

VILLAGE OF ANTIOCH LIFESTYLE CORRIDOR PLAN

EXISTING CONDITIONS REPORT

Introduction

Purpose of the Existing Conditions Report

The Village of Antioch has decided to create a plan for a lifestyle corridor, a bicycle- and pedestrian-oriented greenway that connects the community to local and regional destinations and trail networks. Having an accurate understanding of the area's existing conditions is necessary to develop an appropriate and effective plan that achieves the stated goals and addresses the issues and concerns of the community.

This Existing Conditions Report — representing the accumulation of research, analysis, and public outreach activities — provides an overview of the current conditions in the Antioch community and is designed to provide a foundation for future planning and visioning. The Existing Conditions Report is organized in the following chapters:

- **Introduction**
- **Section 1: History and Regional Context**
- **Section 2: Previous Plans, Reports and Studies**
- **Section 3: Community Outreach**
- **Section 4: Community Demographic and Employment Profile**
- **Section 5: Existing Conditions Analysis**
 - A. Land Use and Destinations
 - B. Transportation and Circulation
 - C. Natural Environment
- **Section 6: Looking Forward**

Why Does Antioch Need a Lifestyle Corridor Plan?

Antioch is located amidst rich, valuable, and scenic natural resources, such as Redwing Slough and the Chain O' Lakes, which are significant assets to the community. In fact, the open spaces and natural amenities are often cited as reasons for residents to settle in and around Antioch. Antioch has seen a dramatic (64%) increase in its population in the last 10 years, yet remains a fairly small community of approximately 14,000 residents. 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 quality of life for current and future residents.

The Village is located at the junction of Illinois Routes 173, 83, and 59, providing easy automobile access for commuters and visitors alike. Nonetheless, the village is interested in improving access to local and regional assets and destinations by multi-modal transportation along major and local arterials in the community. Providing better access can result in multiple benefits to Antioch, including a healthier, more active population; greater access to its downtown area activities and businesses; less traffic and congestion; and the preservation and enhancement of its natural and economic amenities. Antioch 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 for a lifestyle corridor that clearly articulates desired routes and connections to local and regional destinations will assist the community in future decision-making processes. The new lifestyle corridor 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.

A few preliminary issues that have been identified early in the planning process should be addressed in the lifestyle corridor plan. These include:

- *Safety*: provide a safe, convenient and efficient corridor for all users and ages
- *Recreation*: create an interconnected network of routes that allow for various lengths of walking, running, and biking trips
- *Access*: provide accessible routes to downtown Antioch businesses and transit stations from neighborhoods, parks and schools
- *Economic Development*: create a lifestyle corridor as a significant amenity for Antioch that drives economic development, particularly in the town center
- *Destinations*: provide access to local and regional natural assets and destinations such as the Chain O' Lakes and the Des Plaines River Corridor
- *Preservation*: preserve and enhance natural resources in and around Antioch
- *Coordination*: coordinate with transportation agencies, Lake County Forest Preserve District, the Illinois Department of Natural Resources, and other regional stakeholders

What is a Lifestyle Corridor Plan?

A *Lifestyle Corridor* is a new term meaning a greenway and trail corridor that provides non-motorized transportation options by connecting residents to local and regional destinations as well as leveraging opportunities for economic development, thereby enhancing the lifestyle of the Village of Antioch. The Lifestyle Corridor Plan outlines the vision of the community, and the policies, recommendations, and

actions for achieving that vision. The plan will also be used as a resource by the community to assist in future land use and development decisions. Recommendations will be considered flexible and able to be adjusted with changes in and around the community. At any time the municipality can update the plan to match local needs, interests, or opportunities.

This Lifestyle Corridor Plan will be focused primarily on transportation elements and the integration of a greenway corridor with surrounding land uses and destinations. It will also reflect existing elements of the community such as environmental and natural resources, economic development, and community facilities. As relevant, the plan may also touch on public health and sustainability.

Relationship with the 'GO TO 2040' Regional Comprehensive Plan

The priority of the Lifestyle Corridor plan is to provide local guidance and support to the Village of Antioch and while addressing the needs and desires of the community in order to achieve a strong vision for future planning efforts. However, in preparing the plan, the village should consider how it fits into the larger region.

The Chicago Metropolitan Agency for Planning (CMAP) 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 2 million new residents, GO TO 2040 establishes coordinated strategies that will 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:

1. Livable Communities

- Achieve Greater Livability through Land Use and Housing
- Manage and Conserve Water and Energy Resources
- Expand and Improve Parks and Open Space
- Promote Sustainable Local Food

2. Human Capital

- Improve Education and Workforce Development
- Support Economic Innovation

3. Efficient Governance

- Reform State and Local Tax Policy
- Improve Access to Information
- Pursue Coordinated Investments

4. Regional Mobility

- Invest Strategically in Transportation
- Increase Commitment to Public Transit
- Create a More Efficient Freight Network

GO TO 2040 states that “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 a planning process to create a new Lifestyle Corridor, Antioch has taken responsibility for guiding its future and demonstrated its commitment to helping shape the future of the region as well.

Planning Process

The planning process to create Antioch’s Lifestyle Corridor 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 and public participation as documents are produced. The key steps in the planning process are illustrated below as well as in the Project Timeline (see Figure A).

Figure A: Planning Process



Next Steps

The Existing Conditions Report will be presented to the project Steering Committee for review and discussion, after which the project team will work with the community to create a shared vision. Building upon the work that has been completed to compile the information included in the Existing Conditions Report, CMAP will work with residents, business owners, elected and appointed officials, and Village staff to accomplish this. Based upon the results of the upcoming public visioning charrette, and from the data and information compiled in this Existing Conditions Report, draft plans and recommendations will be crafted.

Figure B: Project Timeline

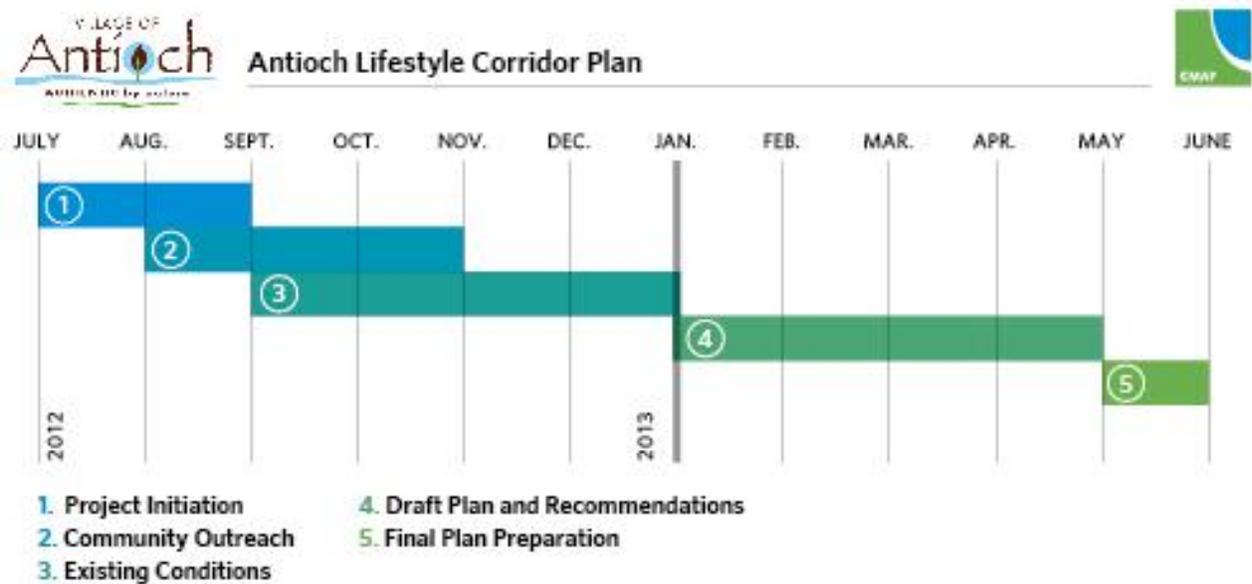


Figure C: Study Area Map (attached)

Section 1: History and Regional Context

This section provides an overview of how Antioch 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.

a. History of Antioch

The Village of Antioch area was first inhabited by Pottawatomi Indians prior to white settlement in 1843. Reincorporation occurred in 1892, with an influx of new settlers establishing farms and businesses. A rail link with Chicago had been established in 1886, and the area eventually became a retreat and vacation spot for Chicagoans. Summer cottages were eventually converted into permanent residences, and the area began to transition to a stable middle-class community.

Harvesting ice to supply iceboxes was a major industry in the area for many years. Manufacturers in Antioch include the world famous Pickard China factory, which currently ranks among the finest china made anywhere in the world. In the 1950s, the village developed a large industrial park along Anita Avenue, enhancing the Village's tax and employment base. The Village maintained its small-town character, with slow growth into the mid-1980s. Downtown Antioch has retained a mix of small retailers

focused on antiques, quilting, small clothing boutiques and a variety of ethnic restaurants.

Antioch's growth accelerated in the 1990s as direct train service to Chicago returned. Passenger rail service to Antioch, which had ended in 1965, returned in 1996 when Metra opened the North Central line, with Antioch as its terminus. In addition to bringing in weekend vacationers, the trains now serve a growing population of workers who commute into Chicago.

During the 2000s Antioch experienced extensive commercial development. This included construction of chain restaurants such as Culvers, Popeye's, and Arby's, and a CVS Pharmacy. A new commercial center was established on the outskirts of Antioch which includes a Wal-Mart shopping center and a Menards home improvement store.

b. Regional Setting

Antioch is located in an area dominated by glacial lakes, accumulations of soil and rock formed by glacial movement called moraines, and wetland areas. The Illinois Fox River Chain O'Lakes encompasses 15 lakes and 45 miles of river located directly west of the Village. This "Key-West of the Midwest" is the busiest inland recreational waterway per acre in the United States providing a venue for summer watersports and winter snowmobiling.

The Village lies between Chicago and Milwaukee in northwestern Lake County, approximately 55 miles northwest of Chicago, adjacent to the Wisconsin border. The communities of Fox Lake Hills, Ingleside and Lake Villa form parts of Antioch's southern and southwestern borders. There are significant tracts of unincorporated land to the east of Antioch, in rural Antioch Township. Antioch's western boundaries are formed by several lakes in the Chain O' Lakes network, as well as the unincorporated community of Channel Lake. Chain O' Lakes State Park lies in unincorporated Antioch Township, west of the Village and across Lake Marie and Grass Lake. Antioch's northern border is the Illinois-Wisconsin state line and Kenosha County, Wisconsin.

Due to its location in the northwestern part of the region, Antioch is situated some distance away from the regional transportation hubs and corridors. Chicago O'Hare Airport is 45 miles south; I-94 is seven miles east; I-90 is 31 miles south. However, Antioch is well connected to regional destinations through train service. It serves as the terminus of Metra's North Central line and the last stop from Chicago and suburban areas on the route. The Metra station lies directly east of the business district on Main Street/IL 83.

