



# Village of Lakemoor Comprehensive Plan

**Existing Conditions Report**  
April 19, 2012

#### **FUNDING ACKNOWLEDGEMENT**

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Chicago Metropolitan Agency for Planning  
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 Lake County  
 USGS National Hydrography Dataset  
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 Illinois Department of Natural Resources  
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**Photo Sources**

J. Navota, N. Beck, M. Dabrowski, Flickr user Aff1737, Flickr user SFGAMCHICK, and the Village of Lakemoor.

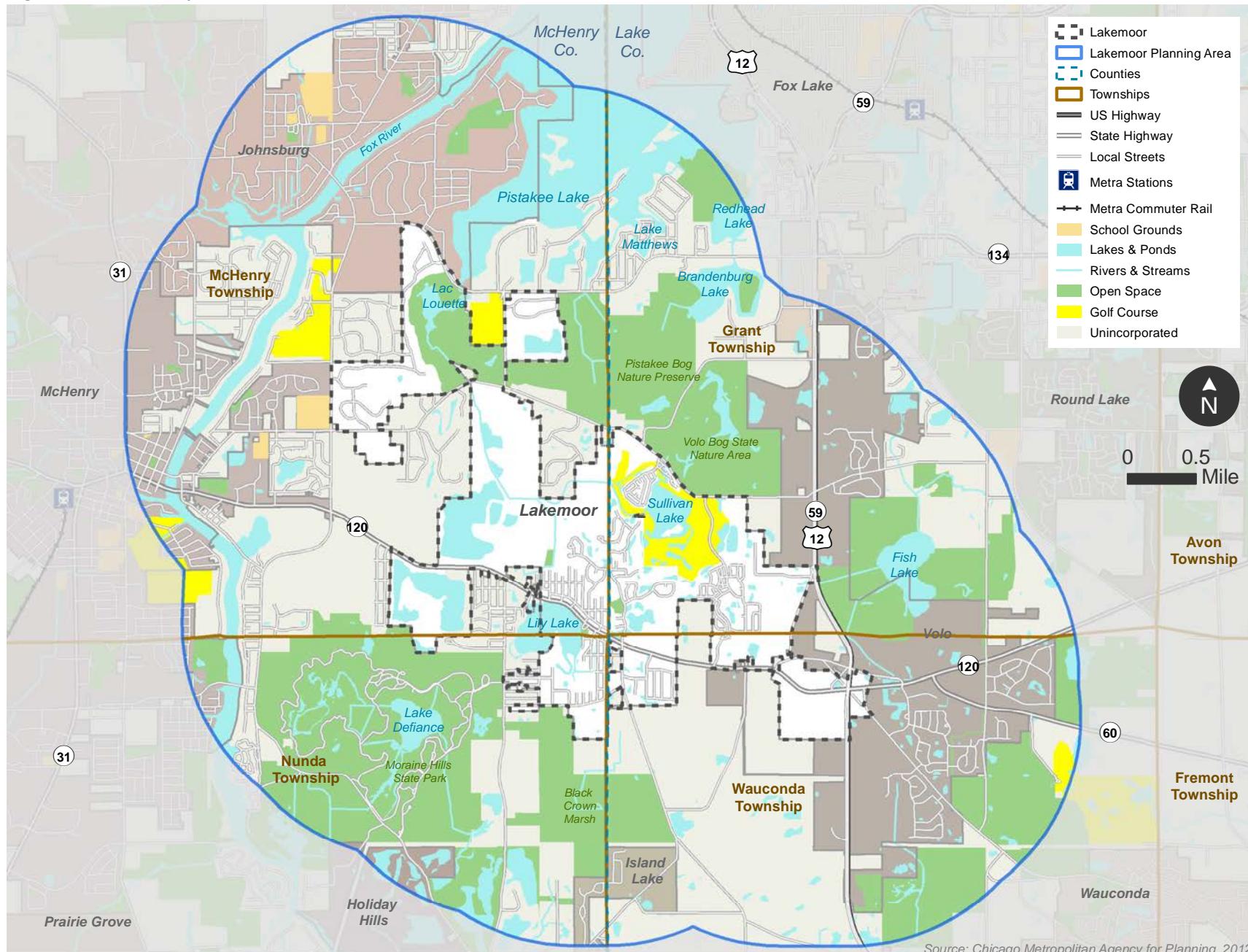
# Introduction **Existing Conditions Report**

The Village of Lakemoor has decided to update its comprehensive plan, which will define the vision of the village's future and the steps needed to achieve that vision. Having an accurate understanding of the existing conditions in the village is necessary in order to develop an appropriate and effective comprehensive plan that addresses the issues and concerns of the community.

## Purpose of the Existing Conditions Report

This Existing Conditions Report—representing the accumulation of approximately three months of research, analysis, and public outreach activities—provides an overview of the current conditions in the Lakemoor and is designed to provide a starting point for creating a shared vision of the future. The Existing Conditions Report is organized in the following sections:

- Section 1: Regional Context
- Section 2: Previous Plans and Studies
- Section 3: Community Outreach
- Section 4: Demographic Profile
- Section 5: Economic Assessment
- Section 6: Land Use
- Section 7: Housing
- Section 8: Transportation
- Section 9: Natural Environment
- Section 10: Community Services and Infrastructure
- Looking Forward

**Figure 1. Lakemoor study area**

## Why Does Lakemoor Need a Comprehensive Plan?

Originally formed as a summer vacation destination, the village of Lakemoor grew as visitors decided to settle in this community and enjoy its assets and natural scenery, such as Lily Lake and a number of small lakes, ponds, wetlands, and natural preserves within and adjacent to its boundary. Lakemoor has seen a dramatic increase in its population in the last 15 years. The village remains a small community of 6,017 residents yet is facing the changing needs and desires of this expanded population. While the growth rate seen in the 1990's and 2000's has slowed, growth is likely to return to the village, which is intent on improving its assets and character for current and future residents. Developable land exists within the village as well as within its 1.5-mile planning jurisdiction. The village is located along Illinois Route 120, the primary east-west arterial through central Lake and McHenry Counties, see Figure 1. The potential Central Lake County Corridor project, identified in the GO TO 2040 regional plan adopted by the Chicago Metropolitan Agency for Planning in 2010, could give the village better access to major regional transportation corridors.

The Village of Lakemoor adopted its current comprehensive plan in 2003. While relatively recent, the plan will be updated to better reflect current conditions, challenges, and opportunities, and to prepare the Village for future growth and development. Lakemoor sought out technical assistance for this endeavor from the Chicago Metropolitan Agency for Planning (CMAP).

The community's physical, economic, and social character will be determined by decisions made today and in the future. Having an up-to-date plan that clearly articulates the desired character of the community will help at all levels of the decision-making process. The new comprehensive plan will serve as a guide for elected officials, municipal staff, community residents, business owners and potential investors, allowing them to make informed community development decisions affecting land use, transportation, infrastructure, and capital improvements. By following the plan, those decisions can help achieve the long-term goals and vision of the community.

## What is a Comprehensive Plan?

A comprehensive plan outlines the vision of the community and the policies that will allow it to achieve that vision. In addition to providing a well-defined framework for the preservation and enhancement of community assets, the plan guides development and investment decisions in the best interest of community residents.



Source: Volo Bog, Flickr SFGAMCHICK.

Typically a comprehensive plan is written to provide guidance for a community to work towards its vision over the next 10 to 20 years. Although the plan should be viewed as a long-term document, it should also be used daily by the community to assist in land use and development decisions. The comprehensive plan should also be considered flexible and adaptable to changes in and around the community. At any time, the Village can update its comprehensive plan to match local needs, interests, or opportunities. It is typically recommended that a municipality update its comprehensive plan every five years to keep the plan as accurate as possible.

## Elements of a Comprehensive Plan?

Under the Illinois Municipal Code (65 ILCS 5/11-12-5(1)), a municipal plan commission is responsible for preparing and recommending a “comprehensive plan for the present and future development or redevelopment of the municipality.” A comprehensive plan is composed of a series of distinct yet interrelated elements defined within the Illinois Local Planning Assistance Act (Public Act 92-0768). The key elements addressed in the Lakemoor Comprehensive Plan will be based upon those outlined in the State Statute:

- Land Use
- Housing
- Natural Resources
- Transportation and Circulation
- Economic Development
- Implementation Strategies

In addition to the primary elements listed above, comprehensive plans commonly include additional elements that may either be unique sections in the plan or may be incorporated as common themes that run throughout the document. Additional elements that will be considered for the Lakemoor Comprehensive Plan include community facilities, water resources, and community character.

## What are the Purposes of a Comprehensive Plan?

1. Present the big picture and state the vision
2. Involve the citizenry
3. Guide regulation and public investment
4. Give direction
5. Protect the community

Source: Planning 1-2-3, Campaign for Sensible Growth, Metropolitan Mayors Caucus, and Metropolitan Planning Council

## Relationship with the ‘GO TO 2040’ Regional Comprehensive Plan

The priority of the comprehensive plan is to provide local guidance and support and to address community needs and desires in an effort towards achieving the village of Lakemoor’s vision. However, in preparing the plan, the village should look at how it fits into the larger region, in order to understand and plan for the impact of regional economic and demographic changes.

A summary of the recently adopted GO TO 2040 Regional Plan prepared by the Chicago Metropolitan Agency for Planning (CMAP) is included in Section One of this report. GO TO 2040 states, “municipalities are critical to the success of GO TO 2040 because of their responsibility for land use decisions, which create the built environment of the region and determine the livability of its communities. The most important thing that a municipality can do to implement GO TO 2040 is to take this responsibility very seriously.” By undertaking the planning process to create a new comprehensive plan, Lakemoor is taking responsibility for guiding its future and is demonstrating its commitment to helping shape the future of the region as well.

## Planning Process

The planning process to create Lakemoor’s comprehensive plan includes multiple steps that will last approximately 10-12 months. The process has been crafted with assistance from Village staff and has been designed to include community stakeholder input throughout. The key steps in the planning process are illustrated in Figure 2.

**Figure 2. Lakemoor comprehensive plan process.**



## Next Steps

After the Existing Conditions Report is presented to the Steering Committee, CMAP and the Village will conduct a visioning workshop with residents, business owners, elected officials, and Village staff to create a shared vision for Lakemoor. The results of the workshop and information compiled in the Existing Conditions Report will be used to prepare a common vision with associated policies, which will form the basis of the updated comprehensive plan.

# Section 1

## Regional Context

This section provides an overview of how Lakemoor fits into the larger Northeastern Illinois region. Having a larger perspective of how the village is situated in the region will aid in both the understanding of existing conditions and in identifying potential opportunities or issues that may be created with planned capital projects in other communities.



### History of Lakemoor

The last glacial retreat from Northeastern Illinois left behind a medley of glacial deposits, such as clay, sand, gravel and boulders, in formations known as eskers, kames, and kettles. Kettles formed when large blocks of ice were left behind with glacial deposits; the ice later melted leaving depressions in the landscape. Some of these kettles later became lakes, bogs, and marshes; Lily Lake and Volo Bog are prime examples in Lakemoor.

Recognizing that drained marshland is highly productive agricultural soil, farmers began settling the Lakemoor area in the mid-1800s. Hunters and fisherman were also drawn to the lakes and marshes, which provided a rich habitat for game. It wasn't until the 1920s that the Lakemoor area became recognized for its recreational opportunities. The first subdivision of property occurred along Route 120 just west of the Lake and McHenry County line in 1926. The area around Lily Lake developed with summer homes and cottages with lake and beach access. The early commercial businesses catered to these summer residents and visitors.

The community was incorporated as the Village of Lily Lake in 1938, in part due to the urging of part-time residents. A lengthy legal battle ensued with some permanent residents challenging the results. They claimed that most of those casting a vote for incorporation were not qualified voters but summer-time dwellers who really lived in Chicago. In 1942, the Village Board was petitioned to hold a special election to address the incorporation issue and residents voted 57 to 4 to dissolve the village. Throughout the 1940s, more people began converting summer cottages into permanent homes and demand for improved roads and police services increased. In 1952, the Village of Lakemoor was founded.

Growth has come slowly to Lakemoor. With a few hundred people in the 1950s, the village had only expanded to 723 residents at the 1980 census. As the suburban areas of Metropolitan Chicago have continued to expand, Lakemoor has seen a dramatic increase in its population in the last 15 years. Residential developments, like Lakemoor Farms and the Pines of Lakemoor, as well as commercial development, like the Lakemoor Crossing Shopping Center and La Familia Shopping Center, have added residents and changed the commercial nature of Route 120. Yet Lakemoor remains a small community of 6,017 residents.

## Regional Setting

Lakemoor is located in Lake County and McHenry County, approximately 48 miles northwest of Chicago and 15 miles south of the Wisconsin-Illinois border. The Villages of Fox Lake, Volo, Island Lake, Holiday Hills, Johnsburg, and the City of McHenry surround the village. There are a couple pockets of unincorporated land within the village, as well as several areas in between the village and surrounding communities within the 1.5-mile planning jurisdiction.

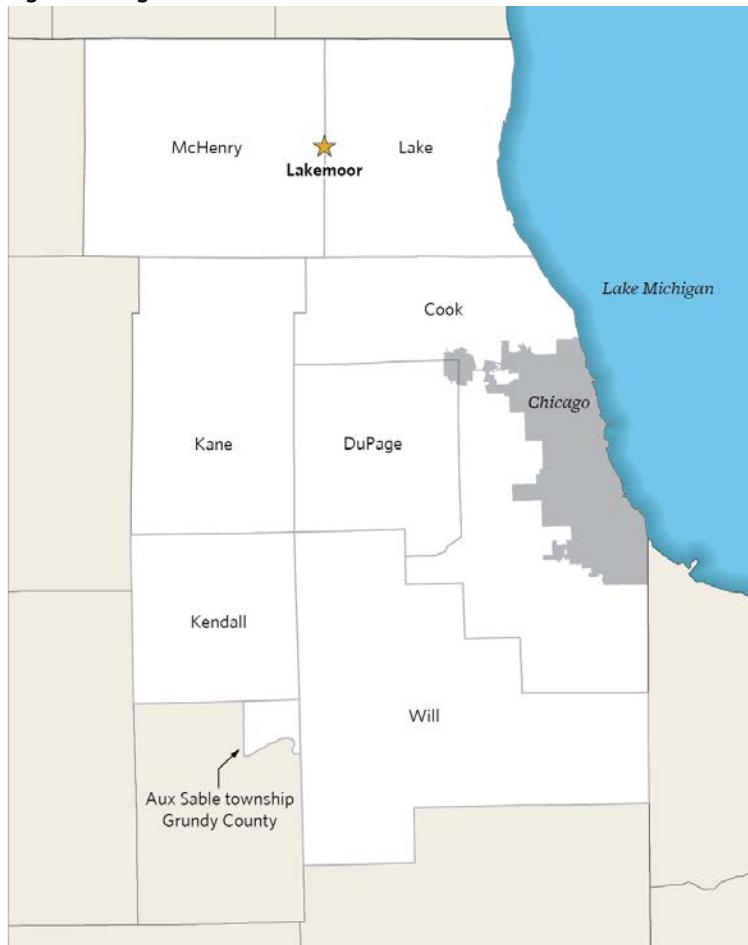
Lakemoor is situated some distance away from the larger transportation hubs and corridors in the region. Chicago O'Hare Airport is 40 miles south and Milwaukee's Mitchell Field Airport is 53 miles to the northeast. Access to the interstate highway system is also fairly distant. Interstate 94 is 15 miles east, while Interstate 90 is 20 miles south. While no Metra Commuter Rail lines run through Lakemoor, the limited-service McHenry Station on the Union Pacific Northwest line is approximately four miles west, and the Ingleside, Long Lake and Round Lake Stations on the Milwaukee District North line are all approximately seven miles north east.

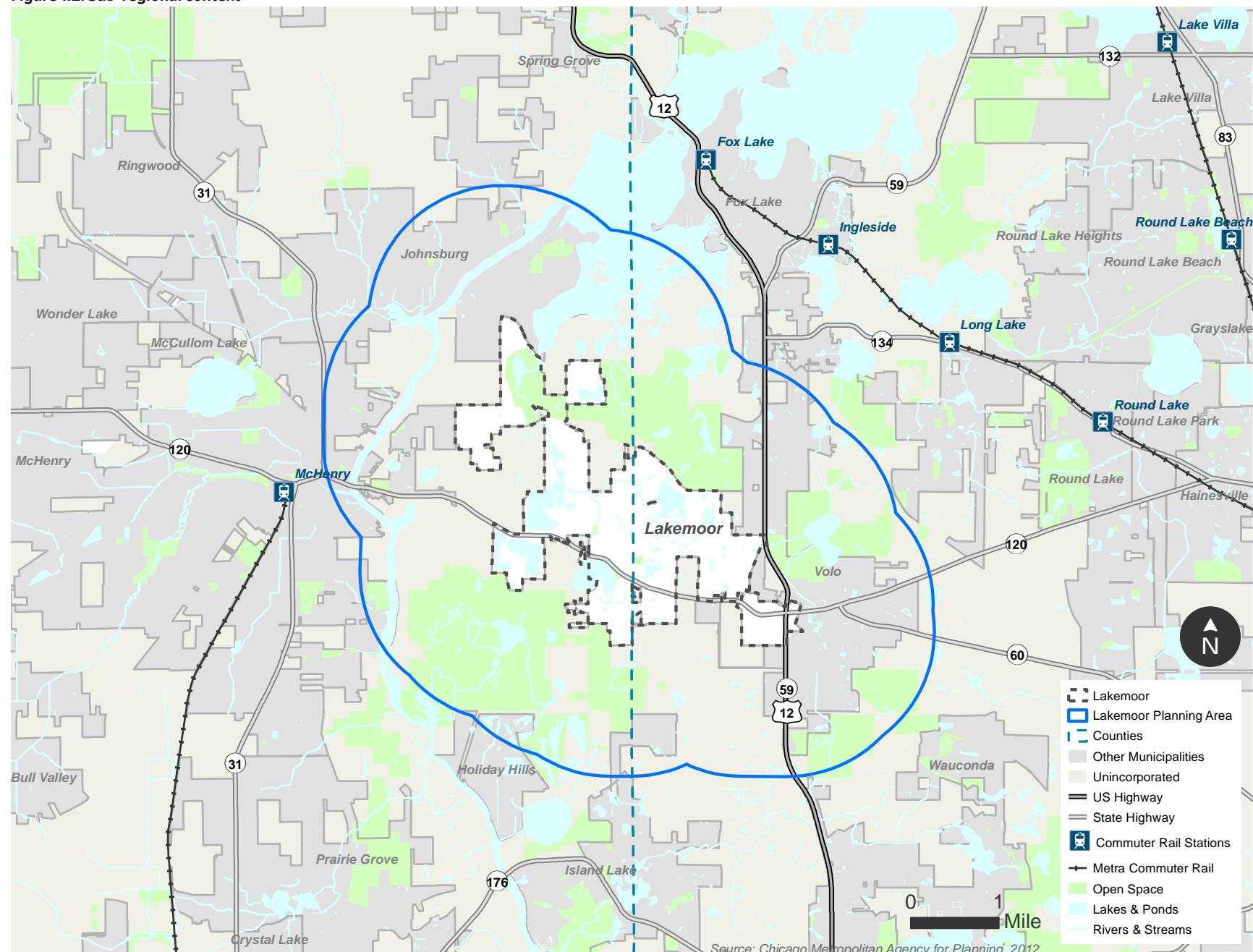
However, the village is located along U.S. 12 and Illinois Route 120, the primary east-west arterial through central Lake and McHenry Counties. The Central Lake County Corridor project, identified in the GO TO 2040 regional plan, could bring the village in closer proximity to major regional corridors. The project consists of two main components: improving and adding a bypass on Illinois Route 120 and extending Illinois Route 53 north to join Route 120. The proposed intersection of Route 120 and Route 53 could be within eight miles of the eastern edge of the village of Lakemoor.

Lakemoor's earliest commercial businesses sprouted up along Route 120 near Lily Lake. This area is home to the Village Hall, Village Police Station, and some retail development. However, nearly all grocery, clothing, hardware and other major purchases must be made outside the village.

The village is within the Upper Fox River Watershed and located four miles east of the Fox River. There are several substantial state parks and nature preserves nearby, including Moraine Hills State Park, Volo Bog Natural Area, and Black Crown Marsh. The Prairie Trail, running through McHenry, and the Millennium Trail, running through Wauconda, offer access to the regional bike trail network and other parks and open space.

**Figure 1.1. Regional context**



**Figure 1.2. Sub-regional context**

## Image and Culture

The village of Lakemoor presents a semi-rural, small town image within a context of rich, unique, and beautiful natural resources. The community includes older residential neighborhoods with smaller homes, mature trees, and grid street networks found south and north of Route 120 close to Lily Lake. Newer residential neighborhoods with larger lots, homes, and curvilinear streets are primarily found north of Route 120. The community's residential areas tend to be quiet, peaceful, and safe. The Village is bisected by the busy and heavily traveled Route 120, a major thoroughfare that presents a challenge for creating a Village center or a cohesive community identity. A low-density business district consisting of a mix of older and newer buildings and businesses is scattered along Route 120 between Darrell Road and Lily Lake Road. Additional commercial areas are found near the intersection of Route 120 and U.S. 12. Four small industrial areas, including one active and one inactive quarry, are within the Village limits. These land uses are fairly disconnected and interspersed with areas of vacant land, agricultural land, and wetlands.



## Lakemoor and GO TO 2040

The Chicago Metropolitan Agency for Planning is the official regional planning organization for the northeastern Illinois counties of Cook, DuPage, Kane, Kendall, Lake, McHenry, and Will. CMAP developed and now guides the implementation of GO TO 2040, metropolitan Chicago's first comprehensive regional plan in more than 100 years. To address anticipated population growth of more than two million new residents, GO TO 2040 establishes coordinated strategies that help the region's 284 communities address transportation, housing, economic development, open space, the environment, and other quality-of-life issues. The plan contains four themes and 12 major recommendation areas:

### *Livable Communities*

1. Achieve Greater Livability through Land Use and Housing
2. Manage and Conserve Water and Energy Resources
3. Expand and Improve Parks and Open Space
4. Promote Sustainable Local Food

### *Human Capital*

5. Improve Education and Workforce Development
6. Support Economic Innovation

### *Efficient Governance*

7. Reform State and Local Tax Policy
8. Improve Access to Information
9. Pursue Coordinated Investments

### *Regional Mobility*

10. Invest Strategically in Transportation
11. Increase Commitment to Public Transit
12. Create a More Efficient Freight Network

The full plan, as well as an executive summary, can be found at [www.cmap.illinois.gov](http://www.cmap.illinois.gov).

## Section 2 Previous Plans and Studies

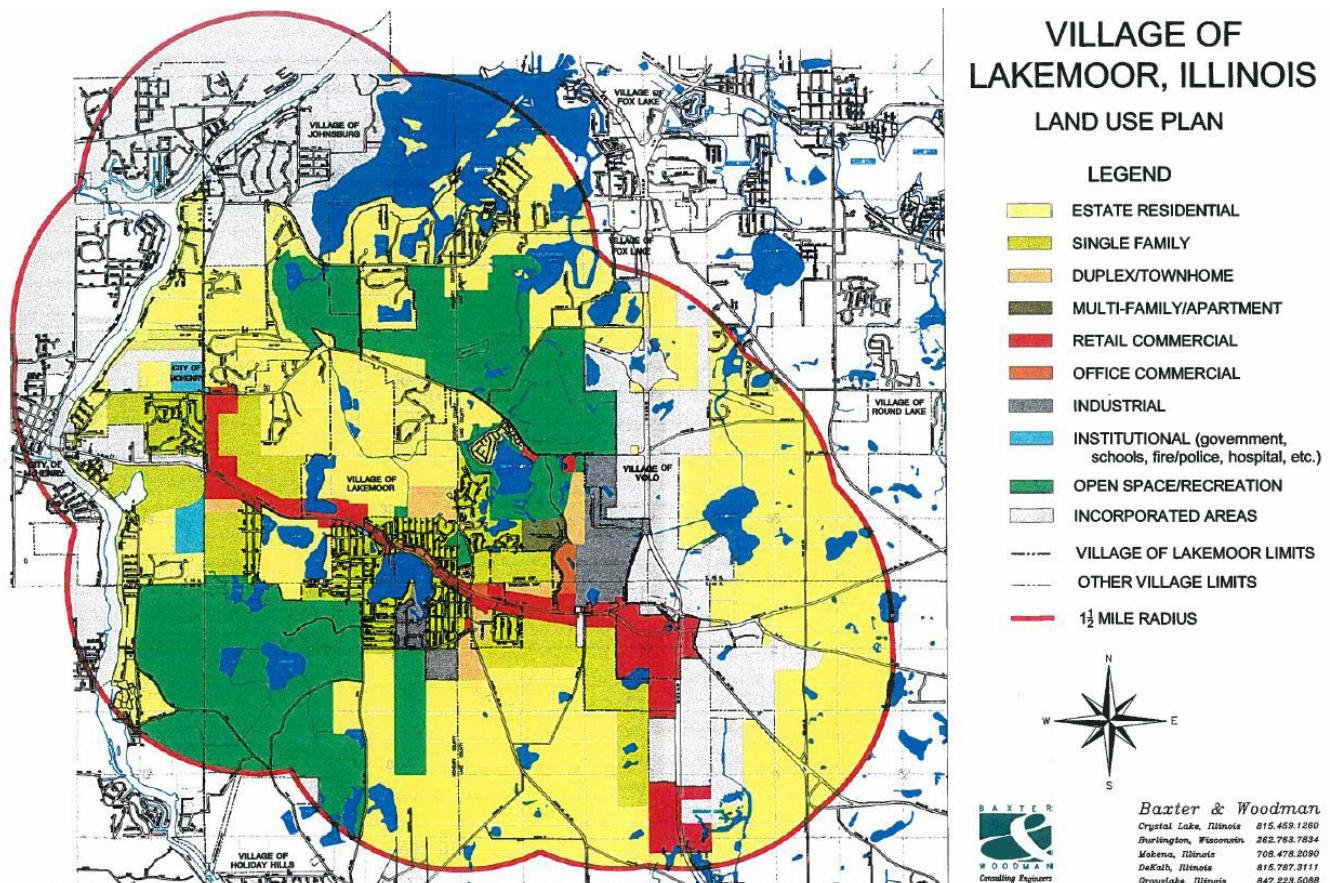


This section provides a summary and analysis of existing plans and studies that help to inform the updated comprehensive plan. Plans and studies that have been reviewed include:

- Village of Lakemoor Comprehensive Plan (2003)
- Main Street Master Plan (2011)
- GO TO 2040, Central Lake County Corridor Project (2011)



**Figure 2.1. Village of Lakemoor future land use plan**



## 2003 Lakemoor Comprehensive Plan

Recognizing that Lakemoor would be impacted by proposed changes to Route 120 and the possible extension of Route 53, the Village adopted an updated comprehensive plan in 2003. The plan establishes several goals and objectives, paying special attention to land use, transportation, and community facilities and services within the village.

