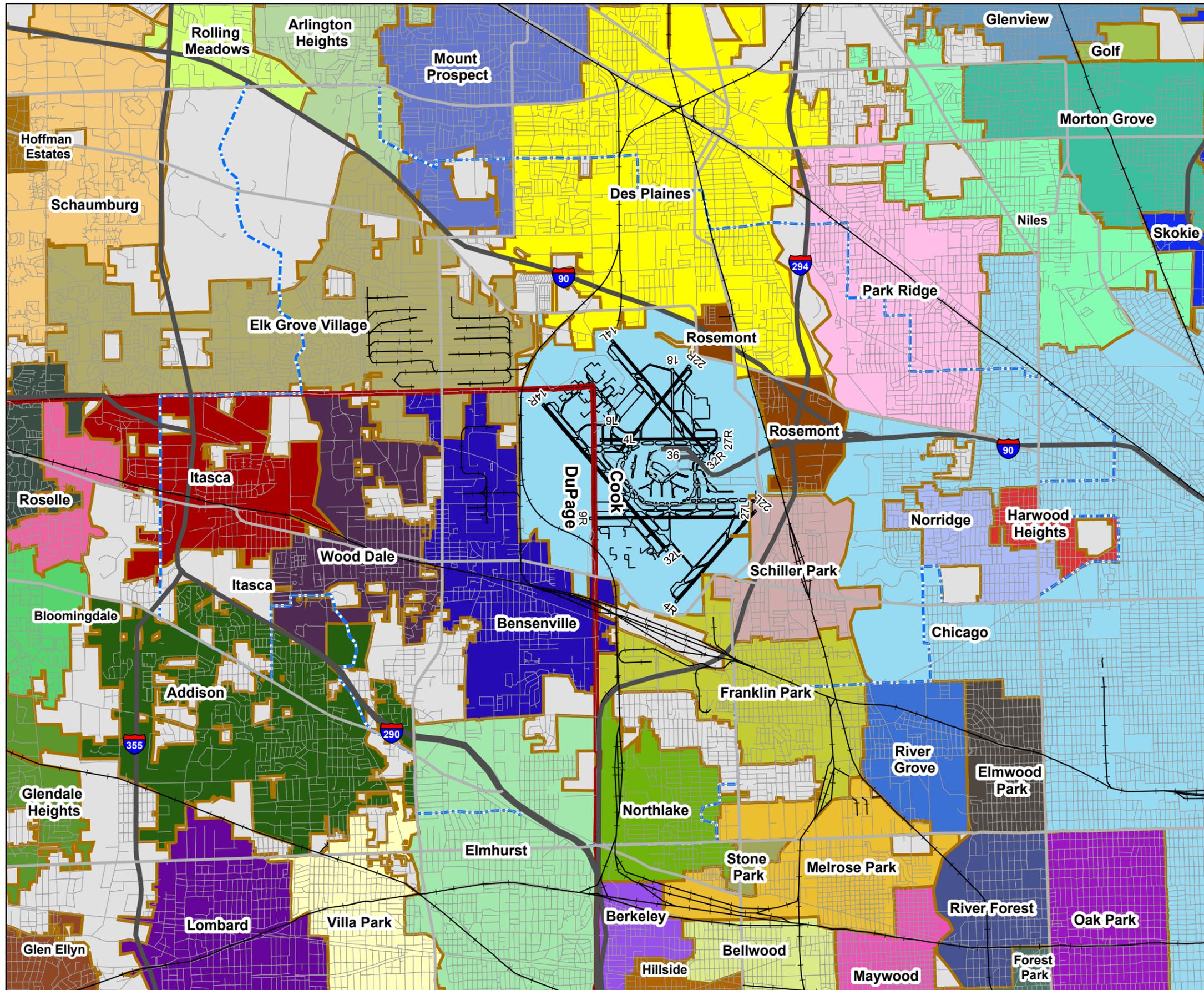
4.3.1.1 Community Support Services and Special Districts

Residents of communities in the project area have available a wide range of community support services. Community support services include such facilities as parks, medical care facilities, police and fire protection, sewer and sanitation, and street maintenance services.

While the municipal governments provide numerous services to local residents, many special districts have also been established in the study area to provide special services such as schools, fire and police protection, and parks and forest preserves.

- **School Districts:** There are a total of 42 school districts (24 Elementary, 14 Secondary, and 4 Unified) in the project area. Within these districts, there are 79 schools in the project area. A list of schools, including names and addresses, is included in **Appendix F, Noise**. These schools were also discussed previously in **Section 4.2.3, Noise Sensitive Non-Residential Facilities**.
- **Fire and Police Protection:** There are a total of 17 fire departments and 21 police departments that serve the various communities within the project area.
- **Park Districts:** A total of 21 park districts are found within the project area. Park districts are responsible for maintaining parks, baseball fields, swimming pools, and other recreational areas. Some park districts also operate senior citizen facilities for recreation and day-care. Sixteen (16) communities in the project area have established park districts. Parks in the project area are shown in **Exhibit 4.3-2**.

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Source: Municipal Boundaries: United States Census Bureau, 2000 Census. Roads: StreetMap 2002, ESRI.