Illinois Route 173 serves as the major east-west artery through Antioch, providing a westward connection across the Chain of Lakes to McHenry County and a link to eastern sections of Lake County. Illinois Routes 59 and 83 provide north-south accessibility to Kenosha County, WI and Chicagoland's northwest suburban areas.

The Central Lake County Corridor, identified in the GO TO 2040 regional plan, could bring the Village in closer proximity to major regional road corridors. The Central Lake County Corridor 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 would be within ten miles of the southern edge of the Village. The Central Lake Corridor has progressed through several planning stages, including creation of feasibility studies and preferred alternatives, and work is ongoing.

Antioch boasts high quality parks and open spaces, both within Village limits and regionally. There are 15 park areas within the Village, including developed city parks, recreational facilities, and several protected wetland areas. There are also several nature preserve areas held by the Lake County Forest Preserve District, including Raven Glen Forest Preserve in eastern Antioch Township, and a string of preserves in the Lake Villa area, to Antioch's southeast. Gander Mountain Forest Preserve and Peat Lake State Natural Area occupy land to Antioch's northwest on either side of the state line. To the west, Chain O' Lakes State Park and Turner Lake Fen Nature Preserve offer a glimpse into the unique glacial and wetland geography of the region. These protected areas, along with others lining the entire length of the Chain O' Lakes, complement the lakes themselves to produce significant opportunities for outdoor recreation and conservation.

Figure 1: Regional Context Map (attached)

c. Major transportation facilities and distances

- *Major Interstates*
 - Interstate 94 (Rosencrans Road/IL 173 exit) – 7 miles
 - Interstate 90 (Barrington Rd/IL 59 exit) – 31 miles
 - Wisconsin Highway 50 (intersection with Antioch Rd/State Highway 83) – 6 miles
- *Regional Public Transit*
 - Antioch Metra Rail Station, Metra's North Central (NCS) Rail Line
- *International Airports*
 - General Mitchell International Airport (Milwaukee) – 43 miles
 - Midway International Airport – 60 miles
 - O'Hare International Airport – 45 miles
- *Other Major Regional Destinations*
 - City of Chicago Downtown Loop – 57 miles
 - City of Milwaukee, Wisconsin- 50 miles
 - Lake Geneva, Wisconsin – 23 miles
 - Downtown Kenosha, Wisconsin – 20 miles
 - Downtown Waukegan, Illinois – 19 miles
 - Gurnee Mills Mall/Six Flags Great America – 13 miles

Section 2: Previous Plans, Reports and Studies

This section provides a summary and analysis of existing Village plans, studies, and reports that provide background for the Lifestyle Corridor plan.

Previously completed plans, studies, and reports reviewed in this section:

- a. Downtown Antioch Land Use Implementation Study
- b. Northwest Municipal Conference 2010 Bike Plan
- c. Route 83 Corridor Plan, 2006

a. Downtown Antioch Land Use Implementation Study

The Downtown Antioch Land Use Implementation Study was prepared by S.B. Friedman & Company and the Lakota Group for the Regional Transit Authority and the Village of Antioch. The plan's goal was to produce a form-based code framework to encourage transit-oriented development in downtown Antioch, to evaluate the economics of such future development, and to provide strategies to facilitate downtown development. The study was adopted by the Village Board of Trustees on October 17, 2011.

State of Downtown Report

The Friedman and Lakota report divides the study area into four main character zones – the Downtown Core, Train Depot, North and South Residential neighborhoods, and Industrial Park – and identifies opportunities and issues for each.

The study identifies Main and Lake Streets as the retail/commercial core areas in Antioch and indicates that the train station area, east of Main Street, is physically disconnected from this downtown core area, and could be better linked through streetscaping and signage. Moreover, the station area's commercial center does not include "transit-supportive" uses such as restaurants, coffee shops, banks, or drug stores. The absence of these contributes to the detached character of the station area. Beyond adding these activity generators, the visual appeal of the station area could be improved in order to provide a better "gateway" for the Village. As the point of arrival for both Metra riders and those traveling on Illinois Route 83/Main Street, this site could have significant impacts for the Village.

Additionally the study found the William E. Brook Wetland Sanctuary, to be an underutilized green space amenity. Again, enhanced sidewalk paths and way-finding information could be used to better connect the green space to the station area and downtown.

The Friedman/Lakota study also looked at residential neighborhoods to the north and south of downtown. The South Residential Neighborhood could be enhanced by green buffers and other screening, as well as directional signage on the Highway 173 frontage. The North residential neighborhood has several opportunities for enhanced green space, including upgraded signage, improved parking and better connections to downtown at Williams Park.

Finally, the downtown plan looked at the Old Industrial Park area, located east of the downtown core. While recommending continued industrial uses, the study specified better pedestrian treatments, signage and lighting to improve the connection between Route 173, the industrial park, Metra station, and downtown. Antioch’s Downtown Core and Train Depot areas were prioritized for a more detailed analysis of redevelopment opportunities in the study scope. Key sites within those areas were listed and assessed for their potential for development (Figure 2.1). These properties included:

- Pittman property
- Orchard Plaza Shopping Center
- Train Depot Area
- Village Hall site
- Vacant gas station
- Pickard China factor

Figure 2: Lakota Group Area Site Analysis: Downtown Core (attached)

Conceptual Development Plans

Based on the downtown analysis and the Village’s goals, the Lakota Group prepared concept plans for the redevelopment of two of the strategic properties: the Train Depot Area and Orchard Plaza. The conceptual development plans emphasize enhancement of the pedestrian environment, better links to and aesthetic continuity with downtown, and the addition of downtown residential to the mix of uses.

Orchard Plaza: The concept plan for Orchard Plaza envisions a mixed-use redevelopment with open space improvements and new streets to break up the current “superblock” layout, thereby improving pedestrian and vehicular access into and around downtown Antioch. In this concept, the current commercial centers on south side of Orchard and west side of Toft would be replaced by a mix of residential, retail, and office uses.

Train Depot Area: The concept plan for the Train Depot calls for mixed-use redevelopment and open space improvements, as well as better connections between the area and downtown. The plan consists of infill development with mix of residential, commercial and civic uses in close proximity to the Metra station. The concept plans include enhanced streetscaping, expanded park space, and added Metra parking.

Form-based Code: Outline and Impact Evaluation

Lakota Group prepared a form based code (FBC) framework for the Village of Antioch based on analysis of existing conditions and transit oriented development goals for the downtown core (Figure 3). The purpose of these standards is to maintain and enhance elements of Antioch’s built environment that support walking and transit usage.

Model FBC framework defines five distinct character districts in Antioch and states the primary goal for the FBC in each. The following 5 districts will also be mentioned in the Land Use section of this report.

1. *Village Core (VC)*: the primary downtown pedestrian oriented shopping district, goal is to preserve the character of downtown Antioch's traditional shopping streets while promoting redevelopment.
2. *Transitional Core (TC)*: comprises parcels adjacent to Village Core along Main, Lake and Orchard with potential to become extensions of the Core.
3. *Neighborhood General (NG)*: residential located primarily north and south of Village Core along IL83/Main Street. This zone is primarily for housing, as well as educational/institutional uses.
4. *Business Park (BP)*: primary uses are industrial, and the main aim is to improve the physical environment through streetscaping and pedestrian improvements.
5. *Commercial Edge (CE)*: located south of downtown, this area is composed mainly of auto-oriented commercial uses.

Figure 3: Lakota Group Downtown Antioch Regulating Plan (attached)

b. Northwest Municipal Conference (NWMC) 2010 Bike Plan

The 2010 Bike Plan expands upon previous planning, exploring challenges and opportunities for east-west, regional corridors that were previously identified in the 2007 NWMC Bicycle Plan. The 2007 plan limited to Cook County and offered little in the way of implementation. Each corridor is evaluated for connectivity to regional destinations and trail networks, access to transit, directness, and significant barriers. These considerations are then used to group regional corridors into implementation tiers, with Tier 1 corridors having more positive attributes than Tier 2 or 3 corridors. NWMC notes that all corridors it presents are considered priorities for regional connectivity.

The Plan includes one regional corridor through Antioch, a planned route along Illinois Route 173 between Chain O' Lakes State Park and the Des Plaines River Trail in eastern Lake County. The route jogs north at Deep Lake Road, and then south at the intersection of IL-59 in order to follow IL-173 (Figure 4). The Depot/IL 173 corridor is ranked to be tier three corridor due to a low percentage of planned bicycle facilities among other considerations.

This corridor connects the Village of Antioch to the Des Plaines River Corridor, traversing the communities of Lake Catherine, Wadsworth, and Old Mill Creek. The corridor is rated "Poor" in connectivity to regional destinations, as only Van Patten Woods lies along the route. It receives a "Fair" rating in connectivity to trail networks, as it utilizes the existing Depot lanes in Antioch, and connects to the established Des Plaines River trail system. The trail is rated "Good" in transit access, directly serving the Antioch Metra station and the NCS line. The Rte. 173 corridor is considered "Fair" in directness, and only the I-94 crossing on the eastern portion of the route was noted as a significant barrier.

The Plan assigns responsibility for the following implementation steps to all four municipalities along the route, with the exception of addressing the I-94 crossing, which has been assigned to Wadsworth and IDOT:

- Install regional signage

- Address obstacles/barriers: I-94 crossing
- Integrate corridor planning into municipal plans
- Seek grant assistance for design and construction
- Utilize complete streets policies
- Encourage and install bike parking

Figure 4: NWMC 2010 Regional Corridors Map (attached)

c. Route 83 Corridor Plan, 2006

In 2006, the Village of Antioch commissioned a consultant team comprised of SEC Planning Consultants, Valerie S. Kretchmer Associates Inc. and Granacki Historic Consultants to prepare a visioning and planning study for the Downtown and Route 83 corridor. The primary purpose of the 2006 study was to provide a planning and visioning tool for guiding future growth, especially in light of IDOT plans for future roadway expansions of Route 83.

A full set of design guidelines was created for the Route 83 & Downtown Corridor. Primary design recommendations for Main Street included the following:

- Minimum 5 ft. sidewalks on each side of roadway
- Street trees planted 50 ft. on center within a minimum 5 ft. landscape area
- Incorporate Village Antique Light standard with banner attachments along Route 83, from North Street to Route 173
- Relocate utilities underground
- Preserve existing parkway trees

Section 3: Community Outreach

For Antioch’s Lifestyle Corridor Plan, a primary goal is to optimize community engagement, throughout the planning process. CMAP formulated an outreach strategy to emphasize broad-based inclusion of Antioch residents and other stakeholders so that the concerns and interests of the community are heard in the development of Antioch’s Lifestyle Corridor Plan. In particular, the outreach strategy will focus on including schools, businesses, parks and forest preserve agencies, community organizations, religious institutions, youth and seniors.

