



A Planning Priorities Report for the City of Sandwich





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Section 1

Introduction & past plans



Introduction

The City of Sandwich is a small community located 60 miles southwest of downtown Chicago and 22 miles southwest of Aurora. The city was originally founded as a railroad depot for the Chicago, Burlington, and Quincy Railroad (now BNSF Railway), and has enjoyed slow, steady growth for much of its 150-year history. This trend continued until shortly before the Great Recession, when the city began to plan for rapid residential and commercial growth. Today, many of the development projects proposed during that period have stalled, leading the City to rethink its plans for the future.

To support this process, the City of Sandwich has partnered with The Chicago Metropolitan Agency for Planning’s Local Technical Assistance (LTA) program to develop a planning priorities report. This report explores a range of land use, transportation, demographic, economic, and natural resources issues, and provides recommendations for future planning initiatives.

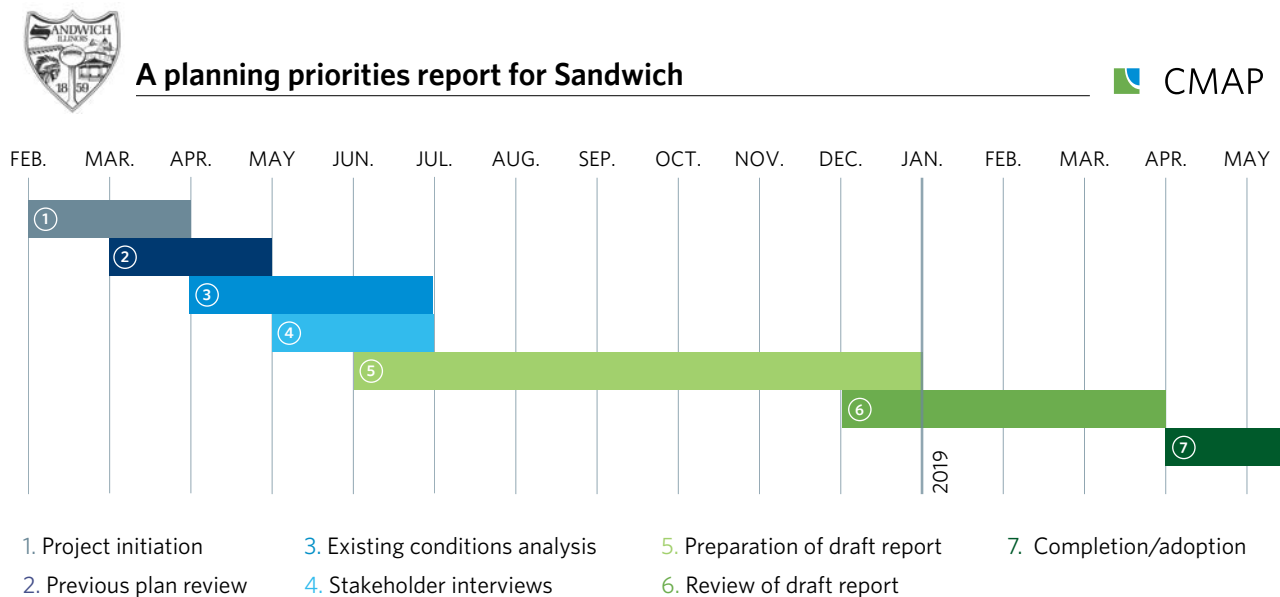
The planning process

Development of the planning priorities report began in early 2018. The first phase focused on existing conditions research, including an analysis of census data, land use records, existing plans and ordinances, and a survey of various maps, reports, and other documents. This phase also included interviews with 15 local residents, business leaders, and City officials.

Later phases of the project focused on development of the report document, including the creation of maps, graphics, and charts. The initial draft report was reviewed by the City of Sandwich and local and regional partners to ensure the final product reflects local goals and objectives. The findings of this report are subject to approval by the Sandwich City Council.

The Chicago Metropolitan Agency for Planning officially adopted ON TO 2050, the region’s comprehensive plan, on October 10, 2018. The plan includes a range of policy recommendations designed around three core principles: inclusive growth, resilience, and prioritized investment. These principles, as well the plan’s topical recommendations, have informed the analysis and recommendations included in this report.

Figure 1. Project timeline



Past plans

The Comprehensive Plan for Sandwich (2003, updated 2011)

The City of Sandwich's most recent comprehensive plan was prepared by DeKalb County and City officials in 2003, and the future land use map was updated in 2011. The document was created through an extensive research and community outreach process, and was intended to guide the City's development for the next 30-40 years.

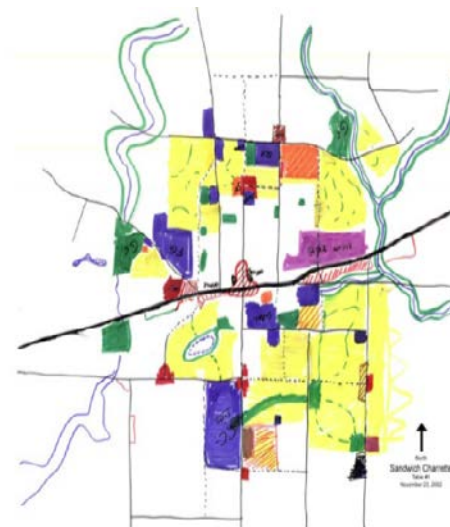
At the time, the city was experiencing a period of significant growth. From 1990 to 2000, Sandwich's population grew by 17 percent, while the population of DeKalb County increased by 14 percent. The plan's outreach process, which included an image preference survey and a design charrette, found that residents supported the establishment of an industrial park north of Route 34 on the city's eastern edge, as well as a general expansion of commercial and retail uses along the Route 34 corridor. Residents also expressed strong support for expanding low-density residential development, while simultaneously preserving natural and agricultural lands, with an emphasis on environmental corridors connecting the Fox River, the City of Sandwich, and the Sandwich Fairgrounds.

The final plan emphasized aggressive development of agricultural lands north and south of town, and continued commercial and industrial growth along the Route 34 corridor between Sandwich and Plano. This growth would require the City to expand its municipal borders 3.5 miles north to Chicago Road and 1.5 miles south to 4650th Street. In total, this growth would accommodate an additional 51,180 residents, an increase of 786 percent.

To prepare for this growth, and maintain a high quality of life for Sandwich residents, the plan identified seven design principles:

1. Build neighborhoods and communities for pedestrians
2. Create a sense of community
3. Respect the natural environment
4. Provide open space of all types
5. Provide a community focus
6. Make streets for vehicles and people
7. Design variety within conformity

During the 15 years since the plan was completed, the Northwestern Medicine Valley West Hospital has expanded, and several new homes have been built in formerly agricultural areas to the north and south of town. Nonetheless, Sandwich has not experienced the rapid population and employment growth outlined in the plan, and the ambitious expansion of the City's footprint has not occurred.