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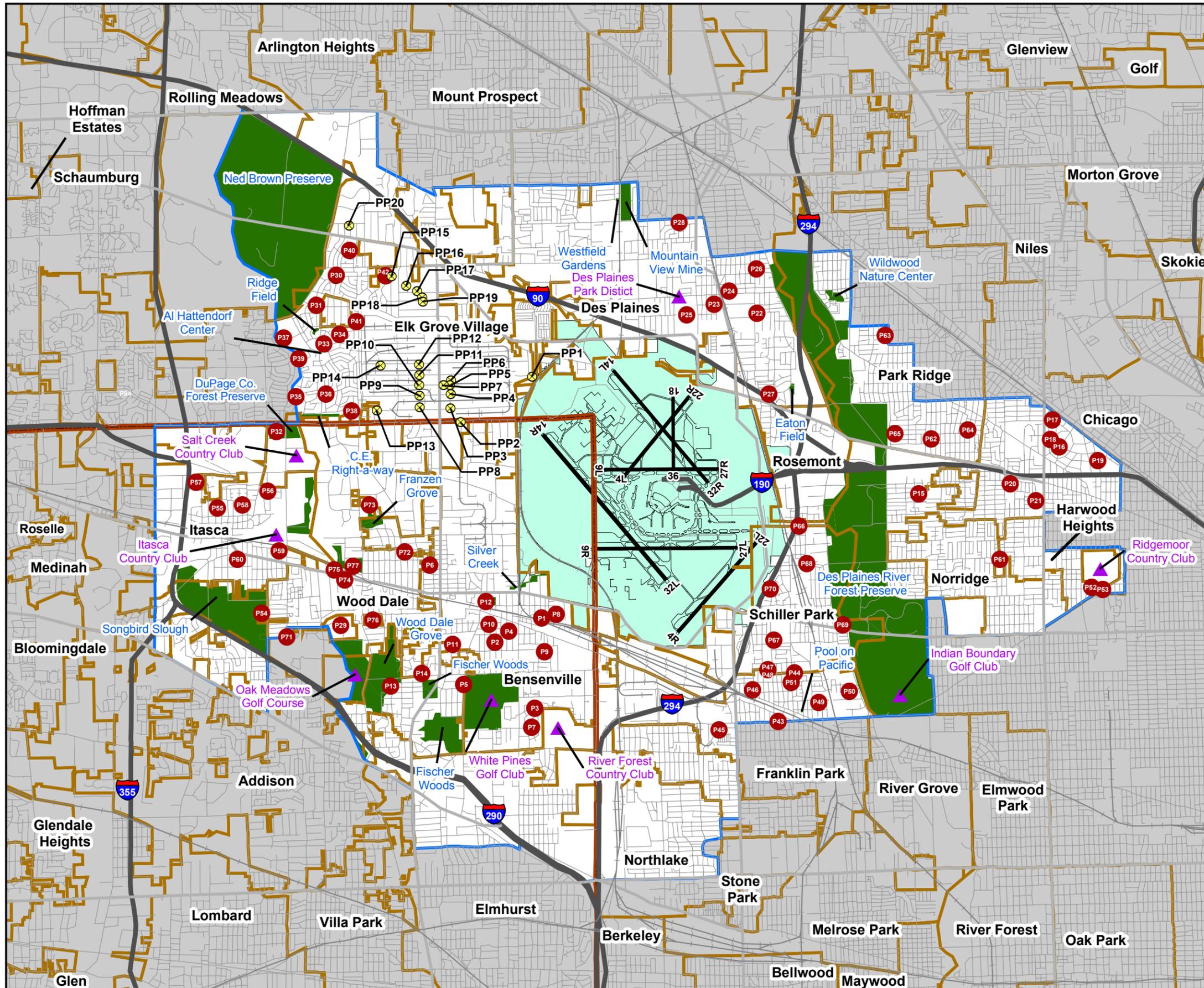
**O'Hare Modernization
Environmental Impact Statement**

- Freeway
- Secondary Roads
- Local Streets
- Railroads
- Municipal Boundary
- County Boundaries
- Project Area
- Unincorporated Areas



Counties and Municipalities

► Exhibit 4.3-1



Source: Municipal Boundaries: US Census Bureau, Census 2000. County Park/Forest Preserves. Municipal Park Districts



Chicago

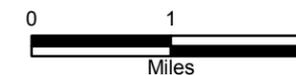
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**O'Hare Modernization
Environmental Impact Statement**

- Parks
- ⊗ Pocket Parks
- ▲ Golf Courses
- Railroads
- Freeway
- Secondary Roads
- Local Streets
- Project Area
- Forest Preserves/Recreation Areas
- Airport Property
- Community Boundaries
- County Boundary



**Forest Preserves/Recreation Areas/
Golf Courses and Parks**

► Exhibit 4.3-2

- **Forest Preserve Districts:** The Forest Preserve Districts are owned by the respective counties of Cook and DuPage. The forest preserves near O'Hare vary in size and may contain large expanses of wooded and natural open land, lakes and rivers, recreational facilities, and historic buildings. Recreation areas and forest preserves in the project area are also shown in **Exhibit 4.3-2**. A complete list of the parks, forest preserves, and recreation areas in the project area is included in **Appendix F, Noise**.
- **Golf Courses:** Some golf courses are also located in the project area and are owned by public and private entities. The golf courses in the project area are shown in **Exhibit 4.3-2**.

4.3.2 Regional Planning Commissions and Organizations

In addition to community-level government, several regional planning organizations, including Regional Planning Commissions (RPC) and Metropolitan Planning Organizations (MPO) have jurisdiction over portions of the project area. The RPCs are responsible for providing planning assistance on regional issues, assisting local interests in responding to state and Federal programs, as a coordinating agency for programs and activities, and providing planning and development assistance to local government. The MPOs are primarily responsible for transportation planning, developing transportation plans that would provide an efficient multi-modal transportation system in an urbanized area, and developing short-range transportation improvement projects for Federal funding purposes. These organizations include: Northeastern Illinois Planning Commission (NIPC) and Chicago Area Transportation Study (CATS). NIPC is the MPO for the northeastern Illinois region, including Cook, DuPage, Kane, Lake, McHenry, and Will Counties. CATS, is the MPO for surface transportation for the northeastern Illinois region, including Cook, DuPage, Kane, Lake, McHenry, and Will Counties, as well as a portion of Kendall County. An additional discussion on CATS and NIPC policies and strategies for future planning is included in **Section 5.3.1.1, Regulatory Context**.