The plan identifies goals and objectives for each land use in the village. It recommends that development guidelines and incentives be established to promote residential development that takes advantage of the environmental amenities in the area. The land use map envisions estate residential and single family residential development covering much of the planning area. However, several areas are designated for duplex, townhomes, and multi-family apartments, which address the plan objective that residential development serves all segments of the community.

The plan identifies Route 120 as the main commercial, retail, and office corridor for addressing daily needs for goods and services as well as providing employment opportunities.

Transportation improvements are a major focus of the plan. Identifying alternatives for east-west and north-south traffic are recognized as a necessary step given the anticipated traffic growth along Route 120 as well as U.S. 12. The plan focuses on ways to provide a road network that does not require the use of major arterials to move throughout the village and connects subdivisions to adjacent developments. Another stated goal is to investigate opportunities to reduce reliance on single-occupancy automobiles and promote bicycling and walking and connections between neighborhoods, natural areas, and open space. The plan outlines a number of goals for community facilities, recommending adoption of a capital improvement plan to provide for a new Village Hall and Police Station. In addition, the plan recommends determining the feasibility and need of constructing grade schools, a sanitary treatment plant, and a large park.

## 2011 Main Street Master Plan

The Main Street Master Plan, prepared by Village Board Trustee Matt Dabrowski while a graduate student at the University of Illinois at Chicago, is a sub-area plan for the core of the village. While not officially adopted by the Village, the Master Plan provides a thorough review of the existing conditions of the sub-area and outlines a potential future for the downtown area. The 20-acre study area, from Lakeview Drive to East Lake Drive on both sides of Route 120, currently consists of a mixture of residential, office and commercial uses in older buildings. The Master Plan developed the following vision based on the results of a SWOT (Strength, Weakness, Opportunity, and Threat) analysis and a community preference survey:

The Main Street Master Plan is a guide for long range community growth in a manner that is unified, cohesive, flexible and sensitive to current and future development trends and economic forces. A plan that creates a distinct sense of place by promoting a “Main Street” style of development with a diversity of land uses, functional open spaces, progressive and efficient architecture, and innovative site designs that respect surrounding properties and land uses, is responsive to local and regional traffic patterns and balances good and efficient design principles with sound sustainable and environmentally sensitive practices.

The Master Plan evaluated existing land use, zoning, block and lot size, circulation, public utilities, street dimensions, and open space within the study area. The design of the plan itself is based on five design principles for great streets, including creating a public environment and right-of-way design that strengthens local businesses and expands economic opportunity. The master plan lists 13 different interventions including:

- Construct a new Village Hall and Police Station that could become a centerpiece for the corridor;
- Expand Morrison Park to Sheridan Road;
- Promote mixed use development on the north side of Route 120;
- Build a lakefront promenade from Morrison Park to Tower Park; and,
- Work with IDOT to enhance Route 120 and accommodate pedestrian movements.

Urban design guidelines including techniques to improve the visual appearance and create a unique village identity are also included. The design guidelines focus on architectural form, massing, and style of the buildings as well as building materials. Special attention is paid to the design of the sidewalks, landscaping, and other streetscape enhancements. The Master Plan provides detailed implementation strategies for accomplishing this vision, including the use of different funding options and changes to zoning and land use regulations.

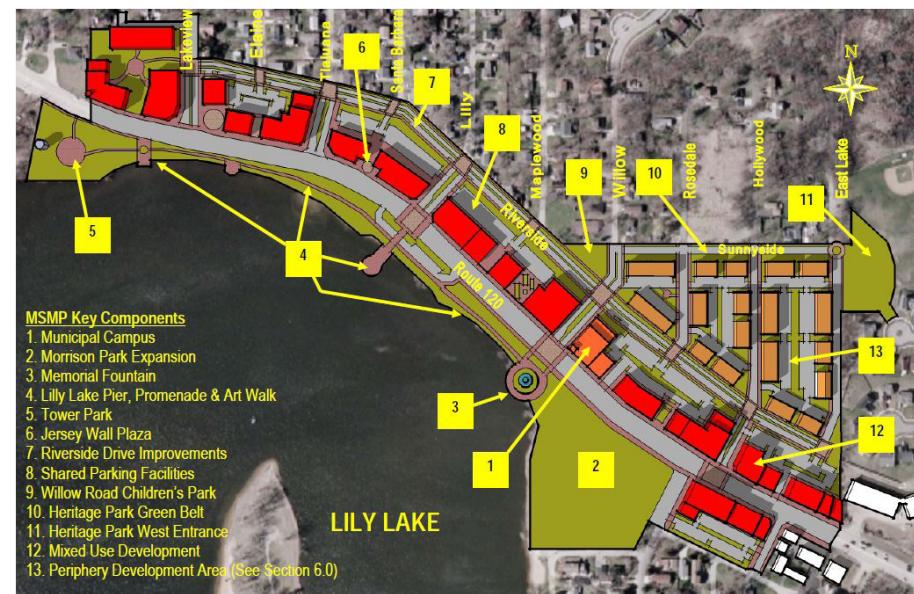


Figure 2.2. Master plan for downtown Lakemoor

## GO TO 2040 Regional Plan, Central Lake County Corridor

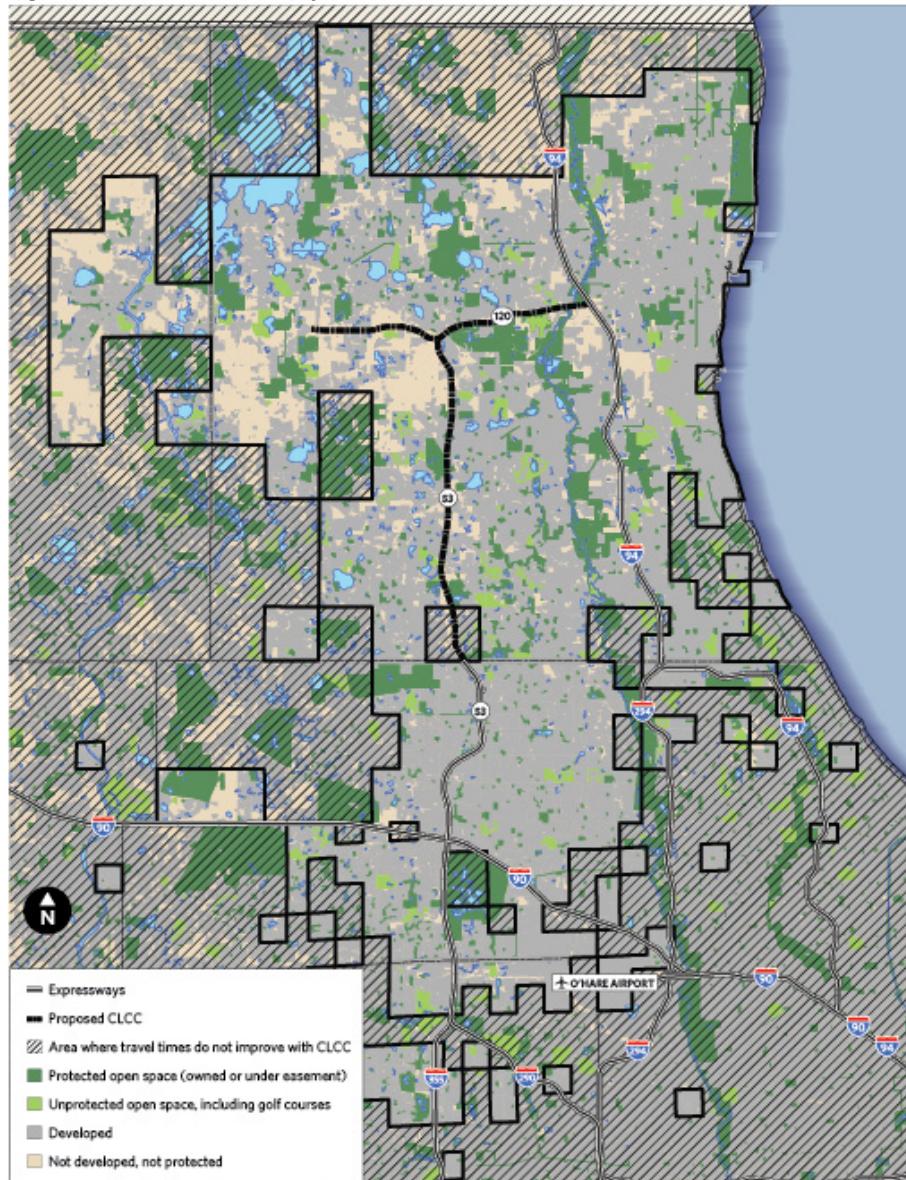
GO TO 2040 emphasizes the maintenance and modernization of the region's transportation system. However, the plan does contain a handful of major capital projects that will maximize regional benefits of mobility and economic development. One of the two priority highway extension projects is the Central Lake County Corridor (CLCC), which consists of two main components:

- Improving the existing IL Route 120 and constructing a 9-mile bypass from Almond Road on the east to Wilson Road on the west.
- Extending IL Route 53 approximately 12 miles from Lake-Cook Road to join a new IL Route 120 Bypass in central Lake County.

The Illinois Tollway is now considering whether to incorporate the extension of Route 53 and the Route 120 bypass into its next capital plan and is employing the help of a newly created 53/120 Blue Ribbon Advisory Council. If the Tollway chooses to construct the roads, the facility will be tolled with limited access points. If the Illinois Tollway decides not to build the two components, the Illinois Department of Transportation (IDOT) may implement the ideas behind a 2009 Unified Vision and feasibility study for Route 120, which recommended a four-lane boulevard design and a 9-mile bypass. However, funding for the next phase of engineering studies was not identified in IDOT's 2012-2017 Transportation Program.

While these transportation investments would occur outside of the Lakemoor 1.5-mile planning area, the overall project has the potential to decrease travel times and make the village more appealing for development. In addition, it could add traffic volume to the Route 120 corridor, which could increase economic development opportunities but may also increase local traffic congestion. The CLCC is discussed in further detail in this report, see Section 5 Economic Assessment and Section 8 Transportation and Circulation.

**Figure 2.3. Central Lake County Corridor**



Source: Chicago Metropolitan Agency for Planning

## Section 3

# Community Outreach



A primary goal of the Lakemoor comprehensive planning process is to optimize community engagement, focusing particularly on populations that have typically been underrepresented or harder to reach in previous planning initiatives. A public outreach strategy was formulated by CMAP staff to emphasize broad-based inclusion of Lakemoor residents and other stakeholders, such that the concerns and interests of the community will be reflected in the goals of its comprehensive plan. The community engagement process includes meeting with village staff and elected officials, confidential interviews with key community leaders, and public meetings.

### The Board of Trustees Meeting

On February 9, 2012, CMAP staff joined a regular meeting of the Board of Trustees to introduce members to the comprehensive plan project and gather feedback regarding issues and opportunities for improvement in Lakemoor. The trustees were asked to describe their vision of Lakemoor 20 years from now as well as what they consider to be the village's greatest assets and challenges. Trustees envisioned a walkable downtown center with convenient shopping as well as a commercial node at the intersection of Route 120 and U.S. 12. Trustees also envisioned that the village would be able to support its residents and not lose its small town feel.

Overall, there was a desire amongst the group to capitalize upon the existing community assets, such as the residents of the village, Lily Lake, the amount of developable land and the location along important transportation corridors. Trustees recognized several challenges that face the village, including the future of the Central Lake County Corridor, extending utility and road infrastructure to different parts of the village, properly developing the remaining developable land within the village, and the lack of community cohesion given how the community is divided among two counties, four townships and six school districts.

## Key Person Interviews

In order to gain further insight into the issues and opportunities that exist in Lakemoor, CMAP staff conducted interviews with several key stakeholders throughout the community. These individuals represented a wide variety of interests and perspectives, and ranged from institutional leaders to business owners to community leaders. While the discussions are confidential, the information provided by the key stakeholders will contribute to the plan.

## Public Kick-off Meeting

To initiate the public's involvement in the comprehensive planning process, a public kick-off meeting was held to hear from residents and stakeholders. The workshop was held on January 19, 2012 at the Public Works Facility with a total of 30 residents and community stakeholders in attendance. Participants learned about the comprehensive planning process through a brief presentation by CMAP. Participants discussed what they valued most about the community and what issues they would like to see addressed in Lakemoor's Comprehensive Plan. Attendees also had a chance to locate the community's strengths and challenges on maps of Lakemoor. The main themes of the night were then organized and attendees were asked to vote for the challenges that they considered were the highest priority for the comprehensive planning process. Top strengths and challenges are found in Table 3.1.

Other concerns discussed during the meeting included how Lakemoor is not seen as a destination and is typically viewed as a place to pass through. Some residents remarked that the village lacks a unique identity. Several concerns were identified with the existing business corridor along Route 120 near Lily Lake, including inappropriate land uses and a lack of coordinated retail. Residents marked which portions of the newer subdivisions have been left unfinished on the maps.

Residents were eager to start looking for solutions and began offering potential ideas for addressing the concerns they mentioned. The redevelopment of the land around the intersection of Route 120 and U.S. 12 as well as transforming the North Quarry into a mixed-use town center were repeatedly mentioned as an opportunity to bring businesses and tax revenue to the village. All of the ideas mentioned were recorded and will be used to guide the planning process going forward.

**Table 3.1. Top strengths and challenges identified by Lakemoor residents, 2012**

STRENGTHS	CHALLENGES
Small town character	Access to Lily Lake is limited/unusable
Potential to develop along scenic lakes and former quarries	Lack of access to state parks and nature preserves
Large amount of undeveloped land that could be developed with homes and businesses	Lack of restaurants, diverse retail businesses, and grocery stores
Natural amenities	Not ready for future growth
Open government	Limited water, sewer, and road infrastructure
Location	Lack of signalized intersections
Residents	Maintaining the character of the village
Annual Fireworks Display	Inability to walk to a center with community services
Potential to develop at the intersection of Route 120 and U.S. 12.	Lack of revenue generating uses

Source: CMAP, January 19, 2012 Meeting.

## Section 4

# Demographic Profile

To gain insight into the market and demographic dynamics that impact Lakemoor, data from the U.S. Census was gathered for analysis. Data discussed in this section comes from the 2000 U.S. Census, the 2005-2009 American Community Survey, and the 2010 U.S. Census. For comparisons and trend analysis, data was also gathered for the same periods for McHenry and Lake Counties and the Chicago, IL-IN Urbanized Area, which includes all contiguous areas with a population density of more than 1,000 persons per square mile.

### Key Findings

- ***Lakemoor has seen significant population growth in the last 10 years and is becoming a more diverse community.*** The village has doubled in size since 2000 and has 6,017 residents as of 2010. While Lakemoor is predominantly a non-Hispanic white community, the village did become more ethnically diverse during this same period. The Latino population comprises 13% of the total population.
- ***Lakemoor is a younger community with a high average household income.*** A significant portion of residents are between the ages of 20 to 34 years old. Lakemoor also has a slightly smaller average household size compared to the region. The median annual household income for Lakemoor is \$81,000, which is 25% higher than the median for the region.
- ***The majority of Lakemoor residents travel outside of the village for employment, yet most work in Lake or McHenry County.*** The City of McHenry is the single largest employment location for Lakemoor residents.

## Demographic Analysis

Lakemoor's average household size of 2.65 is slightly smaller than the Lake County size of 2.82, McHenry County size of 2.81 and the regional size of 2.73 (Table 4.1.)

**Table 4.1. Population, Households, and Household Size, 2010**

	LAKEMOOR	LAKE COUNTY	MCHENRY COUNTY	CHICAGO REGION
Population	6,017	703,462	308,760	8,431,386
Households	2,273	241,712	109,199	3,088,156
Average Household Size	2.65	2.82	2.81	2.73

Source: 2010 U.S. Census.

Lakemoor's population experienced a large increase in the last decade. Between 2000 and 2010, the village population increased by 116%, from 2,788 to 6,017 residents (Table 4.2.) This growth rate is considerably larger than the growth seen in Lake and McHenry Counties as well as the region as a whole.

**Table 4.2. Population and Change in Population, 2000 and 2010**

	LAKEMOOR	LAKE COUNTY	MCHENRY COUNTY	CHICAGO REGION
Population, 2000	2,788	644,356	260,077	8,146,264
Population, 2010	6,017	703,462	308,760	8,431,386
Change, 2000-10	3,229	59,106	48,683	285,122
Change as %, 2000-10	115.8%	9.2%	18.7%	3.5%

Source: 2000 U.S. Census; 2010 U.S. Census.

Lakemoor is becoming a more diverse community. In 2000, whites represented 88% of the population in the village. With significant population growth, whites now make up 80% of the population in 2010. Throughout the decade, the Latino, African-American, and Asian populations increased significantly and represent 13%, 2%, and 3.3% of the village population, respectively. (Tables 4.3 and 4.4.)

**Table 4.3. Race and Ethnicity, 2010**

	LAKEMOOR		LAKE COUNTY		MCHENRY COUNTY		CHICAGO REGION	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
White	4,832	80.3%	458,701	65.2%	258,584	83.7%	4,486,557	53.2%
Hispanic or Latino*	790	13.1%	139,987	19.9%	35,249	11.4%	1,823,609	21.6%
Black or African American	118	2.0%	46,989	6.7%	3,045	1.0%	1,465,417	17.4%
Asian	199	3.3%	43,954	6.2%	7,712	2.5%	513,694	6.1%
Other**	78	1.3%	13,831	2.0%	4,170	1.4%	142,109	1.7%

\* includes Hispanic or Latino residents of any race.

\*\* includes American Indian, Alaska Native, Native Hawaiian, Other Pacific Islander, Some Other Race, and Two or More Races.

Source: 2010 U.S. Census.

**Table 4.4. Change in Race and Ethnicity, 2000-2010**

	LAKEMOOR		LAKE COUNTY		MCHENRY COUNTY		CHICAGO REGION	
	CHANGE IN POPULATION	PERCENT CHANGE						
White	2,353	94.9%	-14,267	-3.0%	25,558	11.0%	-200,702	-4.3%
Hispanic or Latino*	594	303.0%	47,271	51.0%	15,647	79.8%	414,407	29.4%
Black or African American	100	555.5%	3,409	7.8%	1,666	120.8%	-72,117	-4.7%
Asian	148	290.2%	19,088	76.8%	3,978	106.5%	137,701	36.6%
Other**	34	77.2%	3,605	35.3%	1,834	78.5%	5,833	4.3%

\* includes Hispanic or Latino residents of any race.

\*\* includes American Indian, Alaska Native, Native Hawaiian, Other Pacific Islander, Some Other Race, and Two or More Races.

Source: 2000 U.S. Census; 2010 U.S. Census.

Lakemoor has a median age of 32 years, with almost 30% of the population less than 19 years old and more than 80% of the population less than 50 years old. The median age for Lake County is 36.7 years and McHenry County is 38 years, as shown in Table 4.5.

**Table 4.5. Age Cohorts and Median Age, 2010**

	LAKEMOOR		LAKE COUNTY		McHENRY COUNTY		CHICAGO REGION	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
Under 19 years	1,755	29.2%	213,592	30.4%	92,162	29.8%	2,346,937	27.8%
20 to 34 years	1,597	26.5%	123,295	17.5%	50,229	16.3%	1,790,049	21.2%
35 to 49 years	1,508	25.1%	158,286	22.5%	75,036	24.3%	1,807,886	21.4%
50 to 64 years	813	13.5%	135,196	19.2%	60,013	19.4%	1,534,488	18.2%
65 to 79 years	294	4.9%	52,856	7.5%	23,782	7.7%	679,470	8.1%
80 years and over	50	0.8%	20,237	2.9%	7,538	2.4%	272,556	3.2%
Median Age (2010)	32		36.7		38		N/A	

Source: 2010 U.S. Census.

The median household income for Lakemoor is \$80,958, which is slightly higher than Lake County (\$78,423) and McHenry County (\$77,314), as shown in Table 4.6. Lakemoor's median household income is significantly higher than the region's median household income of \$60,289. These differences can be attributed to a higher proportion of Lakemoor households with incomes between \$75,000 and \$149,000. Only 7% of Lakemoor households earn more than \$150,000, whereas a larger number of households in the county (Lake, 20% and McHenry, 12%) and the region (12%) earn at least \$150,000.

**Table 4.6. Median Household Income, 2009**

	LAKEMOOR		LAKE COUNTY		McHENRY COUNTY		CHICAGO REGION	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
Less than \$25,000	39	2%	29,353	12%	12,171	11%	590,496	20%
\$25,000 to \$49,999	403	22%	41,922	18%	19,335	18%	647,461	21%
\$50,000 to \$74,999	368	20%	40,915	17%	19,953	19%	560,678	19%
\$75,000 to \$99,999	454	25%	34,781	15%	19,654	18%	413,233	14%
\$100,000 to \$149,000	439	24%	41,153	18%	22,480	21%	453,565	15%
\$150,000 and over	123	7%	46,716	20%	13,358	12%	359,250	12%
Median Income (2009)	\$80,958		\$78,423		\$77,314		\$60,289	

Source: 2005-2009 American Community Survey, U.S. Census Bureau.

Almost 94% of Lakemoor residents 25 years or older hold high school diplomas, as shown in Table 4.7. This rate is higher than that of Lake County, McHenry County and the larger Chicago region. Approximately 30% of the Lakemoor population has earned a bachelor's or advanced degree, which is roughly consistent with McHenry County but lower than the Lake County rate of 40% and slightly lower than the regional rate of 34%.

**Table 4.7. Education Levels, 2010**

	LAKEMOOR		LAKE COUNTY		McHENRY COUNTY		CHICAGO REGION	
	COUNT	PERCENT	COUNT	PERCENT	PERCENT	COUNT	COUNT	PERCENT
Population, 25 years and over	3,254	100.0%	436,576	100.0%	201,073	100.0%	5,474,185	100.0%
High school diploma or higher	3,047	93.6%	384,049	88.0%	183,207	91.1%	4,656,235	85.1%
Bachelor's degree or higher	1,001	30.8%	178,680	40.9%	62,791	31.2%	1,873,198	34.2%

Source: 2010 U.S. Census, U.S. Census Bureau.

Unemployment rates in Lakemoor are slightly lower compared to the counties and the region. Lakemoor's unemployment rate of 6.2% is slightly lower than that of Lake and McHenry Counties and lower than that of the Chicago region, as shown in Table 4.8. Lakemoor also has a slightly higher percentage of the population over 16 years of age in the labor force than that of Lake and McHenry Counties and the region.

**Table 4.8. Employment Status, 2009**

	LAKEMOOR		LAKE COUNTY		McHENRY COUNTY		CHICAGO REGION	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
Population, 16 years and over	3,905	100.0%	527,010	100.0%	236,335	100.0%	6,508,852	100.0%
In labor force	3,161	80.9%	374,511	71.1%	170,572	72.2%	4,438,726	68.2%
Employed	2,958	93.6%	340,696	91.0%	159,243	93.4%	4,062,466	91.5%
Unemployed	196	6.2%	24,740	6.6%	11,195	6.6%	364,544	8.2%
Not in labor force	744	19.1%	152,499	28.9%	65,763	27.8%	2,070,126	31.8%

Source: 2005-2009 American Community Survey, U.S. Census Bureau.

Manufacturing services account for the largest job sector among Lakemoor's residents. Fourteen percent of Lakemoor's employed residents work in the manufacturing sector. The next two largest job sectors are retail trade, with 12%, and wholesale trade, with 9% of the total employed population (Table 4.9).