A sample future land use map created at a design charrette during the 2003 comprehensive planning process.

US 34 Sandwich to Plano Community Context Audit (April, 2009)

The 2009 Sandwich to Plano Community Context Audit (CCA) was commissioned by the Illinois Department of Transportation, with the stated goal of deepening the Department's understanding of the Sandwich-Plano community and creating a foundation for future analysis related to the proposed widening of U.S. Route 34 from Gletty Road in Sandwich to Chilton Way in Plano. The report was created through a comprehensive community engagement process, which included the creation of a project working group and a project study group, in addition to ongoing outreach to the general public.

The CCA identified numerous key findings that are potentially relevant to future planning and development activities. Among these key findings were a deep respect among the general public for Sandwich's small-town character, as well as a desire to maintain and enhance the general walkability of the downtown area, and preserve the viability of small businesses. The report also found support for increasing access to downtown Sandwich and the surrounding area for motorists through improved timing of traffic signals and dedicated turning arrows. Additionally, the report found that many residents did not feel comfortable crossing Route 34 as it is currently designed, due to a lack of pedestrian visibility, short crossing times, and the high speed of traffic on the road.

April 2009

US 34 SANDWICH to PLANO

FAP 591 (US 34) Improvement
Gletty Road, Sandwich, IL to Chilton Way, Plano, IL

Community Context Audit

Prepared for
Illinois Department
of Transportation

Prepared by
SEPSTEIN

PLANNING COMMUNITIES

DeKalb & Kendall Counties
P-93-015-06
PTB 147/20
Contract #66847

DeKalb County, Illinois Unified Comprehensive Plan (2011)

DeKalb County's 2011 Unified Comprehensive Plan was created as an update to the County's 2003 Unified Comprehensive Plan, a planning process that included the 2003 Comprehensive Plan for Sandwich. Generally, the plan identifies two principles for the county's development:

1. Preserve prime agricultural land for agricultural uses by discouraging scattered development throughout the rural, unincorporated portions of the county; and,
2. Encourage nonagricultural growth to occur on land immediately adjacent to existing municipal boundaries, where the public infrastructure and services necessary to support growth are located.

To achieve these outcomes, the plan outlines 11 goals, ranging from the preservation of agriculture and natural resources to improving the transportation system and encouraging economic development. The document concludes with a summary of priority transportation projects and descriptions of use categories included in the Unified Future Land Use Plan. Select priority projects relevant to the City of Sandwich include:

Road extensions:

- Provide eastern extension of Coy Road, located north of Sandwich, to connect with Miller Road in Kendall County
- Provide a collector (Fairwind Boulevard) from W. Sandwich Road to Sheridan Road near Lake Holiday in LaSalle County

Trails:

- A link from the City of DeKalb to Afton Forest Preserve, and then generally south/southeast into Sandwich and Somonauk

Kendall County Land Resources Management Plan & Supplemental Plan (2011)

The 2011 Kendall County Land Resources Management Plan seeks to provide a coordinated vision for the development of unincorporated areas within the county, including areas bordering the eastern edge of the City of Sandwich. Although the County does not have jurisdiction over land within the City of Sandwich, the plan was developed through a cooperative process with the City and is intended to complement the goals of municipal partners.

The plan outlines a series of County planning goals and objectives, which focus on the protection and preservation of land and water resources, in addition to sustainable economic and community development along existing transportation and utility corridors.

The plan's future land use section includes a framework for future development surrounding the extended Route 34 corridor between the cities of Sandwich and Plano. Notably, the plan calls for suburban residential development with a max density of one dwelling unit per acre south of the Route 34 commercial area, mixed-use business development north of Route 34, between Sandy Bluff Road and the county line, and rural residential development throughout the remaining area north of Route 34.

ON TO 2050 (2018)

ON TO 2050, northeastern Illinois' comprehensive plan, was officially adopted by the CMAP board in October 2018. The plan builds on the policy recommendations of GO TO 2040, and includes a new focus on inclusive growth, resilience, and prioritized investment. Because of Sandwich's small size, rural character, and abundant agricultural resources, the plan's municipal capacity, strategic growth, stormwater management, and water conservation recommendations are particularly relevant. The interactive plan website contains numerous story maps, photo essays, and detailed policy discussions that provide additional insight into these recommendations.

Water 2050: Northeastern Illinois Regional Water Supply/Demand Plan (2010)

Water 2050 was created through a collaborative, three-year process involving CMAP staff and the Regional Water Supply Planning Group, which was composed of water supply experts and stakeholders from across the region. The plan's overarching goal is to ensure that water supplies within the eleven counties of northeastern Illinois (including both DeKalb and Kendall Counties) remain high quality and plentiful for the foreseeable future.

The plan recognizes the sensitive nature of the region's groundwater aquifers, including the Iron-ton-Galesville aquifer, which is used for municipal water within the City of Sandwich. This aquifer is being depleted on a regional scale and, without aggressive action, may experience significant drawdown in the near future. To prevent water shortages, the plan highlights an array of conservation and land use strategies. The plan also emphasizes the potential of switching to underutilized water sources, such as the Fox River, to meet the needs of communities in the region.



Section 2

Stakeholder interviews and opinion survey



Stakeholder interviews and opinion survey

The primary public engagement activity for this project was a series of stakeholder interviews conducted at Sandwich City Hall on May 30th and 31st, 2018. In total, CMAP staff interviewed 15 community members representing a wide range of social, economic, educational, and community organizations. The interviews were informal and confidential, which allowed for a free and open exchange of thoughts, concerns, and priorities. The key findings presented here, as well as topical summaries included in Appendix A, reflect numerous conversations and cannot be attributed to a single individual or organization.

Key findings

- **Residents value the city's small-town feel.** Sandwich is a walkable community with an active downtown. Residents, business owners, and community leaders highlighted this as one of the city's greatest strengths.
- **Residents value downtown businesses,** and would like to see more storefronts in the area. There is also interest in providing additional types of businesses, with an emphasis on those serving local needs.
- **The Sandwich Fair is a central element of the city's identity,** but the fair does not bring many visitors or tourism dollars into the city itself. The greater Sandwich area could benefit from increased coordination with the Fair.
- **The city's residents are aging, and the current housing stock may not be adequate for all residents to remain in Sandwich long-term.**



A sign for the Sandwich Fair

Section 3

Planning context



Planning context

Sandwich, Illinois is a unique community with assets, resources, and challenges that set the city apart from other communities in the region. Before identifying next steps for the City, it is critical to first assess the area's local planning context, including geography, demographics, land use, natural resources, economy, transportation system, and municipal capacity.