4.3.3 Population

4.3.3.1 Population Trends

Table 4.3-1 shows the comparison of population, households, and employment in 2000 to forecasted projections for 2020 for Cook and DuPage Counties and for the municipal limits of the 18 communities within the project area using 2000 census data and data from NIPC. The population in Cook and DuPage counties is forecasted to grow by 4.4 percent and 9.0 percent over the next 20 years, respectively. Employment is forecasted to grow by 21.9 percent in Cook County, 26.3 percent in DuPage County, and 14.9 percent within the communities in the project area.

Communities adjacent to the Airport like Schiller Park and Des Plaines are well-established residential communities showing little change in population. In contrast, over the past 40 years, most communities surrounding the Airport have experienced a significant increase in population growth. Between 1970 and 2000, the average annual growth rate for Rosemont and

Wood Dale was over three percent. Population projections for these communities indicate a continuing increase in population similar to past trends.

**TABLE 4.3-1
2000 & 2020 FORECASTS OF POPULATION, HOUSEHOLDS, AND EMPLOYMENT
BY COUNTY AND MUNICIPALITY**

Area Name	Population			Households			Employment		
	2000	2020	% CHANGE	2000	2020	% CHANGE	2000	2020	% CHANGE
County									
Cook	5,376,741	5,615,278	4.40%	1,974,181	2,139,616	8.38%	2,841,941	3,464,032	21.89%
DuPage	904,161	985,704	9.02%	325,601	360,733	10.79%	646,610	816,413	26.26%
Kane	404,119	552,034	36.60%	133,901	198,874	48.52%	206,107	231,620	12.38%
Lake	644,356	806,779	25.21%	216,297	291,946	34.97%	354,114	426,232	20.37%
McHenry	260,077	347,159	33.48%	89,403	126,155	41.11%	105,118	113,984	8.43%
Will	502,266	738,046	46.94%	167,542	256,826	53.29%	169,317	227,719	34.49%
County Total	8,091,720	9,045,000	11.78%	2,906,925	3,374,150	16.07%	4,323,207	5,280,000	22.13%
Municipality									
Addison	35,914	38,115	6.13%	11,649	13,790	18.38%	33,415	38,893	16.39%
Arlington Heights	76,031	80,069	5.31%	30,763	32,535	5.76%	58,259	59,335	1.85%
Bensenville	20,703	17,945	-13.32%	6,885	7,163	4.04%	28,903	32,899	13.83%
Chicago	2,896,016	3,007,325	3.84%	1,061,928	1,152,464	8.53%	1,522,635	1,695,929	11.38%
Des Plaines	58,720	59,570	1.45%	22,362	24,126	7.89%	60,359	74,732	23.81%
Elk Grove Village	34,727	39,565	13.93%	13,278	15,402	16.00%	61,121	76,732	25.54%
Elmhurst	42,762	44,900	5.00%	15,627	16,898	8.13%	41,429	31,792	-23.26%
Franklin Park	19,434	20,562	5.80%	6,484	7,529	16.12%	27,474	31,705	15.40%
Harwood Heights	8,297	8,703	4.89%	3,505	3,934	12.24%	9,194	11,890	29.32%
Itasca	8,302	9,524	14.72%	3,179	3,465	9.00%	31,374	41,826	33.31%
Mount Prospect	56,265	54,839	-2.53%	21,585	23,019	6.64%	18,397	37,108	101.71%
Norridge	14,582	15,459	6.01%	5,727	5,956	4.00%	4,949	9,311	88.14%
Northlake	11,878	13,006	9.50%	3,873	4,649	20.04%	10,934	17,666	61.57%
Park Ridge	37,775	36,040	-4.59%	14,219	14,584	2.57%	20,676	24,068	16.41%
Rolling Meadows	24,604	24,052	-2.24%	8,923	8,909	-0.16%	23,206	32,298	39.18%
Rosemont	4,224	5,123	21.28%	1,692	2,227	31.62%	13,557	37,600	177.35%
Schiller Park	11,850	11,678	-1.45%	4,244	4,658	9.75%	8,848	16,027	81.14%
Wood Dale	13,535	14,637	8.14%	5,117	5,351	4.57%	24,897	24,417	-1.93%
Municipality Total	3,375,619	3,501,112	3.72%	1,241,040	1,346,659	8.51%	1,996,627	2,294,431	14.93%

Source: 2000 Information: Census 2000 Summary File 1, 100-Percent Data.
2020 Information: Northeastern Illinois Planning Commission, 2003.
Website, http://www.nipc.cog.il.us/revised_2020_table.htm.

Table 4.3-2 shows the comparison of population and households in 2000 to forecasted projections for 2020 for only the portions of each of the 18 communities and unincorporated areas of Cook and DuPage Counties within the project area.