Public Participation

The first step to determining Antioch's existing conditions included meeting with Village officials and the project's Steering Committee early on in the planning process. A recommended list of key stakeholders were interviewed during the initial public input phase and also assisted in publicizing the first of three public workshops held on October 9, 2012. Additional outreach activities include planning future public workshops and focus groups, stakeholder interviews, collaborating with key stakeholders on engagement strategies, maintaining an active presence at local community events, and developing online tools to keep residents involved and interested.

In addition to the face-to-face meetings and workshops, CMAP created an interactive online tool for Antioch called MetroQuest to further engage the public. Over 150 residents and interested parties visited the site and provided feedback. The purpose of using this tool is to employ an online tool that gives the project potential to engage more stakeholders than traditional meetings, as MetroQuest was available to the broader public for a period of three months.

Antioch Project website: www.cmap.illinois.gov/antioch

Antioch MetroQuest site: www.antioch.metroquest.com

Antioch Lifestyle Corridor Plan Steering Committee

- Bob Kaiser, Planning and Zoning Committee
- Dennis Heimbrot, Director of Public Works
- Doug Schnyler, Resident
- Dustin Nilsen, Director of Planning and Zoning
- George Sakas, Village Trustee
- Jon Tack, Engineer, former employee of Lake County PBD Department
- Libby Baker, Programming at Parks and Recreation Department
- Mike Warner, Lake County Stormwater Management Commission
- Patricia Hays, Resident
- Wayne Blake, Chair of Fox Waterway Agency

The steering committee held their first meeting on August 20, 2012, followed by a presentation to the Village Board meeting where CMAP introduced the lifestyle corridor planning project and began the process of identifying issues and opportunities in Antioch. The following list highlights comments and input received from members of the steering committee.

Opportunities

- Connections to neighborhoods via Route 59 to the south and Tiffany Road to the north
- Maintain natural beauty and environmental quality while improving the quality of life
- Improve public access to the Chain O Lakes
- Better manage and maintain natural areas
- Utilize trails and natural areas as educational resources for schools

Challenges

- Provide sufficient opportunities for public input and disseminate information
- Funding for implementation and impacts on Public Works Department
- Gaining local and public buy-in to the plan
- Limited access to parks, fields, recreation areas

Public Workshop #1

The first public workshop for the Antioch Lifestyle Corridor Plan took place on Tuesday, October 9, 2012 at the Antioch Area Senior Center. There were approximately 30 people in attendance, including several members of the steering committee and representation from Lake County DOT. Highlights included a polling exercise where participants voted on challenges and barriers to walking and biking in the community followed by a mapping exercise. For a detailed summary and results gathered from the workshop refer to Figure5 and the Community Outreach Appendix. Images from the workshop can be seen below.



Figure5: Workshop Mapping Results (attached)

Key Person Interviews Summary

In order to gain further insight into the issues and opportunities that exist in Antioch, CMAP staff conducted confidential interviews with several key stakeholders throughout the community. These individuals represented a wide variety of interests and perspectives, and ranged from institutional leaders to Village Department Staff.

The following stakeholders were interviewed:

- Craig Somerville, Chief of Police Department
- Dustin Nilsen, Director of Planning and Zoning
- Greg Buchanan, Superintendent of School District 34
- Jim Keim, Village Administrator
- Jim McKay, Superintendent District 117
- John Whitehurst, Antioch Community High school Principal
- Mike Warner, Lake County Stormwater Management Commission
- Paul Howard, Director of Antioch Area Senior Center
- Shawn Roby, Parks and Special Events

Next Steps

On-going outreach efforts continue with focus groups, collecting input from the MetroQuest site, building awareness at local community events, and holding steering committee meetings for the development and guidance of the Lifestyle Corridor Plan.

Section 4: Community Demographic and Employment Profile

To gain insight into the market and demographic dynamics that impact the Antioch community, data from the U.S. Census was gathered for analysis. Data discussed in this section comes from the 2000 and 2010 U.S. Census, 2006-2010 American Community Survey, and Longitudinal Employer-Household Dynamics, all of which are collected by the U.S. Census Bureau. For comparisons and trend analysis, data was also gathered for the same periods for Lake County 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.

a. Community Demographic

Population and Households

Antioch's population increased significantly between 2000 and 2010, adding 5,642 residents (Tables 4.1 and 4.2). This increase, representing 64.2% of the 2000 population, is higher than population increases experienced by the county (9.2%) or seven-county region (3.5%) over the same time period.

With a current population of 14,430, Antioch has 4,993 households. Antioch's average household size of 2.89 is slightly larger than the County and the region. This could be due to the younger population that the Village has in comparison to the county. (See Table 4.3 for data on age.)

Table 4.1: Population, Households and Household Size, 2010

	Antioch	Lake County	Chicago Region
Population	14,430	703,462	8,431,386
Households	4,993	241,712	3,088,156
Average Household Size	2.89	2.82	2.73

Source – 2010 Census

*The 7-County Region includes those counties within the CMAP area.

Table 4.2: Change in Population, 2000-2010

	Antioch	Lake County	Chicago Region
Population, 2000	8,788	644,356	8,146,264
Population, 2010	14,430	703,462	8,431,386
Change, 2000-10	5,642	59,106	285,122
Change as %, 2000-10	64.2%	9.2%	3.5%

Source – 2000 and 2010 Census

Table 4.3: Age Cohorts and Median Age, 2010

	Antioch		Lake County		Chicago Region	
	Count	Percent	Count	Percent	Count	Percent
Under 19 years	4,788	33.2%	213,592	30.4%	2,346,937	27.8%
20 to 34 years	2,334	16.2%	123,295	17.5%	1,790,049	21.2%
35 to 49 years	3,708	25.7%	158,286	22.5%	1,807,886	21.4%
50 to 64 years	2,342	16.2%	135,196	19.2%	1,534,488	18.2%
65 to 79 years	989	6.9%	52,856	7.5%	679,470	8.1%
80 years and over	269	1.9%	20,237	2.9%	272,556	3.2%

Median Age (2010)	35.4	36.7	N/A
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Source - 2010 Census

Race and Ethnicity

Antioch is a predominantly white community, with growing Hispanic, Asian and African-American populations. Proportionally, the Village's white population is greater than the County at 83% compared to 65.2%. The percentage of Hispanic (8.5%), African-American (2.9%), and Asian residents (3.6%) is significantly lower than the County and regional averages (see Table 4.4 and 4.5).

Racial and ethnic changes in Antioch generally mirror trends occurring in Lake County and across the Chicago region. Antioch's African-American, Asian, and Hispanic populations have increased at higher rates than the White population (see Table 4.4). With respect to the Asian and Hispanic figures, these gains are similar to what has been observed in Lake County and the region as a whole.

Table 4.4: Race and Ethnicity, 2010

	Antioch		Lake County		Chicago Region	
	Count	Percent	Count	Percent	Count	Percent
White	11,972	83.0%	458,701	65.2%	4,486,557	53.2%
Hispanic or Latino*	1,231	8.5%	139,987	19.9%	1,823,609	21.6%
Black or African American	418	2.9%	46,989	6.7%	1,465,417	17.4%
Asian	525	3.6%	43,954	6.2%	513,694	6.1%
Other**	284	2.0%	13,831	2.0%	142,109	1.7%

Source - 2010 Census

* includes Hispanic or Latino residents of any race

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

Table 4.5: Change in Race and Ethnicity, 2000-2010

	Antioch		Lake County		Chicago Region	
	Change in Population	Percent Change	Change in Population	Percent Change	Change in Population	Percent Change
White	3,874	47.84%	-14,267	-3.0%	-200,702	-4.3%
Hispanic or Latino*	843	217.27%	47,271	51.0%	414,407	29.4%
Black or African American	327	359.34%	3,409	7.8%	-72,117	-4.7%

Asian	423	414.71%	19,088	76.8%	137,701	36.6%
Other**	175	160.55%	3,605	35.3%	5,833	4.3%

Source – 2000 and 2010 Census

a. Employment Trends

Antioch’s employment base has shifted from one based on manufacturing to one based on education, retail and accommodation/food services. As of 2011, U.S. Census data indicates that more than half of Antioch’s jobs are in the education, retail and accommodation/food services sectors.

According to data from the Illinois Department of Employment Security, between 2001 and 2011, Antioch lost more than 500 jobs, giving it a total of just over 4,000 jobs in 2011 (see Table 4.6). Despite recent job losses, Antioch still maintains one of the largest employment bases of the Chain O’Lakes area, and its businesses draw employees from much of that subregion. According to the U.S. Census Bureau Longitudinal Employment-Household Dynamics, 15 percent of Antioch’s workers come from Antioch itself, and most of the remainder come from nearby communities in Lake County (see Table 4.7). There are also a significant number of people who commute to jobs in Antioch from their homes in Kenosha and McHenry County.

Most Antioch residents work in Lake County, with Waukegan the largest employment destination outside of Antioch. Beyond Lake County, nearly one-quarter of Antioch’s residents work in Cook County, many of them in Chicago. These residence and employment locations help to determine Antioch’s transportation needs, as discussed further in the Transportation of this document.

Antioch’s largest employers are largely comprised of the public sector, large-scale retailers and industrial businesses. According to data gathered by ESRI Business Analyst, Antioch’s list of top employers is led by the Antioch School District 34 with 626 employees. This includes Elementary School District 34, which serves Antioch and Lake Villa, and High School District 117, which serves Antioch, Lake Villa, Lindenhurst and Old Mill Creek, as well as some adjacent unincorporated areas.

A depiction of where Antioch workers live can be seen in Figure 8. The Village of Antioch is outlined in orange at the center of the image on the corresponding map. Darker shades of blue indicate areas that contribute a greater proportion of Antioch’s employment base and lighter shades of blue show those contributing a lesser proportion.

Table 4.6 Employment Estimates

	Antioch	Lake County	7-County Region
Employment, 2001	4,547	273,823	3,503,120
Employment, 2011	4,018	262,027	3,214,089
Change, 2001-11	-529	-11,796	-289,031
Change as %, 2001-11	-11.6%	-4.3%	-8.3%

Source: Illinois Department of Employment Security

Table 4.7 Employment Estimates

	Work location of Antioch residents		Residence location of Antioch workers	
	Number	Percent	Number	Percent
Total	5,191	100.0%	4,027	100.0%
Major municipalities:				
Antioch	609	11.7%	609	15.1%
Chicago	383	7.4%	98	2.4%
Waukegan	279	5.4%	76	1.9%
Other locations in:				
Lake County	2,243	43.2%	1,637	40.7%
Cook County	869	16.7%	159	3.9%
McHenry County	206	4.0%	324	8.0%
DuPage County	203	3.9%	46	1.1%
Kenosha County, WI	132	2.5%	610	15.1%
Other	267	5.1%	468	11.6%

Source - U.S. Census, Local Employment Dynamics

Table 4.8 Top Ten Antioch Employers, 2012

Employer	2012 Employment
Antioch School District	626
Wal-Mart	475
Thelen Sand and Gravel	230
Village of Antioch	227
Menards	140
Raymond Chevrolet	108
Waste Management, Inc.	100
Turo Electrical Construction	100
All Around Restoration Center	100
Advertiser Network, Inc.	100

Source: ESRI Business Analyst

Section 5: Existing Conditions Analysis

A. Land Use and Destinations

This section describes the existing land use and development conditions within Antioch 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.