Appendix B: Community Data Snapshot contains more detailed economic and demographic data for the City of Sandwich.

Location

The City of Sandwich is located at the intersection of DeKalb, Kendall, and LaSalle Counties. The majority of the city is located in DeKalb County, though development has followed the Route 34 corridor east into Kendall County in recent years. The LaSalle County line serves as the city's southern border.

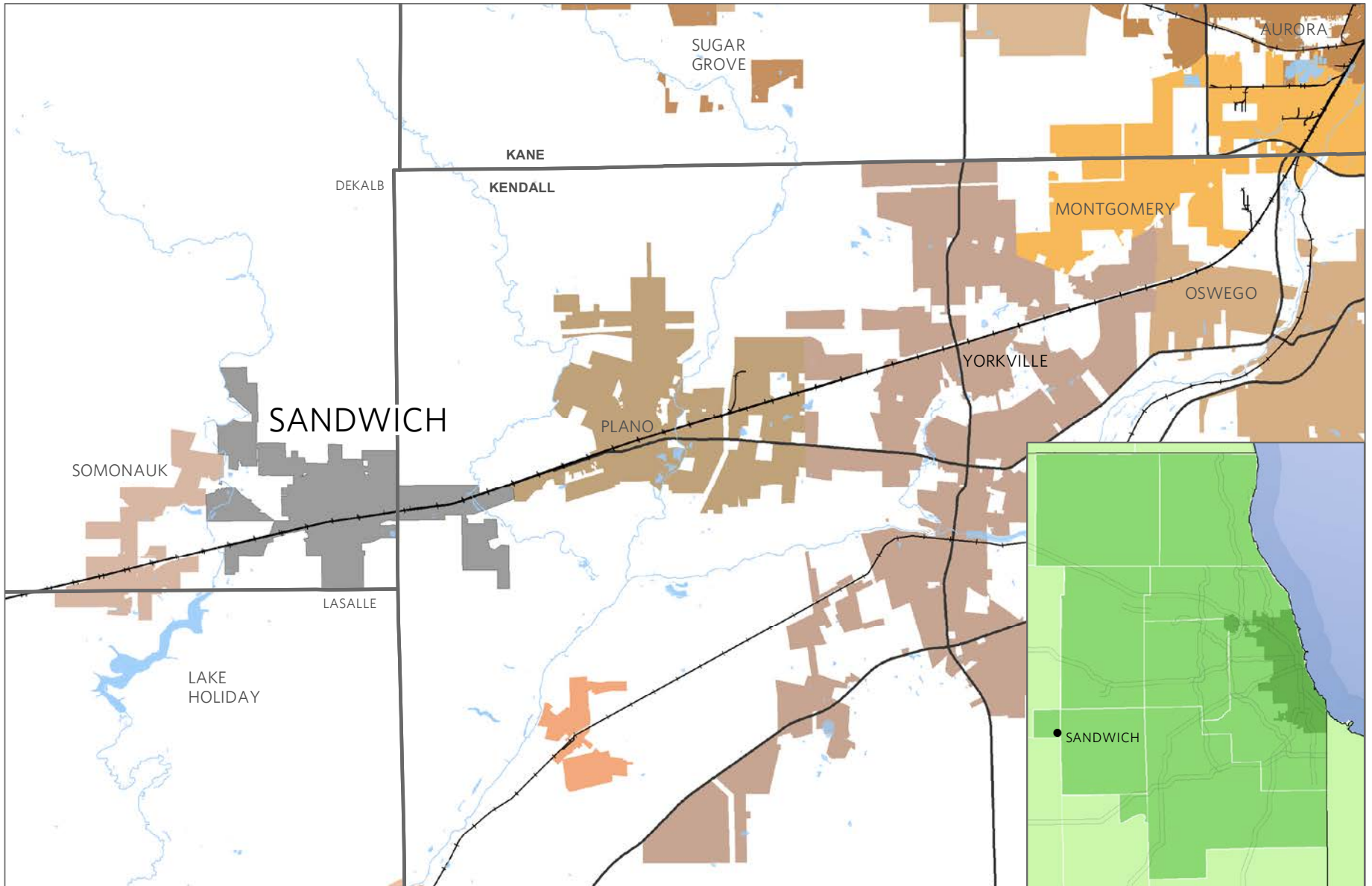
Sandwich is 60 miles southwest of downtown Chicago, and 22 miles southwest of Aurora. The city is bordered by Plano (population 11,929) to the east, Somonauk (population 2,106) to the west, and unincorporated Lake Holiday (population 4,761) to the southwest. As of 2016, the City of Sandwich has 7,491 residents.

The BNSF Railway owns and operates a double-track right-of-way that runs through the center of town, bisecting the northern and southern halves. Currently, no trains stop in Sandwich, though the railway is used by freight and Amtrak trains. The nearest Amtrak station is located in Plano, a ten-minute drive from downtown Sandwich. The nearest Metra station is in Aurora. Illinois Route 34 is the city's principal road for intercity travel, connecting Sandwich to Somonauk to the west, and Plano, Aurora, and the greater Chicago region to the east. I-88 is approximately 15 miles northeast of Sandwich, and I-80 is approximately 20 miles to the south.



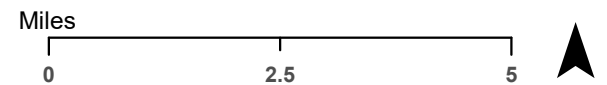
The First Church of Christ Scientist, Sandwich, Illinois

Figure 2. Regional context



Sandwich regional context

- City of Sandwich
- County border
- Water
- Railroad
- Interstate highway
- Major road

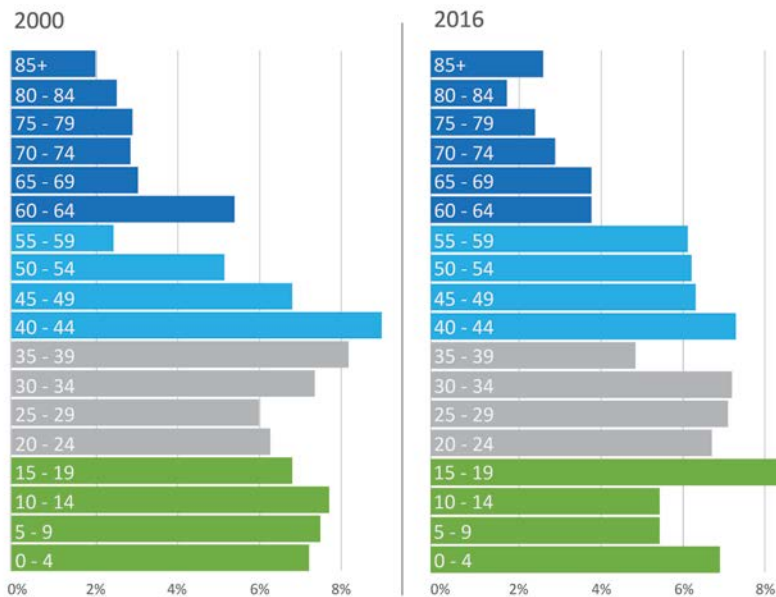


Demographics

Understanding the current and projected demographic composition of a community is critical for developing a wide range of planning documents. This is particularly true in small-towns, such as Sandwich, that may experience rapid change due to regional and national socioeconomic trends.