**TABLE 4.3-2
2020 FORECASTS OF POPULATION, HOUSEHOLDS, AND EMPLOYMENT BY
COUNTY AND MUNICIPALITY WITHIN THE PROJECT AREA**

Area Name	Population			Households		
	2000	2020 (a)	% CHANGE	2000	2020 (a)	% CHANGE
Addison (c)	4,747	5,038	6.13%	1,434	1,698	15.50%
Arlington Heights (c)	3,695	3,891	5.30%	1,614	1,736	5.40%
Bensenville (b)	20,703	17,945	-13.32%	6,885	7,163	3.90%
Chicago (c)	32,301	33,543	3.85%	14,089	15,290	7.90%
Des Plaines (c)	26,527	26,911	1.45%	9,375	10,115	7.30%
Elk Grove Village (c)	11,844	13,494	13.93%	4,562	5,292	13.80%
Elmhurst (c)	5,912	6,208	5.01%	2,016	2,180	7.50%
Franklin Park (c)	8,663	9,166	5.81%	2,675	3,106	13.90%
Harwood Heights (b)	8,297	8,703	4.89%	3,505	3,934	10.90%
Itasca (c)	6,448	7,397	14.72%	2,392	2,607	8.30%
Mount Prospect (c)	6,374	6,212	-2.54%	2,794	2,980	6.20%
Norridge (b)	14,582	15,459	6.01%	5,727	5,956	3.80%
Northlake (c)	7,350	8,048	9.50%	2,606	3,128	16.70%
Park Ridge (c)	13,692	13,063	-4.59%	5,307	5,443	2.50%
Rolling Meadows (c)	2	2	0.00%	1	1	0.00%
Rosemont (b)	4,224	5,123	21.28%	1,708	2,227	23.30%
Schiller Park (b)	11,850	11,656	-1.64%	4,244	4,658	8.90%
Wood Dale (c)	12,400	13,410	8.15%	4,528	4,735	4.40%
Unincorporated Cook County	8,616	8,998	4.43%	2,837	3,056	7.73%
Unincorporated DuPage County	4,538	4,947	9.01%	1,537	1,687	9.74%
Project Area Total	212,765	219,214	3.03%	79,836	86,992	8.96%

Note: (a) For communities that are not entirely located in the project area, future data was projected based on the ratio of Census 2000 data (block level) within the project area to the 2020 data for the entire community as forecasted by NIPC.
(b) Community is entirely located within the project area.
(c) Community is partially located within the project area.

Source: 2000 Information: Census 2000 Summary File 1, 100-Percent Data.
2020 Information: Northeastern Illinois Planning Commission, 2003.
Website, http://www.nipc.cog.il.us/revised_2020_table.htm.

4.4 PHYSICAL AND NATURAL ENVIRONMENT

The following is a summary of the physical and natural environment in the construction impact area. More detailed information is presented in **Chapter 5, Environmental Consequences**, and in the associated Appendices for the specific resource categories.

4.4.1 Topography and Geology

The Airport is located in the northeastern region of Illinois that was once a mosaic of woodlands, prairie, and wetlands and is now characterized as the central Corn Belt Plains Ecoregion.² This ecoregion is comprised of gently rolling topography which, when undeveloped for other purposes, is primarily used for food production for livestock. Intermittent and perennial streams cutting through a thick mantle of wind-blown loess have dissected the glacial till plain. The construction impact area is considered part of the Northeastern Morainal Division, Morainal Section.³ In general, the land surrounding the Airport is highly urbanized, including significant amounts of transportation-related infrastructure improvements, as well as commercial, industrial, retail, and residential land uses.

The existing undeveloped lands are small, isolated patches, the majority of which do not resemble the original landscape of the area. Past and current disturbances limit the quality of the remaining habitat.

4.4.2 Ecological Communities

The Des Plaines River Forest Preserve, the DuPage County Forest Preserve (a portion of which is located within the construction impact area), and the undeveloped areas along the Airport periphery include some of the few remaining green spaces in the vicinity of the Airport. These areas consist largely of disturbed woodlands, meadows, degraded streams (from past modifications), and habitat used by an array of adaptive wildlife species for nesting and migratory resting, as well as modest amounts of urban wildlife. The disturbed habitats that are available limit the number of habitat-sensitive species, especially those species that require large areas for nesting. The species that are known to breed in the Airport area are mostly common, highly adaptive species that survive reasonably well in urban environments. Species common to disturbed habitats include: coyote, fox, rodents, skunk, opossum, raccoon, and various raptors and song birds. On the Airport property, mowed lawns, paved surfaces, and buildings cover most of the secured airfield area. The remaining Airport property has been disturbed to varying extents and contains little intact native vegetation. These lands are located adjacent to the airfield in former industrial and residential areas, nurseries, and some undeveloped areas. The west side of the Airport contains several large earth berms, a former tree nursery, scrub woodland, vacant land, and wetlands.

² Ecoregions of the Upper Midwest States, J. M. Omernik and A.L. Gallant, U.S. Environmental Protection Agency Report No. EPA/600/3-88/037, September 1988.

³ Guide to the Vascular Flora of Illinois, R.H. Mohlenbrock, Southern Illinois University Press, 1986.

Detailed descriptions of the Airport biological field surveys and a more detailed characterization of wildlife, fish, and common and scientific names of plant species occurring within the Airport area are presented in **Appendix N, Biological and Water Resources**, and **Section 5.10, Biotic Communities**.

4.4.3 Water Resources

4.4.3.1 Watersheds

The Airport is located within the watershed of the Des Plaines River. There are three creeks on and surrounding the Airport that form three sub-watersheds (Willow-Higgins Creek, Crystal Creek, and Bensenville Ditch/Silver Creek) of the Des Plaines River. The Willow-Higgins Creek watershed is located on the North Airfield, Crystal Creek is located immediately south of Willow-Higgins Creek, and Bensenville Ditch/Silver Creek is located south of Crystal Creek. The Bensenville Ditch is known as Silver Creek south of Irving Park Road. **Exhibit 4.4-1** illustrates the three watershed boundaries. All three streams generally flow from west to east into their respective confluences with the Des Plaines River. A small portion of the Airport property watershed flows directly to the Des Plaines River. Each of the watersheds is discussed in detail in **Appendix K, Water Quality**.