Lakemoor residents work in communities throughout the surrounding area, as shown in Table 4.10 and Figure 4.1. Only a small percentage of Lakemoor residents work in the village. Almost 60% of residents are traveling to employment in McHenry or Lake Counties. The city of McHenry attracts the 9.5% of Lakemoor residents, which is the largest single employment location for Village residents. Eight percent of residents work in the city of Chicago.

**Table 4.9. Employment of Lakemoor Residents by Industry Sector, 2009**

	COUNT	PERCENT
<b>TOTAL EMPLOYED POPULATION</b>	<b>1,872</b>	<b>100.0%</b>
Manufacturing	263	14.0%
Retail Trade	224	12.0%
Wholesale Trade	173	9.2%
Educational Services	167	8.9%
Health Care and Social Assistance	155	8.3%
Professional, Scientific, and Technical Services	139	7.4%
Construction	116	6.2%
Accommodation and Food Services	100	5.3%
Administration & Support, Waste Management and Remediation	98	5.2%
Finance and Insurance	96	5.1%
Public Administration	69	3.7%
Other Services (excluding Public Administration)	54	2.9%
Transportation and Warehousing	50	2.7%
Arts, Entertainment, and Recreation	50	2.7%
Management of Companies and Enterprises	47	2.5%
Information	46	2.5%
Real Estate and Rental and Leasing	14	0.7%
Utilities	5	0.3%
Agriculture, Forestry, Fishing and Hunting	4	0.2%
Mining, Quarrying, and Oil and Gas Extraction	2	0.1%

\*Note that the total employment figures reported in Table 4.8 are different from those in Tables 4.9 and 4.10. This discrepancy is due to the difficulty and variety of methods used to estimate employment from different sources.  
Source: Longitudinal Employer-Household Dynamics, U.S. Census Bureau.

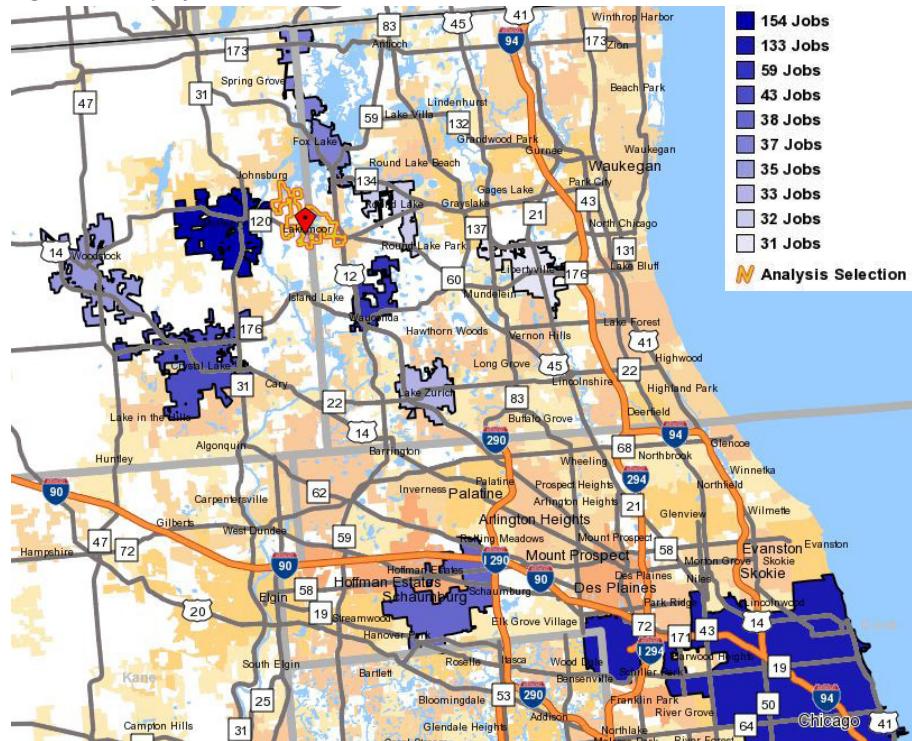
**Table 4.10. Employment of Lakemoor Residents by Location of Employment, 2009**

	COUNT	SHARE
<b>TOTAL EMPLOYED POPULATION</b>	<b>1,565</b>	<b>100.0%</b>
McHenry, IL	154	9.8%
Chicago, IL	133	8.5%
Wauconda, IL	59	3.8%
Crystal Lake, IL	43	2.7%
Schaumburg, IL	38	2.4%
Fox Lake, IL	37	2.4%
Woodstock, IL	35	2.2%
Lake Zurich, IL	33	2.1%
Round Lake, IL	32	2.0%
Libertyville, IL	31	2.0%
All Other Locations	970	62.0%
<b>ALL OTHER LOCATIONS BY COUNTY</b>	<b>970</b>	<b>100.0%</b>
Lake County	306	31.5%
McHenry County	185	19.1%
Cook County	239	24.6%
DuPage County	87	9.0%
Kane County	49	5.1%
Will County	13	1.3%
Other Counties	91	9.4%

\* Primary Jobs include public and private-sector jobs. Primary jobs represent the highest paying job for an individual worker.

Source: Longitudinal Employer-Household Dynamics, U.S. Census Bureau.

**Figure 4.1. Employment location of Lakemoor residents, 2009**



Source: Longitudinal Employer-Household Dynamics, U.S. Census Bureau.

# Section 5

## Economic Assessment



The data presented in this section provides an overview of the existing business climate in Lakemoor and economic trends related to employment, commercial and industrial development, and retail sales. Data discussed in this section comes from 2000 U.S. Census, the 2005-2009 American Community Survey, Longitudinal Employer-Household Dynamics and the 2010 U.S. Census, all collected by the U.S. Census Bureau, as well as data from ESRI Business Analyst, Dun and Bradstreet, and the Illinois Department of Employment Security.



### Key Findings

- **Lakemoor is predominantly a bedroom community with a small employment base.** The village has experienced proportionally significant growth in employment counts over the last decade, increasing from 408 to 474 jobs. Given the small base, this equals a sixteen percent increase in jobs.
- **The dominant employment industry sectors are manufacturing and construction, with a strong secondary presence of retail and accommodation & food services.** These four sectors account for nearly 80% of the total employees. Employers in the village are generally small to medium in size, with no single employer dominating the employment market.
- **Compared to Lake County, McHenry County, and the region as a whole, Lakemoor has low 2010 retail sales per resident of approximately \$5,300.** In comparison, Lake County has high retail sales per resident of approximately \$11,800, and \$9,700 per resident for the region. The village does not currently contain a major retail center and vacancies in the existing commercial spaces are higher than the region and surrounding submarkets.
- **The industrial square footage within the village has more than doubled since 2000 to a current total of nearly 600,000 square feet of space.** While the village's industrial vacancy rate is currently lower than the region and nearby submarkets, Lakemoor industrial space has historically had higher vacancy rates than these comparison groups. High vacancy may be a factor of the time required to absorb new square footage or because Lakemoor's industrial buildings are generally class B or C with few amenities.



- Non-residential square footage in the Village has increased rapidly over the last decade, and proposed new development and transportation projects have the potential to transform the village's built environment.** A proposed, limited-access Route 120, bypass and connection to an extended Route 53 would increase the accessibility of the village and provide easier access to the region's Interstate highways. Additionally, nearly 1.6 million square feet of new retail has been proposed at the Route 120 and U.S. 12 intersection, where Lakemoor and Volo share a boundary. If constructed, these facilities would attract significant traffic to the area and have considerable implications for the economic and fiscal environment of Lakemoor.
- Communities along the Route 120 portion of the Central Lake County Corridor are also hoping to attract development.** As other communities seek to attract development along the corridor, intergovernmental competition could impact Lakemoor. A recent review of municipal land use plans revealed that development expectations are very high and it is unlikely that all of the area designated for retail in the area will be developed.

## Employment Analysis

While Lakemoor's population has more than doubled over the last decade, its economic climate has changed more slowly. As is typical of many bedroom communities, the village has a small economic base with fewer employees than employed residents, and the majority of residents commute outside the community for work. The village contains several small industrial/commercial areas and shares a retail node at the intersection of two major roads (Route 120 and U.S. 12) with the Village of Volo.

The total increase in jobs in Lakemoor over the last decade has been small but proportionally significant, for a total of nearly 70 jobs. However, as a percentage of total jobs, the village's employment count has increased at a faster rate than Lake and McHenry Counties and the region as a whole. Like the region as a whole and Lake and McHenry counties, the ratio of jobs per resident declined in Lakemoor as the population grew. Tables 5.1 and 5.2 below provide 2000 and 2010 employment and establishment counts for the village, Lake and McHenry Counties, and the region.

**Table 5.1. Public and private sector employment in Lakemoor, 2000-2010**

	2000	2010	PERCENT CHANGE
Establishments	No Data	105	N/A
Jobs	408	474	16.3%
Jobs/Resident	0.146	0.079	-46.1%

Source: Illinois Department of Employment Security (IDES).

**Table 5.2. Public and private sector employment change, 2000-2010**

	LAKEMOOR*	LAKE COUNTY	MCHENRY COUNTY	6-COUNTY REGION**
2000 Employment	408	273,823	75,126	3,487,542
2010 Employment	474	257,955	74,895	3,133,051
% Change in Jobs	16.3%	-5.8%	-0.3%	-10.2%
% Change in Jobs /Resident	-46.1%	-13.7%	-16.0%	-13.2%

\*Due to data availability, Lakemoor employment counts include both public and private sector jobs. The employment count is approximate and has been generated using quarter sections substantially within the 2000 and 2010 boundaries of the Village.

\*\* The 6-County Region includes those counties with detailed employment data available through IDES. These counties include Cook, DuPage, Lake, Kane, McHenry and Will Counties.

Source: CMAP analysis of Illinois Department of Employment Security (IDES) Where Workers Work data.

The strongest employment sectors in Lakemoor are manufacturing and construction, which together account for slightly more than half of the total employees in the village. These businesses are concentrated in three small industrial areas: one at the northeastern edge of the Village near U.S. 12, a second directly south of Lily Lake, and a third north of Route 120 near Fisher Road. The retail trade and accommodation and food service sectors comprise approximately one quarter of the employment in the village. Retail and food service businesses are located primarily on Route 120 and at the eastern boundary of the village at the Route 120 and U.S. 12 intersection. Tables 5.3 and 5.4 below provide 2010 employee counts and top ten employers for the village.

**Table 5.3. Lakemoor employment by industry sector\*, 2010**

INDUSTRY	ESTABLISHMENTS	2010 EMPLOYEES	PERCENT OF EMPLOYEES
Manufacturing	15	166	35.0%
Construction	36	104	21.9%
Retail Trade	8	69	14.6%
Accommodation and Food Service	4	40	8.4%
Public Administration	2	25	5.3%
Administrative, Support, Waste Management & Remediation Service	9	21	4.4%
Professional, Scientific, & Technical Services	13	18	3.8%
Other Services (except Public Administration)	7	18	3.8%
All other sectors**	11	13	2.7%
Total	105	474	100%

\* Industry sectors are defined using the North American Industry Classification System.

\*\* To protect employer confidentiality, all private industry sectors with three or fewer establishments have been aggregated into single establishment and employee totals.

Source: Illinois Department of Employment Security (IDES).

The ten largest employers in the village reflect the breakdown of major industry sectors seen above. The top three employers are a business that installs custom stone counters and floors, a boat dealer and repair facility, and the Village of Lakemoor. The remainder of the list contains manufacturers, a construction firm, several restaurants, and an apartment complex. Overall, employers in the Village are small to medium in size; none of the employers in the village is estimated to have more than fifty employees. Please note that the employee counts below are estimated from ESRI Business Analyst and Dun & Bradstreet and may not fully correlate with the totals by sector from the Illinois Department of Employment Security.

**Table 5.4. Top Employers in Lakemoor, 2010**

EMPLOYER	ESTIMATED EMPLOYEES
Stonecrafters, Inc.	45
Chicago Sea Ray Inc.	33
Village of Lakemoor	33
Fratello's Inc.	25
Illinois Rack Enterprises	20
Rosati's Pizza	20
Jerry Shaver Trucking & Excavating	18
Anytime Fitness	16
Federal Fulfillment	15
Meadows of Lakemoor	15
Le Vichysois	15

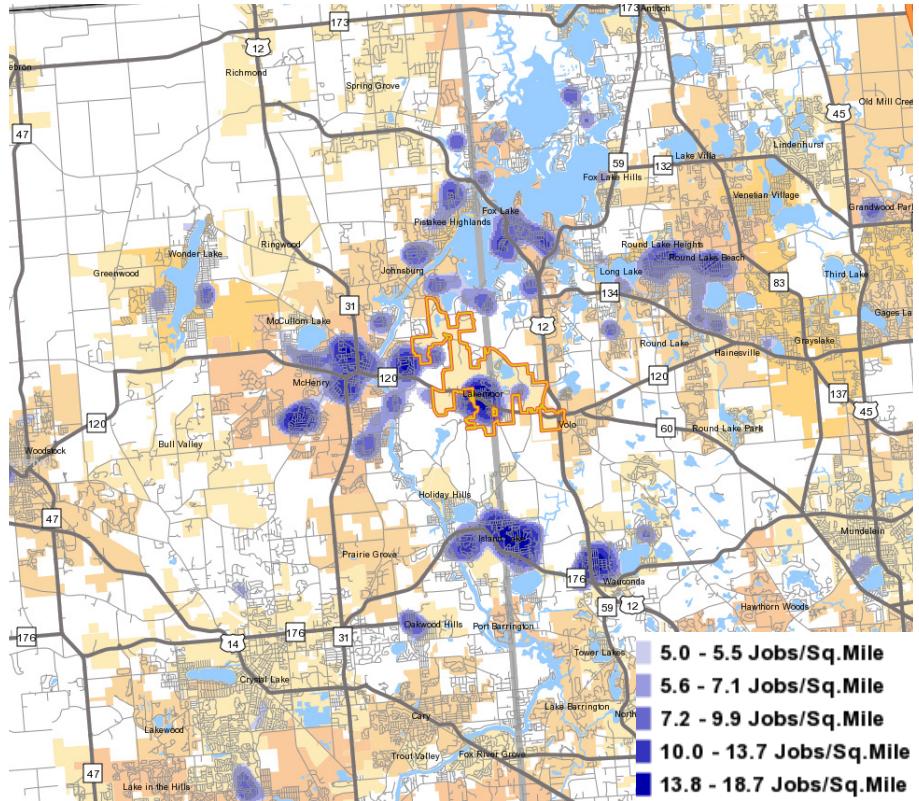
Source: ESRI Business Analyst and Dun & Bradstreet.

The workforce in Lakemoor is also highly localized, with 61% of employees residing within ten miles of Lakemoor, and 76.5% residing within Lake and McHenry counties. Table 5.5 below outlines the top ten communities of residence for workers in Lakemoor in 2009, and the map in Figure 5.1 highlights areas where a significant concentration of Lakemoor workers live. Please note that the employment totals do not match those from Tables 5.3 and 5.4 above. The employment data sources utilized are developed with different methodologies and purposes. Neither source should be viewed as completely accurate.

**Table 5.5. Residence location of workers in Lakemoor by count and percent, 2009**

	COUNT	PERCENT
<b>TOTAL WORKERS</b>	660	100.0%
McHenry	46	7.0%
Island Lake	31	4.7%
Fox Lake	28	4.2%
Lakemoor	25	3.8%
Wauconda	24	3.6%
Johnsburg	21	3.2%
Crystal Lake	19	2.9%
Round Lake Beach	18	2.7%
Woodstock	13	2.0%
Pistakee Highlands (Census Designated Place)	10	1.5%
All Other Locations	425	64.4%

Source: Longitudinal Employer-Household Dynamics, U.S. Census Bureau.

**Figure 5.1. Residence location of Lakemoor workers, 2009**

Source: Longitudinal Employer-Household Dynamics, U.S. Census Bureau.

Reflecting the village's status as a bedroom community, nearly 80% of the property value in the village is concentrated in the residential sector. Table 5.6 provides a breakdown of the 2010 Equalized Assessed Value (EAV) by property type for the village. The EAV is a property value assigned by the county assessor for taxation purposes, and should equal approximately 33% of a property's market value. Industrial and commercial EAV comprise 7.4% and 11.8% of the property value, respectively. While the industrial areas are equally distributed throughout the village, much of the commercial property value is concentrated within the Lake County side, reflecting the commercial cluster along Route 120 and at the Route 120 and U.S. 12 intersection. As with many communities in Lake and McHenry counties, the village also has a small proportion of farm and mineral property value.

**Table 5.6. Equalized Assessed Value (EAV) by property type in Lakemoor, 2010**

	LAKE COUNTY	MCHENRY COUNTY	TOTAL
Residential EAV	\$1,501,271	\$61,974,841	\$123,476,112
Farm EAV	\$315,136	\$618,390	\$933,526
Commercial EAV	\$15,766,435	\$2,516,416	\$18,282,851
Industrial EAV	\$6,006,881	\$5,521,777	\$11,528,658
Railroad EAV	-	-	-
Mineral EAV	-	\$754,568	\$754,568
Total	\$83,589,723	\$71,385,992	\$154,975,715

Source: CMAP analysis of Lake County Tax Extension and McHenry County Clerk data.

According to CoStar, Lakemoor has a particular strength in industrial and flex space. This is in line with the employment trends, which indicate a predominance of manufacturing and construction employers. The village contains approximately 600,000 square feet of industrial square footage, with approximately 60% of this square footage constructed since 2000 and current vacancy rates that are below that of the nearby submarkets and the region as a whole (Table 5.7). Over the last decade, however, vacancy rates have generally been higher than these comparison groups. This may be due to the continuous arrival of new square footage or to the lower class and lesser amenities of the buildings available.

**Table 5.7. Commercial Real Estate Square Footage and Vacancy by Type, 2010**

	LAKEMOOR		CENTRAL NORTHWEST SUBMARKET		FAR NORTHWEST SUBMARKET		CHICAGO REGION**	
	RBA*	VACANCY	RBA	VACANCY	RBA	VACANCY	RBA	VACANCY
Retail	141,213	14.4%	12,492,582	11.2%	29,976,542	9.4%	522,247,435	8.6%
Industrial***	594,948	6.2%	38,222,682	11.3%	31,898,937	11.6%	1,232,909,479	11.4%
Office	13,788	13.1%	5,910,138	11.6%	11,400,343	23.2%	459,725,484	15.0%

\* Rentable Buildable Area.

\*\*CoStar's Chicago Region includes portions of northwestern Indiana and southeastern Wisconsin.

\*\*\* The industrial submarkets are North Lake County and McHenry County.

Source: CMAP analysis of CoStar data

In contrast, the village contains only 140,000 retail square feet with vacancy rates that are considerably higher than the region-wide and submarket averages (Table 5.7). As with the industrial space in the village, a significant proportion, approximately 40%, of the retail has been constructed since 2000. Lakemoor retail is concentrated along Route 120 and at the Route 120 and U.S. 12 intersection. Despite the current high vacancy rates, CoStar indicates that nearly 1.6 million square feet of new retail is currently proposed for both Lakemoor and Volo at the Route 120 and U.S. 12 intersection. In contrast, no new office or industrial space is currently proposed for the village or adjacent unincorporated areas.

Lakemoor currently generates less retail sales per resident than the regional average, as shown in Table 5.8. Village sales per resident are approximately \$5,300, while Lake County, McHenry County, and the region are significantly higher at \$11,800, \$8,600, and \$9,700, respectively. This may indicate the potential for additional retail in Lakemoor despite higher than average vacancy rates.

**Table 5.8. Retail sales (total and per capita), 2010**

	LAKEMOOR	LAKE COUNTY	MCHENRY COUNTY	CHICAGO REGION
Total Retail Sales	\$32,066,076	\$8,306,825,580	\$2,677,308,888	\$81,925,804,488
Sales per Capita	\$5,329	\$11,808	\$8,671	\$9,717

Source: CMAP Analysis of Illinois Department of Revenue and 2010 U.S. Census data.

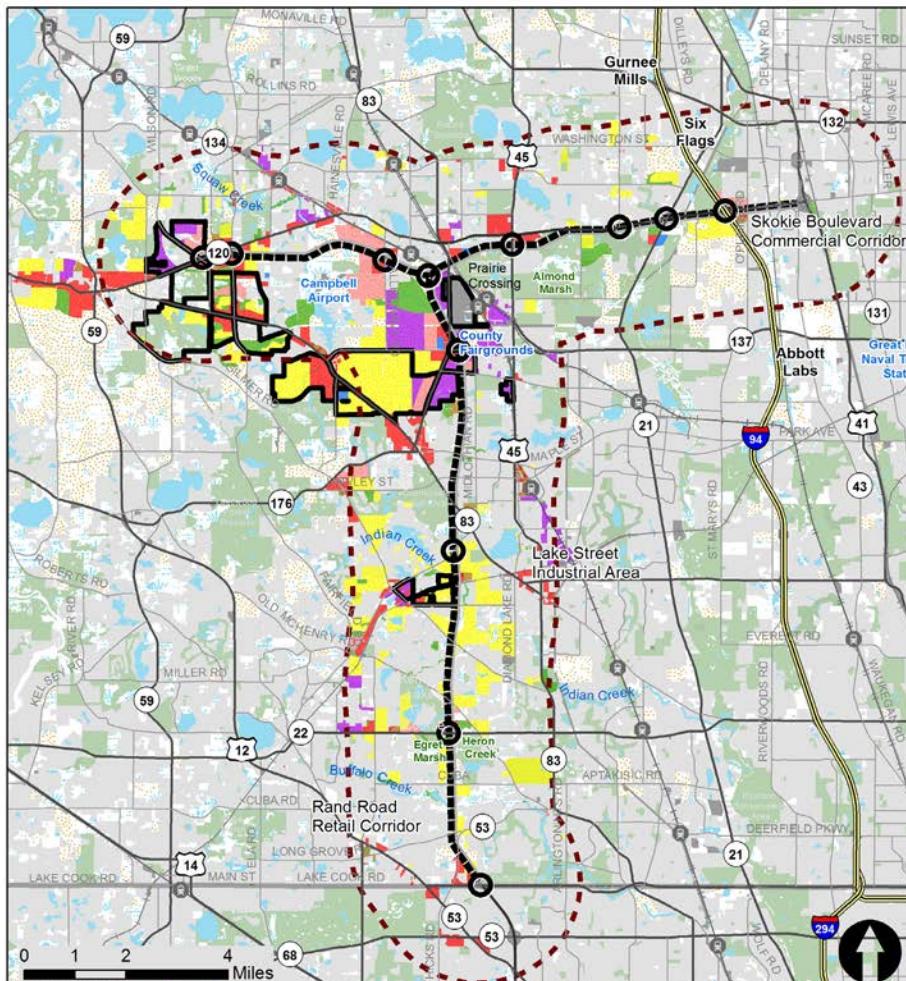
### Proposed future land use near the Central Lake County Corridor

At the request of the 53/120 Blue Ribbon Advisory Council, CMAP compiled a future land use map for areas adjacent to the proposed 53/120 corridor using existing land use maps from the Route 120 Unified Vision, municipal and Lake County comprehensive plans, and approved major developments. From the land use map, CMAP estimated new housing units and development square footage generated if development occurs in the forms and densities outlined in local plans and zoning ordinances. All portions of the Route 120 Unified Vision study area were incorporated, so Lakemoor was included in the analysis. Therefore, the results are particularly relevant in terms of expectations for retail development along Route 120 in the village.

The analysis found that many of municipalities were actively planning for potential new development adjacent to the proposed Route 53/120 facility. At typical Lake County development densities, new retail square footage generated within the proposed future retail areas in the corridor would more than double the existing retail square footage in all of Lake County and significantly exceeds the retail developed near I-94. Given current development patterns and constraints, it is unlikely that all of the area designated for retail in the comprehensive plans will be developed. This is particularly relevant to Lakemoor as much of Route 120 through the village is designated for commercial land uses.

Designating significantly more land for development than the market can bear can further inefficient development patterns, negatively impact accessibility and traffic congestion, and exacerbate inter-community competition for non-residential development. Recognizing this, the analysis included initial suggestions for collaboration to better utilize the potential facility. These include increased intergovernmental coordination along the corridor, planning collaboratively for land use and transportation, and promoting boundary and revenue sharing agreements.

**Figure 5.2. Proposed future land uses along the proposed Central Lake County Corridor, 2012**



Sources: For areas within 1 mile of the proposed and existing Route 120, the Route 120 Unified Vision land uses were utilized. For all other areas, the Lake County Future Land Use map, municipal comprehensive plans, and site plans from approved major developments were utilized.

Source: CMAP.



# Section 6

## Land Use and Development



The section describes the existing land use and development conditions within and near Lakemoor with a focus on types of uses, existing zoning, and the built environment. The information in this section has been obtained from CMAP's Geographic Information System (GIS) database and a visual assessment of the community undertaken by the project team in December 2011.