As of 2016, the City of Sandwich has a total population of 7,491, an increase of one percent since 2010, and 14.6 percent since 2000. The city's modest growth in recent years is consistent with historical trends, and is comparable to other rural communities in northeastern Illinois.

Figure 3. Population pyramids: Share of population, by age cohort 2000 and 2016



Source: 2016 American Community Survey five-year estimate and 2010 US Census.

Population pyramids are a useful tool for assessing the age distribution of a community. A population pyramid with a wide base is indicative of a young, typically growing population, while a narrow base and wide top typically means the population is aging.

The city's ethnic and racial composition is comparable to DeKalb County at large, but significantly less diverse than other communities in northeastern Illinois. Approximately 82 percent of Sandwich residents are non-Hispanic white, compared to 78 percent in DeKalb County and 52.2 percent in the greater Chicago region. The vast majority of the city's other residents are Hispanic and Latino, making up an additional 16.7 percent of the city's population, compared to 10.7 percent in DeKalb County and 22.4 percent in the Chicago region. The median age in Sandwich is 36, which is significantly higher than DeKalb County, but comparable to the rest of the Chicago region. The relatively young median age of the county is likely due to the influence of Northern Illinois University in the City of DeKalb.

Sandwich's population is aging. Since 2000, the share of residents over the age of 65 has increased 22 percent, from 13.6 percent to 16.5 percent. As residents age, their needs change substantially. Limited mobility, especially for residents who are unable to drive, can become a substantial challenge in auto-oriented communities. Mobility within the home can provide additional difficulties for elderly residents, as many homes in Sandwich were built before ADA design standards were incorporated into residential construction. During interviews with local residents, the need to plan for aging residents was mentioned several times. Many Sandwich residents have lived in the community for decades, and would like to be a part of the city's future. This may require adapting building, street, and neighborhood designs to meet their changing needs, while continuing to ensure that transportation and in-home assistance services remain available.

Table 1. General population characteristics, 2016

	Sandwich		DeKalb County		Chicago Region	
Total population	7,491*		104,458		8,501,507	
Total households	2,588		37,367		3,081,930	
Average household size	2.8		2.7		2.7	
Median age	36.0		30.5		36.7	

Source: 2016 American Community Survey five-year estimates.

*2016 numbers come from the American Community Survey, which provides an accurate overview of rates and percentages, but may over or underestimate raw totals.

Table 2. Race and ethnicity, 2016

	Sandwich		DeKalb County		Chicago Region	
	Count	Percent	Count	Percent	Count	Percent
White non-Hispanic	6,169	82.4	81,476	78.0	4,414,726	51.9
Hispanic or Latino*	1,253	16.7	11,166	10.7	1,914,044	22.5
Black non-Hispanic	6	0.1	6,988	6.7	1,436,860	16.9
Asian non-Hispanic	23	0.3	2,575	2.5	572,098	6.7
All others	40	0.5	2,253	2.2	163,779	1.9

Source: 2016 American Community Survey five-year estimates.

*Includes Hispanic or Latino residents of any race

Table 3. Age cohorts, 2016

	Sandwich		DeKalb County		Chicago Region	
	Count	Percent	Count	Percent	Count	Percent
19 and under	2,064	27.6	28,725	27.5	2,243,626	26.4
20 to 34	1,641	21.9	29,326	28.1	1,812,767	21.3
35 to 49	1,443	19.3	17,553	16.8	1,738,296	20.4
50 to 64	1,265	16.9	17,147	16.4	1,632,283	19.2
65 to 79	724	9.7	8,225	7.9	793,603	9.3
80 and older	354	4.7	3,482	3.3	280,932	3.3

Source: 2016 American Community Survey five-year estimates.

Land use

Livable communities depend on a mix of land uses that ensures homes, businesses, civic institutions, and open spaces are readily available to current and future residents. Understanding the city’s current land use profile, as well as how that profile may change during the years to come, is an important first step for creating a unified vision of how the community should develop in the future.

As shown in Table 4, agriculture is the city’s largest land use by acreage, largely due to the annexation of substantial tracts of land on the city’s east and northwest sides. Both of these areas are intended for development, though the proposals have stalled in recent years due to a slow recovery from the Great Recession.

Single-family housing—primarily in the form of detached homes—is Sandwich’s second largest land use (28.1 percent). As shown in Figure 4, this style of development is found throughout the city, with the largest clusters located to the north and south of downtown. Traditionally, homes in Sandwich have been built gradually, and have maintained the city’s original street grid. This trend has shifted in recent years, in favor of large-scale developments designed around independent, curvilinear street networks.