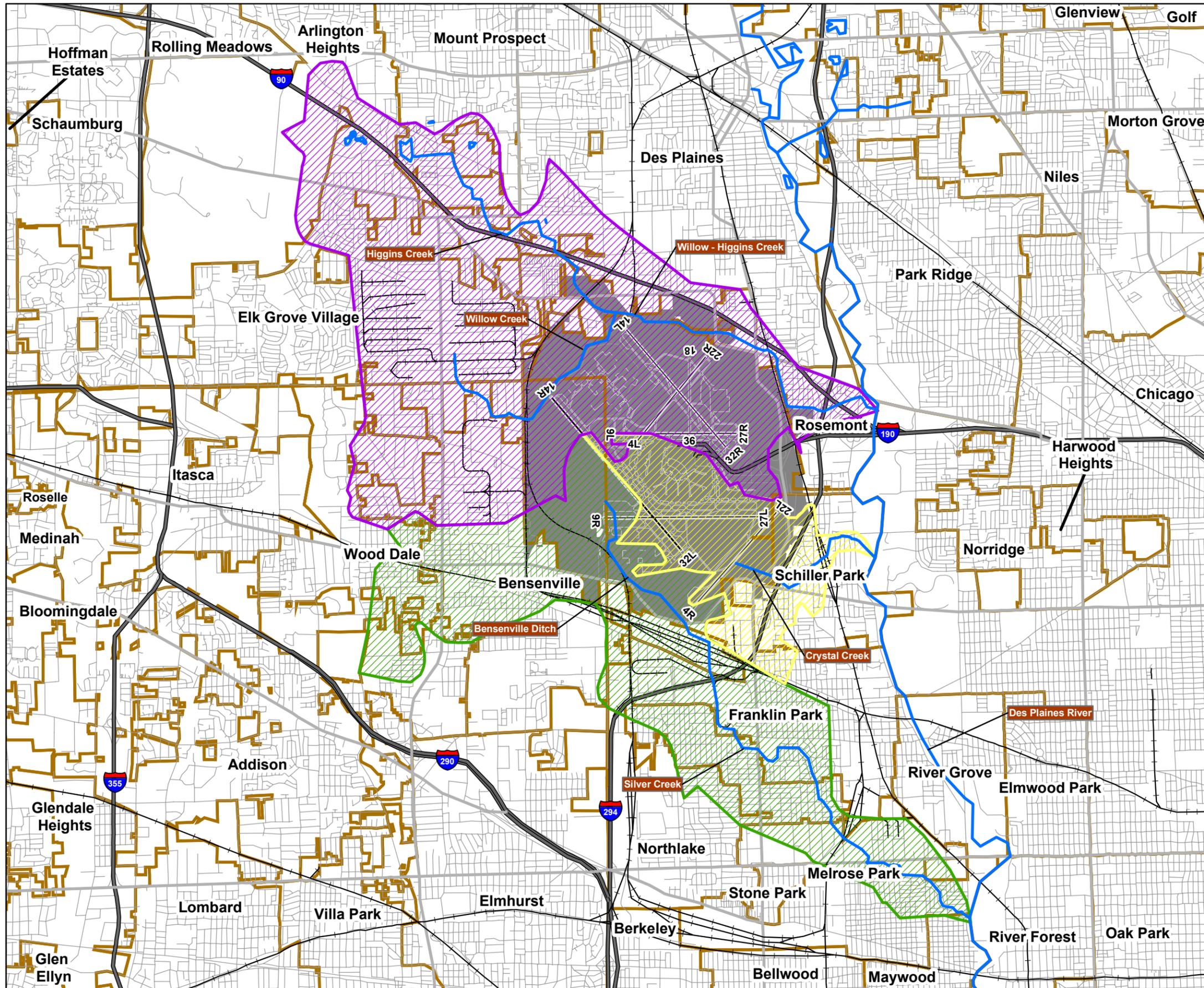
4.4.3.2 Wetlands and Waters of the US

The wetland environment of the Airport consists of many small, individual areas that provide few wetland functions. Over the years, Airport development combined with poor drainage conditions may have contributed to the formation or modification of some of the wetlands currently observed at the Airport.

Approximately 128 acres of wetlands were found on the Airport during the 1999 wetland delineation (refer to **Appendix N** and **Section 5.12, Wetlands** for additional baseline information related to these wetlands). The Airport also contains approximately 8.1 miles of intermittent open/flowing waterways, including parts of Willow Creek, Higgins Creek, Willow-Higgins Creek, Crystal Creek, and Bensenville Ditch. A review of the ditches located on Airport property by the U.S. Army Corps of Engineers (USACE) resulted in a jurisdictional determination of 2.4 miles of drainage ways as Waters of the United States (WUS).⁴ These WUS account for 26.0 acres of jurisdictional resources. In addition, there is approximately 1.0 acre of wetlands and WUS within the proposed acquisition area. **Exhibits 4.4-2** and **4.4-3** portray the current status of WUS on Airport property. **Table 4.4-1** summarizes the jurisdictional wetlands and waterways located within the construction impact area.

⁴ Letter from Keith Wozniak, USACE, to James Considine, City of Chicago Department of Aviation, October 28, 2002.

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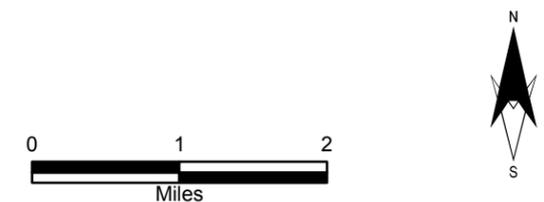
Source: Community Boundaries, Census 2000, U.S. Census Bureau 2000. Streets: StreetmapUSA, ESRI 2003. Watersheds: CTE, 2002.