Key Findings

The following are key conclusions regarding the existing conditions of Antioch's land use and development patterns.

- ***Antioch is a predominantly residential community, with single-family homes accounting for nearly all of its housing.*** 36% of Antioch's land area is devoted to single family homes. Multi-family housing accounts for less than 1 % of land area, or 42 acres. Several of the Village's residential neighborhoods were built in a grid pattern, but others are suburban in orientation featuring housing built on curvilinear streets and cul-de-sacs. Connecting residential areas to the Lifestyle Corridor is a key priority for the community.
- ***Illinois Route 83 (Main Street) is the primary commercial corridor in Antioch, accounting for a significant portion of the commercial and mixed uses in the Village.*** The visually appealing and historic downtown core includes shopping, restaurants, retail, municipal buildings and community facilities that have been identified by the public as destinations to be accessible from Antioch's conceptual Lifestyle Corridor.
- ***Illinois Route 83/Main Street Corridor and the Train Depot area are not adequately linked by streetscaping, wayfinding signage, or other pedestrian amenities.*** This represents a missed opportunity to connect residents and visitors to key destinations in the community from Antioch's Metra Station as well as making connections to the existing multi-use path and bike facilities on Depot Street from downtown.
- ***Antioch retains a rural character in much of its land, including significant amount of farmland, wetlands, and open space.*** Nearly 17% of Village land is devoted to agricultural use while another 7% is undeveloped wetlands spread throughout the land area. Open space accounts for 17% of Antioch's land area, consisting of a range of parks, recreation areas, and preserved natural areas.
- ***The character of Antioch and its sub-region are shaped by the Chain O' Lakes and other water resources, affecting residential development and the local economy.*** Several residential neighborhoods have been developed on the shores of Antioch's lakes making it a challenge for

public access. Water resources serve as a great asset, but also separate residential areas from other key areas in the community.

- ***There are significant natural resources in the Antioch area that contribute to its character and are major uses of land. These are described further in the environment chapter.*** Antioch is located in a unique geographical setting, characterized by a network of glacial lakes, wetlands and other features. The local park system includes conservation areas that make this geography accessible, as well as traditional parks and ample recreational facilities.

a. Land Use

Table 5.1 and Figure 9 indicate Antioch’s land use by category. The amount of acres in each category was calculated using GIS data, which includes roads in the calculations. A short description of each land use type can be seen below.

Table 5.1: Antioch General Land Use

Land Use	Acres	Percentage
Single Family Residential	1683	34.8
Open Space	846	17.5
Agricultural	818	16.9
Wetland	384	7.9
Vacant	308	6.4
Commercial	266	5.5
Institutional	167	3.5
Water	168	3.5
Industrial/Manufacturing	93	1.9
Transportation/Utilities	57	1.2
Multi-Family Residential	42	0.9
Total	4831	100%

Source: Chicago Metropolitan Agency for Planning

Figure 6: Existing Land Use Map (attached)

Residential

Antioch’s housing stock consists mainly of single-family homes, with most in traditional residential blocks. Multi-family homes comprise less than 1 percent of the land use in Antioch.

Antioch’s residential neighborhoods vary in regards to development pattern. Sections immediately north and south of downtown were built in a grid network, with connecting streets allowing for smooth movement of vehicles and pedestrians. More recent developments, generally farther removed from Antioch’s downtown, feature suburban layouts with meandering streets and cul-de-sacs.

Open Space & Recreation

Antioch and its sub region have a wide variety of open spaces and recreational areas. The Chain O' Lakes is the area's most important recreational area, and is discussed below. Antioch also has 15 park areas within its Village boundaries that provide a variety of amenities including beaches, neighborhood parks, sports facilities, and pavilions for events and picnicking, and several conservation areas. Open space represents nearly 17.5% of the Village land area.

Agricultural

Farmland and associated residences account for more nearly 17% of land area in Antioch. Equestrian facilities are also included in this category, comprising 21 acres or 0.4% of total land area.

Wetlands

Wetland areas also contribute to Antioch's physical character, and consume significant tracts of land. Large areas of wetland exist in the southwest portion of the Village, just south of IL 173. Another sizeable wetland area can be found west of Silver Lake. Antioch has conserved a wetland in its downtown area, the William E. Brook Wetland Sanctuary, creating a nine-acre park that highlights the natural landscape.

Vacant

Antioch has a limited amount of vacant property, approximately 6.4 % of the total land area. Several vacant parcels exist in the central industrial and Ram Road areas. A large swath of vacant land lies directly east of the Metra station. Another collection of vacant parcels exists north of downtown on Illinois Route 83. Finally, some vacancies exist in Antioch's residential neighborhoods and in the rural, eastern portions of the Village.

Commercial and Industrial/Manufacturing

Illinois Route 83 (Main Street) is the primary commercial corridor in Antioch. In the downtown core, southwest of the Metra station, commercial uses consist of one-story retail as well as multi-story buildings with retail on the first floor and residential units above. There are several restaurants, as well as professional offices in stand-alone buildings.

Other shopping centers, restaurants and office buildings are located at intersections along IL 173 at Route 59 and IL 83 as well as south of the downtown area on Orchard Street. Several businesses that require larger spaces – automotive repair, public storage, trucking facilities – can be found in the northernmost portion of the Village, on Route 83.

Several large-format automobile dealers are located on IL 173, east of Illinois Route 83. Big box retailers, such as Wal-Mart and Menards, and other chain stores are located in the southeastern corner of the Village, at the intersection of Illinois Route 173 and Deep Lake Road.

Shifts in the composition of Antioch’s commercial space market reveal an ongoing transition from reliance on industrial development to retail. A closer look into the community’s commercial space reveals that total retail space has increased by 24% since 2007. Despite the substantial space increase, the retail space vacancy rate increased just 0.7% between 2007 and the second quarter of 2012, and remains quite low compared to regional averages.

Compared to the rapid growth in retail, the Village’s industrial space market has experienced little change over the last ten years. According to data from CoStar, 20,000 square feet of manufacturing space has been added since 2002. In addition, the vacancy rate for industrial space was low and virtually unchanged, going from just one percent in 2002 to 1.5 percent in 2012. A combination of increase in industrial space and persistently low vacancy rates point to stability in Antioch’s industrial sector.

Antioch’s office space, like its retail segment, has grown significantly in recent years. According to CoStar data, reported office space in Antioch increased by fifty percent between 2002 and 2012, albeit starting from a small base. Office vacancy rates, although higher than that of retail and industrial, have come down by 7% in that time period, and are now on par with that of the submarket and region (see Table 5.2 below).

Antioch’s industrial uses are concentrated in the Industrial Park located just south of the Metra Station. Businesses located here are engaged in “light- manufacturing” according to the Lakota Group study. They include Braeside Plastics, Marshall Furniture, Turo Electrical Construction and We Be Waxin’ Detail Center.

There are several industrial, manufacturing and production operations outside the Industrial Park. Pickard China’s production facility is located in the Train Depot area, a location it has occupied since 1930. Vehicle Improvement Products manufactures steering wheels, controls and other products for the commercial vehicle market out of a facility on Ram Road. Across the street, Modern Home Products makes outdoor grills. Great Midwest Packaging, Janis Plastics, and MGS Manufacturing Group have production facilities north of downtown on the east side of the Metra tracks.

Overall, industrial and manufacturing uses are limited in Antioch, representing about 2% of the Village’s total land area.

Recently, the Village annexed approximately 30 acres of land on Crawford Road north of IL 173, formerly in unincorporated Antioch Township, that contains a 2,300 vine winery and two homes. The property owners plan to increase the number of vines and build a 2,000-square-foot wine production facility, tasting room and retail outlet. The winery is scheduled to open in 2013, and will produce about 25,000 bottles of wine annually.

Table 5.2 Commercial Real Estate Square Footage and Vacancy by Type, 2012 2Q

	Antioch		Central Northwest Submarket*		Region**	
	Total RBA	Vacancy Rate	Total RBA	Vacancy Rate	Total RBA	Vacancy Rate
Retail	1,031,798	5.5%	12,439,390	10.8%	504,800,967	8.4%

Industrial	1,185,463	1.5%	12,423,537	11.5%	1,188,006,642	10.4%
Office	105,907	14.7%	5,891,948	11.2%	457,134,759	14.6%
Total Commercial Real Estate	2,323,168	3.8%	30,754,875	11.2%	2,149,942,368	10.8%

Source: CMAP Analysis of CoStar

*Submarket Includes Round Lake Beach, Lindenhurst, Lake Villa, Fox Lake, Long Lake, Round lake Heights as well as other communities.

** CoStar’s Chicago Region includes portions of Northwest Indiana and southwest Wisconsin

Institutional

Nearly 167 acres (or 3.4%) of the Village’s land is devoted to institutional use. Institutional land use includes all land identified as cemetery, educational, government, medical and religious. These uses are scattered throughout the Village. Of the institutional uses, education occupies the largest acreage. Antioch Community High School occupies a large plot of land south of the Industrial Park and downtown areas, at the intersection of Illinois Routes 83 and 173. Hillcrest Elementary has a large lot at the Village’s eastern border, while Petty Elementary and Antioch Upper Grade School are on Antioch’s western edge. The Village’s administrative and public works buildings lie directly west of the Depot area, while the public library is a few blocks north on Illinois Route 83. Religious institutions can be found throughout Antioch.

Water

Water resources and wetland areas constitute a significant amount of Antioch’s land area. Portions of Antioch Lake, Cross Lake, Lake Marie, Lake Tranquility, Redwing Slough, and Silver Lake fall within Village boundaries. Lake Marie is part of the Chain O’ Lakes network, a series of lakes connected by the Fox River that gives Antioch and the surrounding area a unique geographic character.

Transportation/Utilities

Antioch’s transportation infrastructure is comprised of the railroad right of way, several state highways, and all local roadways. This land use accounts for roughly 57 acres within the Village, 1.2 % of total land. Transportation conditions are discussed in detail in a later section of this document.

b. Destinations

The following section describes and identifies local community destinations that provided context for Antioch’s Lifestyle Corridor. Destinations were identified through gathering community input, Village of Antioch resources, and project team research (see Community Outreach Appendix). Key destinations include downtown Main Street area, Old Orchard Shopping Center (Piggly Wiggly), bog-box retail (Jewel on Lake Street and Wal-mart on Deep Lake Road), Antioch schools, Metra station, Antioch Senior Center, Library, local parks) including Tim Osmond Sports Complex, Village Community Garden/Farmers Market, residential subdivisions, Chain O’ Lakes, Wisconsin Trails and more (detailed description of local parks and open space can be found in Natural Environment section).