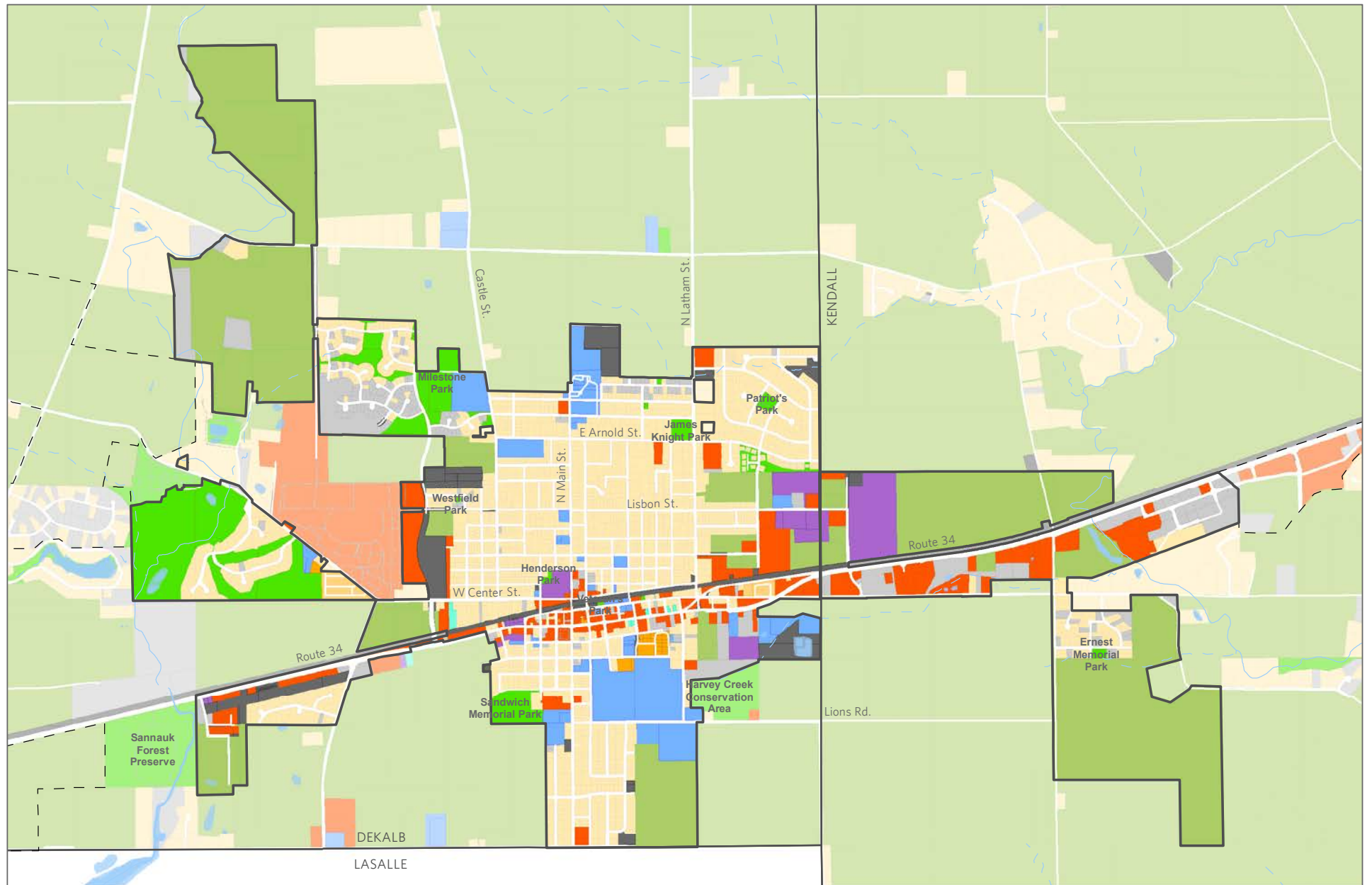
The central downtown area is occupied primarily by small-lot commercial properties, including several mixed-use (residential and commercial) parcels. The Route 34 corridor in eastern Sandwich is home to many of Sandwich’s large lot commercial and industrial businesses, though a significant portion of this area remains vacant. Citywide, vacant parcels account for 7.6 percent of Sandwich’s land area. Open space—including parks, conservation areas, cemeteries, and golf courses—and commercial properties each account for 7.4 percent of the city’s land area.

Table 4. Existing land uses in Sandwich, 2017

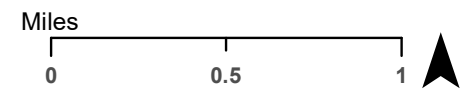
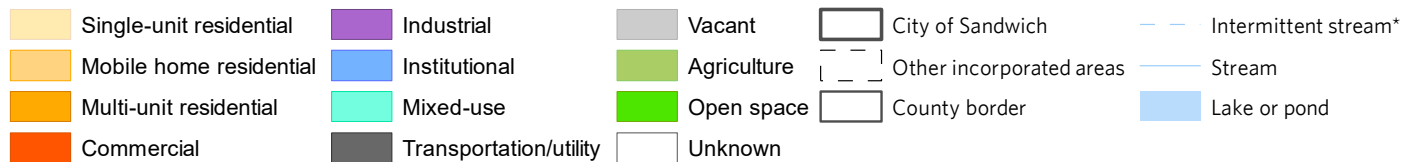
Land use	Acres	Percent
Agricultural	942	34.9
Single-unit residential	759	28.1
Vacant	204	7.6
Open space	200	7.4
Commercial	200	7.4
Institutional	161	6.0
Transportation/utility	121	4.5
Industrial	84	3.1
Mobile home residential	15	0.5
Multi-unit residential	11	0.4
Mixed-use	3	0.1
Total	2,700	

Source: CMAP parcel-based land use inventory

Figure 4. Existing land uses in Sandwich, 2017



Land use in Sandwich



*Intermittent streams are waterways that may disappear for all or part of the year.
 Source: Chicago Metropolitan Agency for Planning Land Use Inventory, 2017.

Housing

Maintaining a balanced housing supply is essential for ensuring the city remains a good place to live for people of all ages and economic backgrounds. Having a diverse mix of housing options is particularly important for retaining residents as housing preferences and demographics change.

In northeastern Illinois, and the City of Sandwich, the proportion of senior citizens is expected to increase substantially as Baby Boomers age. In many cases, these individuals have a strong preference to stay in their community, but may not be able to find the type of housing they require. At the same time, changing preferences among young residents and first-time homebuyers—including a desire for more walkable neighborhoods and car-optional lifestyles—are putting pressure on communities to rethink the way they approach development to ensure they remain an attractive area for current and future residents.

Almost 75 percent of residential units in the City of Sandwich are single-family, detached homes, compared to 50 percent across northeastern Illinois. Approximately 18 percent of residential units in the city are in multifamily buildings, compared to 42 percent across the region. Of the multifamily buildings in Sandwich, roughly half have 3-4 units. A plurality of homes in Sandwich have 3 bedrooms (46.6 percent).

Approximately two thirds of homes in Sandwich are owner-occupied, which is comparable to the Chicago region, and significantly more than DeKalb County (58 percent). The median home age in Sandwich is 45 years (built in 1972), which is comparable to both DeKalb County and the Chicago region.

Generally, Sandwich is an affordable place to live, though some residents do struggle to pay for their home. Citywide, 31 percent of homeowners and 34 percent of renters spend more than 30 percent of their income on housing, a standard benchmark for housing affordability. The relative affordability of housing in the community is somewhat offset by higher-than-average transportation costs, likely fueled by high rates of automobile dependency. As shown in Table 9, when housing and transportation costs are combined, many Sandwich residents are paying too much.

Table 5. Housing types in Sandwich, 2016

	Sandwich		DeKalb County		Chicago Region	
	Count	Percent	Count	Percent	Count	Percent
Single family, detached	1,899	73.3	23,877	59.8	1,692,480	50.5
Single family, attached	217	8.1	4,182	10.5	253,342	7.6
2 units	120	4.6	1,566	3.9	236,321	7.0
3 or 4 units	223	8.6	1,871	4.7	277,204	8.3
5 or more units	133	5.1	8,463	21.2	893,514	26.6

Universe: Total housing units excluding mobile homes, boats, RVs, vans, etc.
Source: 2016 American Community Survey five-year estimates.