Chicago
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International
Airport

**O'Hare Modernization
Environmental Impact Statement**

- +— Railroads
- Freeways
- Secondary Roads
- Local Streets
- Waterways
- Community Boundaries
- Bensenville Ditch/Silver Creek Watershed
- Crystal Creek Watershed
- Willow-Higgins Creek Watershed
- Airport Property



Watershed Delineation

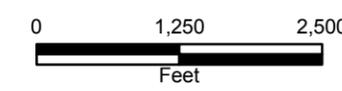
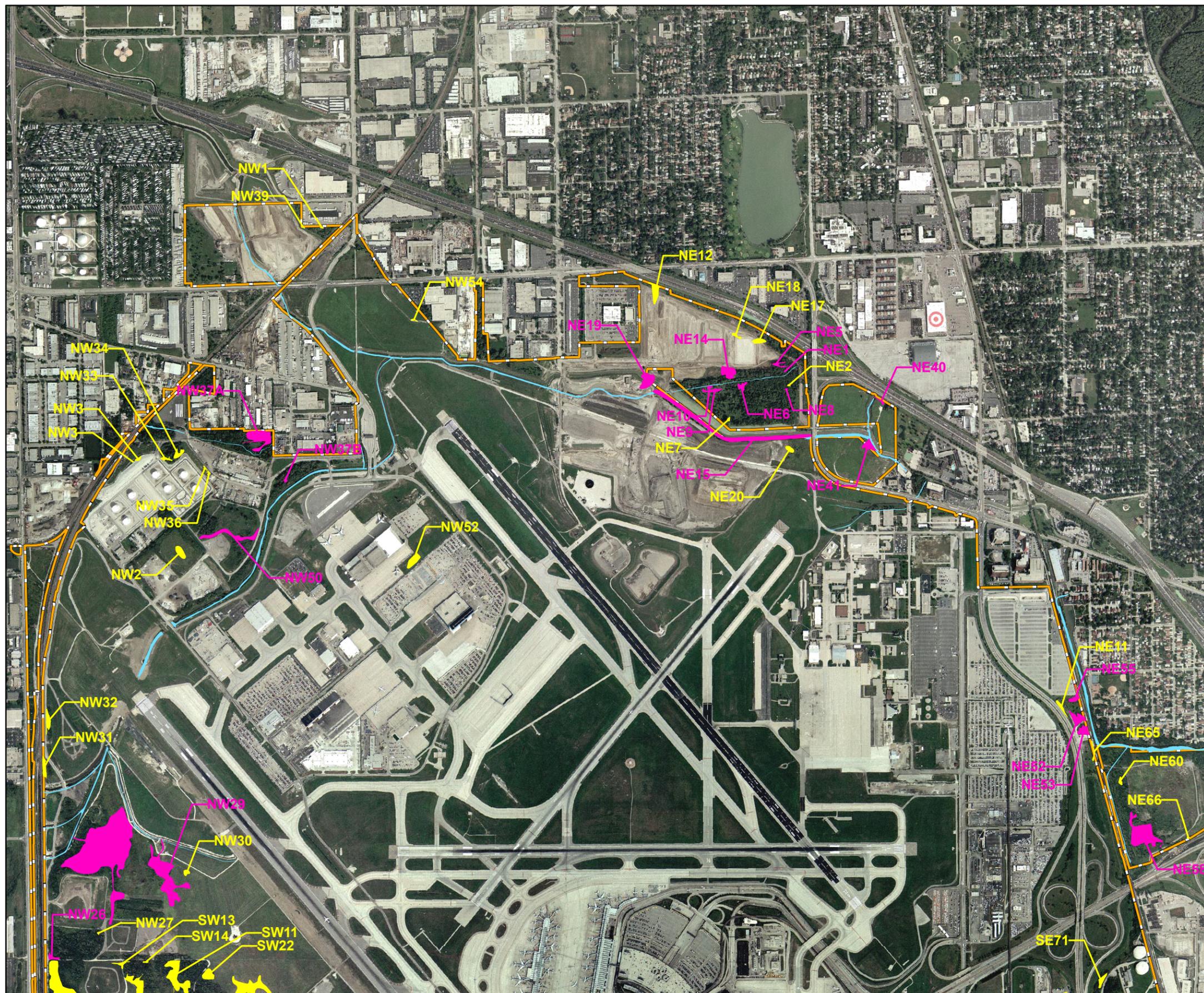
► Exhibit 4.4-1



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O'Hare Modernization Environmental Impact Statement