In the descriptions below, destinations are grouped into several categories: Village facilities, schools, residential areas, landmarks, local parks, and commercial areas. These serve as a basis towards planning the Lifestyle Corridor and contribute to the overall quality of life for the community.

Village Facilities

The Village of Antioch has attractive and well-maintained facilities (see Figure 7) located throughout the community that supports its quality image and identity (see Figure 8). The Village is making improvements to its current Village Hall and has adopted recommendations made by the Downtown Antioch Land Use Implementation Study to relocate the community facility. The Village also utilized the adjacent property to Village Hall to provide a community garden and entertainment center for the community. The Antioch Area Senior Center is also a popular local facility. The Antioch Village Hall is located at 874 Main Street.

Antioch Schools

Public schools are managed by the Antioch Community Consolidated School District 34, and the Community High School District 117. District 34 serves 3,195 students (as of 2011), and Antioch High School has an enrollment of approximately 1,700 students. Emmons School is administered by a separate district and school board, School District 33. Private schools in Antioch include Saint Peter Elementary, serving kindergarten through eighth grade, and Faith Evangelical Lutheran School, which offers pre-kindergarten through eighth grade. There are no colleges or universities in Antioch, nor are there any technical schools.

Antioch public schools include:

- W.C. Petty Elementary School
- Antioch Upper Grade School
- Hillcrest Elementary School
- Emmons Grade School
- Oakland Elementary School
- Antioch Elementary School
- Grass Lake Elementary School
- Antioch Community High School

Residential Areas

Residential areas in Antioch are attractive and well maintained. Historic, single-family homes can be found in good, well-maintained conditions along Illinois Route 83. While detached, single-family housing makes up the majority of Antioch's housing stock, multi-family options are also offered in the Village, many of which are located in close proximity to the Metra station. The multi-family homes along Anita Avenue are outdated in architectural style; however they are well maintained and close to transit as well as the two-way bike facility on Depot Street. The Filweber Court multi-family homes are located in the heart of downtown and are contemporary in design and construction.

Community Landmarks

Community landmarks contribute to Antioch's quaint and historic downtown Main Street. The buildings listed below provide architectural character, identify and sense of place to important areas that are considered to be destinations by the community. Community landmark images can be seen in Figure 9.

- The Lakes Region Historical Society, located in an 1892 Antioch Grade School Building, provides historical information and displays.
- The Pickard China Museum displays fine china created throughout the company's long history.
- The Hiram Buttrick Sawmill, an authentic reproduction of a nineteenth century sawmill, was built in 1976 as a Bicentennial project. The adjacent arboretum often hosts picnics and weddings.
- The Palette, Masque and Lyre Theatre is a non-profit playhouse that has occupied the former Crystal Theatre for more than 35 years.

Commercial Corridors

Illinois Route 83/Main Street Corridor: Main Street (Illinois Route 83), Antioch's main commercial corridor, is lined with one- and two-story masonry and frame buildings, many dating to the early 1900's. They are generally built to the right-of-way line, creating a consistent pedestrian corridor. The pedestrian experience is also enhanced by lighting and street furniture that is consistent along the length of the corridor. The State of Downtown Report points out that many of the structures along Main Street are historically and/or architecturally significant. They represent a variety of styles and generally present a good appearance.

The major "activity generators" of Downtown Antioch are located along Main Street, as well as along Lake Street. Main Street Antioch is home to independently-owned specialty shops, restaurants, and the Village hall. Many of the buildings include second-floor office space. There are also some freestanding office uses. Lake Street retail includes specialty shops, restaurants, and limited office/service uses. Currently, there are limited residential uses within the downtown area.

The William E. Brook Wetland Sanctuary is located directly east of Main Street. This 9-acre site provides an open space amenity located within a short walk of downtown and the Metra Station.

Train Depot Area: The Train Depot area, located east of Antioch's main commercial corridor, contains the Metra station and associated surface parking, a shopping center, a small warehouse, and the Pickard China factory and museum.

The shopping center contains office, retail, and services uses. Several of the spaces are currently vacant. Pickard China's museum and outlet store are currently located along the rear of the commercial/retail center, adjacent to the Pickard factory. The State of Downtown study mentioned the potential to relocate these attractions in order to provide redevelopment flexibility for the area.

Overall, the State of Downtown Report characterized the Depot area as somewhat isolated from the Downtown Core, with little streetscaping or signage to guide Metra users to Main Street, and vice versa.

The current configuration of the shopping center also contributes to this impression, as the building's loading zones and service entrances face the key intersection of Orchard Street, Depot Street, and Pickard Avenue. The intersection was identified as especially important as it sits between the Metra station and Main Street, and is visible from both areas. The report pointed to better pedestrian connections between the Downtown Core and the Depot area as an opportunity to better define Downtown Antioch as a transit-rich destination

The condition and appearance of the commercial and industrial areas are wide-ranging. In general, newer developments are attractive consisting of high quality architecture and design, while older commercial and industrial properties are in need of improved maintenance.

Commercial areas outside of the Downtown Core are generally auto-oriented, with large parking lots and driveways that limit pedestrian accessibility. The State of Downtown Report noted that streetscaping treatments could be used in commercial centers along Orchard and Lake Streets in order to attract more pedestrians from the Main Street area and transit-users from the nearby Metra station.

Contributing to the image of the commercial areas is a wide variety of business signage. Signs vary greatly by size, type, and height. On Main Street, some of the original facades have been altered or covered with wood, stucco, or "faux" treatments.

Figure 7: Community Facilities Map (attached)

Figure 8: Destinations and Conceptual Corridor Map (attached)

Figure 9: Antioch Image and Identity Images (attached)

B. Transportation and Circulation

This section provides information on the existing transportation system within Antioch 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 County, the Village of Antioch, and based upon a visual assessment of existing conditions in the community.

Key Findings

The following are key conclusions regarding the existing conditions of Antioch's transportation system. Moving forward in the planning process, these key findings will shape and inform the community's vision, goals and objectives of the Lifestyle Corridor.

- ***Historic downtown Antioch is walkable, vibrant and pedestrian friendly.*** Residents and visitors enjoy the aesthetic appeal of Main Street and downtown Antioch. Streetscaping, pocket parks and marked crosswalks foster a positive pedestrian experience. The community has identified downtown Main Street as a key destination and indicates a lack of safe and convenient connection between downtown and existing pedestrian/bicycle facilities. Furthermore,

residents have indicated their desire for the Lifestyle Corridor to enhance access between residential subdivisions to downtown and surrounding commercial areas.

- ***Antioch's multi-use path provides an east-west route through Tiffany Farms Park, leading walkers, runners and cyclists close to the center of town.*** Several community destinations can be accessed from the existing multi-use trail. There are currently no designated, north-south bikeway connections although key intersections were identified by the public which can serve as access points to the Lifestyle Corridor. Additionally, gaps with no biking facilities currently exist, between the eastern end of the multi-use trail and the Depot Street on-street bike facility (east of the Metra station).
- ***Metra rail service provides access to Chicago, yet the Train Depot area lacks strong pedestrian connections to Antioch's downtown and surrounding destinations.*** Current infrastructure, design, and land use in the vicinity of the Metra station and Main Street does not strongly support pedestrian and bicycle access to downtown and to nearby local destinations. Pace bus does not serve Antioch or surrounding areas, hindering the option of public transportation.
- ***Antioch is divided by a number of major high speed roadways and Sequoit Creek.*** Major arterials and collectors such as Illinois Routes 173, 59, and 83, and US Route 45 pass through downtown Antioch or outlying (residential) neighborhoods. In some places, these roads limit pedestrian access to local destinations such as parks or community facilities.
- ***Non-motorized access to important regional destinations such as the Chain O' Lakes is lacking.*** Antioch is situated in a scenic natural environment and is surrounded by numerous lakes and forest preserves, including the State of Illinois' most heavily visited state park, Chain O' Lakes, and the Des Plaines River Trail. Wisconsin also has a number of destinations, as well as bicycle paths and trails to which connections could be made. The Village and residents have identified the Chain O' Lakes as a key destination for the community and desire the Lifestyle Corridor to create an opportunity for access along IL-Route 173.
- ***On average, Antioch residents spend more than the regional average on transportation costs.*** Taken together, total housing and transportation costs for Village residents are 58%, which is lower than Lake County but nearly 10% higher than the regional average, suggesting Antioch is not as affordable as other areas in the region. The Lifestyle Corridor will provide an alternative form of transportation and opportunity for residents to cut transportation costs.

a. Streets

Functional Classification and Road Type: Roads perform three vital roles in a community – they provide space for mobility, commerce and civic life. The functional classification of a road describes the character of the road in terms of vehicular 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 street side, 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.

Principal Arterials: Antioch has three principal arterials within the village: Lake Street (IL 59), Main Street (IL 83), and IL 173. These roads are designed for higher speed travel and to accommodate longer distance trips. The IL 173 thoroughfare provides limited access, higher speeds, and no pedestrian facilities. Antioch is located five miles west of the Tri-state Tollway (I-94), a major regional interstate, drawing traffic onto IL173 and into the center of town. This road has one lane in each direction with at least one turning lane at key intersection (see Table 5.3, Figure 13 and Figure 14).

Collectors: Antioch has two collectors, performing the role of distributing traffic from local streets to the arterials and highways: North Avenue and Deep Lake Road. Most of these roads have one lane in each direction with the occasional turning lane or median.

Local Roads: All remaining streets in Antioch are classified as local roads. By definition, local roads provide access to private property. Travel speeds, trip lengths, and traffic volumes are generally low and access to adjoining property is regulated by the village or the township.

Figure 10: Functional Classification of Roads (attached)

Table 5.3: Jurisdictions of Non-Local Roads

Road Name	Jurisdiction	Right-of-Way (ft.)
IL 173/Rosecrans Road	IDOT	801
IL 83/Main Street	IDOT	50-782
IL 59	IDOT	66 and 1103
U.S. 45/McHenry Road	IDOT	80 and 1004
Deep Lake Road	Lake County	80
North Avenue	Lake County	80
Grass Lake Rd. (outside Village limits)	Lake County	80
Hunt Club Rd. (outside Village limits)	Lake County	80

Source: CMAP

**A few sections at the western end of Antioch and beyond Village boundaries go up to 115’ ROW. *Segments with the widest ROW are downtown. *66’ north of Bowles Rd./Landmark Way *A couple of segments south of IL-173 have a120’ ROW *A couple of segments have narrower (48’-50’) ROW*

Figure 11: Roadway Jurisdictions (attached)

b. Transit

Metra: Metra’s North Central Service commuter rail line has its northern terminus at Antioch Station, located just east of the downtown core of the Village of Antioch. In addition, there are seven stations within approximately 10 miles of the village, which serve the neighboring communities (see Figure 15). Table 5.4 summarizes ridership information provided by Metra for Antioch and nearby stations and indicates that parking lots are moderately well utilized. Although the majority of commuters drive alone, residents also walk, use public transit and carpool to work (see Table 5.6)..