Table 6. Housing tenure in Sandwich, 2016

	Percent owner	Percent renter
Sandwich	66.2%	33.8%
DeKalb County	57.5%	42.5%
Chicago region	63.6%	36.4%

Universe: Total housing units
Source: 2016 American Community Survey five-year estimates.

Table 7. Housing types in Sandwich, 2016

	Sandwich		DeKalb County		Chicago Region	
	Count	Percent	Count	Percent	Count	Percent
0 to 1 bedrooms	297	10.9	4,646	11.3	545,572	16.1
2 bedrooms	615	22.6	11,747	28.6	970,924	28.7
3 bedrooms	1,269	46.6	16,103	39.3	1,126,456	33.3
4 bedrooms	435	16.0	6,828	16.6	580,797	17.2
5+ bedrooms	108	4.0	1,693	4.1	155,215	4.6
Median number of rooms	5.7		5.4		6.0	

*Includes all rooms, Universe: Total housing units

Source: 2016 American Community Survey five-year estimates.

Table 8. Housing age in Sandwich, 2016

	Sandwich		DeKalb County		Chicago Region	
	Count	Percent	Count	Percent	Count	Percent
Built 2000 or later	460	16.9	8,390	20.5	422,506	12.5
Built 1970 to 1999	975	35.8	15,795	38.5	1,142,676	33.8
Built 1940 to 1969	658	24.2	9,800	23.9	1,049,835	31.1
Built before 1940	631	23.2	7,032	17.1	763,947	22.6
Median year built	1972		1977		1967	

Universe: Total housing units

Source: 2016 American Community Survey five-year estimates.

Table 9. Housing and transportation (H&T) costs in Sandwich, 2016

	Median-income family (\$61,367)	Low-income single-parent family (\$30,684)	Moderate-income retired couple (\$49,094)	Moderate-income family (\$49,094)
Housing costs	26.9	42.8	34.6	33.1
Transportation cost	23.4	33.7	14.4	38.5
H + T costs	50.3	76.5	49.0	55.8

*The purpose of the H+T Index is to isolate the effect of location on housing and transportation costs, grouped by common demographic characteristics that form four distinct household types. The values above represent the percent of household income that an average household within each of these types in the region would spend on housing and transportation if they lived in this county. The standard threshold of affordability is equal to 30 percent for housing costs and 45 percent for housing and transportation costs combined. For more information, visit <https://www.hudexchange.info/programs/location-affordabilityindex/>.

Source: Location Affordability Index, U.S. Dept. of Transportation and U.S. Dept. of Housing and Urban Development



Single family housing in north-central Sandwich

Economic development

The Sandwich economy is influenced by a broad range of local, regional, and national factors, including employment trends, development and investment patterns, and geography. Understanding the current status of these factors, as well as the community’s position within the larger regional context, is an important step for developing a comprehensive, actionable plan for economic development.

Employment, income, and educational attainment

To ensure economic prosperity and maintain a high quality of life, Sandwich and the surrounding area need to maintain a diverse range of business types, a skilled workforce, and modern infrastructure. Industrial, commercial, retail, and residential markets are influenced by trends both within the community, and in the larger subregional and regional markets for each sector. Understanding this larger context will help Sandwich develop plans that reflect current and future market realities.

As of 2016, 95 percent of Sandwich residents in the labor force were employed. This is comparable to employment levels in both DeKalb County and the Chicago region. The city’s median income is \$56,076, which is comparable to the median income for DeKalb County (\$54,101) and that of the Chicago region (\$65,174).

Sandwich has a comparable percentage of residents with a high school diploma to the rest of the region, but lags behind both DeKalb County and the Chicago region for attainment of bachelor degrees. Notably, Sandwich is home to the Indian Valley Vocational Center, which provides training in high-demand career fields for high school juniors and seniors at no cost to students. The school enrolls roughly 1,500 students, who come from Sandwich and neighboring communities, and provides a valuable alternative to traditional public education.

Table 10. Employment status of Sandwich residents, 2016

	Sandwich		DeKalb County		Chicago Region	
	Count	Percent	Count	Percent	Count	Percent
In labor force	4,255	72.2	57,748	68.8	4,530,920	67.5
Employed*	4,047	95.1	52,327	90.6	4,137,033	91.3
Unemployed	208	4.9	5,405	9.4	381,643	8.4
Not in labor force	1,640	27.8	26,154	31.2	2,181,954	32.5

Source: 2016 American Community Survey, five-year estimates.
*Does not include employed population in Armed Forces.

Table 11. Median household income in Sandwich, 2016

	Income
Sandwich	\$58,636
DeKalb County	\$56,076
Chicago Region	\$65,174

Source: 2016 American Community Survey five-year estimates.

Table 12. Educational attainment in Sandwich, 2016

	Sandwich	DeKalb County	Chicago Region
Percent high school diploma or higher*	89.2%	92.6%	87.4%
Percent bachelor's degree or higher*	14.8%	30.8%	37.6%

Source: 2016 American Community Survey, five-year estimates.
* Share of population 25 and older.

Employment profile

As of 2015, 3,267 people were employed in the City of Sandwich (Table 13); these jobs are primarily concentrated in the downtown area and eastern Sandwich along Route 34. Health care and social assistance and manufacturing are the city’s most important industries by employment, each accounting for roughly 13 percent of all Sandwich jobs. Retail (12.2 percent), educational services (10.7 percent), and accommodation and food services (8.3 percent) are the city’s next largest industries by employment. Between 2005 and 2015, the City of Sandwich gained 92 jobs, an increase of 2.9 percent (Table 13). During this period, health care and social assistance added the most jobs in absolute terms (89), while manufacturing saw the largest decrease (-104 jobs) (Table 15).