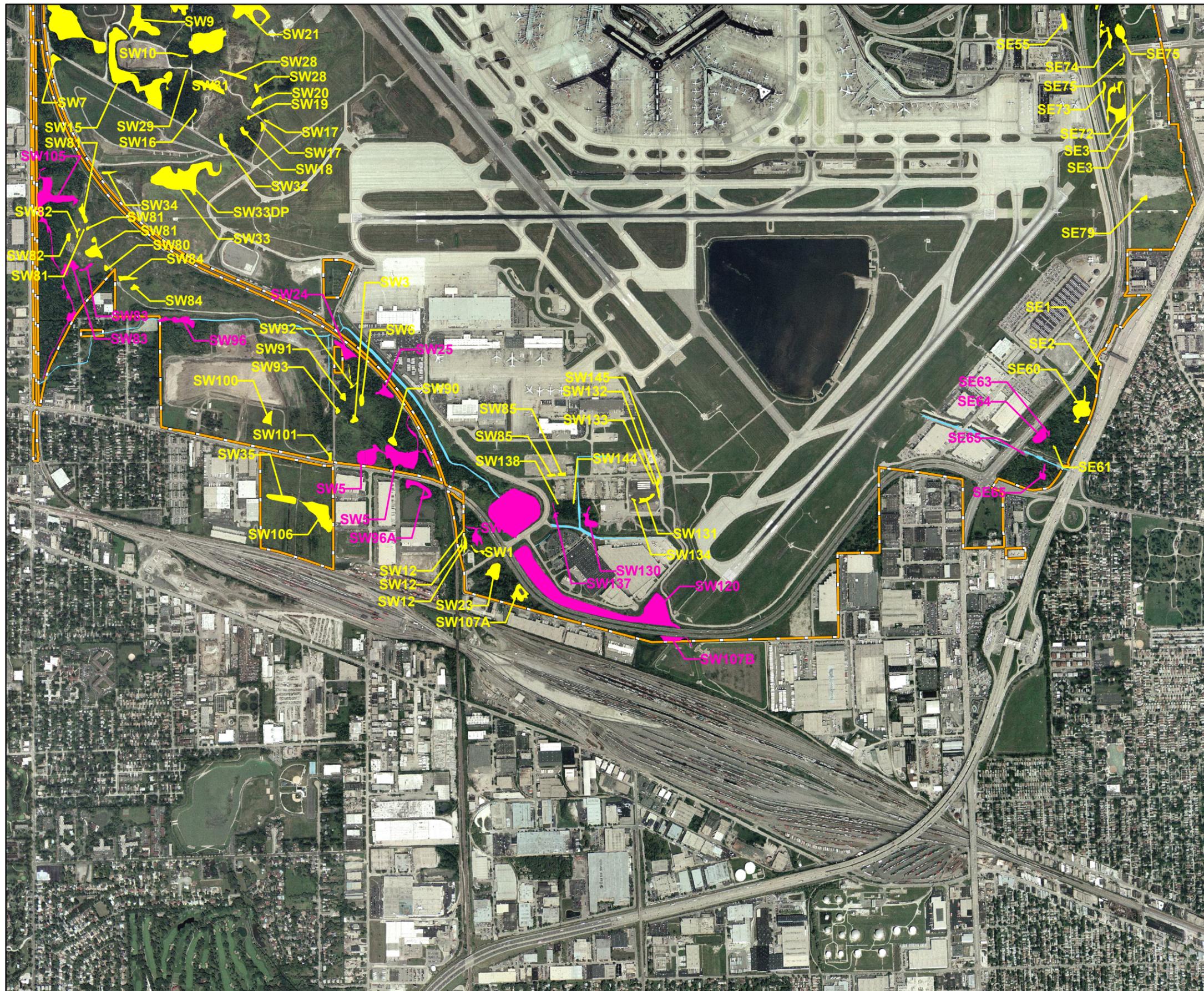
- Isolated Wetlands
- Jurisdictional Wetlands
- Waters of the U.S.
- Airport Property



Wetlands and Waters of the U.S. - North Airfield

► Exhibit 4.4-2

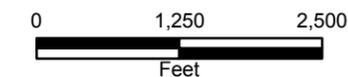
Source: Ground Cover: Ricondo and Associates, 2003 Aerials: Aerials Express, September 2002



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**O'Hare Modernization
Environmental Impact Statement**

- Isolated Wetlands
- Jurisdictional Wetlands
- Waters of the U.S.
- Airport Property



**Wetlands and Waters
of the U.S. - South Airfield**

► Exhibit 4.4-3

Source: Ground Cover: Ricondo and Associates, 2003 Aerials: Aerials Express, September 2002

**TABLE 4.4-1
JURISDICTIONAL WETLANDS AND WATERWAYS WITHIN THE
CONSTRUCTION IMPACT AREA**

Type of Wetland or Water of the U.S.	Total size (acres)
On-Airport, non-jurisdictional isolated wetlands (a)	57.1 (e)
On-Airport, jurisdictional wetlands (b)	71.1 (f)
On-Airport Waters of the U.S. (c)	26.0
Waters of the U.S. in the proposed acquisition area (c) (d)	1.0
Total acreage of jurisdictional wetlands and Waters of the U.S	155.2
Notes: (a) Wetlands that are not jurisdictional under Section 404 of the CWA, but are covered under Executive Order 11990 and FAA Orders 5050.4 and 1050.1.	
(b) Wetlands that are under the jurisdiction of Section 404 of the CWA.	
(c) Creeks and streams (i.e., Willow-Higgins Creek).	
(d) No jurisdictional or non-jurisdictional wetlands have been identified in the proposed acquisition area.	
(e) Total acreage of jurisdictional wetlands reported in the Conceptual Wetlands Mitigation Plan, included in the City of Chicago Department of Aviation Individual Permit Application to USACE is 78.1 acres.	
(f) Total acreage of isolated wetlands reported in the Conceptual Wetlands Mitigation Plan, included in the City of Chicago Department of Aviation Individual Permit Application to USACE is 50.1 acres.	
Sources: Chicago O'Hare International Airport Delineation of Wetland and Floodplain areas, Harza Environmental Services, February 2000.	
Chicago O'Hare International Airport Acquisition Area Survey, MHW [CCT], May 13, 2004.	

Appendix N, Biological and Water Resources, includes a detailed list of the jurisdictional and isolated wetlands in the construction impact area. The on-Airport wetlands can be described as many small, individual sites providing relatively few wetland functions relative to water quality, stormwater and flood storage, and wildlife habitat. Most of the observed soils at the Airport property have been disturbed by earthmoving activities during the development of the Airport facilities over time. The Airport's wetlands have minimal value for floodwater storage, due to their lack of size and depth, but do provide limited shallow depressional storage of stormwater and snowmelt runoff. Contributing to the low quality of on-Airport wetland habitat is poor water quality contributed to by the components of stormwater and the strong flows during certain periods of the year. The major wildlife habitats at the Airport include upland woods, wet woods, herbaceous wetlands, mowed lawn, unmowed meadows, and perennial and intermittent streams. The vegetated areas in and around the Airport generally have been modified from their original condition and represent artificial situations, such as mowed grassy surfaces or second growth stands of trees. The water quality benefits of the wetlands, including sediment deposition and nutrient removal, are highly localized and limited in extent, and therefore, have little appreciable effect on surface water quality. The wetland functional assessment is found in the February 2000 Chicago O'Hare International Airport Delineation of Wetland and Floodplain Areas prepared by Harza Engineering [CCT] included in **Appendix N**. The USACE reviewed the February 2000 report and confirmed the results in 2002.⁵