### Key Findings



- **Lakemoor has a significant amount of developable land within its planning area.** Agriculture and vacant or fallow lands make up 23% of the land area within the village, though some of this land contains wetlands. The village has the opportunity to make important decisions about how and where it will grow.
- **Lakemoor is surrounded by extensive public open space and valuable natural areas.** The Illinois Department of Natural Resources, Lake County Forest Preserve, and McHenry County Conservation District own and manage 4,239 acres, or 24.6% of the planning area.
- **Updating the zoning ordinance and map for the downtown core could assist in redeveloping this area as a more traditional downtown.** Given the size of the parcels, many of the current setback and lot size requirements of the RS-4 district lead to non-conforming parcels.
- **Large areas are zoned for highway commercial.** If commercial development extends along Route 120 as shown in the current zoning map, the rural and natural feel of the area may be altered. Balancing commercial development with the character and assets of the community is one of the village's primary challenges.
- **Lakemoor contains two quarries, one of which is currently in operation.** Ten percent of Lakemoor's land area is or has recently been used for mineral extraction. Residential and commercial developments have been proposed for both quarries in the recent past.



## Land Use

The village of Lakemoor is 3,102 acres (4.85 square miles), characterized by its wealth of open space, agricultural land, and residential uses. Public and private open space comprises 19% of the land, commercial and office on 1.7%, agricultural land uses make up 7.1%, and residential totals 21.7%. There are also limited institutional uses, 0.2%, see Figure 6.1 and Table 6.1.

### Residential

Parcels shown as residential in Figure 6.1 typically contain single-family homes on lots that range from roughly 1,405 square feet to 3 acres, while agricultural areas have larger parcels and may contain single-family homes in addition to farming uses, workers' residences, private woodlands or other incidental uses related to agriculture. The majority (80.9%) of residential land within the village consists of detached single-family homes. Older homes surrounding Lily Lake are mostly modest, single-story homes on small parcels. Most of the newer residential lots are organized into subdivisions that feature larger, two-story homes. In the Bay Oaks subdivision, the homes are significantly larger and reside on 1 to 3-acre lots. The second most predominant housing type is multi-family buildings with five or more units.

### Commercial

Commercial uses are primarily clustered around Route 120 near Lily Lake and at the intersection of Route 120 and U.S. 12. The older commercial area, along Route 120 from Lakeview Street to Short Street, contains a mixture of commercial, office, and residential uses with small building footprints and a range of architectural styles. There is diversity in the age of the buildings but a lack of significant historical components. The blocks vary in size, averaging 500 feet by 200 feet, and lack sidewalks. The Village Hall and the former Village Police Station are located within this portion of the corridor. Commercial uses along Route 120 at Darrell Road are of more recent construction designed with larger building footprints and off-street parking lots.

### Industrial

Industrial uses are concentrated in four areas within Lakemoor: one at the northeastern edge of the village near U.S. 12, a second directly south of Lily Lake, a third north of Route 120 near Fisher Road, and a fourth located on both sides of Route 120 near Lily Lake Road on the western edge of Lakemoor. This last industrial area is of significant acreage and includes water-filled quarries and wooded areas. Excavation activities continue on the north side of Route 120; the quarry south of Route 120 has been closed.

### Institutional

Institutional uses within Lakemoor include one church, the Village Hall, the Village Public Works Facility and the Village Police Station. The Village of Lakemoor and Rockwell Utilities, a private water and wastewater utility, have water towers and associated infrastructure within the village boundary.

### Open Space

The Village enjoys a wide variety of open space types, including the Illinois Department of Natural Resources nature preserves, village parks, and private open space consisting of agricultural fields, golf courses and wooded lots. The presence of these open space types contributes to the attractiveness and character of the Village.

**Table 6.1. Land use by acreage and percent of total in Lakemoor, 2012**

LAND USE CLASSIFICATION	ACRES	PERCENT
Agriculture	220.6	7.1%
Commercial / Office	54.2	1.7%
Industrial	174.3	5.6%
Institutional	5.8	0.2%
Mineral Extraction	199.3	6.4%
Private Open Space	360.7	11.6%
Public Open Space	227.7	7.3%
Residential - Single-Family	546.8	17.6%
Residential - Attached	94.4	3.0%
Residential - Multi-family	33.2	1.1%
Utilities	8.8	0.3%
Water	696.4	22.5%
Vacant / Fallow	479.6	15.5%
Total	3101.8	100.0%

Source: CMAP.

Figure 6.1. Existing land use, including only land within community, 2012

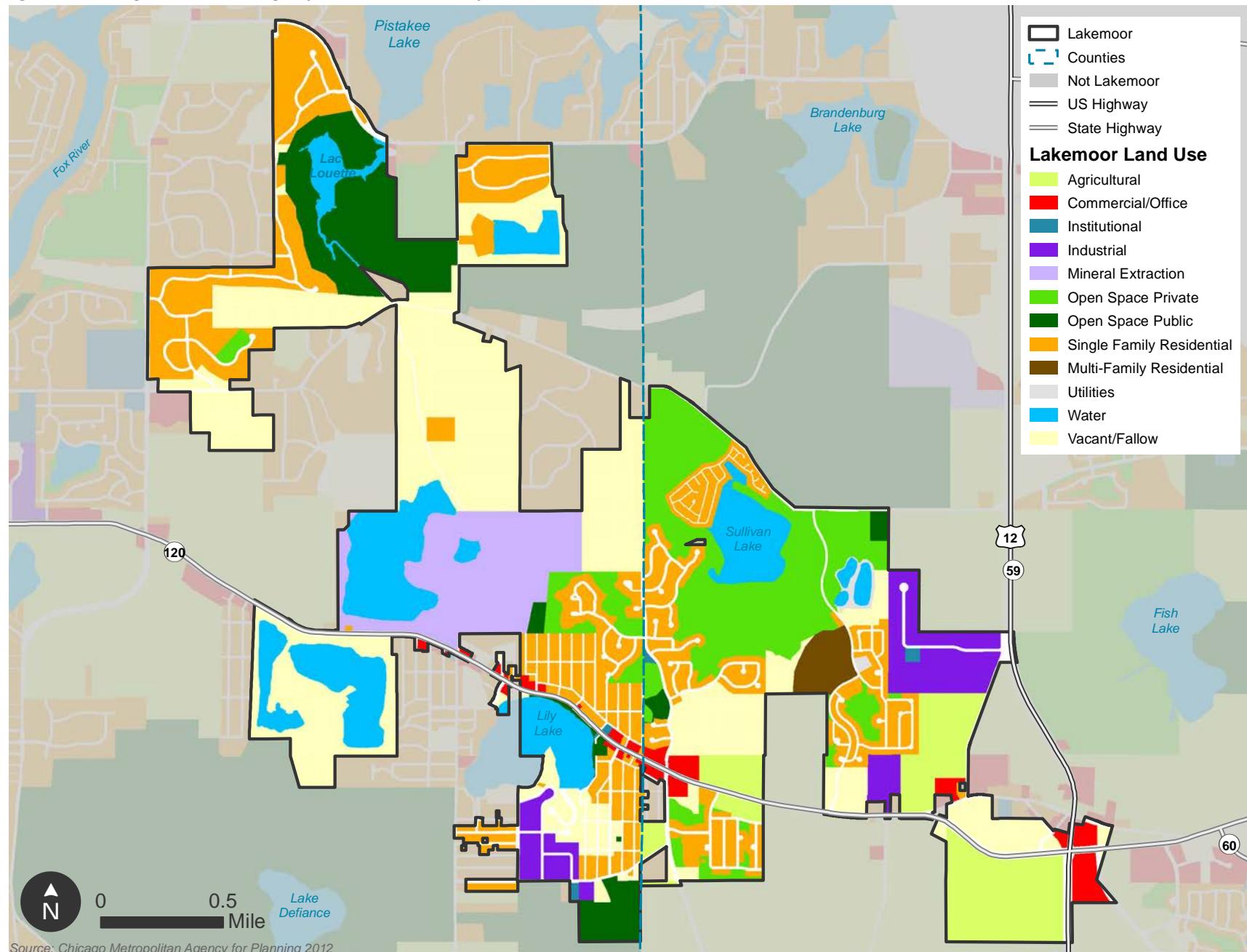
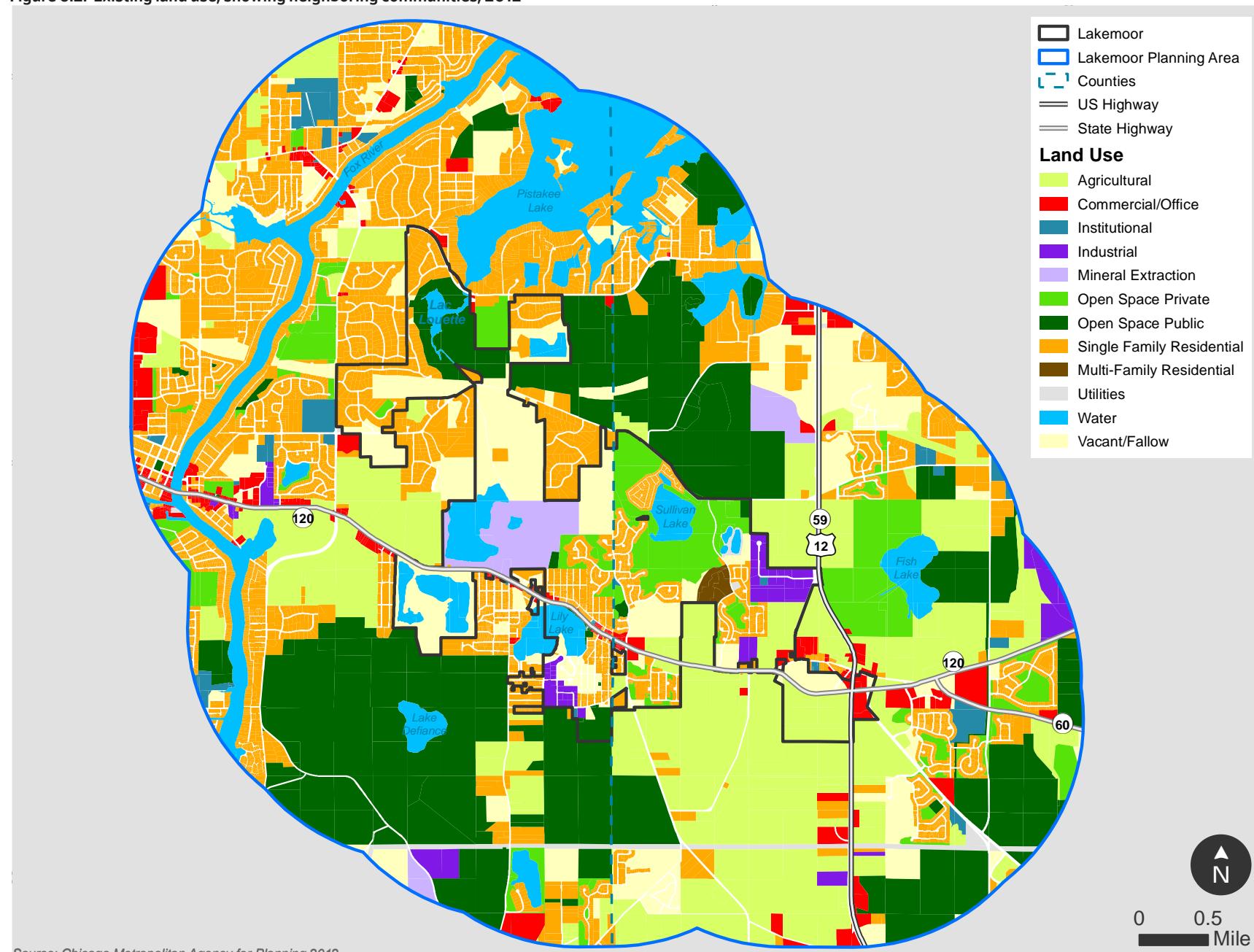


Figure 6.2. Existing land use, showing neighboring communities, 2012



## Lakemoor Planning Area

For the entire 1.5-mile planning area of 17,069.5 acres (or 26.7 square miles), public open space comprises 24.4% of the land, commercial and office on 2.4%, agricultural land uses make up 21.6%, and residential totals 26%, see Figure 6.2 and Table 6.3. Large open space areas are located north, south and east of the village boundary. Combined with the large portion of land used for agriculture, the area around Lakemoor has a decidedly rural atmosphere. Residential uses are generally located to the west and north of the village boundary in the Village of Johnsburg, the City of McHenry and the lakeside development around Pistakee Lake. Institutional uses, such as the McHenry Middle School and the River East Public Library, are a small portion of the land area, 1.2%.

**Table 6.2. Land use by acreage and percent of total in Lakemoor Planning Area, 2012**

LAND USE CLASSIFICATION	ACRES	PERCENT
Agriculture	3690.0	21.6%
Commercial / Office	406.4	2.4%
Industrial	155.4	0.9%
Institutional	243.0	1.4%
Mineral Extraction	99.5	0.6%
Private Open Space	747.5	4.4%
Public Open Space	4168.0	24.4%
Residential	4438.9	26.0%
Utilities	122.5	0.7%
Vacant / Fallow	1355.1	7.9%
Water	1643.2	9.6%
Total	17069.5	100.0%

Source: CMAP.

## Current Zoning

Last amended in 2010, the Lakemoor Zoning Ordinance was adopted in 1993. The current zoning map is shown in Figure 6.3, and the key characteristics of the major zoning classifications are summarized in Table 6.3. The village does not have zoning categories specifically relating to open space, utilities/communications, or institutional uses.

Large areas of Lakemoor are zoned for residential uses, mostly in estate single family, low-density multi-family, medium density single family and high density single-family. A number of undevelopable areas, such as DNR open space and lakes, are also zoned residential.

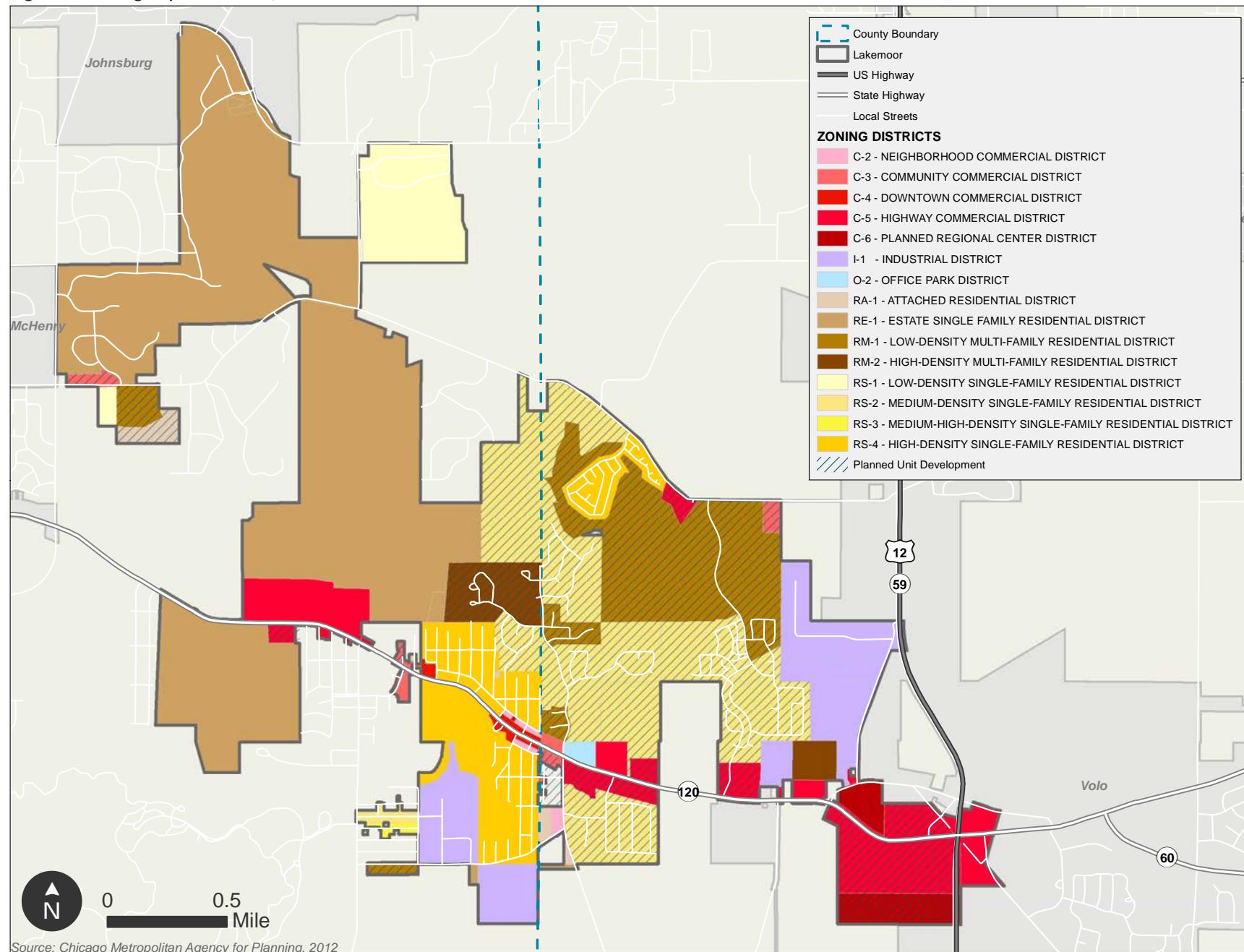
All eight residential districts permit single-family detached dwellings as well as home occupations, parks, playgrounds, forest preserves, wildlife sanctuaries, and other publicly-owned open space. Residential uses range from the least intensive RE-1 district, with a minimum lot size of one acre, to the most intensive RM-2 district, with a minimum lot size of 1,405 to 4,840 square feet depending on the number of bedrooms. The minimum lot size requirement of 5,000 square feet in the RS-4, Medium-High-Density Single Family district leads to a large number of non-conforming parcels where it is currently mapped within Lakemoor. All residential districts have a maximum building height of 35 feet and require parking spaces based on the number of bedrooms: a minimum of 1.5 spaces for efficiency units, 2.0 spaces for 1-bedroom units, and 2.33 spaces for all other units. There is a maximum of 4 parking spaces per unit.

Single-family attached dwellings and townhouses are allowed in the RA-1, RM-1 and RM-2 districts. Multiple family dwellings are allowed in RM-1 and RM-2 districts. The primary difference between the residential districts is their permitted minimum lot areas and setbacks and the number of districts could be consolidated to better match desired development patterns. The RA-1, RM-1 and RM-2 districts have added requirements for lot coverage and densities. For example, the RM-2 district must have a minimum of 73% of the net site area in uncovered space and six or fewer dwelling units. However, the Meadows, the main multi-family complex in the village and the only area zoned for RM-2 via PUD, contains 496 units in 32 different buildings, averaging 15 units per building.

Almost the entire stretch along Route 120 is zoned for either highway commercial or downtown commercial. Commercial districts range from the least intensive C-1, with a maximum of 0.5 Floor Area Ratio (FAR), to the most intensive C-4 district, with a maximum of 3.0 FAR and no minimum lot width, setback or off-street parking requirements. The C-5, the highway commercial district, drops the maximum FAR back down to 1.0. Both C-4 and C-5 districts permit residential dwelling units as long as they are above the ground floor. The ordinance is silent on the maximum number of dwelling units allowed per acre in these two districts. The C-1 convenience commercial district is not designated on the zoning map in Lakemoor. The zoning ordinance also has two office districts that vary by minimum lot size and FAR. While the village does have an agriculture & mining overlay district, this district is not mapped on any parcels.

The Planned Unit Development (PUD) District is used throughout the village for residential and commercial development, covering 1,253 acres or 40% of the village land area. Approval of a planned unit development gives the Village some element of control over the parameters for new growth, but also increases staff time necessary for review and negotiation and reduces predictability in the pattern of the built environment, which is dependent on what is negotiated as opposed to what is prescribed or required by code.

**Figure 6.3. Zoning map of Lakemoor, 2011**



**Table 6.3. Key characteristics of residential zoning districts of Lakemoor, 2011.**

RESIDENTIAL ZONING CLASSIFICATION	PERMITTED USES	MINIMUM LOT AREA PER DWELLING UNIT	SETBACKS	LOT COVERAGE	OTHER REGULATIONS
RE-1: Estate Single-Family	Single-family detached dwellings; home occupations; parks, playgrounds, forest preserves, wildlife sanctuaries and other publicly-owned open space.	43,560 sq. ft. (1 acre)	Front yard: 30 ft.; Interior side yard: 6 ft. or 10% of lot width, whichever is more; Rear yard: 40 ft.	-	-
RS-1: Low-Density Single-Family	same as above	30,000 sq. ft. (0.69 acre)	same as above	-	-
RS-2: Medium-Density Single-Family	same as above	10,000 sq. ft. (0.23 acre)	Front yard: 25 ft.; Interior side yard: 6 ft. or 10% of lot width, whichever is more; Rear yard: 30 ft.	-	-
RS-3: Medium-High-Density Single-Family	same as above, only in existing areas	7,500 sq. ft. (0.17 acre)	Front yard: 20 ft.; Interior side yard: 6 ft. or 10% of lot width, whichever is more; Rear yard: 25 ft.	-	-
RS-4: High-Density Single-Family	Single-family detached dwellings; home occupations; parks, playgrounds, forest preserves, wildlife sanctuaries and other publicly-owned open space.	5,000 sq. ft. (0.11 acre)	same as above	-	-
RA-1: Attached Residential	Single-family attached dwellings and townhouses in addition to uses allowed in RS districts.	2,175 - 7,900 sq. ft. depending on number of bedrooms (0.05 - 0.18 acres)	same as above	-	6 or fewer dwelling units; up to 20 persons per acre.
RM-1: Low-Density Multi-Family	Multiple-family dwellings and other two-family dwellings in addition to uses allowed in RS and RA districts.	1,675 - 6,223 sq. ft. depending on number of bedrooms (0.04 - 0.14 acres)	Front yard: 25 ft.; Interior side yard: 15 ft.; Rear yard: 25 ft.	A minimum of 73% of the net site area in uncovered space	6 or fewer dwelling units; up to 26 persons per acre.
RM-2: High-Density Multi-Family	same as above	1,405 - 4,840 sq. ft. depending on number of bedrooms (0.03 - 0.14 acres)	Front yard: 25 ft.; Interior side yard: 15 ft.; Rear yard: 25 ft.	A minimum of 73% of the net site area in uncovered space	6 or fewer dwelling units; up to 31 persons per acre.

Source: Village of Lakemoor Zoning Ordinance.

**Table 6.4. Key characteristics of non-residential zoning districts of Lakemoor, 2011.**

ZONING CLASSIFICATION	EXAMPLES OF PERMITTED USES	AREA REGULATIONS	KEY REQUIRED CONDITIONS	PARKING*
C-1: Convenience Commercial	Beauty shops, drug stores, dry cleaners (with off-site processing), grocery stores less than 5,000 sq. ft., liquor stores, parks, restaurants, bakeries.	No minimum lot areas; Maximum of 0.5 FAR	If located along an arterial street, minimum lot width is 200 ft.	Restaurants are required to have 20 spaces for every 1,000 sq. ft. of floor area.
C-2: Neighborhood Commercial	Above plus shoe repair, banks, insurance offices, medical offices, paint stores, supermarkets.	No minimum lot areas; Maximum of 1.0 FAR	If located along an arterial street, minimum lot width is 200 ft.	Banks are required to have 0.67 spaces per employee and 5 spaces for every 1,000 sq. ft. of floor area.
C-3: Community Commercial	Above plus antique shops, auto parts stores, gunsmith shops, banquet halls, pawnshops, offices, tanning salons, indoor theatres.	No minimum lot areas; Maximum of 2.0 FAR	If located along an arterial street, minimum lot width is 200 ft.	Theatres are required to have 0.33 spaces per person design capacity.
C-4: Downtown Commercial	Above plus off-street parking lots or public garages as principal use, dwelling units above the ground floor in buildings with a ground floor in non-residential use, television stations, hospitality centers.	No minimum lot areas; Maximum of 3.0 FAR	No minimum lot widths or setbacks.	No off-street parking or loading is required for individual uses located within this district.
C-5: Highway Commercial	Above plus fuel and ice sales, golf courses, greenhouses, hotels and motels, laundry plans, motor vehicle sales.	No minimum lot areas; Maximum of 1.0 FAR	If located along an arterial street, minimum lot width is 200 ft.	Motor vehicle sales are required to have 2.5 spaces for every 1,000 sq. ft. of floor area.
C-6: Planned Regional Center District	Retail, service and business uses like apparel stores, auto part stores, department stores, grocery stores, home supply and building material centers, etc. Service uses like auto repair, car rental, currency exchanges, motels, etc. Office uses, health, medical and care facilities, and public and utility uses.	Minimum lot size of 150 acres; Maximum of 1.0 FAR, with buildings not exceeding 50% of the total area of the lot, excluding parking structures.	Specific performance standards on traffic circulation, lighting and landscaping. Height restrictions: 100 ft., 60 ft. for buildings located on the periphery of the lot.	Regional shopping centers must have 4.5 spaces per 1,000 square feet of gross leasable area for up to 1 million sq. ft. and a parking ration of 4 spaces per 1,000 sq. ft. for any square footage that exceeds 1 million sq. ft. of gross leasable area.
O-1: Local Office	Insurance offices, medical, dental and optometry offices, parks, government and institutional offices.	Minimum lot area of 5,000 sq. ft.; Maximum of 1.0 FAR	If located along an arterial street, minimum lot width is 200 ft.	Medical clinics are required to have 6.5 spaces for every 1,000 sq. ft. of floor area.
O-2: Office Park	Above plus commercial schools, banks, golf courses, hotels and motels, laboratories, plazas and public spaces, restaurants, banquet halls.	Minimum lot area of 40,000 sq. ft.; Maximum of 2.5 FAR.	Minimum lot width of 100 feet, if located along an arterial street, minimum lot width is 200 ft.	Banquet halls are required to have 0.25 spaces per person design capacity.
I-1: Industrial District	Bakery plants, dry cleaning plants and laundries, low-nuisance light manufacturing, fabricating, and processing, parks, research and development facilities.	Minimum lot area of 15,000 sq. ft.; Maximum of 3.0 FAR.	Minimum lot width of 100 feet, if located along an arterial street, minimum lot width is 200 ft.	Warehousing operations are required to have 1 space per employee and 0.5 spaces for every 1,000 sq. ft. of floor area.
A-M: Agriculture & Mining Overlay District	Agricultural purposes except the keeping of farm animals.	-	-	No parking minimums listed.
Planned Unit Development	Allows a mixture of residential, commercial, office and industrial uses.	-	Must be at least 2 acres, contain more than 2 detached buildings, and initially under the same ownership or control.	-

\*Specific uses have tailored parking space calculations.