Bus: There are currently no Pace bus routes along major corridors in Antioch leaving few options for transit users.

Figure 12: Regional Transit Network (attached)

Table 5.4: Metra Boardings and Parking, 2011

Metra Station	Rail Line	Boardings, 2006	Parking Capacity, 2011	Parking Utilization, 2011
Antioch	North Central Service	262	318	58%
Lake Villa	North Central Service	150	234	49%
Round Lake Beach	North Central Service	154	358	29%
Washington St.	North Central Service	109	149	58%
Fox Lake	Milwaukee District North Line	632	408	91%
Ingleside	Milwaukee District North Line	150	119	55%
Long Lake	Milwaukee District North Line	133	49	78%
Round Lake	Milwaukee District North Line	710	489	55%

Source: RTAMS

c. Bicycle and Pedestrian Circulation

Unlike motorized transportation modes that focus on efficient and fast movement of individuals, bicycle and pedestrian circulation plays an important role in improving the community’s urban character, physical and mental health, and perception of safety.

Sidewalks: Antioch has an extensive network of sidewalks that create a pedestrian friendly environment in the residential neighborhoods. The commercial corridors have sidewalks in most areas including the downtown core along Lake Street and Main Street; however, there are gaps in the system, including major intersections, where pedestrian friendly amenities are lacking. This is typically a result of the limited right-of-way widths and speed of vehicular traffic. There are existing side paths and low-speed streets in residential areas which provide pedestrian or bicycle connections to a few destinations within the community and provide an alternative mode of transportation.

Bike Routes and Trails: Antioch has existing trails within the community including a multi-use path and an on-street bike facility on Depot Street. Village officials have identified the need for future trail

segments and connections (see Figure 13 and 14). There is currently a lack of north-south connections to the existing multi-use path. This leaves users of the multi-use path and the proposed Lifestyle Corridor without designated routes to a number of community destinations. There is also a gap in current biking infrastructure in the downtown area, with no bike facilities between the eastern terminus of the multi-use trail and the Depot Street on-street bike facility (east of downtown). Important destinations such as the Metra station and the Antioch Upper Grade School are beyond the endpoints of the existing multi-use path.

Current bike facilities: Antioch existing facilities are in good condition yet require retrofitting in order to meet established bikeway guidelines. The two-way bike lane that was recently been installed along Depot Street, east of downtown, provides a significant east-west route for cyclists (see Figure 15). The current facility is a step forward for Antioch providing innovative bikeway facilities to the community, however, it contains elements that can meet bikeway design standards in the 2012 AASHTO Guide and NACTO's Urban Bikeway Design Guide. Improvements to the bikeway would result in a better utilized and safer facility.

An important entry point onto the multi-use path at the intersection of Main Street and Depot Street (in the heart of downtown) lacks clear signage and pedestrians amenities. The existing multi-use path is used by runners, walkers and cyclists in Antioch and is a valuable community asset; however the path experiences frequent flooding and currently has no lighting which increases safety concerns. West of the multi-use path proves to be critical connection for regional access to the Chain O' Lakes, a major destination for residents and visitors.

Continuing along Depot Street toward residential neighborhoods in east Antioch, the bikeway facility becomes an on-street two-way bike. Currently a rumble strip provides separation between automobiles and users of the bikeway facility; however the community has shown a desire to further safety enhancements by installing bollards. Along Cunningham Drive, the facility is constructed as an 8-foot wide sidewalk. Gaps in the network and shifting between bicycle and pedestrian facilities can be better defined and designed as Antioch moves forward in bikeway planning. See Figure 18 for images of existing bikeway and pedestrian facilities.

Figure 13: Existing and Planned Bikeways Network (attached)

Figure 14: Regional Trails Network (attached)

Figure 15: Antioch's Existing Bicycle and Pedestrian Facilities Images (attached)

d. Crash Data

Livable communities are a high priority for the GO TO 2040 Regional Plan. A livable community is one that provides safe and convenient transportation choices to all citizens, whether by walking, bicycling, transit, or driving. Each year on a national level pedestrian fatalities comprise about 12 percent of all traffic fatalities. A total of 15 pedestrian crashes occurred within the Village of Antioch between 2005 and 2010 (an average of 2.5 per year). Two of these crashes resulted in serious (incapacitating) injuries. A total of eighteen 18 bicycle crashes occurred during the same years, for an average of three per year.

Five crashes – three bicycle and two pedestrian crashes – occurred at the intersection of IL 173 (Rosecrans Road) and IL 83 (Main Street). Other areas of bicycle and pedestrian crash concentrations are along IL 83/Main Street, along Lake Avenue, and along North Avenue/State Line Road.

Figure 16: Antioch Crash Map (attached)

e. Freight

The Chicago region is the nation’s freight crossroads, moving between a quarter and a third of the nation’s freight. Infrastructure to move this massive amount of freight is spread across the region and Antioch is well served by freight infrastructure. Having good freight infrastructure helps the Village’s manufacturers, allowing firms to more easily get their inputs as well as export their products. (CMAP is currently conducting work on how freight infrastructure supports manufacturing). Freight infrastructure also supports the commercial activity emerging around the Village. CMAP data indicates 100 jobs in freight in Antioch, with the majority of the freight jobs in trucking. Antioch also has highway, bridge, and road construction firms which support the freight cluster, as well as staffing some local airports (Donald Alfred Gade Airport, Midland Airport, Fox Lake Seaplane Base).

Antioch is not a major freight center, but is well served by freight infrastructure, aiding other components of the Village economy, especially manufacturing and retail. Metra’s North Central Line runs on Canadian National (CN) Railway tracks. CN’s line is one of the major freight routes in the region and its usage is expected to increase dramatically because of regional port expansions and trade dynamics. So while Antioch is served by passenger rail on the North Central Line, this same line is also a vital freight route for the region. Trucks move two thirds of all freight in the region. The truck routes IL 83 and IL 173 see significant commercial vehicle counts in Antioch (though much less than the interstates). CMAP traffic counts indicate about 1000 freight trucks per day move through Antioch on IL 83, and between 1500 and 2000 on IL-173. IL-59 has less freight flow, to approximately 500-1000 heavy commercial trucks per day.

f. Transportation Indicators

The following tables summarize how Antioch compares with the rest of the Chicago region on a number of transportation metrics providing insight on how residents move around as well as how much they spend on transportation. Table 5.5 shows that the number of miles driving annually by Antioch households is slightly more than the rest of Lake County 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 Antioch residents drive alone. A smaller proportion of Antioch residents carpool to work than in the rest of the region, and a smaller proportion walk to work. In addition, only 3.1% of the region’s jobs are accessible by car within 45 minutes from Antioch (See Tables 5.5-5.8 below), indicating that many residents need to commute long distances for work.

Traditional measures of affordability have focused on the percentage of a household’s income that is spent on housing. With housing costs consuming 32% of a household’s income, Antioch is considered a

relatively affordable place to live in comparison to the rest of Lake County, though less affordable than the regional average. In recent years, affordability measures have begun to incorporate the transportation costs associated with the location of the home in addition to housing costs. This improved metric gives a more complete picture of the demands on households; affordability has been redefined as a combined housing and transportation cost of no more than 45% of a household's income.

The cost of transportation in any community depends on factors outside municipal boundaries, such as access to jobs, so it is important to measure Antioch's performance against regional benchmarks to understand what policies will improve local performance. In Antioch in 2005 to 2009, typical housing costs were 32% of area median income (AMI), typical transportation costs were 26% of AMI, and the combined costs were 58% of AMI. This is above the affordability threshold of 45%, and greater than average combined costs for the Chicago region. Antioch's combined costs, however, are slightly less than the county average.

Table 5.5: Total Annual Vehicle Miles Traveled (VMT) per Household

Antioch	Lake County	Chicago Region (MSA*)
23,643 Annual Miles	21,393 Annual Miles	18,272 Annual Miles

Source: Center for Neighborhood Technology, calculated for Municipal Energy Profiles, available at "H+T Affordability Index" website: <http://htaindex.cnt.org/map/>

Table 5.6: Mode Share, as Percentage of Work Trips

	Antioch	Lake County	Chicago Region (compiled from workers in the seven counties)
Total Workers	6,517	329,888	3,844,599
Worked at Home	402	21,600	181,715
Total Commuting Population	6,115	308,288	3,662,884
Drive Alone	89.3%	83.5%	72.8%
Carpool	6.1%	8.8%	9.1%
Transit	2.3%	4.2%	12.8%
Walk	1.2%	1.8%	3.4%
Other	1.1%	1.7%	1.8%

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

Note: Mode shares are expressed as percentages of the working population excluding those who work from home.

Table 5.7: Access to Jobs in the Region, by Travel Mode

	Antioch	Lake County	Chicago Region
Regional Jobs Accessible by Automobile (commute time of 45 minutes or less)	3.1%	7.2%	15.9%
Regional Jobs Accessible by Transit (commute time of 75 minutes or less)	2.4%	9.5%	20.9%

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

Table 5.8: Housing & Transportation Costs as Percent of Income per Household

	Antioch	Lake County	Chicago Region
Housing Costs (as percent of income)	32.42%	36.43%	28.15%
Transportation Costs (as percent of income)	26.01%	24.61%	21.82%
“H+T” Costs (as percent of income)	58.44%	61.05%	49.97%

Source: CNT

“H+T Affordability Index”: <http://htaindex.cnt.org/map/>. Primary dataset used is 2005-2009 American Community Survey, U.S. Census Bureau. Note: Red text indicates that the percentage exceeds the standard threshold of affordability: 30% for housing costs and 45% for housing and transportation costs combined.

g. Transportation Improvement Program

The Transportation Improvement Program (TIP) is a list of priority regional transportation projects. The projects are multi-modal, i.e., they include bicycle, pedestrian, and freight related projects, as well as the more traditional highway and public transit projects. The Chicago metropolitan region TIP is updated and amended regularly through CMAP’s Transportation Committee.

The TIP helps both communities and transportation stakeholders track the use of local, state, and federal transportation funds. The TIP also helps Metropolitan Planning Organization (MPO) members, other transportation implementers, and planning organizations establish a transportation program that implements the goals of GO TO 2040. TwoTIP projects fall in or near the Village of Antioch, as displayed in Table 5.9.