Table 13. Total jobs in Sandwich, 2005 and 2015

	2005	2015	Percent change
Total jobs	3,175	3,267	2.9

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

Table 14. Jobs by earning, 2005 and 2015

	2005		2015		Change	
	Count	Share	Count	Share	Total	Percent
\$1,250 per month or less	1,024	32.3%	855	26.2%	-169	-16.5%
\$1,251 to \$3,333 per month	1,231	38.8%	1,167	35.7%	-64	-5.2%
More than \$3,333 per month	920	29.0%	1,245	38.1%	325	35.3%

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

Table 15. Jobs by NAICS industry sector, 2005 and 2015

	2005		2015		Percent change	
	Count	Share	Count	Share	Count	Percent
Health care and social assistance	349	11.0%	438	13.4%	89	25.5%
Manufacturing	528	16.6%	424	13.0%	-104	-19.7%
Retail trade	400	12.6%	400	12.2%	0	0.0%
Educational Services	327	10.3%	349	10.7%	22	6.7%
Accommodation and food services	211	6.6%	271	8.3%	60	28.4%
Wholesale trade	150	4.7%	175	5.4%	25	16.7%
Transportation and warehousing	151	4.8%	166	5.1%	15	9.9%
Construction	254	8.0%	165	5.1%	-89	-35.0%
Administration & support, waste management and remediation	194	6.1%	165	5.1%	-29	-14.9%
Professional, scientific, and technical services	112	3.5%	145	4.4%	33	29.5%
Public administration	113	3.6%	135	4.1%	22	19.5%
Other services	80	2.5%	134	4.1%	54	67.5%
Finance and insurance	103	3.2%	98	3.0%	-5	-4.9%
Arts, entertainment, and recreation	68	2.1%	55	1.7%	-13	-19.1%
Information	55	1.7%	39	1.2%	-16	-29.1%
Real estate and rental and leasing	23	0.7%	34	1.0%	11	47.8%
Utilities	21	0.7%	24	0.7%	3	14.3%
Management of companies and enterprises	14	v	24	0.7%	10	71.4%
Agriculture, forestry, fishing and hunting	16	0.5%	v	0.7%	7	43.8%
Mining, quarrying, and oil and gas extraction	6	0.2%	3	0.1%	-3	-50.0%

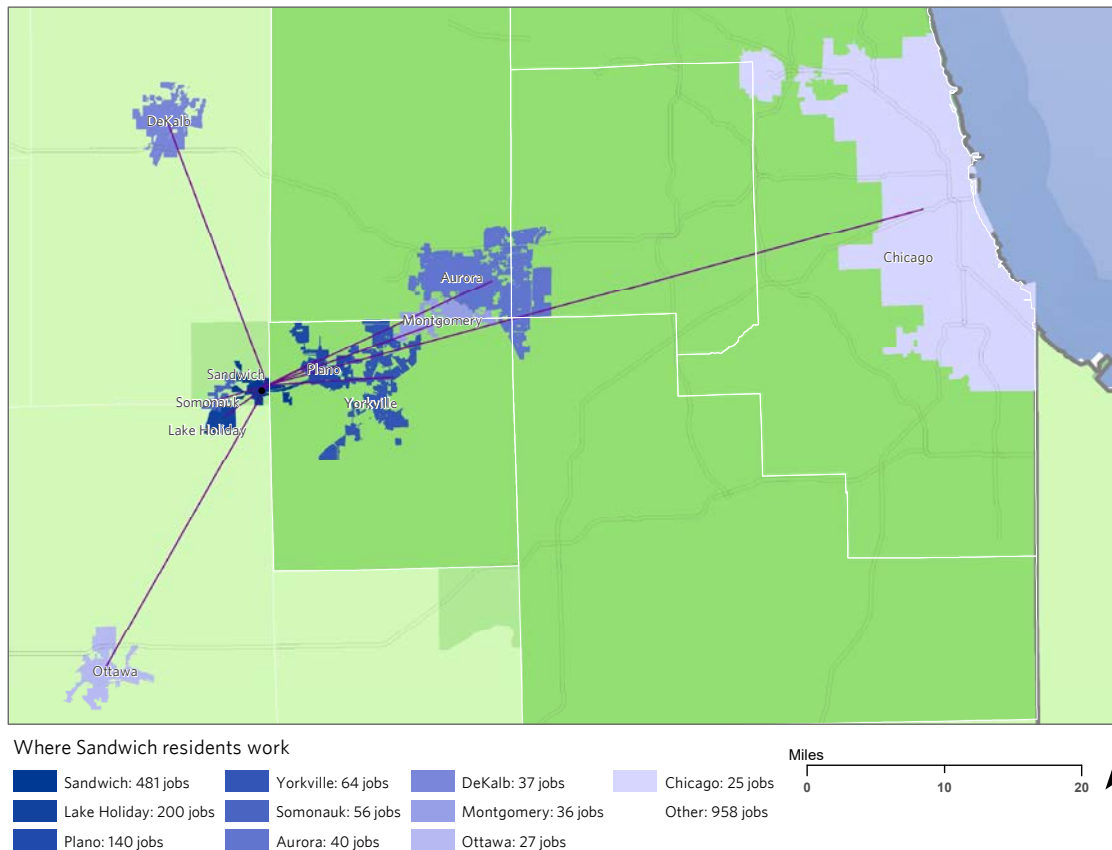
Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics

Access to employment

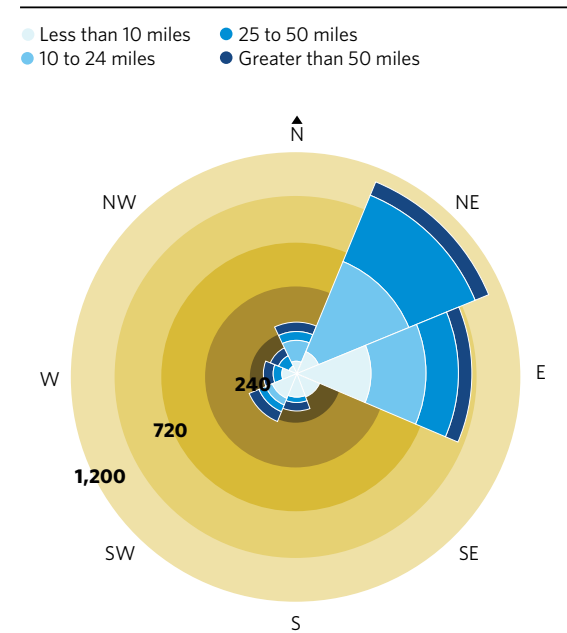
Most Sandwich residents are employed outside of the city. Of the 3,267 workers living in the City of Sandwich, just 481 also work in the city. This high outflow rate (85.3 percent) highlights the importance of maintaining a reliable transportation system both within the city itself and between neighboring communities, and may hint at demand for additional employment options within Sandwich. Most workers employed in the City

of Sandwich live within the Fox River corridor (Figure 5), with the largest concentrations living in the communities immediately bordering Sandwich (Lake Holiday, Somonauk, and Plano). More than half of all employed Sandwich residents travel fewer than 10 miles to work (57.8 percent). Approximately 7.5 percent of Sandwich residents commute more than 50 miles.