Source: Village of Lakemoor Zoning Ordinance.

# Section 7

## Housing

This section describes the key characteristics of the housing stock within Lakemoor, with a focus on the age, occupancy, and type of housing as well as housing values. Data discussed in this section comes from the 2000 U.S. Census, the 2005-2009 American Community Survey, and the 2010 U.S. Census, all collected by the U.S. Census Bureau.

### Key Findings

- ***Total housing units in Lakemoor have increased rapidly over the last decade, more than doubling since 2000.*** This rapid pace of construction may contribute to the higher than average vacancy rates in the village, as some of the recently constructed housing stock remains unoccupied.
- ***Housing vacancy rates have decreased since the 2000 rate, which was among the highest in the region, but are still 2 to 3 percentage points higher than regional and county averages.*** High proportions of seasonally occupied homes and vacant for-sale homes appear to be the largest contributors to the 2010 vacancy rate.
- ***A single large apartment complex contains nearly 20 percent of the village's total housing units and leads to a high proportion of rental housing for the village.*** The Meadows, a 496-unit complex constructed in large part over the last decade, contains a mix of one and two-bedroom attached multifamily and townhome-style apartments. This complex also contributes to a smaller average unit size and number of bedrooms for the village when compared to Lake and McHenry counties, but not the region as a whole.
- ***Lakemoor has historically contained a number of vacation homes, and still retains a larger proportion of these homes than many areas of the region.*** While many of Lakemoor's vacation homes have been converted to year-round dwellings over time, 2010 census data indicates that the village still contains a higher proportion of seasonal homes than most portions of the region.



## Housing Analysis

Lakemoor is a rapidly growing community that has experienced substantial increases in its housing stock and population in recent years. Slightly more than half of the housing units within the community were constructed over the last decade, and 85% were constructed within the last two decades. This growth rate substantially exceeds that of Lake and McHenry counties and the region as whole. As a result, the median year of housing construction is 2000, which is much younger than the median year of housing unit construction for the overlapping counties and the region.

**Table 7.1. Total housing units, 2000 and 2010**

	2000	2010	% CHANGE
Lakemoor	1,161	2,512	116.4%
Lake County	225,919	260,310	15.2%
McHenry County	92,908	116,040	24.9%
Chicago Region	3,086,239	3,377,190	9.4%

Source: 2010 Census, U.S. Census Bureau.

**Table 7.2. Housing age, 2009**

	LAKEMOOR		LAKE COUNTY		MCHENRY COUNTY		CHICAGO REGION	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
Built 2000 and after	1,016	51.3%	33,491	13.3%	21,340	18.8%	307,175	9.2%
Built 1990 to 1999	667	33.7%	49,454	19.6%	28,079	24.7%	345,094	10.4%
Built 1980 to 1989	79	4.0%	37,310	14.8%	14,989	13.2%	305,277	9.2%
Built 1980 or earlier	219	11.1%	131,471	52.2%	49,062	43.2%	2,365,159	71.2%
Median age, 2009	2000		1979		1985		1965	

Source: 2005-2009 American Community Survey, U.S. Census Bureau.

Current housing unit vacancy has declined in Lakemoor to 9.5%, from a high 2000 vacancy rate of 12.7%, see Table 7.3. However, this vacancy rate is higher than that found in Lake and McHenry counties and region-wide. 2010 Census data indicates that 2.5% of the housing stock in the village is currently vacant and for sale, significantly higher than the Lake County, McHenry County, and regional averages of approximately 1.6%. This higher vacancy rate may be due in part to the number of homes utilized for seasonal use, slower absorption of recently constructed homes, or to overall market conditions.

**Table 7.3. Housing vacancy, 2010**

	LAKEMOOR	LAKE COUNTY	MCHENRY COUNTY	CHICAGO REGION
For Rent	2.3%	2.1%	1.5%	3.2%
Rented Not Occupied	0.0%	0.1%	0.1%	0.2%
For Sale	2.5%	1.6%	1.6%	1.6%
Sold Not Occupied	0.6%	0.3%	0.3%	0.3%
Seasonal, Recreational, or Occasional Use	2.0%	1.3%	0.9%	0.7%
Other Vacant	2.2%	1.7%	1.5%	2.4%
Total Vacancy Rate	9.5%	7.1%	5.9%	8.5%

Source: 2010 Census, U.S. Census Bureau.

The U.S. Census categorizes homes used only for seasonal, recreational or occasional use (seasonal homes) as vacant. Lake and McHenry counties have the highest county-wide proportions of seasonal homes in the region, and Lakemoor's proportion of this type of unit is significantly higher than either of these counties.

Lakemoor has a lower homeownership rate than Lake and McHenry Counties, but a higher homeownership rate than the region-wide average, see Table 7.4. The village contains a single, large rental complex called The Meadows, which is part of a master-planned community and contains 496 rental units that are a mix of apartments and townhomes. The housing in this single complex comprises 75% of the rental units and 20% of the total housing units in the village.

**Table 7.4. Housing tenure, 2010**

	LAKEMOOR		LAKE COUNTY		MCHENRY COUNTY		CHICAGO REGION	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
Total occupied units	2,273	100.0%	241,712	100.0%	109,199	100.0%	3,088,156	100.0%
Owner-Occupied	1,608	70.7%	185,213	76.6%	90,722	83.1%	2,022,176	65.5%
Renter-Occupied	665	29.3%	56,499	23.4%	18,477	16.9%	1,065,980	34.5%

Source: 2010 Census, U.S. Census Bureau.

The majority of the housing stock in Lakemoor is single-family detached housing, although the proportion of this type of housing is significantly lower within the village than in Lake and McHenry counties. The second most predominant housing unit type is found in buildings with five or more units, (see Table 7.5) As noted above, Lakemoor is home to a single large apartment complex that leads to the larger proportions of rental and multifamily housing within the community. Current demographic trends as well as market preferences reveal a growing demand for multi-family housing in the future.

**Table 7.5. Housing type (units), 2005-2009**

	LAKEMOOR		LAKE COUNTY		MCHENRY COUNTY		CHICAGO REGION	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
Total	1,981	100.0%	251,726	100.0%	113,470	100.0%	3,322,705	100.0%
Single, detached	1,176	59.4%	170,596	67.8%	88,988	78.4%	1,648,558	49.6%
Single, attached	304	15.3%	28,046	11.1%	10,459	9.2%	245,272	7.4%
2 Units	-	0.0%	6,935	2.8%	1,759	1.6%	254,173	7.6%
3 to 4 Units	17	0.9%	7,525	3.0%	3,062	2.7%	281,934	8.5%
5+ Units	372	18.8%	34,140	13.6%	8,406	7.4%	865,562	26.0%

Source: 2005-2009 American Community Survey, U.S. Census Bureau.

Lakemoor has a smaller than average number of rooms and fewer bedrooms per unit than Lake and McHenry counties and the region, see Tables 7.6 and 7.7. This is likely due to two factors. First, much of the older housing stock within the village is located near Lily Lake and was originally built as summer homes which are smaller and have fewer bedrooms than modern, year-round housing. Second, the Meadows apartment complex contains only 1 and 2-bedroom units, most of which are 2-bedroom units. As a result, two-bedroom units are the most common in the village and its proportion of this unit type is significantly higher than the county and region-wide averages. However, Lakemoor also has a strong segment of single-family detached homes, and its proportion of housing units containing 3 bedrooms is only slightly less than the county and regional averages. The village contains a comparatively smaller proportion of 4 and 5 bedroom units than Lake and McHenry Counties, but is at or above regional averages for these housing types.

**Table 7.6. Housing size, (median rooms) 2005-2009**

	MEDIAN ROOMS, 2000	MEDIAN ROOMS, 2009
Lakemoor	5.6	5.7
Lake County	6.2	6.3
McHenry County	6.4	6.5
Chicago Region	N/A	5.5

Source: 2005-2009 American Community Survey, U.S. Census Bureau.

**Table 7.7. Housing size, (number of bedrooms) 2005-2009**

	0-1 BEDROOM		2 BEDROOMS		3 BEDROOMS		4 BEDROOMS		5 BEDROOMS	
	COUNT	%	COUNT	%	COUNT	%	COUNT	%	COUNT	%
Lakemoor	145	7%	710	36%	656	33%	397	20%	73	4%
Lake County	21,667	9%	58,532	23%	88,874	35%	65,681	26%	16,972	7%
McHenry County	6,277	6%	25,129	22%	44,936	40%	31,915	28%	5,213	5%
Chicago Region	537,213	16%	954,331	29%	1,124,576	34%	557,601	17%	148,984	4%

Source: 2005-2009 American Community Survey, U.S. Census Bureau.

Lakemoor's median housing value is approximately ten percent less than the median for the region and McHenry County, and approximately 20% less than the median for Lake County. However, median housing values in the village have increased at faster pace than Lake and McHenry counties and at the same pace as the region (see Table 7.9). The lower median values in Lakemoor are due in part to the unusually large proportion of homes with values between \$150,000 and \$200,000. Further, nearly three quarters of the village's housing stock is valued between \$100,000 and \$300,000, as compared to approximately half for Lake County and the region and 60% for McHenry County. A comparatively small proportion of Lakemoor homes are valued at less than \$100,000 or more than \$300,000, leading to a more homogeneously priced housing stock than is found in other areas of the region.

**Table 7.8. Housing value for owner-occupied units, 2009**

	LAKEMOOR		LAKE COUNTY		McHENRY COUNTY		CHICAGO REGION	
	COUNT	%	COUNT	%	COUNT	%	COUNT	%
Less than \$100,000	39	2.7%	7,867	4.2%	2,501	2.8%	108,665	5.3%
\$100,000 to \$149,999	138	9.6%	15,859	8.5%	6,866	7.6%	182,204	8.9%
\$150,000 to \$199,999	419	29.3%	29,991	16.2%	16,883	18.6%	313,805	15.3%
\$200,000 to \$249,999	242	16.9%	26,713	14.4%	18,788	20.7%	330,215	16.1%
\$250,000 to \$299,000	232	16.2%	16,063	8.7%	13,847	15.3%	236,885	11.6%
\$300,000 to \$399,999	160	11.2%	28,260	15.2%	17,774	19.6%	389,185	19.0%
\$400,000 to \$499,999	129	9.0%	18,590	10.0%	7,225	8.0%	196,534	9.6%
\$500,000 to \$749,999	72	5.0%	23,728	12.8%	5,180	5.7%	181,827	8.9%
\$750,000 or more	-	0.0%	18,599	10.0%	1,657	1.8%	107,841	5.3%
Median value, 2009	\$224,700		\$288,600		\$251,200		\$249,900	

Source: 2005-2009 American Community Survey, U.S. Census Bureau.

**Table 7.9. Median value of owner-occupied units, 2000-2009**

	LAKEMOOR	LAKE COUNTY	McHENRY COUNTY	CHICAGO REGION
2000	\$140,600	\$191,600	\$167,400	\$161,400
2009	\$224,700	\$288,600	\$251,200	\$256,400
Percent Change	59.80%	50.60%	50.10%	58.90%

Source: 2000 U.S. Census; 2009 American Community Survey, U.S. Census Bureau.



# Section 8

## Transportation and Circulation

This section provides information on the existing transportation system within Lakemoor with a focus on streets, public transit, pedestrian and bicycle infrastructure, and freight. The information in this section was obtained from the Illinois Department of Transportation (IDOT), Regional Transportation Authority (RTA), Metra, Pace, Lake and McHenry Counties, Village of Lakemoor, and based upon a visual assessment of existing conditions in the community.

### Key Findings



- **Lakemoor streets and sidewalks are in relatively good condition, but lack connectivity.** With infrequent arterial and connector streets, local trips are concentrated on a few main roads. Improvements to the sidewalk network and more signalized intersections along Route 120 would make the village more pedestrian-friendly. Improving the sidewalk network in neighborhoods and specifically near parks and nearby schools would provide a safer walking environment.
- **The presence of Route 120 presents both opportunities and challenges to the village.** On one hand, as a major transportation corridor, Route 120 experiences high traffic volumes and provides the visibility necessary to attract retail uses. On the other hand, the current design of Route 120 bisects Lakemoor and presents challenges with regard to circulation within the village as well as the economic development value of the adjacent properties due to its design as a throughway and the difficulty of slowing traffic and creating intersections in appropriate locations. The village should consider working with the Illinois Department of Transportation to make this road more context-sensitive and include pedestrian components.
- **Transit ridership is low and is likely due to a limited Pace bus route and service, low residential densities along the bus corridor which creates longer travel distances, and limited Metra service at the closest station.** However, Lakemoor does have higher carpooling rates than the region and nearby counties.
- **Lakemoor residents spend a high proportion of their household income on housing and transportation.** Promoting development which brings daily activities within walking distance could lower the cost of transportation and increase the quality of life of residents.

- Planned bicycle trail routes skirt the village, but there is not a bicycle network in or through the Village.** Route 120 is a significant barrier to bicycle and pedestrian movement in all directions, but there are opportunities for improving alternative transportation within sub areas, particularly north of Route 120.

## Streets

### Functional Classification and Thoroughfare Type

Thoroughfares provide space for three vital components of a community: mobility, commerce and civic life. Street design dictates how much of each component they provide. The functional classification of a road describes the character of the road in terms of mobility. Other classifications systems, such as thoroughfare type, address the design characteristics of the road and, along with the surrounding context, the physical configuration of the streetside, travel way, and intersections. The following is a breakdown of roadways by functional classification based on IDOT's analysis and then a further review of the roads based on their context and existing design features. Figure 8.1 identifies the location of the different street types in Lakemoor.

**Principal Arterials:** Lakemoor has two principal arterials within the village, U.S. 12 and Route 120. These roads are designed for higher speed travel and to accommodate longer distance trips. The thoroughfare type of U.S. 12 most closely matches one of a parkway, with limited access, higher speeds, and no pedestrian facilities. Route 120 transitions from a rural context to a more urban context as it runs through the heart of the village and then back into a rural context. This road has two lanes in each direction with at least one turning lane at key intersections. While the road does allow for more driveway access and the right-of-way narrows within the more urban context, the thoroughfare type stays fairly consistent regardless of the rural or urban surroundings and most closely matches one of a parkway with an operating speed of 45 mile per hour, medians, and no pedestrian features.

**Minor Arterials:** Lakemoor has three minor arterials: Bay Road/Big Hollow Road, Chapel Hill Road, and Gilmer Road. Most of these roads have one lane in each direction with a third lane as a turning lane or median. All three of these roads most closely resemble the rural highway thoroughfare type.

**Collectors:** Lakemoor has five collectors, which distribute traffic from local streets to the

arterials: Cuhlman Road, Lincoln Road/Sullivan Lake Road, Lily Lake Road, Darrell Road and Wegner Road/South Drive. Most of these roads have one lane in each direction with the occasional turning lane or median. While all five most closely resemble the rural road thoroughfare type, Lily Lake Road and Wegner Road do travel through a more compact street network.

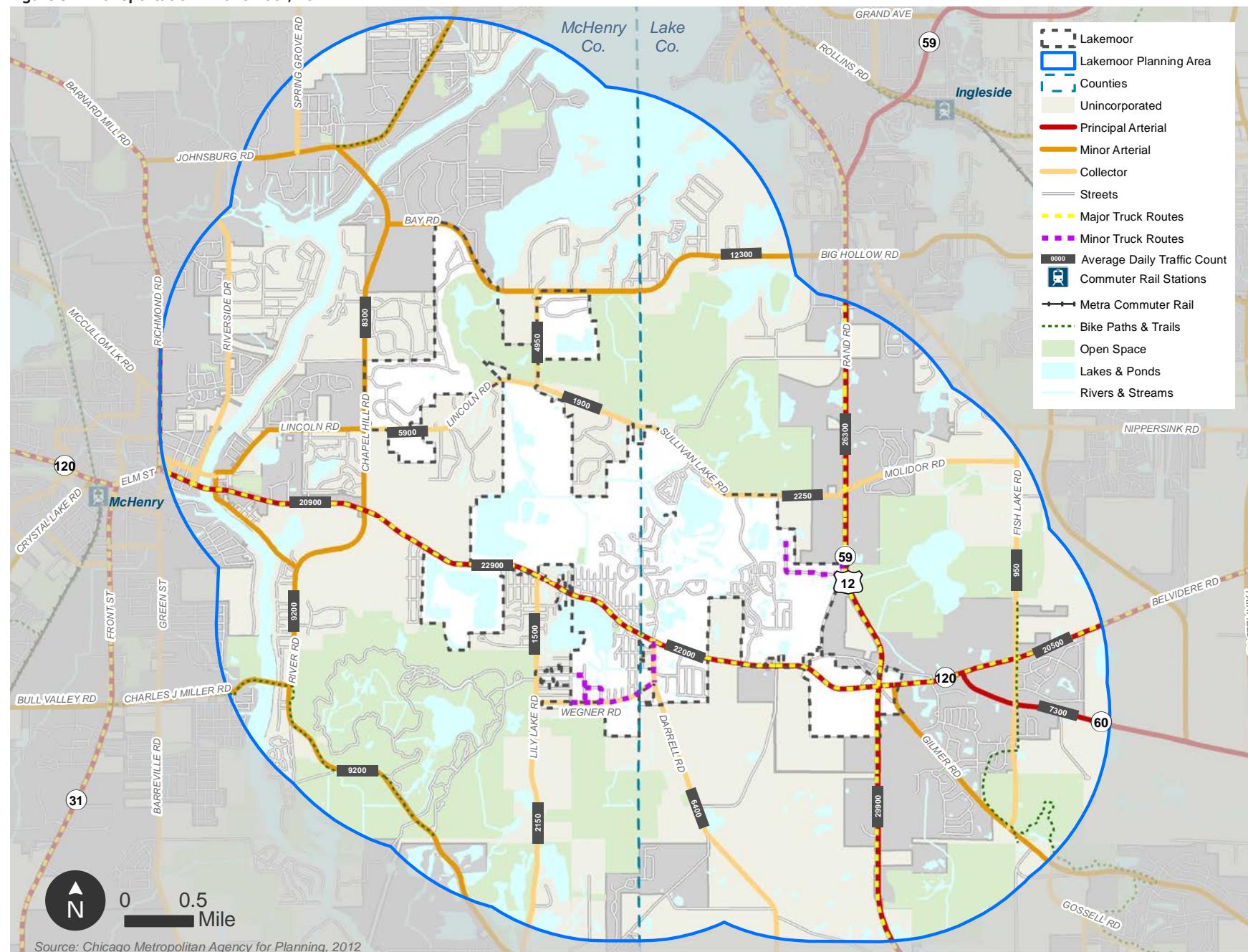
**Local Roads:** The remaining roads in Lakemoor are local streets and provide access to private property. The travel speeds and traffic volumes are low and mostly consist of one moving lane in each direction. These roads most closely resemble either a street or rural road thoroughfare type depending on the presence or absence of sidewalks.

**Table 8.1. Jurisdictions of non-local roads, 2012**

ROAD NAME	JURISDICTION	RIGHT-OF-WAY (FEET)
Route 120 (Belvidere Road, Charles Street, Rand Road)	IDOT	100-130
U.S. 12 / Route 59 (Rand Road)	IDOT	200-250
A26 (Bay Road, Big Hollow Road)	McHenry County	60-80
V40 (Chapel Hill Road)	McHenry County	60
V47 (Darrell Road)	Lake County	80
V76 (Gilmer Road)	Lake County	80

Source: CMAP.

Figure 8.1: Transportation in Lakemoor, 2012



## Street Network and Connectivity

Connectivity measures how easily residents, workers, and visitors can take full advantage of services, public spaces and transportation options within Lakemoor. Connectivity is often measured by intersection density because this metric is closely correlated with levels of walking, bicycling and transit use. Areas with short blocks and frequent intersections can also relieve traffic congestion on major arterials due to the numerous different route options to a given destination, resulting in shorter, more direct trips.

Overall, the intersection density for Lakemoor is roughly 39 intersections per square mile, which is considered low and not associated with high levels of walking. Areas are typically considered walkable when there are at least 90 intersections per square mile, but highly walkable areas often have more than 200 intersections per square mile. The older sections of Lakemoor have a higher intersection density given the smaller block sizes and a more connected street grid. For example, the older residential neighborhood north of Route 120 bounded by East Lake Drive and Pine Grove Road and the residential neighborhood south of Route 120 and east of Lily Lake, bounded by Wegner Road and Darrell Road both have roughly 200 intersections per square mile.<sup>1</sup> In comparison, the Lakemoor Farms subdivision has roughly 57 intersections per square mile mostly due to the number of cul-de-sacs and large blocks. Figure 8.2 illustrates this difference by comparing the number of intersections within a grid street network on the bottom with a more dendritic street pattern on top.

**Figure 8.2. Comparison of intersection density between two different street patterns**



Source: University of Miami, School of Architecture

<sup>1</sup> Using intersection density calculation methods and thresholds recognized in the U.S. Green Building Council's LEED for Neighborhood Development rating system.

## Transit

### Pace Bus Routes

Pace bus route #806 Crystal Lake – Fox Lake runs along Chapel Hill Road, the most western edge of the village boundary and near McHenry Middle School see Figure 8.3. However, this route has only two unmarked bus stops within the village boundary and Chapel Hill Road has no sidewalks, creating a problem with accessing the stops. The route runs between Crystal Lake and Fox Lake and provides service to Horizons, Pioneer Center, Centegra Medical Center, McHenry H.S. West Campus, McHenry H.S. East Campus and Fox Lake Town Centre. It also stops at the Crystal Lake, McHenry and Fox Lake Metra Stations. Since it only provides morning and afternoon service, paratransit is offered during midday.

**Table 8.2. Pace route ridership\*, 2010**

ROUTE NUMBER AND NAME	WEEKDAY RIDERSHIP	SATURDAY RIDERSHIP	SUNDAY RIDERSHIP	LINKS TO MAP AND SCHEDULE
#806 Crystal Lake – Fox Lake	53	No Service	No Service	<a href="http://www.pacebus.com/pdf/maps/806map.pdf">http://www.pacebus.com/pdf/maps/806map.pdf</a> and <a href="http://www.pacebus.com/pdf/schedules/806sched.pdf">http://www.pacebus.com/pdf/schedules/806sched.pdf</a>

\*Ridership is averaged over the course of the year.

Source: Regional Transportation Asset Management System.

### Metra

While Metra Commuter lines do not travel through Lakemoor, there are four stations within 4 to 7 miles of the village in neighboring communities, see Table 8.2 and Figure 8.3. The Pace Bus Route that runs along the western edge of the village serves the McHenry Metra station. Tables 8.3 and 8.4 summarize ridership information provided by Metra for each station. Most riders access the stations by driving and the parking lots are well utilized.

**Table 8.3. Metra Boardings and Parking**

STATION	RAIL LINE	BOARDINGS, 2006	PARKING CAPACITY (SPACES), 2008	PARKING UTILIZATION, 2006
McHenry	Union Pacific /Northwest Line	101	106	81%
Ingleside	Milwaukee District North Line	150	141	99%
Long Lake	Milwaukee District North Line	133	45	136%*
Round Lake	Milwaukee District North Line	710	319	99%

\*Higher than 100% utilization indicates that cars may not be parked for the entire day, allowing additional cars to be parked and/or cars are allowed to park in unofficial parking spaces.

Source: Regional Transportation Asset Management System.

**Table 8.4. Metra Mode Access, 2006**

STATION	WALKED	DRIVE ALONE	DROPPED OFF	CARPOOL	BUS	BIKE	OTHER
McHenry	7%	65%	23%	3%	-	-	-
Ingleside	10%	68%	14%	6%	-	2%	-
Long Lake	15%	66%	16%	2%	-	-	-
Round Lake	5%	67%	20%	5%	1%	2%	1%

Source: Regional Transportation Asset Management System.

## School Bus System

Lakemoor residents attend two grade school districts, two high school districts and two community unit districts. In general, students who live more than 1.5 miles away from school are eligible for free bus service. Some of the school districts offer transportation service for students who live less than 1.5 miles away for a fee.