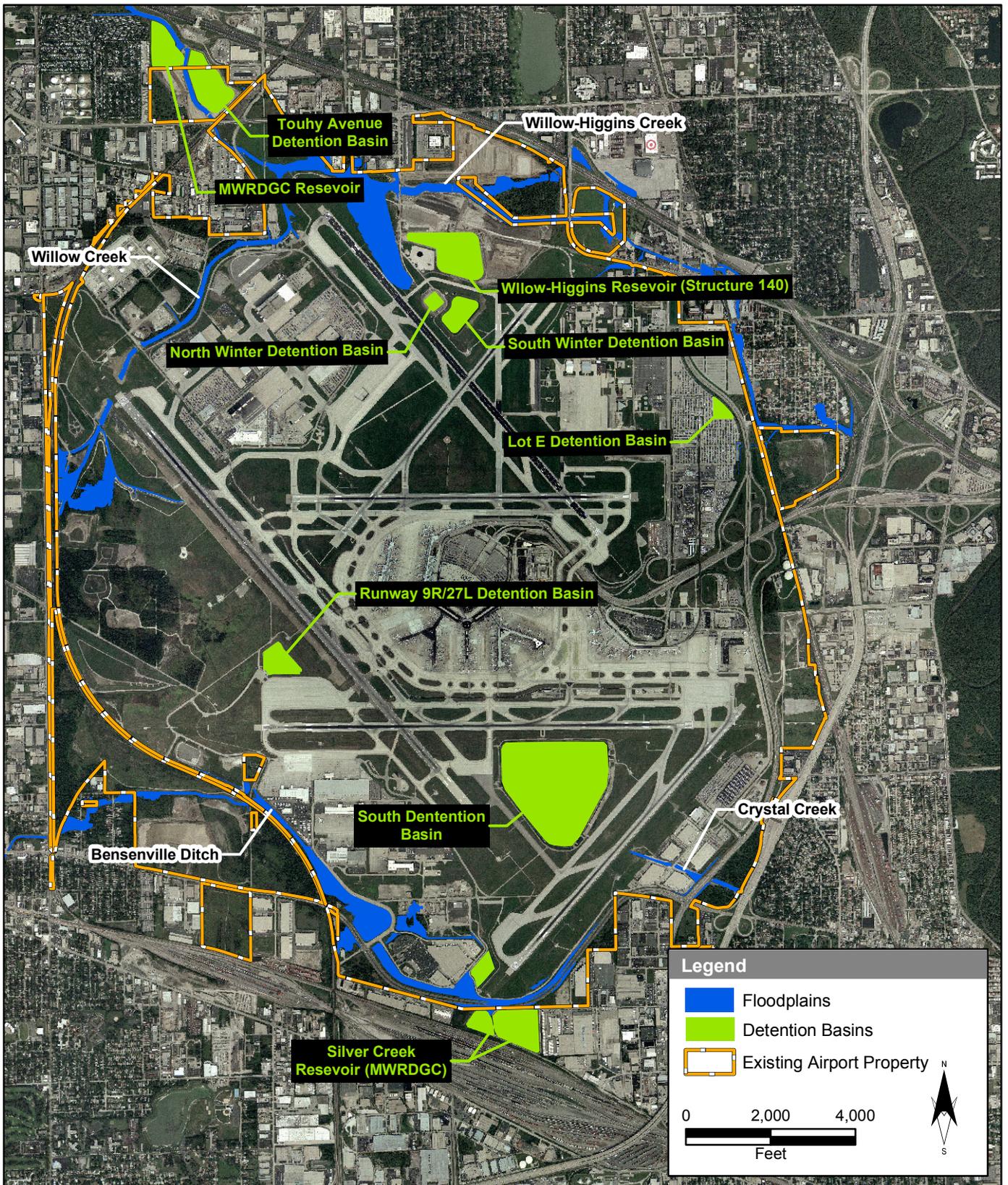
⁵ Letter from Keith Wozniak, USACE, to James Considine, City of Chicago Department of Aviation, October 28, 2002.

4.4.3.3 Floodplains

Executive Order 11988, *Floodplain Management*, defines floodplains as:

the lowland and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year.

This area, which is also called the base floodplain, is the area that would be inundated by the floodwaters of a 100-year flood event. Floodways are contained within floodplains. The existing floodplain for the Willow-Higgins Creek watershed located on the North Airfield, and the Crystal Creek and the Bensenville Ditch watersheds located on the South Airfield, are shown on **Exhibit 4.4-4**. Detailed explanations of each of the watershed drainage areas are provided in **Chapter 5.13, Floodplains** and in **Appendix N, Biological and Water Resources**.



Source: Aerials Express, September 2002. Floodplains and Detention Basins, CTE February 2003.

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4.5 PAST, PRESENT, AND REASONABLY FORESEEABLE FUTURE ACTIONS

As required by FAA guidance, a NEPA document must consider all past, present and reasonably foreseeable actions at the Airport and in the airport environs. The basis for that approach is the recognition that while the impacts of many actions may be individually small, the cumulative effects of past, present, and reasonably foreseeable actions on populations or resources can be considerable. A detailed list of the past, present, and reasonably foreseeable future actions is included in **Chapter 6, Cumulative Impacts** and in **Table E-19 in Appendix E, Alternatives**.

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