Table 5.9: TIP Projects in Antioch

Project Name	Project Description
Lake Avenue and IL-Route-173 (TIP id 10-00-0103)	Intersection improvements- adding signals
IL-173 (TIP id 10-11-0032)	Resurfacing, adding lanes

Source: CMAP TIP

h. Community Health

There is a strong relationship between health and planning issues such as transportation, open space, and healthy food. The dramatic rise in chronic disease rates in communities throughout the country has put the spotlight on the importance of the relationship between public health and planning. The following are some of the key health issues that are linked to environmental factors and land use planning:

- **Obesity:** According to the Centers for Disease Control and Prevention (CDC), 30 percent of adults age 20 and older are obese, and approximately 65 percent of Americans weigh more than is healthy. Today, one in five children and one in three teens is overweight or at risk of becoming overweight.
- **Diabetes:** One of every ten health care dollars spent goes toward diabetes and its complications. Between 1994 and 2004, the prevalence of diabetes increased more than 50 percent.
- **Heart Disease:** According to the American Heart Association, the leading cause of death for women and men in the United States is heart disease. In 2003, a total of 685,089 people died of heart disease, accounting for 28 percent of all U.S. deaths.

To help improve community health, the Lifestyle Corridor can address design and development that accommodate/promote physical activity in Antioch. In recent years, plans have begun to add health components to improve community health through better land use planning. The presence of active transportation facilities, like the lifestyle corridor, can have positive impacts on health.

C. Natural Environment

This section provides information on the environmental features in the Village of Antioch, also referred to herein as its green infrastructure system. Information was obtained from a number of resources including Lake County, the Illinois Environmental Protection Agency, the Illinois Department of Natural Resources (IDNR), the Village of Antioch, and fieldwork.

Key Findings

The following are key conclusions regarding the existing conditions of Antioch's natural environment. Moving forward in the planning process, these key findings will shape and inform the community's vision, goals and objectives for the Lifestyle Corridor.

- ***The natural resources in and around Antioch are significant assets that contribute to the high quality of life for Village residents and that the Village should value and highlight.*** Antioch should attempt to connect these areas via trails and greenways where feasible and appropriate. Preservation, management and restoration of these assets are important activities that will help preserve their quality and attractiveness and enhance these assets as destinations of the Lifestyle Corridor.
- ***Antioch's park system offers residents a wide range of recreational and park spaces, complementing and showcasing the natural geography of the Chain O' Lakes region.*** Antioch is located in a unique geographical setting, characterized by a network of glacial lakes, wetlands and other features. The local park system includes conservation areas that make this geography accessible, as well as traditional parks and ample recreational facilities.
- ***The Antioch Parks Department provides high-quality parks, natural areas, and recreational opportunities within the village.*** The Park District also plans for improvements in its annual Park Improvement Plan.
- ***Antioch residents enjoy approximately 50 acres of open space per 1000 residents.*** This figure is well above the regional average and commonly accepted national standard of 10 acres.
- ***Antioch is well-positioned to coordinate efforts to expand and connect open space, natural areas, and recreational opportunities with the State of Illinois and the Lake County Forest Preserve District.*** An expanded Antioch Lifestyle Corridor will connect to other existing and planned regional trails and destinations between the Chain O' Lakes and Fox River waterway system and the Des Plaines River.
- ***The village's off-street multi-use trail serves a relatively small area of the community. Additional natural assets should be connected to this trail and the future Lifestyle Corridor.*** Key natural assets to be considered for connection include Red Wing Slough and the Chain O' Lakes.
- ***The Sequoit Creek corridor, including its associated floodplain and wetlands, is one of the village's primary natural assets that should be protected, managed, and restored to a natural condition.*** In fact, the IDNR considers it a Biologically Significant Stream, indicating a high degree of biological diversity or integrity, and exhibits natural stream characteristics in its lower reaches, a rarity in northeastern Illinois.
- ***Stormwater runoff flowing to area lakes and waterways negatively impacts these resources.*** The planned Lifestyle Corridor could provide multiple functions for the village including recreation, natural resource protection, and as a buffer greenway to help protect Sequoit Creek and downstream water resources.

a. Green Infrastructure

The Antioch 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 Antioch includes areas that are protected through existing laws (such as wetlands and floodplains that are protected from development or alteration), and via ownership by a public body or agency (i.e., preserved open space such as forest preserve districts), as well as areas not currently protected but important resources to be considered in land use change and management decisions, such as groves of mature trees.

A Green Infrastructure Vision, an inventory of valuable natural resources, has recently been created for the region. The Green Infrastructure Vision is a plan and map identifying broad areas to protect and manage in order to preserve biodiversity in the three-state Chicago Wilderness region. Resources identified in the GIV for the Antioch area include woodlands, wetlands, and streams and are shown in Figure 17.

Figure 17: Green Infrastructure (attached)

b. Land Resources

Antioch 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, the permanent open space that protects it, and the associated water resources (discussed in the next section) are significant assets to Antioch. These resources give this area a unique identity and attract many residents and visitors who come to the area to hike, fish, bird watch, and enjoy other recreational activities, or who come simply to live close to such natural beauty.

Antioch and its sub region have a wide variety of open spaces and recreational areas. The Chain O' Lakes is the area's most important recreational area, and is discussed below. Antioch also has 15 park areas within its Village boundaries that provide a variety of amenities including beaches, neighborhood parks, sports facilities, and pavilions for events and picnicking, and several conservation areas. Approximately 846 acres (17.5% total acreage) of open space in Antioch is considered state open space, Lake County Forest Preserve, municipal owned local parks and private open space. Recreation- and conservation-oriented open spaces within the village include Tiffany Farms Park, Woods of Antioch Park, Osmond Park, the Tim Osmond Sports Complex, Sprenger Park, and a number of smaller parks, all of which are owned and maintained by the Village of Antioch. Lake County forest preserves that are wholly or partially within the village include Red Wing Marsh, Redwing Slough, and Prairie Stream, while Dutch Gap, Sequoit Creek, Raven Glen, and Ethel's Woods are nearby. The conservation-oriented Redwing Slough State Natural Area, owned and managed by the Illinois Department of Natural Resources, is partially within the village's western boundary. In addition to these public holdings, privately-owned

open lands are imposed with conservation easements or other encumbrances that restrict future development.

The Antioch Parks Department administers and supervises parks and programming for the Village. The responsibilities of the Parks Department include developing and maintaining all Village Parks, creating a yearly Park Improvement Plan; maintaining, staffing and operating the pool during the summer months; and managing Park Programs including developing and running park classes and events.¹

With 846 accessible acres of parks and open space within the village, and a population of 14,430, the open space to resident ratio is approximately 58 acres per 1000 people. The GO TO 2040 regional comprehensive plan recommends at least 10 acres per 1,000 people for most areas of the region. Antioch's ratio is significantly higher than these figures, resulting in high availability and access to open space. While most homes in Antioch are within a half-mile walk to a public park, there are a few residential areas that are over a mile from a park.

Nonetheless, the Downtown Antioch Land Use Implementation Study recommended conversion of several properties into new park space. For example, they proposed conversion of several parcels to create a physical connection between the William E. Brook Wetland Sanctuary and Williams Parks, in the downtown area. Another recommendation was the addition of open space to break up the large block south of Orchard Street, running east west from Toft to Hillside.

Antioch residents are also within fairly close proximity to hundreds of acres of public open space maintained by state and county government agencies, an additional asset to Antioch residents. The larger public open space holdings in and around Antioch are briefly described below. In addition, Lake and McHenry County manage a number of additional natural areas.

The Redwing Slough complex of state and county open space is a significant natural asset to the community. This nationally significant wetland provides habitat for nine State endangered or threatened bird species as well as for large numbers of waterfowl during the spring and fall migration seasons. These threatened or endangered species include the black tern, common moorhen, least bittern, sandhill crane, yellow-headed blackbird, black-crowned night heron and Forster's tern. Deer Lake in the eastern portion of the reserve supports a diverse game fish population, including: largemouth bass, bluegill, black crappie, northern pike, and golden shiner.²

Other natural resources that help to maintain proper balance in the environment and ecosystems include woodlands, wetlands, and plants and animal species. Many of the most important habitats and species are protected within the nature preserves and forest preserves mentioned above. Township sections with threatened and endangered plant and animal species are shown in Figure 18.

Figure 18: Environmental Features (attached)

¹ <http://www.antioch.il.gov/parks.html>

² Illinois Department of Natural Resources Land and Water Report, June 2005.

c. Water Resources

Antioch is located within two major river watersheds and four subwatersheds. The eastern half of the Village is within the North Mill Creek subwatershed of the Upper Des Plaines River watershed. The western half of the village is in parts of three subwatersheds—the Channel Lake watershed, Nippersink Lake – Fox River watershed, and the Sequoit Creek watershed—all of which are within the Upper Fox River watershed. (See Figure 22 and Figure 23) Watershed plans (of varying levels of detail) have been developed for the Upper Des Plaines River and the Upper Fox River. The Lake County Stormwater Management Commission has adopted a watershed plan for Sequoit Creek (2004), and the North Mill Creek/Dutch Gap Watershed-Based Plan is under development.

Due to its geologic and geographic context, Antioch’s landscape is rich with a mosaic of wetlands, lakes, and streams, 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. Lake Marie is part of the Chain O’ Lakes network, a series of lakes connected by the Fox River that gives Antioch and the surrounding area a unique geographic character and easy access to these recreational and resource amenities. A number of other lakes and streams (Antioch Lake, Cross Lake, Lake Tranquility, Redwing Slough, and Silver Lake) permeate the landscape in and around Antioch, making water resources perhaps the most defining natural asset to the Village and to north central Lake County. Many local businesses depend on water-related activities, serving the needs of weekend and summer vacationers. Local businesses and organizations sponsor a variety of special events, mostly in the summer. Several of the shoreline areas have also been developed as residential neighborhoods.

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. Water bodies and assessment information, if available, are included in Table 5.10. As shown, all of the identified lakes are in full support for aquatic life, but different lakes show different impairments for different uses, but most commonly for aesthetic quality.

Due to its central location within Antioch and its likely role as a focal point of the future greenway, the Sequoit Creek corridor is of particular interest for this project. Unfortunately, the IEPA has not assessed water quality of Sequoit Creek; however, the IDNR has classified Sequoit Creek from East Loon Lake to the creek’s confluence with Trevor Creek and Lake Marie as a Biologically Significant Stream. This designation means that a stream exhibits high biological diversity and/or integrity.