## Walking and Bicycling

### Sidewalks

While the older residential areas of the village typically lack sidewalks, the newer residential areas typically have sidewalks on at least one side of the street. However, the newer residential areas do have some significant gaps in the sidewalk network along Sullivan Lake Boulevard, Four Seasons Boulevard, and Pine View Boulevard. While there are no schools within the village boundary, McHenry Middle School at Chapel Hill Road and Lincoln Road is immediately adjacent. There are no sidewalks leading to this school and the signalized intersection lacks a crosswalk.

Lakemoor's commercial area along Route 120 also lacks sidewalks. In fact, the northeast corner of the intersection between Darrell Road and Route 120 is the only portion of Route 120 with a sidewalk. There are other features that reduce the walkability of this area:

- The existing sidewalk borders a large surface parking lot and detention pond and therefore lacks the building enclosure that is necessary to create a friendly walking environment;
- The frequency of signalized intersections is quite low with only two signaled intersections along this 3.6-mile corridor, with neither of these intersections featuring a pedestrian crosswalk;
- Several of the major intersections feature large curb return radii and channelized right turn lanes, which increase vehicular turning speeds and lengthen the pedestrian crossing distance.

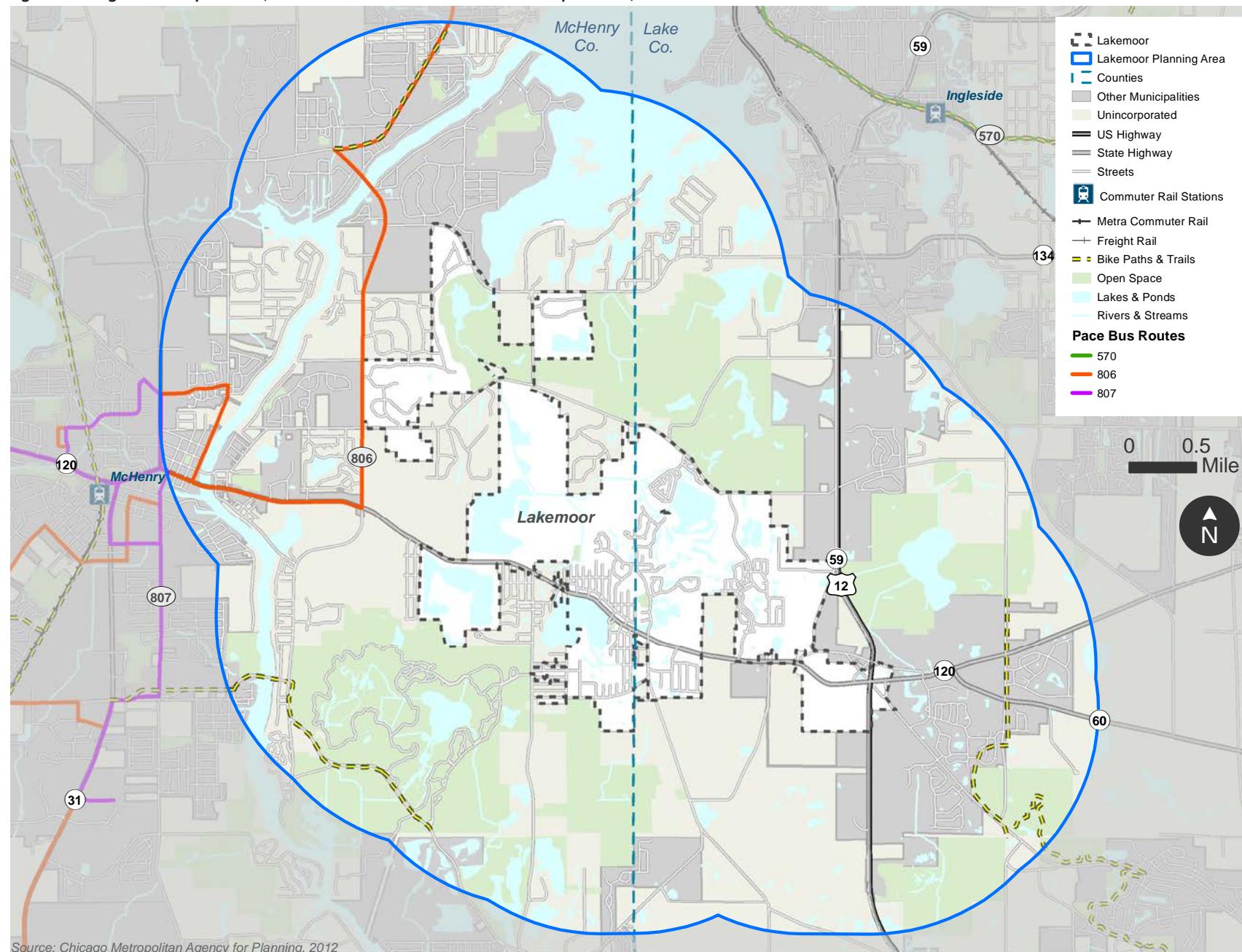
Despite these conditions, pedestrians have created informal paths or walk in the street to access the commercial corridor. During community discussions, residents revealed that they cross Route 120, which felt dangerous due to the lack of a signalized intersection.

### Bike Routes and Trails

At this time, there are no on-street bike routes or off-street bike trails within Lakemoor. However, the village is close to several regionally significant bike trails, including:

- The Millennium Trail, due east of the village along Fish Lake Road.
- The McHenry Prairie Trail, due west of the village within the City of McHenry. This trail is known as the Fox River Trail further south.
- The Moraine Hills State Park Trail, which enters the Park along River Road southwest of Lakemoor.

Figure 8.3. Regional transportation, transit service and non-motorized transportation, 2012



## **Freight**

Lakemoor has four industrial areas, making efficient and safe freight movement an important component of the village's economy. Route 120 and U.S. 12 provide trucks with access to the national highway system and O'Hare Airport. With 67% of all freight in the Chicago region transported by truck, truck movement through Lakemoor is important to the local industrial businesses. Industry trends in container size stress the importance of having Class I and II roads accessing industrial land uses. The State of Illinois has also designated Route 120 and U.S. 12 as Class II roads. Lakemoor has identified a number of local roads for truck movement, including Wegner Road and Concrete Drive and the streets fronting industrial uses (Figure 8.1). Lakemoor does not restrict delivery times, allowing trucks to take advantage of the roads during off-peak travel times and therefore, potentially reducing the costs of congestion on travel.

## **Potential Regional Transportation Projects**

The Central Lake County Corridor project, identified in the GO TO 2040 regional plan, could give the village better access to major regional corridors. As discussed in Section Two, the project consists of two main components:

- Improving the existing IL Route 120 and constructing a 9-mile bypass from Almond Road on the east to Wilson Road on the west.
- Extending IL Route 53 approximately 12 miles from Lake-Cook Road to join a new IL Route 120 Bypass in central Lake County.

The proposed terminus of the Route 120 bypass would be approximately 2.5 miles from the eastern edge of Lakemoor. Road widening and intersection improvements to the existing Route 120 could extend to the U.S. 12 intersection with Route 120 on the eastern boundary of the village. While these transportation investments would occur within a very limited portion of the village, the overall project has the potential to decrease travel times and make the village more appealing for development. In addition, it could add traffic volume to Route 120 within the village, which could increase economic development opportunities but may also increase local traffic congestion.



Route 120 in Lakemoor, 2012.

## Transportation Indicators

Tracking key transportation measures provides insight on how Lakemoor residents are moving around and how much they are spending on transportation. The following tables summarize how Lakemoor compares with the rest of the Chicago region on a number of important transportation metrics. Table 8.5 shows that the number of miles driven annually by Lakemoor households is slightly more than the rest of Lake and McHenry Counties and significantly more than the region as a whole. This includes travel for work as well as travel for other daily activities.

Mode share indicates what percentage of trips are taken using a specific type of transportation, such as driving alone or transit. The vast majority of Lakemoor residents drive alone. A higher proportion of Lakemoor residents chose to carpool on their way to work than the rest of the region, but a smaller proportion chose to walk to work (Table 8.6). The number of regional jobs that are accessible by car from Lakemoor is 3.7%, which is roughly half of the number of jobs for Lake County but on par with McHenry County (Table 8.7).

Traditional measures of affordability have focused on the percentage of a household's income devoted to housing costs. With housing costs consuming 30% of household income, Lakemoor is considered a relatively more affordable place to live compared to the rest of Lake and McHenry counties. In recent years, affordability measures have begun to incorporate the transportation costs associated with the location of the home with housing costs. This improved metric gives a more complete picture of the financial demands of housing choice and location. As a result, affordability has been redefined as a combined housing and transportation cost of no more than 45% of household income. Table 8.8 shows that 53.9% of household income in Lakemoor is spent on the combined costs of housing and transportation. Given the high transportation costs associated with the location, Lakemoor is considered a slightly less affordable place to live than the regional average.

**Table 8.5. Total annual Vehicle Miles Traveled (VMT) per household, 2007**

LAKEMOOR	LAKE COUNTY	MCHENRY COUNTY	CHICAGO REGION
25,477 Annual Miles	20,918 Annual Miles	23,730 Annual Miles	16,567 Annual Miles

Source: Center for Neighborhood Technology, Municipal Energy Profiles.

**Table 8.6. Mode share, as percentage of commuting workers, 2010**

	LAKEMOOR	LAKE COUNTY	MCHENRY COUNTY	CHICAGO REGION
Total Workers	3,325	329,888	149,929	3,844,599
Worked at Home	52	21,600	8,871	181,715
Total Commuters	3,273*	308,288	141,058	3,662,884
Drive Alone	90.5%	83.5%	84.6%	72.8%
Carpool	7.0%	8.8%	9.7%	9.1%
Transit	0.8%	4.2%	2.9%	12.8%
Walk	0.0%	1.8%	1.7%	3.4%
Other	1.6%	1.7%	1.0%	1.8%

\*Mode shares are expressed as percentages of the working population excluding those who work from home. Source: 2010 American Community Survey 1-Year Estimates (for county and region figures); 2006 - 2010 American Community Survey 5-Year Estimates (for municipal figures). U.S. Census Bureau.

**Table 8.7. Access to jobs in the region, by travel mode, 2011**

	LAKEMOOR	LAKE COUNTY	MCHENRY COUNTY	CHICAGO REGION
Regional Jobs Accessible by Automobile (commute time of 45 minutes or less by car)	3.7 %	7.2%	3.7%	15.9%
Regional Jobs Accessible by Transit (commute time of 75 minutes or less by bus or train)	3.2%	9.5%	5.8%	20.9%

Source: Chicago Metropolitan Agency for Planning, weighted travel model for roadway and public transportation.

**Table 8.8. Housing and transportation costs as percent of income per household, 2000\***

	LAKEMOOR	LAKE COUNTY	MCHENRY COUNTY	CHICAGO REGION
Housing Costs	30.2%**	38.0%	32.9%	28.5%
Transportation Costs	23.7%	21.7%	22.9%	19.1%
Housing + Transportation Costs	53.9%	59.7%	55.8%	47.5%

\*The most recent data available is from the year 2000. The calculations above rely on the village population in 2000 (2,788 residents) as well as fuel prices experienced that year. It was also modeled using the 2000 Area Median Income of \$51,680.

\*\* Text shown in red if the percentage exceeds the standard threshold of affordability: 30% for housing costs and 45% for housing and transportation costs combined.

Source: Center for Neighborhood Technology, H+T Affordability Index.

# Section 9

## Natural Environment



This section provides information on the existing land, water, and agricultural resources in Lakemoor, also referred to as its green infrastructure system. The information in this section was obtained from a variety of resources including the Illinois Department of Natural Resources (IDNR), Illinois Environmental Protection Agency (IEPA), and a visual assessment of existing conditions.



### Key Findings

- ***The natural resources in and surrounding Lakemoor are significant assets that the village should value and highlight.*** Lakemoor should attempt to connect these areas via trails and greenways where feasible and appropriate, through a Green Infrastructure and Trails Plan. This plan should form the basis of the Village's policy for protecting its natural resources as well as its quality of life.
- ***Management of natural resources would benefit from landowner cooperation.*** Coordination with the State of Illinois, Lake County Forest Preserve District, and McHenry County Conservation District should be encouraged to support the preservation and management of additional open space in or near the village.
- ***Groundwater resources may not support a substantial amount of new development and should be closely monitored.*** The village should examine and be aware of the quality and quantity of its water supply.
- ***Stormwater runoff flowing to area lakes and waterways negatively impacts these resources.*** However, the low development density of a significant portion of the village provide adequate space for stormwater management using green infrastructure and Best Management Practices such as bioswales and rain gardens that help to infiltrate rain water.
- ***A drainage infrastructure plan should be produced for the Village.*** Investigations and planning should be completed to identify and prioritize areas with structural flooding problems.



- ***Existing and new development and land management activities of any sort (including agriculture) can negatively impact water and other natural resources and render them unattractive and unusable by people and wildlife.*** The village has an opportunity to use its plans and policies and the environmental priorities of its residents to enact the means necessary to protect its environmental resources. These strategies may include the protection and management of adequate stream and wetland buffers, management of nutrients / fertilizer application to agricultural land, and monitoring of septic systems to ensure they do not leak into agricultural drain tiles and area waterways.
- ***Lakemoor's agricultural resources could be significant natural, cultural, and scenic assets to the community, contributing to the rural atmosphere and providing economic development potential.*** As land use change consumes open land, and as quality agricultural land becomes scarcer in the region, this asset will become more valuable (scarce) to the village and the region. The village should consider whether this is a desirable land use.

## Green Infrastructure

The Lakemoor Green Infrastructure system is comprised of the interconnected network of land and water resources that conserve natural ecosystem values and functions, sustain clean air and water, and provide a variety of benefits to people and wildlife. In the context of this plan, land resources are differentiated from water resources in that they are primarily terrestrial and include open space. As a compilation of resources, the green infrastructure of Lakemoor includes areas that are protected through existing laws and government agencies (such as wetlands, floodplains, and preserved open space) and ownership, as well as areas not currently protected but important resources to be considered in land use change and management decisions. McHenry County has recently created a comprehensive map of the green infrastructure components within the county, highlighting the conservation areas, private open spaces, and oak groves as well as important wetlands and unique groundwater recharge areas.

## Land Resources

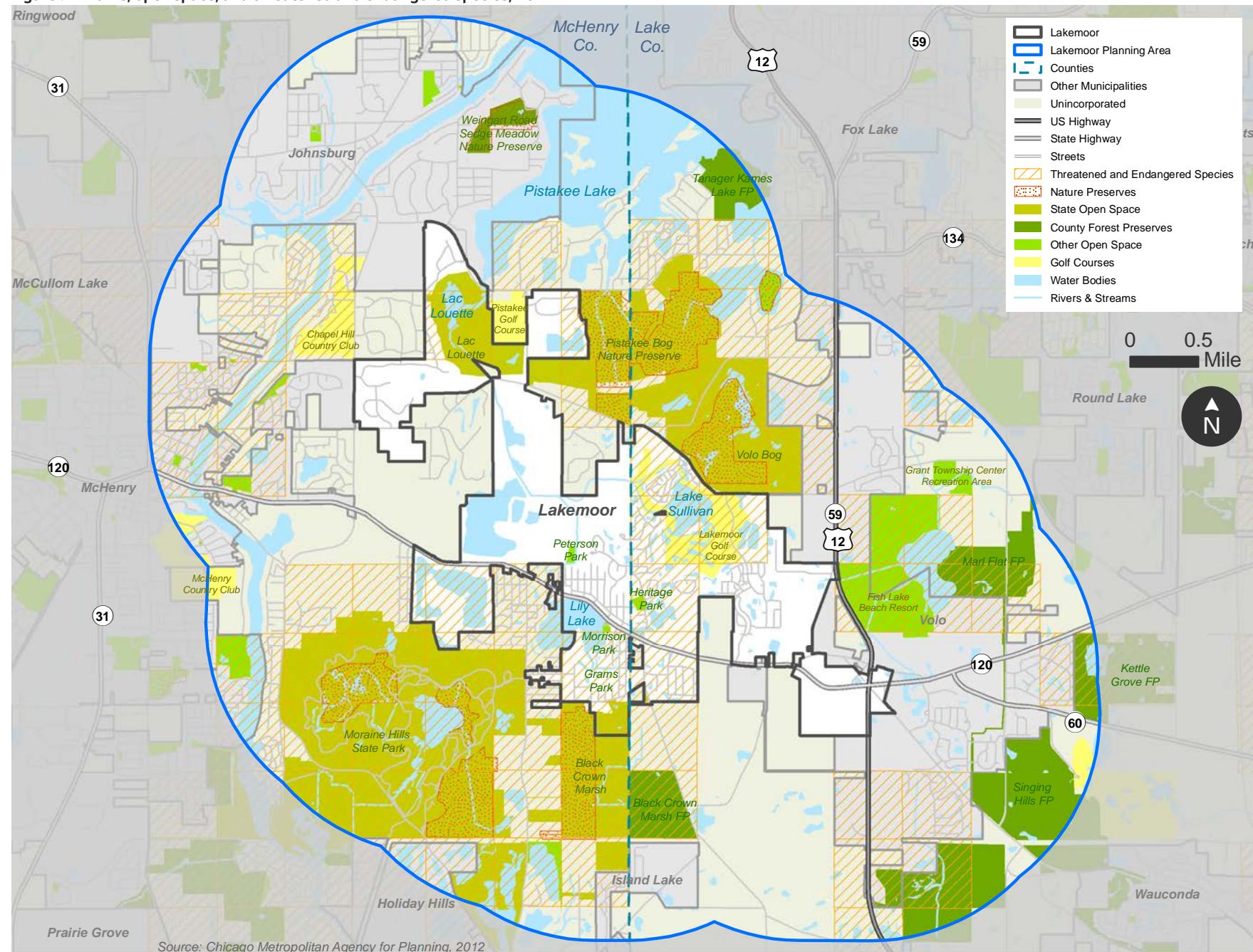
Lakemoor is situated within a unique and moderately preserved glaciated landscape that is found in few other places in the region or the Midwest. This natural heritage, and the permanent open space that protects it, are assets to Lakemoor. It gives this area a unique identity and attracts many residents and visitors who come to the area to hike, fish, bird watch, and other recreational activities.

The approximately 227.7 acres of public open space within Lakemoor are primarily made up of Lac Louette and the surrounding open space owned and managed by the Illinois Department of Natural Resources. Smaller recreation-oriented open space within the village include Peterson Park, Morrison Park, Heritage Park, and Grams Park which are owned and managed by the village and the larger Lakemoor Golf Course in private ownership.

The village maintains approximately 11.2 acres of open space in the form of public parks within Lakemoor. With 6,017 residents, this amount of open space equates to a ratio of 1.87 acres per 1,000 people. The GO TO 2040 plan recommends at least 4 acres per 1,000 people in the densest areas of the region and 10 acres per 1,000 for less dense areas. While many homes in Lakemoor are within a mile walk to a public park, there are some portions of the village that have to walk significantly further.

However, Lakemoor residents are within close proximity to hundreds of acres of public open space maintained by other governmental agencies. It is the larger public open space holdings that border Lakemoor to the north, east, and south that give the community a unique natural geographic context. The Illinois Department of Natural Resources land holdings are described in detail below. In addition, Lake and McHenry County manage a number of additional natural areas, as shown in Table 9.1.

**Figure 9.1. Parks, open space, and threatened and endangered species, 2012**



**Moraine Hills State Park:** The Illinois Department of Natural Resources (IDNR) owns and manages Moraine Hills State Park southwest of Lakemoor, a 2,200-acre preserve half of which is composed of wetlands and lakes. The 48-acre Lake Defiance near the center of the park is one of the few glacial lakes in Illinois that has remained largely undeveloped, maintaining a near-natural condition. Pike Marsh, a 115-acre area in the southeast corner of the park, is home to many rare plants including one of the state's largest known colonies of pitcher plants, which attract, trap, and digest insects. The 120-acre Leatherleaf Bog is an excellent example of kettle-moraine topography. Both Pike Marsh and Leatherleaf Bog are dedicated nature preserves protected by law.

**Pistakee Bog Nature Preserve:** Pistakee Bog Nature Preserve, north of Lakemoor, is a 228-acre Nature Preserve managed by the IDNR that includes a forested bog, sedge meadow, marsh, and calcareous floating mat and pond communities. Several orchids grow at Pistakee Bog.

**Volo Bog State Natural Area:** Southeast of Pistakee, and northeast of Lakemoor, is the 186-acre Volo Bog managed by the IDNR. Volo Bog, which was designated a National Natural Landmark in 1974, contains all the stages of classic bog succession from glacial lake to a peat filled bog. Facilities at Volo Bog include an interpretive center and 0.5 mile and 5 mile trails with boardwalks in the wet areas.

**Black Crown Marsh:** Created with cooperation between the State of Illinois, the Lake County Forest Preserves and OpenLands, the Black Crown Marsh is a critical natural habitat for a number of endangered and threatened bird species in northeastern Illinois. One of the largest protected marshes in the state, this site harbors the yellow-headed blackbird, osprey, black-crowned night-heron, sandhill crane, pied-billed grebe, least bittern, American bittern, black tern, and common moorhen. IDNR owns and managed 185 acres in McHenry County as a Land and Water Reserve, which allows hunting and fishing. The Lake County Forest Preserve owns and manages 134 acres and it plans to build possible hiking trails and a link to the 500-mile Grand Illinois Trail.

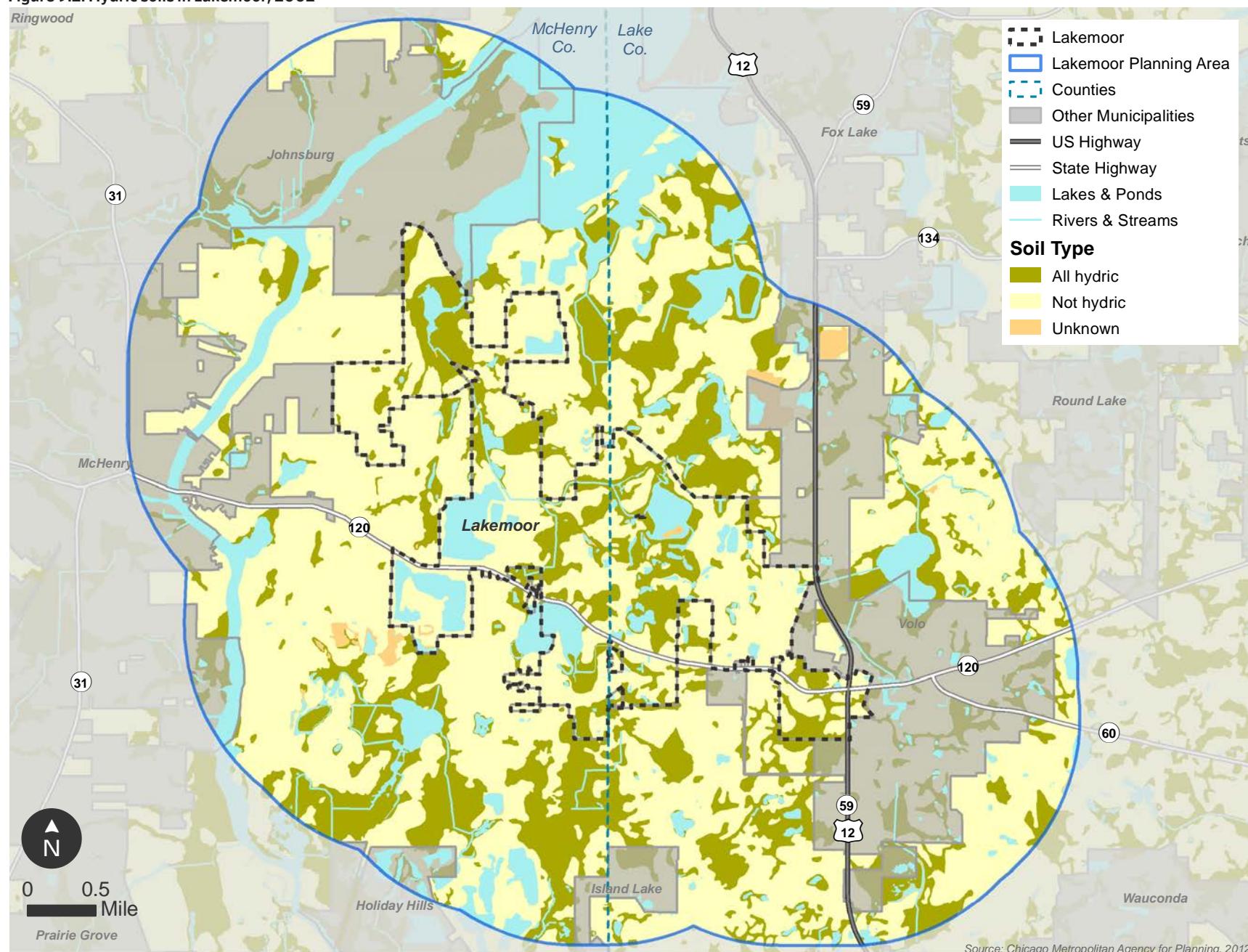
**Lac Louette:** Identified as an important natural area in the Illinois Natural Areas Inventory (INAI) conducted by the IDNR, this 162-acre site is recognized as part of the Volo Bog Complex.

**Table 9.1. Preserves managed by Lake County Forest Preserves and McHenry County Conservation District within the Lakemoor planning area, 2012.**

PRESERVE	SIZE	OWNER	DESCRIPTION
Marl Flat	212.5 acres	Lake County Forest Preserve	Contains high quality wildlife habitat and native plant communities in wetlands around Fish Lake and provides a future route for the Lake County Forest Preserves' 35-mile Millennium Trail.
Tanager Kames	130 acres	Lake County Forest Preserve	Consists of a gravel hill kames and a rare 17-acre dry gravel hill prairie, a critically important natural plant community for the Chicago region.
Kettle Grove	248 acres	Lake County Forest Preserve	Contains high quality glacial kettle wetlands.
Singing Hills	229 acres	Lake County Forest Preserve	Contains Monahan Lake, a wetlands complex that is a documented nesting site for state-endangered sandhill cranes and other waterfowl.
Weingart Road Sedge Meadow	48 acres	McHenry County Conservation District	Composed of a high-quality sedge meadow community with a few acres of high quality marsh.

Source: Lake County Forest Preserves, McHenry County Conservation District, 2012.

Figure 9.2. Hydric soils in Lakemoor, 2002



Other natural resources that help to maintain proper balance in the environment and ecosystems include woodlands, wetlands, and plants and animal species. Areas with threatened and endangered plant and animal species are also shown in Figure 9.1. Many of the most important habitats and species are protected within the nature preserves and forest preserves described above. However, a number of sections in the southern half of the village as well as the Lakemoor Golf Course contain one or more threatened or endangered species.

Hydric soils play an important role in the sustainability of groundwater resources and the proper balance of ecosystems. In their natural state, hydric soils are often poorly drained soils, or well-drained soils that are saturated due to a high water table, typically associated with wet prairies, wetlands, and streams. Hydric soils are those soils that have been saturated, flooded, or ponded long enough to create unique conditions that favor the growth and regeneration of wetland vegetation. These areas may be prone to flooding or otherwise wet conditions if the infrastructure that drains the soil (tiles and ditches) is not maintained. Hydric soils occur throughout the Village, as shown in Figure 9.2. The greatest concentration of hydric soils is typically found along some of the current or former stream channels, and associated with current or former wetland complexes.



## Water Resources

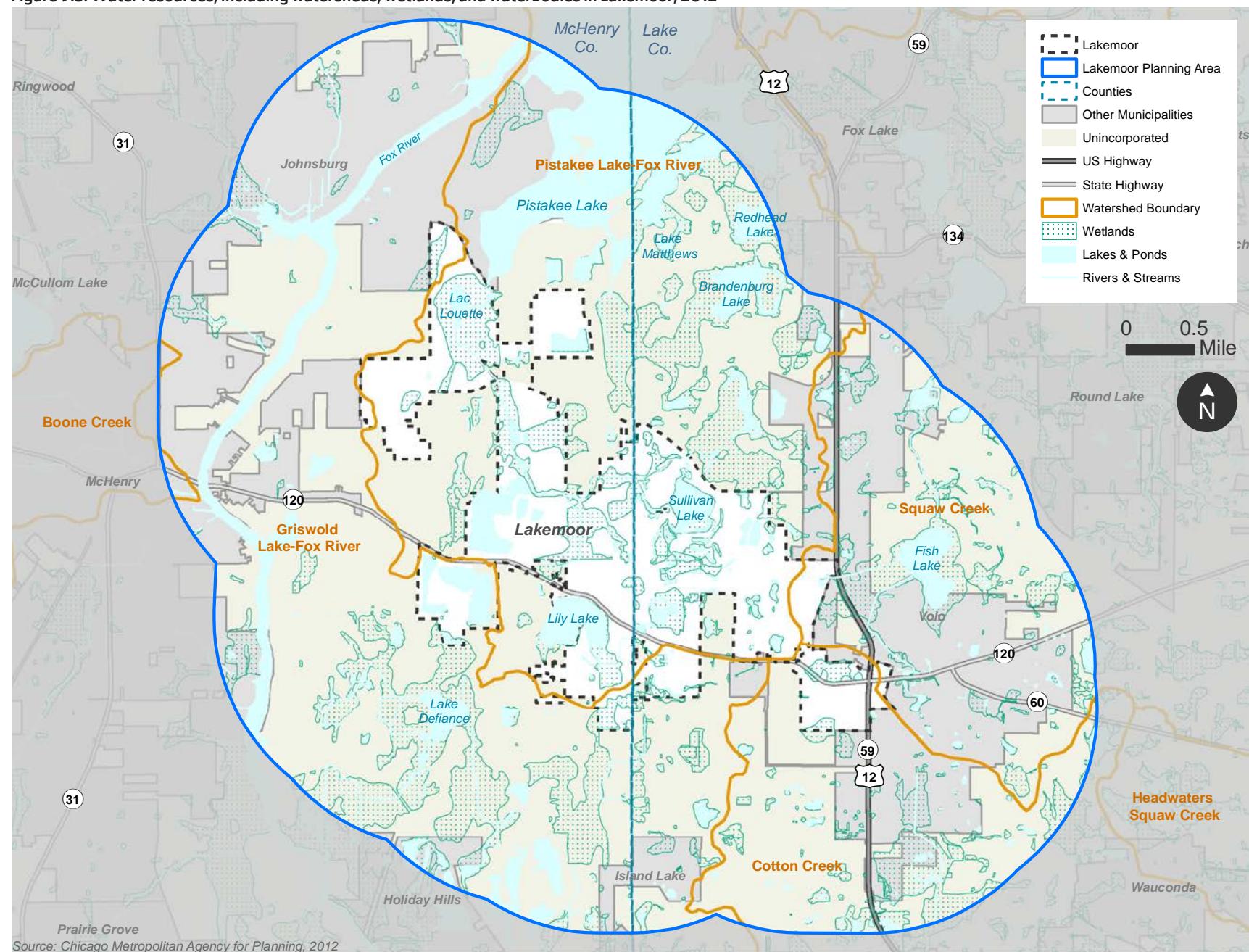
Lakemoor is within the Upper Fox River watershed and portions of four sub-watersheds (see Figure 9.3.) The majority of the village is within the Pistakee Lake-Fox River subwatershed, and small portions of the village and planning area are within the Cotton Creek and Griswold Lake-Fox River sub-watersheds. Griswold Lake is south of Lakemoor in Holiday Hills. A very small portion of the eastern edge of the village is within the Squaw Creek watershed. A watershed plan has been developed for Squaw Creek. Cotton Creek subwatershed will be included in a Four Lakes Watershed Plan. No known watershed plans are being developed for Griswold Lake-Fox River and the Pistakee Lake-Fox River sub-watersheds; however, there is a watershed plan for the Fox River.

Most areas of the Chicago region have clearly defined hydrology (streams, rivers, and subwatersheds) that is the result of urbanization and agricultural development. Due to its geologic history and areas of relatively low disturbance, however, the Lakemoor area landscape is characterized by a mosaic of glacial and man-made lakes, wetland complexes, and hydric soils, many of which are interconnected at or under the surface. This condition results in a less defined hydrology but a more rich and valuable natural environment in terms of its uniqueness and the habitat types that exist here and nowhere else.

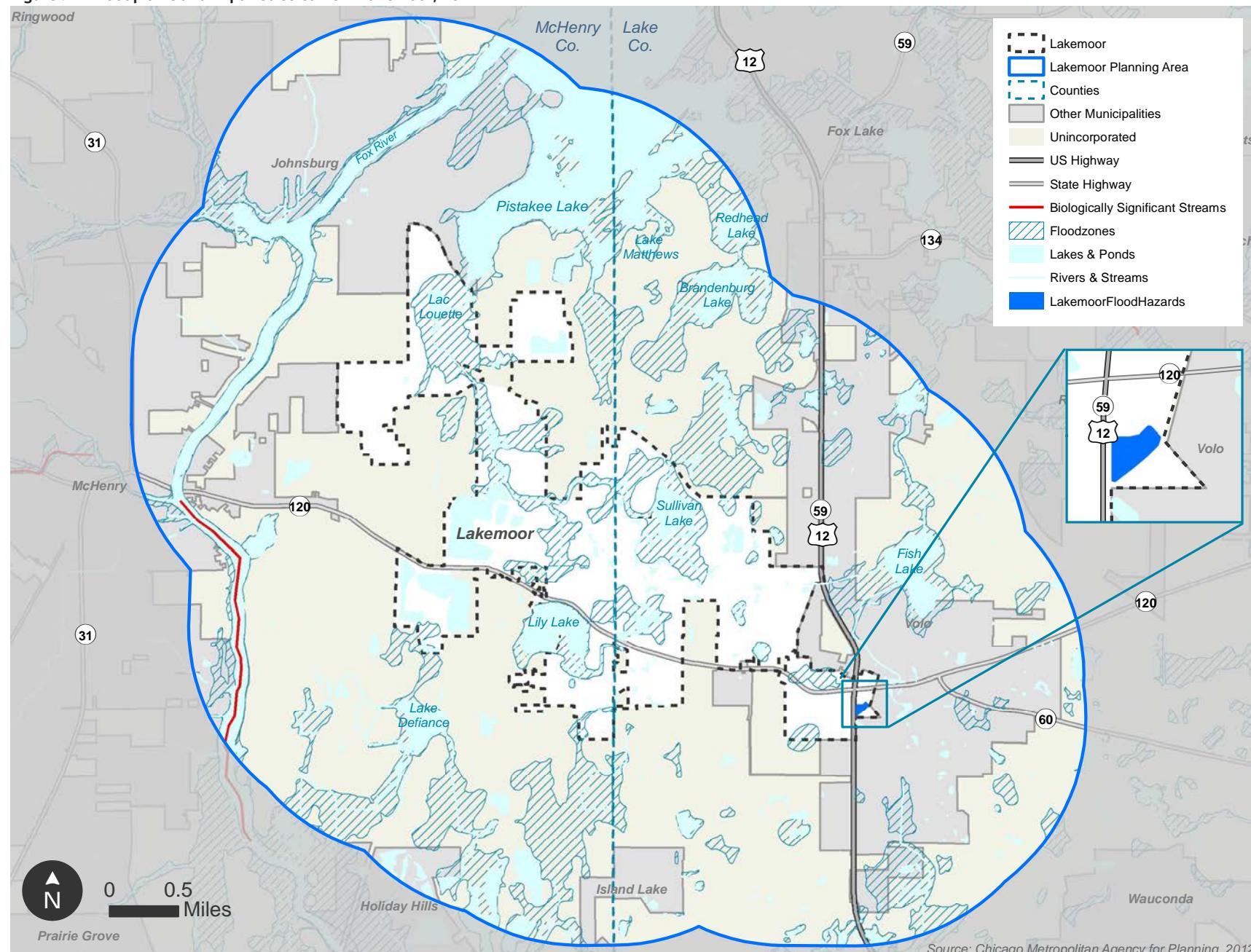
The Illinois Environmental Protection Agency (IEPA) collects water quality information for Illinois streams and lakes, identifying them as ‘impaired’ if the water quality of the stream or lake does not support its intended use. Similarly, the Illinois Department of Natural Resources (IDNR) assesses the biological quality of streams, rivers, and terrestrial natural areas of the state. The Lily Lake Drain, the only named stream within Lakemoor, has not been assessed for water or biological quality by the IEPA or the IDNR. Within the Lakemoor planning area, only the reach of the Fox River below the Route 120 Bridge crossing (IL DT-22) is considered by the IDNR to be a Biologically Significant Stream indicating high biological diversity (Figure 9.4.)

However, this same segment has been listed in the IEPA Integrated Water Quality Report and 303(d) List as failing to meet standards for aquatic life, fish consumption, and primary contact recreation. Impairments are due to the presence of chloride, copper, sedimentation, polychlorinated biphenyls (PCBs) and fecal coliform. The IEPA has also listed the river segment north of Route 120 as meeting standards for primary and secondary contact, but not for aquatic life and fish consumption, see Table 9.3. The impairments are due to alterations in stream-side or littoral vegetative covers and flow regime, the presence of aquatic algae and PCBs, and other unknown causes.

Figure 9.3. Water resources, including watersheds, wetlands, and waterbodies in Lakemoor, 2012



**Figure 9.4. Floodplains and impaired streams in Lakemoor, 2012**



Three lakes are found within Lakemoor: Lily Lake, Lac Louette, and Sullivan Lake. Additional lakes within the Lakemoor planning area include Pistakee Lake, Lake-Of-The-Hollow (or Brandenburg Lake), Redhead Lake, Fish-Duncan Lake, Lake Matthews, and Lake Defiance. Several of the area lakes are listed on the 2010 Illinois Integrated Water Quality Report as meeting water quality standards for aquatic life but not meeting standards for aesthetic quality, primarily due to the presence or abundance of aquatic plant life (Table 9.2). These are Lily Lake, Sullivan Lake, Redhead Lake, Lake Matthews, Lake-Of-The-Hollow (or Brandenburg Lake), and Fish-Duncan Lake. Some lakes are naturally plant-rich and, particularly if the lakes are supporting aquatic life, abundant plant life is not necessarily a bad thing aside from a biological perspective. Redhead Lake is also suspected of being impaired due to excessive sediment, making the water look dirty or murky, and phosphorous, which can lead to algae blooms. The IEPA has determined that Lake Defiance, within Moraine Hills State Park, does not support fish consumption due to the presence of Mercury, which may be settling into the lake from the air. Pistakee Lake, one of the largest (1700 acres) and most trafficked lakes in the area with a highly-developed shoreline, was found to meet standards for aquatic life but not for aesthetic quality or fish consumption. The causes of this impairment are listed as mercury, PCBs, excessive sediment, aquatic plants, and algae. The sources of these impairments include deposition from the air; dredging; septic or other decentralized waste treatment systems; nearby crop production; recreational pollution (i.e., boats); urban stormwater runoff; stormwater runoff from parks, woodlands, and grasslands; waterfowl; residential yard maintenance; and natural sources. No data was found for Lac Louette, though this lake is identified in the Illinois Natural Areas Inventory.

**Table 9.2. Impaired waterbodies in the Lakemoor Planning Area, 2010.**

WATER BODY NAME AND SEGMENT	IMPAIRED USE	CAUSE(S)
Fox River (IL_DT_22)	Aquatic Life, Fish Consumption, Primary Contact Recreation	Chloride, Copper, Sedimentation/Siltation, Polychlorinated biphenyls (PCBs), Fecal Coliform
Fox River (IL_DT_23)	Aquatic Life, Fish Consumption	Alteration in stream-side or littoral vegetative covers, Flow regime alterations, unknown, Aquatic Algae, Polychlorinated biphenyls (PCBs)
Lily Lake (IL_RTZJ)	Aesthetic Quality	Unknown
Sullivan Lake (IL_RTZL)	Aesthetic Quality	Unknown
Redhead Lake (IL_RTV)	Aesthetic Quality	Total Suspended Solids, Phosphorus, Aquatic Plants
Pistakee Lake (IL_RTU)	Fish Consumption, Aesthetic Quality	Mercury, Polychlorinated biphenyls (PCBs), Total Suspended Solids, Phosphorus, Aquatic Plants, and Aquatic Algae.
Defiance Lake (IL_RTB)	Fish Consumption	Mercury
Lake Matthews (IL_UTA)	(meets aquatic life) Aesthetic Quality	Total Suspended Solids, Phosphorus, Aquatic Plants
Lake-Of-The-Hollow (or Brandenburg Lake) (IL_UTZ)	(meets aquatic life) Aesthetic Quality	Unknown, Aquatic Plants
Fish-Duncan (IL_VTK)	(meets aquatic life) Aesthetic Quality	Total Suspended Solids, Phosphorus, Aquatic Plants

Source: Illinois Integrated Water Quality Report and Section 303(d) List, 2010.

In 2010, the IEPA released the Upper Fox River/Chain O'Lakes Watershed TMDL Final Stage 1 Report. A TMDL, or Total Maximum Daily Load, is an estimation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards. This first stage of the analysis assesses the contributing point and nonpoint sources to identify pollutant reductions necessary for designated use attainment. Within the Lakemoor planning area, Pistakee Lake, Redhead Lake, and Fish-Duncan Lake have been targeted for TMDL development. The next stage of the process is to collect more information on Redhead Lake and determine how much pollutant loads need to be reduced for all three lakes. Implementation plans will be drafted outlining limits for point source discharges and recommending best management practices for nonpoint sources.

**Wetlands:** Wetlands are very prevalent in this landscape, with high quality wetlands (as identified by the Lake and McHenry County Advanced Identification or ADID projects) occurring primarily along the edges and within the floodplains of lakes, streams, and hydrologic connections between areas of water resources. This is a typical condition of Illinois landscapes, but perhaps more significant in the Lakemoor area due to the relatively low degree of alteration of the glaciated landscape. Nonetheless, there are undoubtedly drained, filled, and farmed wetlands in the area.

**Groundwater:** Groundwater resources in Lakemoor are of great interest as they provide virtually all source water for residents and businesses, supplied in part by the municipal water system, private water utility and individual private wells. Section Ten provides more information on water supply and distribution in the village. In terms of groundwater, there are three major concerns for this area of northeastern Illinois: the impact of increased groundwater pumping on the existing water supply, the potential for groundwater contamination, and the impact of groundwater withdrawals on wetlands, fens, streams, and lakes. Localized groundwater shortages are predicted for specific areas in Lake and McHenry County. A groundwater supply and recharge study, including the identification of permeable soils, should be conducted for the area.

**Stormwater:** Stormwater runoff in the village is either handled by surface flow via roadside ditches or via underground stormwater infrastructure, primarily in the newer subdivisions, with curb and gutter streets. Stormwater runoff eventually makes its way into the nearby streams, lakes, and wetlands in Lakemoor, carrying whatever pollutants are picked up from the landscape, which can lead to water quality impairments. Pollutants in this context can include bacteria found in animal waste, fertilizers and pesticides, oil and grease and antifreeze, and metals.

An older residential area of Lakemoor has a system of constructed canals that are unique in the region. Today these canals are very slow-flowing and contain a buildup of algae and debris. With proper attention and responsibility, these canals could be cleaned up and restored as unique assets to the community.

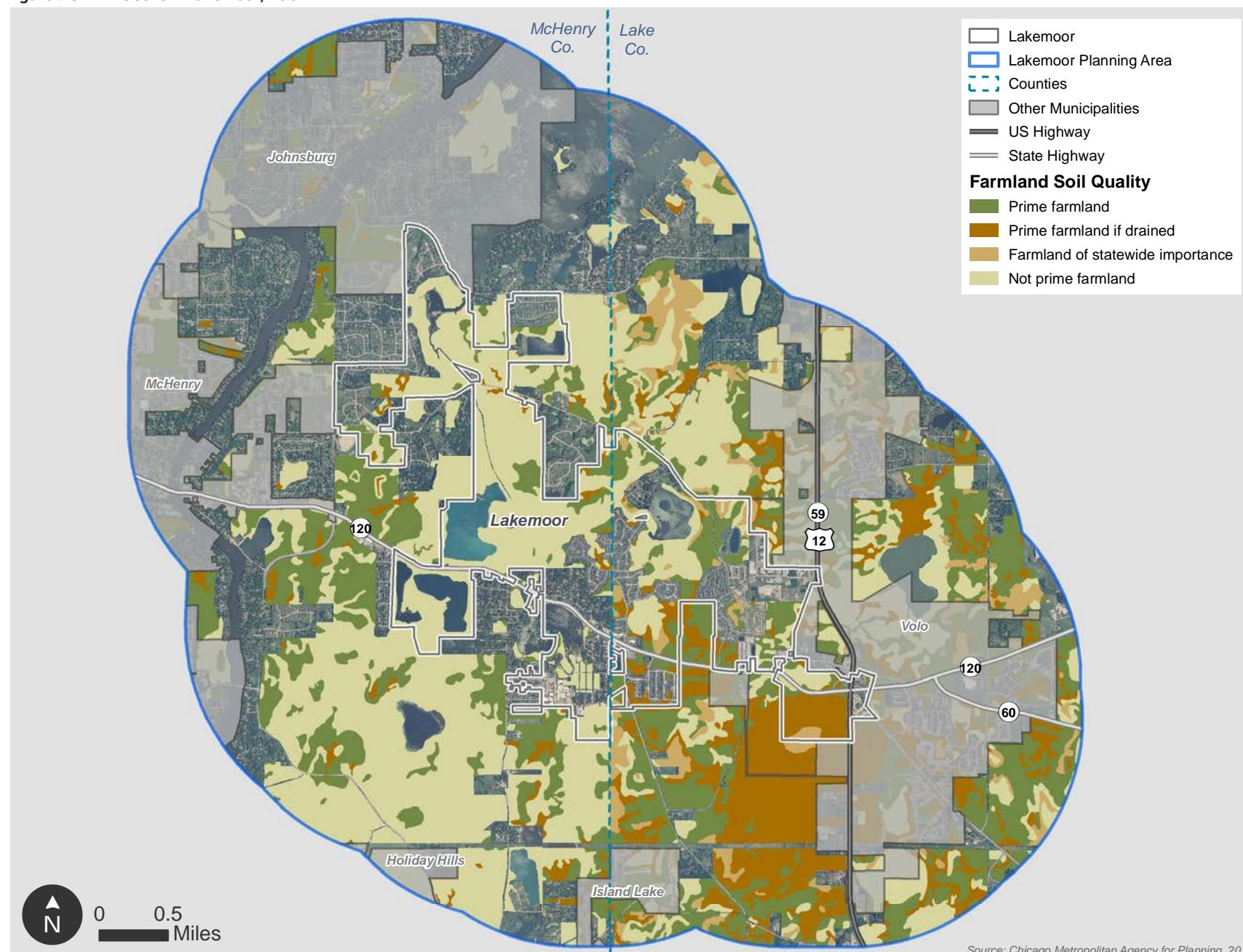
## Agricultural Resources

According to land use calculations, approximately 922.9 acres (29.7 %) of the village area are classified as agriculture or vacant and represent land most likely to be converted to other uses. Within the planning area, however, approximately 5,077 acres are agricultural land found primarily southeast and west of the village. A portion of this remaining land is considered by the USDA soil survey to be Prime Farmland, either as it stands or with modification such as draining. The extent and location of Prime soils are illustrated in Figure 9.5; this figure excludes developed areas from the classification. County soil data was collected using different protocols.

Preservation of an agricultural component in or near the community contributes value as a historic and cultural resource, aesthetic resource, component of the local economy, or simply to preserve high quality, productive soils. Local food production is a regional priority as well as a national trend with moderate economic and employment potential for the region and communities that still have agricultural land. Small agricultural operations, which are more likely than commodity row crops to be viable in areas of fragmented farm acreage such as Lakemoor, includes not only fresh produce for sale and consumption, but also nursery and u-pick operations such as pumpkins, both of which are present in or near Lakemoor. Of course, the viability of agricultural use is highly dependent on a number of factors, economic and otherwise, that determine whether agricultural businesses are able to remain active either through the open market or through strategies that preserve agricultural use. CMAP is working on a project to examine the benefits, viability, and barriers to a strong local food system in Lake County. The preservation of existing agricultural land should be considered as a valuable asset to the community.

The nature and intensity of agricultural use also impacts other valuable resources in the community. For example, some agricultural practices can result in the introduction of pollutants into the environment, significant consumption of groundwater resources for irrigation, contamination of groundwater resources by chemicals, the loss of topsoil and erosion into local waterways, and the degradation of water resources such as streams, wetlands, and lakes.

Figure 9.5. Prime soils in Lakemoor, 2002



## Energy and Greenhouse Gas Emissions

Rising energy costs and changing energy needs raise economic, environmental, and even security concerns that impact local government, businesses, and households. Lakemoor's energy and emissions profile was analyzed as part of the Municipal Energy Profile Project for the seven-county Chicago Metropolitan Area. This information can be used to provide baseline metrics as well as indicators of where to target strategies to reduce energy use and emissions.

Reducing energy consumption can strengthen economic development by reducing long-term energy costs for households and businesses and lessen environmental impacts by reducing greenhouse gas emissions. Steps taken to achieve other community goals, such as creating a more walkable community and providing an array of different housing types, can also have the dual impact of reducing energy consumption and the associated costs to households and businesses.

Electricity consumption per household in Lakemoor is significantly lower than McHenry County (Lake County was not used as a comparison for Lakemoor), as shown in Table 9.3. Factors that affect the amount of electricity consumed include the size of the house; the behavior of the occupants; and the efficiency and use of air conditioning, lighting and other appliances. Natural gas consumption in Lakemoor is slightly lower than the rest of McHenry County. Natural gas is commonly used to heat homes in Northern Illinois and the amount used is often related to the building size and age as well as the efficiency of the building envelope, furnace, and water heater.

Different sources of energy yield different amounts of greenhouse gas emissions. Electricity, often produced by coal, emits more greenhouse gas emissions than natural gas. The emissions from the six major greenhouse gases were calculated and converted into a standard metric known as carbon dioxide equivalent, or CO<sub>2</sub>E, see Table 9.4. The average Lakemoor resident emitted 10.85 metric tons of carbon dioxide equivalent in 2007, lower than the 14.08 metric tons emitted per capita in McHenry County.

The use of energy in buildings in Lakemoor (the sum of the electricity and natural gas sectors) accounts for the largest portion of energy and greenhouse gas emissions. This is followed by transportation, based on how many vehicle miles traveled by Lakemoor residents each year. The amount of driving is influenced by access to jobs, proximity of businesses and amenities, availability of public transit and general walkability of the village.