Figure 19: Antioch Watersheds Map (attached)

Figure 20: Watershed Based-Plan Status - Stormwater Management Commission (attached)

Table 5.10: Water Bodies in and Adjacent to Antioch

Water body name and segment	Impaired Use	Cause(s)	Source(s)
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Sequoit Creek	No data	No data	No data
North Mill Creek (IL_GWA)	Aquatic Life	Arsenic, Manganese, Flow alternations, Sedimentation/Siltation, Phosphorus, Changes in Stream Depth and Velocity	Contaminated Sediments, Dam or Impoundment, Agriculture.
Channel Lake (IL_RTI)	Fish consumption, Aesthetic quality	Mercury, Polychlorinated biphenyls (PCBs), Phosphorus, Aquatic plants, Aquatic Algae	Atmospheric Deposition, Shore Area Modifications, On-site Wastewater Treatment systems, Recreational Pollution Sources, Crop Production, Pesticides, Urban Runoff/Storm Sewers, Runoff from Forest/ Grassland/ Parkland, Turf Management, Waterfowl, Yard Maintenance
Lake Catherine (IL_RTD)	Fish consumption, Aesthetic quality	Polychlorinated biphenyls (PCBs), Phosphorus, Aquatic plants, Aquatic Algae	On-site Wastewater Treatment systems, Recreational Pollution Sources, Yard Maintenance, Natural Sources, Urban Runoff/Storm Sewers, Runoff from Forest/ Grassland/ Parkland, Residential Districts, Waterfowl.
Lake Marie (IL_RTR)	Fish consumption, Aesthetic quality	Mercury, Polychlorinated biphenyls (PCBs), Phosphorus, Aquatic plants, Aquatic Algae, Total Suspended Solids (TSS).	Atmospheric Deposition Recreational Pollution Sources, Dam or Impoundment, Runoff from Forest/Grassland/Parkland.
Cross Lake (IL_UTV)	Aesthetic quality	Aquatic plants	Source Unknown.
Antioch Lake (IL_RTT)	Aesthetic quality	Phosphorus, Aquatic plants, Total Suspended Solids (TSS)	Source Unknown.
(Little) Silver Lake (IL_STC)	Aesthetic quality	Aquatic plants	Source Unknown.
(West) Loon Lake3 (IL_RTZB)	N/A	N/A	N/A
East Loon Lake (IL_RTM)	Aesthetic quality	Phosphorus, Aquatic plants.	Source Unknown.

³ In full support of Aquatic life, Primary Contact, Secondary Contact, and Aesthetic Quality.

Deer Lake (IL_WGZB)	Aesthetic quality	Phosphorus, Aquatic plants.	Rural (Residential Areas), Runoff from Forest/ Grassland/ Parkland.
Huntley Lake	No data	No data	No data
Redwing Slough (IL_VGD)	Aesthetic quality	Phosphorus, Aquatic plants, Suspended Solids (TSS).	Runoff from Forest/ Grassland/ Parkland, Agriculture.
Fox River (IL_DT_22)	Aquatic Life, Fish Consumption, Primary Contact Recreation	Alteration in stream-side or littoral vegetative covers, Chloride, Copper, Flow regime alterations, Sedimentation/ Siltation, Polychlorinated biphenyls (PCBs), Aquatic Algae, Fecal Coliform	Impacts from Hydrostructure Flow modification, Habitat Modification, Highway/ Road/Bridge Runoff, Urban Runoff/ Storm Sewers, Dam or Impoundment.
Fox River (IL_DT_23)	Aquatic Life, Fish Consumption	Alteration in stream-side or littoral vegetative covers, Flow regime alterations, Aquatic Algae, Polychlorinated biphenyls (PCBs)	Dam or Impoundment, Habitat Modification, Impacts from Hydrostructure Flow Regulation/modification, Source Unknown.

Source: Illinois Environmental Protection Agency. 303d List, 2010. Appendix A-2 and B-3.
<http://www.epa.state.il.us/water/tmdl/303d-list.html>

Wetlands: Wetlands are very prevalent in this landscape, with high quality wetlands (as identified by the Lake 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 Antioch 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. Large areas of wetland exist in the southwest portion of the Village, just south of IL 173. Another sizeable wetland area can be found west of Silver Lake. Antioch has conserved a wetland in its downtown area, the William E. Brook Wetland Sanctuary, creating a nine-acre park that highlights the natural landscape. Wetlands account for nearly 8% of Antioch’s total land (384 acres).

Groundwater: Groundwater resources in Antioch are of great interest as they provide nearly all supply from a municipal well, storage and distribution system. 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. As unlikely as it may seem today, localized groundwater shortages are predicted for some areas of the Chicago Region, though Antioch is not predicted to suffer a shortage by the year 2020.

Stormwater: Stormwater runoff in the village is handled either by surface flow via roadside ditches or via curb and gutter streets that drain to underground stormwater infrastructure. Stormwater runoff eventually makes its way into nearby streams, lakes, and wetlands, 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.

Overbank stream flooding occurs along Sequoit Creek, which impacts the existing bike-pedestrian path in the Woods of Antioch Park. Damage to structures due to overbank flooding occurs only in a few locations along the presumed greenway corridor. Nonetheless, strategies to help filter and infiltrate stormwater (i.e., green infrastructure) can help reduce current and future flooding as the watershed develops.

Figure 21: Antioch Water Bodies Map (attached)

d. 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. 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 and bike-able 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.

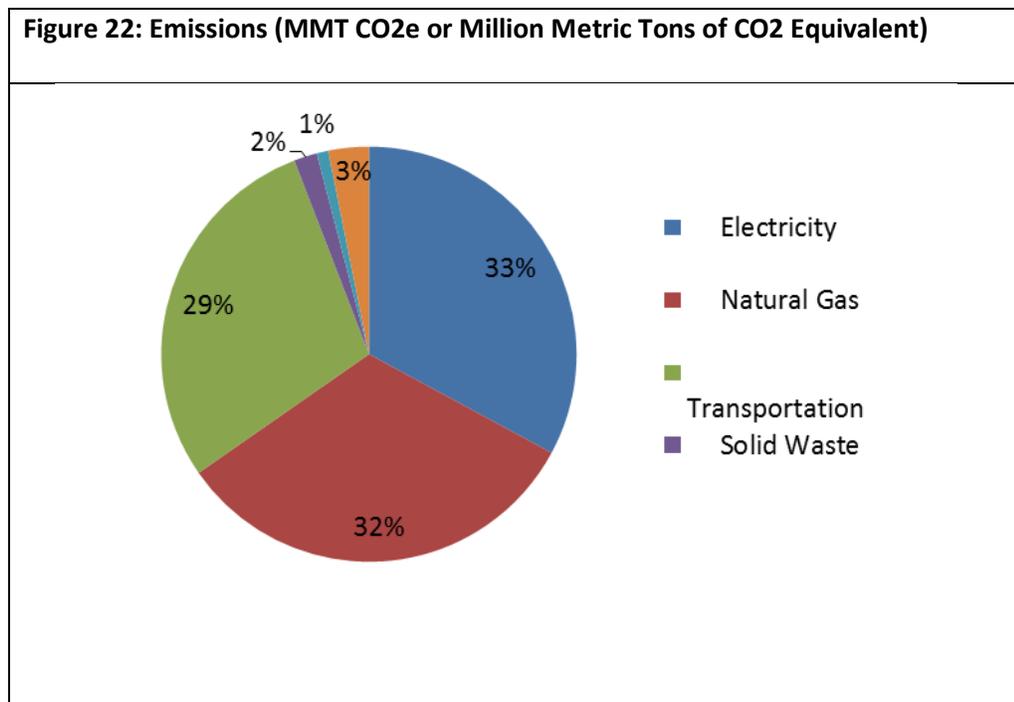
Antioch's energy and emissions profile was analyzed as part of the Municipal Energy Profile Project for the seven-county Chicago Metropolitan Area. This baseline allows the village to measure future energy savings that may be attributable to the Lifestyle Corridor, particularly the effect on vehicle miles traveled. The data and other information presented is part of a larger project led by the Center for Neighborhood Technology called the Municipal Energy Profile Project (MEPP). The Antioch Energy and Emissions Profile, which was the source for this section of the Existing Conditions Report, can be found at www.cntenergy.org, along with a guidebook for the project.

In 2007, the total amount of electricity consumed in Antioch was 105 million kWh (Table 5.11). Electricity consumption per household in Antioch is slightly lower than Lake County, as shown in Table 5.23. 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. In 2007, the amount of natural gas consumed in Antioch is estimated at 13.5 million therms, or 1974 therms per household, which is significantly higher than the average consumption per person in Lake County of 1,229 therms. Natural gas consumption in Antioch is significantly higher than the rest of Lake 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 CO₂E (see Table 5.11). The average Antioch resident emitted 16.26 metric tons of carbon dioxide equivalents in 2007, slightly higher than the 16.02 metric tons emitted per capita in Lake County.

The use of energy in buildings in Antioch (the sum of the electricity and natural gas sectors) accounts for the largest portion of energy and greenhouse gas emissions. (Note: energy use can be reduced through retrofits and other strategies, some of which can be subsidized by grants and other funding, as presented at <http://energyimpactillinois.org/>.) This is followed by transportation, based on vehicle miles traveled by Antioch 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. Variations are also influenced by many different demographic factors including income, household size, and workers per household. For example, large households with higher incomes may own multiple cars and drive more. Households situated close to reliable public transit or major employment centers may experience decreased annual VMT because they are not as dependent on cars.

In 2007, total on-road travel on Antioch roads accounted for 129 million miles (Table 5.11), which captures trips only within municipal boundaries. Further analysis shows that the average household in Antioch drove 23,243 miles, totaling 117 million miles for all Antioch households.



Section 6: Looking Forward

The existing conditions report thus far has identified a number of issues, strengths, weaknesses, and opportunities that exist in Antioch today. The Lifestyle Corridor Plan will utilize this extensive database of information to formulate recommendations for Antioch's sustainable economic, social, and cultural growth. Based on the information compiled, key topic areas of the Plan are listed below. It should be noted that the following summary does not include all issues that will be addressed in the Plan.

The Antioch Lifestyle Corridor Plan will address the following topic areas that have been identified as key issues through analysis of existing conditions, public meetings, and interviews with individual stakeholders.

1. Antioch's multi-use path and Depot Street serve as the main artery of Antioch's Lifestyle Corridor and a foundation of active transportation in the community by providing a main east-west route through the Village to downtown and the Train Depot area. However, gaps between route segments make it difficult to reach destinations, and improving the main Lifestyle Corridor faces a number of challenges, particularly barriers to safely and efficiently navigating Antioch's streets and intersections.
2. Several local community destinations, including residential neighborhoods, commercial areas, and recreational assets, would be accessible from the existing and planned multi-use trail by filling in gaps within the network, designating key connection and access points between the main Lifestyle Corridor and north-south travel ways, identifying potential areas for bike facilities, and improving existing infrastructure.
3. Connections and access between Antioch and important regional destinations, including the Chain O' Lakes and the Des Plaines River Trail, are larger-scale considerations that would benefit Antioch and the surrounding communities, provide additional ways for regional residents to access destinations within Antioch, and provide additional transportation and recreation options to Antioch residents, employers, and employees. In this regard, Antioch can serve as a sort of 'crossroads' for a regional trail system.
4. Antioch's urban fabric presents opportunities for creating a more robust and active downtown core area that includes the main Lifestyle Corridor and connecting routes not only as ways to access Antioch, but as attractive destinations in and of themselves.
5. A stronger multi-use corridor and system will promote healthy lifestyle and active transportation options for the community, provided the system is made accessible, navigable, and safe.
6. Parks, open space, and natural resources within Antioch and the surrounding area, particularly Sequoit Creek and the associated floodplain, are significant environmental and economic assets that should be protected, enhanced, and connected as key elements of the Lifestyle Corridor.