**Table 9.3. Electricity (kWh) and natural gas consumption (therms), 2007**

	LAKEMOOR	MCHENRY COUNTY
Total electricity consumption	29,229,185	2,882,500,685
Residential electricity consumption	19,963,146	1,213,625,087
Commercial electricity consumption	9,266,039	1,668,875,598
Residential electricity consumption per household*	9,922	11,290
Annual electricity cost per household	\$ 1,068	\$ 1,215
Total natural gas consumption	2,231,696	180,130,975
Residential natural gas consumption	1,987,665	112,427,313
Commercial natural gas consumption	244,031	67,703,662
Residential natural gas consumption per household	988	1,046
Annual natural gas cost per household	\$ 877	\$ 929

\*2,012 households in Lakemoor, 107,497 households in McHenry County in 2007

Source: Center for Neighborhood Technology, Municipal Emissions Profile.

**Table 9.4. Electricity (kWh) and natural gas consumption (therms), 2007**

SECTOR	EMISSIONS (MMT CO <sub>2</sub> E*)
Electricity	0.02
Natural Gas	0.012
Transportation	0.022
Other	0.006
Total	0.06
Emissions per capita	10.85 (MT CO <sub>2</sub> E**)

\* Million Metric Tons, \*\* Metric Tons.

Source: Center for Neighborhood Technology, Municipal Emissions Profile.

# Section 10

## Community Services and Infrastructure



The purpose of this section is to provide an inventory of public services and facilities and identify gaps, if any, that need to be filled going forward. Existing community services are provided by the village, townships, fire protection districts, counties, regional organizations, and private entities. The information in this section was obtained from Village staff, Northern Moraine Wastewater Reclamation District staff, and the Institute of Education Sciences, a division of U.S. Department of Education.



### Key Findings

- **Current Village facilities are outdated.** The village is taking steps to upgrade the village administration and police department facilities. Decisions on the location and structure of new facilities for the Village Hall and Police Station will play a role in where the civic center of the community is located.
- **Lakemoor is within a number of governmental jurisdictions.** With two counties, three fire protection districts, and six school districts, village administration as well as residents must navigate these different entities..
- **Lakemoor relies on shallow groundwater wells.** Water and sewer service do not cover the entire community, and maintaining the quality and quantity of the groundwater supply is a priority. Extending water service to the historic core of the village could assist in the redevelopment of this area.



## Community Services and Facilities

### Village Services

The Village of Lakemoor provides a number of services for its residents, including water supply, police protection, street maintenance, snow removal, and local park maintenance. The following facilities are located in Lakemoor (Figure 10.1):

- Village Hall
- Village Police Station
- Public Works Facility

The existing Village Hall is no longer meeting the needs of the community and the village administration is moving to new offices for an interim period. Village board meetings will continue to be conducted at the existing Village Hall at 234 W. Rand Rd. Lakemoor is interested in building a new Village Hall and, as of October 2011, the village has set aside \$700,000 to build a new facility. The village is conducting a feasibility study to determine where the new hall should be built and if it can be combined with a new police station.

The Village Police Department currently operates out of the Village Police Station located at 231 W. Rand Road, but will soon be moving to a new temporary location at 27901 Concrete Drive. The Police Department has eight full-time officers and six part-time officers and divides the village into two beats. The Police Department recently switched dispatch services from the McHenry County Sheriff to the Village of Wauconda.

### Fire Protection

Fire protection in the Village is provided by three fire protection districts: Wauconda Fire Protection District (SE corner of village), Fox Lake Protection District (NE section of village) and the McHenry Township Fire Protection District (western half of the village).

### Religious Institutions

There is one church within the village of Lakemoor, the First United Pentecostal Church of McHenry. Nearby villages are home to several other religious institutions, including St. Peter in Volo; Faith Presbyterian, First Church-Christ Scientist, and St. Mary's Chapel in McHenry Township; Fox Lake Community Church in Fox Lake, CrossPoint Church in Ingleside; and a number of organizations in the City of McHenry.

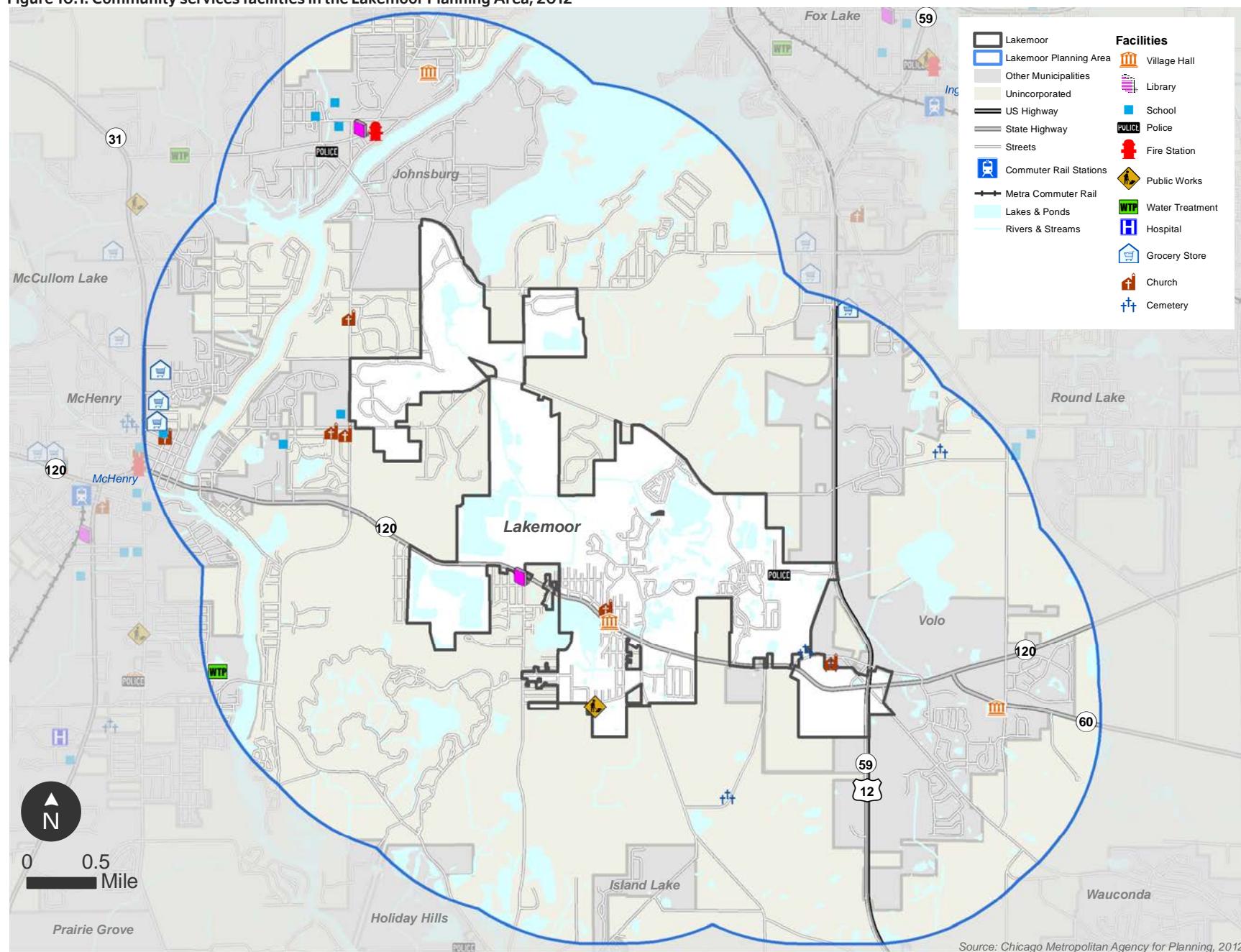
### Libraries

The McHenry-Nunda Public Library, also known as River East Public Library, is located at 813 West Route 120, just outside of the village boundary. As of 2005, the library had a collection size of 14,037 volumes with 16,152 annual transactions. The library offers a variety of additional programs, such as the Learning Express Library and Mango Language Learning Center. Other public libraries exist nearby, including the McHenry Public Library, the Johnsburg Public Library, and the Fox Lake Public Library.

### Health Care Facilities

While there are no large hospitals or smaller outpatient care medical service providers within Lakemoor, the nearby City of McHenry is home to a few outpatient care medical service providers and there are five major hospitals within 10 to 18 miles of the village, including Northwestern Grayslake, Centegra Hospital in McHenry and Woodstock, Advocate Good Shepard Hospital in Barrington, and Sherman Immediate Care in Algonquin.

Figure 10.1. Community services facilities in the Lakemoor Planning Area, 2012



## Educational Institutions

There are no schools within Lakemoor. Instead, residents rely on six different school districts, which currently cut across several of the village's neighborhoods, see Figure 10.2. The boundaries of the McHenry District 15 and McHenry District 156 cover the most land area of the village, but this may not be where most of the students reside. Table 10.1 provides an overview of the larger school districts; Table 10.2 reviews the 15 different schools within the districts that Lakemoor residents could attend. Compared to the State of Illinois average of 15.19 students per teacher, only five of the schools are below this average.

**Table 10.1. School district enrollment serving Lakemoor residents, 2009-2010**

DISTRICT	TOTAL SCHOOLS	TOTAL STUDENTS	STUDENT-TEACHER RATIO
District 15 (McHenry)	8	4,981	17.84
District 38 (Big Hollow)	3	1,681	16.04
District 156 (McHenry)	2	2,568	16.42
District 124 (Grant)	1	1,816	19.45
Unit District 118 (Wauconda)	6	4,401	16.01
Unit District 12 (Johnsburg)	4	2,482	15.69

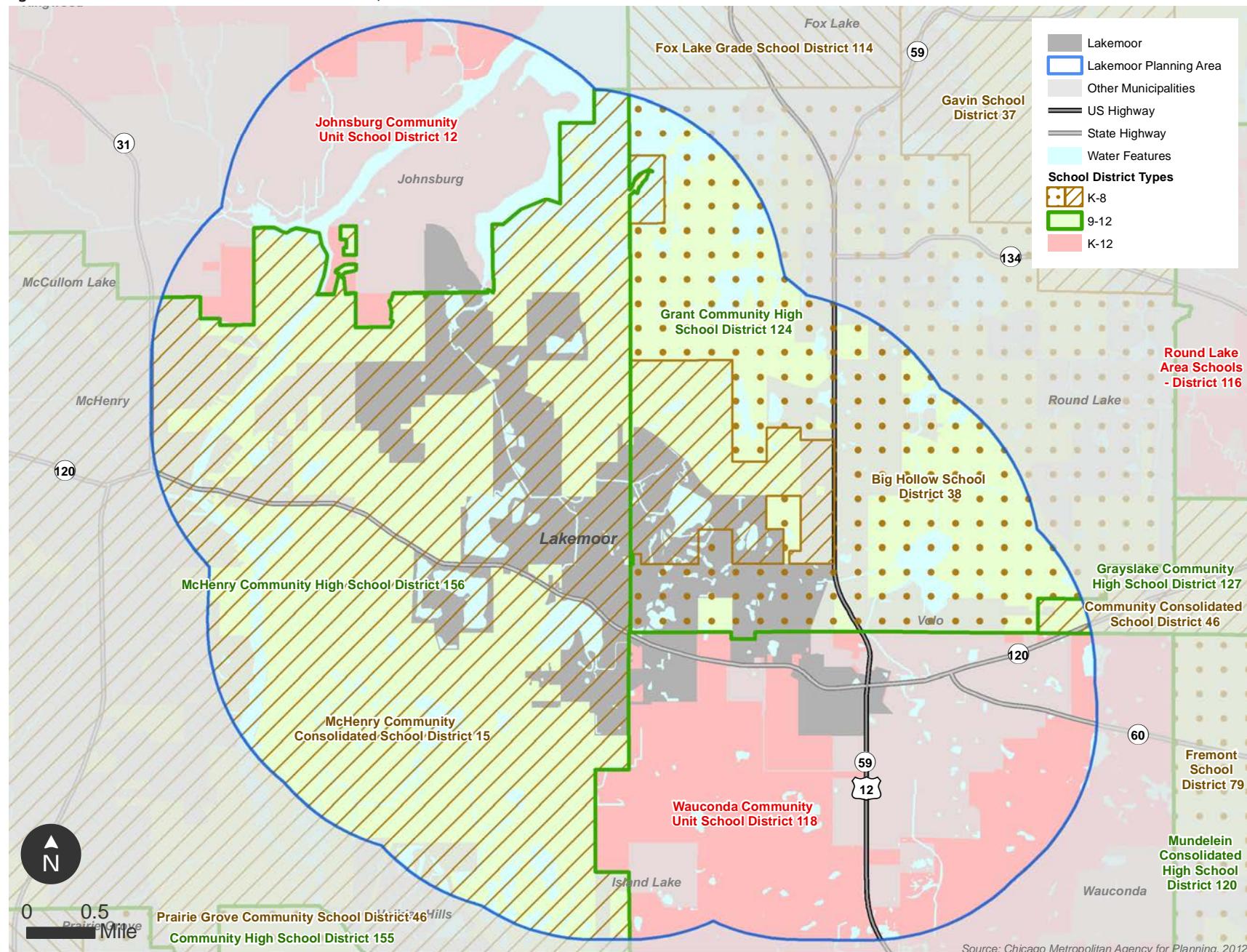
Source: U.S. Department of Education, Institute of Education Sciences.

**Table 10.2. Enrollment by school, 2009-2010**

DISTRICT	SCHOOL	ENROLLED STUDENTS	STUDENT-TEACHER RATIO
<b>District 15 (McHenry)</b>			
	Hilltop Elementary School (K-4)	656	26.35
	Chauncey H Duker School (4-7)	597	21.32
	Landmark Elementary School (K-6)	295	21.85
	McHenry Middle School (6-8)	575	11.32
<b>District 38 (Big Hollow)</b>			
	Big Hollow Primary School (PK-2)	617	21.28
	Big Hollow Elementary School (3-5)	551	15.35
	Big Hollow Middle School (6-8)	493	12.68
<b>District 156 (McHenry)</b>			
	McHenry East High School (9-12)	915	14.10
<b>District 124 (Grant)</b>			
	Grant Community High School (9-12)	1,816	19.45
<b>Unit District 118 (Wauconda)</b>			
	Robert Crown Elementary School (PK-5)	830	17.33
	Matthews Middle School (6-8)	530	13.87
<b>Unit District 12 (Johnsburg)</b>			
	Ringwood School Primary Center (PK-2)	519	15.89
	James C Bush Elementary School (3-4)	347	15.77
	Johnsburg Jr. High School (5-8)	729	14.27
	Johnsburg High School (9-12)	886	16.90

Source: U.S. Department of Education, Institute of Education Sciences.

Figure 10.2. School district boundaries in Lakemoor, 2012



## Infrastructure

### Water Supply

Lakemoor's water supply is provided by a municipal system, a private utility, and private individual wells. All of the village's drinking water comes from groundwater, which is pumped from shallow aquifers. Lakemoor's municipal water system currently provides service to about 1,000 homes and four commercial users. It stores water in a 300,000 gallon water tower and pumps an average of 150,000 gallons per day. Its capacity rounds out at 200,000 gallons per day. The Village of Lakemoor is required by the United States Environmental Protection Agency (USEPA) to produce a Consumer Confidence Report (CCR) or annual water quality report by the Safe Drinking Water Act. The 2010 CCR shows no violations.

A private utility, Rockwell Utilities, provides water to approximately 900 households located in The Meadows and Rockwell Place developments, as shown in Figure 10.3. Rockwell Utilities owns and operates a 1 million-gallon storage tank and it is not required by the USEPA to produce an annual water quality report. The remaining consumers in Lakemoor, comprised of approximately 700 homes located in the oldest part of the village, get their water from private wells. Information about how much water is being used or the quality of water is not available. In Illinois, there is no statutory authority for counties to control groundwater withdrawals and there are limited controls on protection of groundwater quality. The main method for local jurisdictions to address groundwater concerns is through development decisions which can impact the demand for water, potential for groundwater recharge, and potential for land activities to pollute groundwater; they cannot regulate wells within their boundaries that they do not own.

Ten communities in Lake County, including Fox Lake, Volo and Wauconda, have been approved by the Illinois Department of Natural Resources to receive Lake Michigan water. The groundwater aquifers they have been relying on have limited capacity and are susceptible to impurities and contaminants. The North-West Lake County Lake Michigan Water Planning Project has been conducting feasibility studies, forming a water agency, and developing a financing plan to support the design and construction of the corresponding infrastructure to bring Lake Michigan water to each of the ten communities. The current project map shows the proposed transmission route running south down U.S. 12 into Volo and Wauconda.

### Wastewater Treatment

Wastewater treatment service is provided to a majority of Lakemoor residents by the Northern Moraine Wastewater Reclamation District (NMWRD). The village is located in a facility planning area (FPA) that is a sub-FPA of the NMWRD FPA. The NMWRD treatment plant was built in 1978 and has been expanded once and upgraded twice to provide additional capacity. It occupies 36 acres in the Village of Island Lake and utilizes an aerobic digestion process with extended aeration for secondary treatment. The plant is designed to treat an average of 2 million gallons per day with a peak flow capacity of 5 million gallons per day. It currently treats about 1.1 million gallons per day. The District, which also provides service to the villages of Island Lake and Port Barrington, maintains over 70 miles of sanitary sewer mains and operates 22 pump stations. NMWRD has a National Pollutant Discharge Elimination System (NPDES) permit issued by the IEPA to discharge treated water into the Fox River. The outfall is located along the Fox River Segment DT-22, which is listed on the Integrated Water Quality Report and 303(d) List as failing to meet standards for aquatic life, fish consumption, and primary contact recreation, as noted in Section Nine.

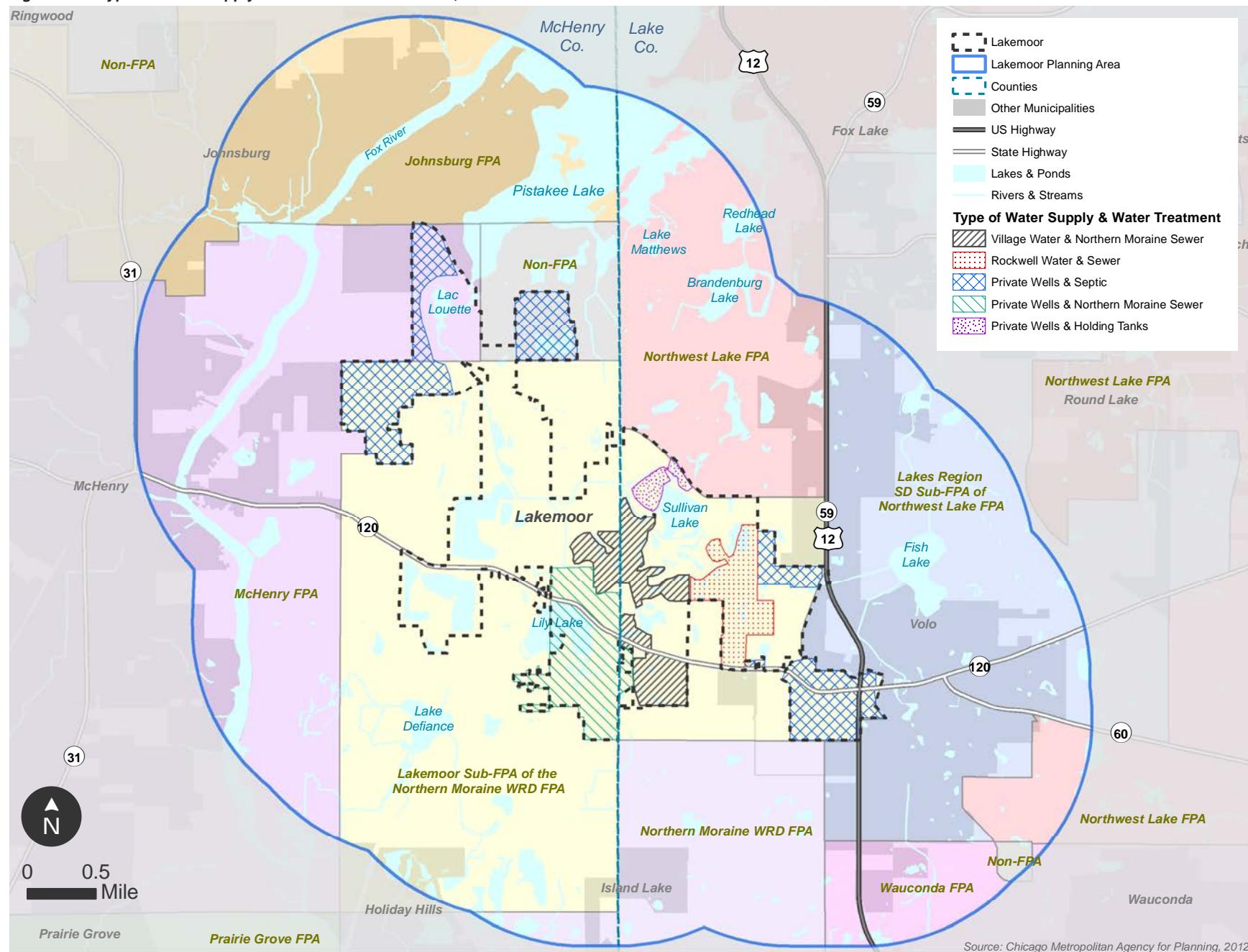
Rockwell Utilities provides wastewater treatment service for users in their coverage area and they have a NPDES permit (ILWooooo9). In 2009, approximately 700 homes in the village used private systems, such as septic fields or holding tanks, for treatment and disposal. Concerns have been raised about failing private systems and their potential impact on water quality.

### Stormwater Management

The village maintains the existing stormwater infrastructure in Lakemoor. Most of the community is served by storm sewers and drainage basins, but there is one section of town south of Route 120 which lacks storm sewers and is served by ditches and swales that lead to Lily Lake. The village is currently not certified to issue permits regarding stormwater infrastructure in new developments though they do have influence over some parts of the design process; permits are ultimately reviewed by the Lake County Stormwater Management Commission and the McHenry County Stormwater Commission.

According to village ordinance, all new development must provide an on-site detention facility to accommodate the stormwater runoff generated by the new impervious surfaces associated with the project. Detention facilities may include conventional surface basins or underground vaults and best practices within stormwater management are constantly evolving. Certain techniques may make more sense in some areas of the village over others. For example, a surface basin along Route 120 would minimize the developable area and create large gaps between buildings, diminishing the potential of a traditional town fabric to develop. However, a series of basins with habitat buffers in a residential subdivision could add value to the surrounding homes.

Figure 10.3. Types of water supply and treatment in Lakemoor, 2012





## Looking Forward

The Village of Lakemoor is rich in both natural and human resources, which are highly valued and contribute to the quality of life enjoyed by its residents. Preserving and enhancing these qualities should be one of the central themes of the Lakemoor Comprehensive Plan. The priority issues to be addressed by this comprehensive plan are as follows:

1. Potential for provision of goods and services within the Village in an accessible and convenient central location rather than as a long retail corridor, as currently zoned. This may include designation of a walkable town center that balances the needs of the community with the current design of Route 120.
2. Locating new village hall and police facilities in a way that contributes to the creation of a town center.
3. Preserving the potential for commercial and other uses at the Route 120 and Route 12 intersection.
4. Balancing commercial development with the character and assets of the community.
5. Maintaining the diversity of housing choice within the village.
6. The interrelated issues of local tax capacity, revenues, revenue-positive land uses, the fiscal impact of land use decisions, and the provision of high quality community services.
7. The village's annexation policy and approach.
8. Interjurisdictional coordination and potential consolidation to create a cohesive village community identity.
9. Work towards increased occupancy of industrial space and provision of more jobs within the village planning area.
10. Preparing the village for the potential impacts of the Central Lake County Corridor project. Improvements to Route 53 and Route 120 as far west as Route 12 may result in additional traffic and growth pressure in the village.

11. Find ways to allow Lakemoor residents to use the car less and to use alternate modes, including walking, bicycling, and transit use. This includes improving the connectivity of the village streets and sidewalks, and particularly improving access across 120.

12. Expand bicycle and pedestrian network and connections to surrounding existing or planned bicycle and pedestrian facilities and routes.

13. Improving public access to the village lakes and surrounding natural resources, including trails and routes for non-motorized transportation and pedestrians.

14. Utilizing the nearby rich natural resources as a highlight and marketing strategy for the community.

15. The location and form of future development or redevelopment as it relates to open space, groundwater supply, wastewater capacity, and other community priorities.

16. Wastewater management responsibility and impact on future development potential.

17. Protection and conservation of source water, sensitive aquifers, and groundwater recharge.

18. Reducing impairment of local waterways, some of which may be due to stormwater runoff from the urban and agricultural landscape within the planning area.

19. Improving stormwater management to reduce the negative effects of stormwater runoff on village and downstream lakes, streams, and wetlands.

20. Natural resource protection and management, including water, wetlands, open space, woodlands, and biodiversity. A number of sections within the planning area contain threatened and endangered species, which the village should consider in land use and other decisions.

21. Preservation of agriculture as a use, aesthetic feature, economic enterprise, and valuable natural resource.



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