Figure 5. Where Sandwich workers live



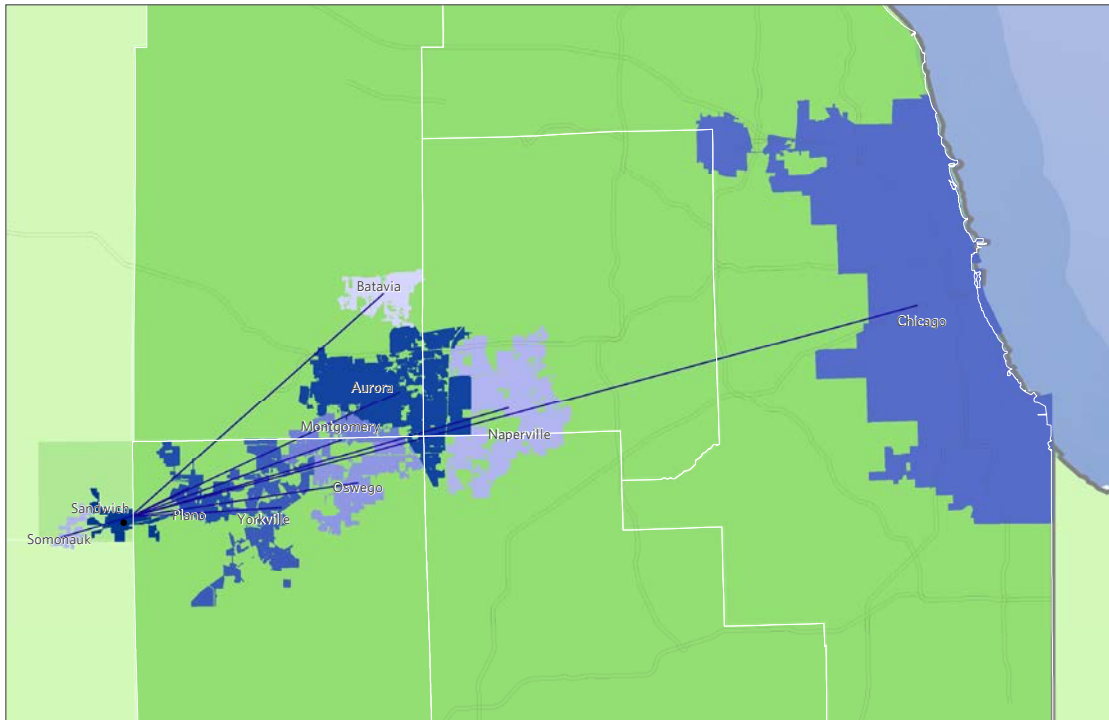
Source: Longitudinal Employer-Household Dynamics, U.S. Census Bureau, 2015.



	Count	Share
Total Primary Jobs	3,267	100.0%
Less than 10 miles	1,081	33.1%
10 to 24 miles	1,035	31.7%
25 to 50 miles	762	23.3%
Greater than 50 miles	389	11.9%

Source: 2015 American Community Survey, U.S. Census Bureau.

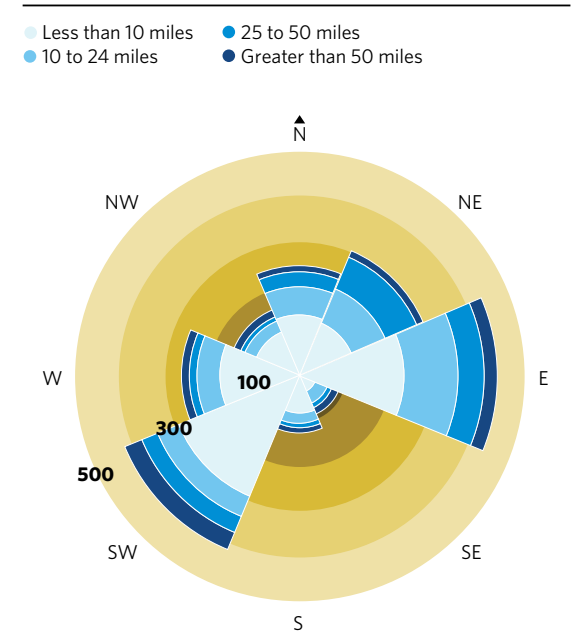
Figure 6. Where Sandwich Residents work



Where Sandwich workers live

Sandwich: 481 jobs	Yorkville: 143 jobs	Oswego: 64 jobs
Aurora: 312 jobs	Chicago: 99 jobs	Naperville: 61 jobs
Plano: 159 jobs	Montgomery: 95 jobs	Batavia: 59 jobs
Other: 1,733 jobs		

Source: Longitudinal Employer-Household Dynamics, U.S. Census Bureau, 2015.



	Count	Share
Total Primary Jobs	2,064	100.0%
Less than 10 miles	1,150	57.8%
10 to 24 miles	461	22.3%
25 to 50 miles	255	12.4%
Greater than 50 miles	155	7.5%

Source: 2015 American Community Survey, U.S. Census Bureau.

Industrial, office, and retail vacancy rates

Recent data indicate that Sandwich has relatively low retail vacancy rates compared to the Sandwich submarket. In the third quarter of 2018, Sandwich's retail vacancy rate was 6.0 percent, compared to 8.1 percent in the submarket and 6.0 percent in the greater Chicago region. During the same period, Sandwich also had a relatively low vacancy rate for office space (6.9 percent) and a relatively high vacancy rate for industrial properties (8.4 percent).

It is important to note, however, that due to Sandwich's small size, the city regularly sees significant fluctuation in quarter-to-quarter vacancy rates, especially in the retail sector. This is significant because it highlights the importance of looking holistically at the city's economic profile. Figure 7 shows quarterly retail vacancy rates for Sandwich, the Sandwich submarket, and the Chicago region from 2013-2018.

Figure 7. Fluctuation in retail vacancy rates for Sandwich, Sandwich submarket, and the Chicago region, 2013-2018



Source: CMAP analysis of CoStar data.

Table 16. Retail vacancy, Q2 2018

	Number of buildings	Total square footage	Vacant square footage	Percent vacant
Sandwich	77	396,721	23,900	6.0
Sandwich submarket	3,416	54,575,309	4,417,487	8.1
Chicago region	39,060	489,791,917	29,531,293	6.0

Source: CMAP analysis of CoStar data.

Table 17. Office vacancy, Q2 2018

	Number of buildings	Total square footage	Vacant square footage	Percent vacant
Sandwich	20	159,887	11,107	6.9
Sandwich submarket	1,840	40,826,115	4,957,167	12
Chicago region	12,729	467,598,082	57,783,754	12.4

Source: CMAP analysis of CoStar data.

Table 18. Industrial vacancy, Q2 2018

	Number of buildings	Total square footage	Vacant square footage	Percent vacant
Sandwich	21	641,000	54,100	8.4
Sandwich submarket	1,278	72,015,990	3,163,733	4.4
Chicago region	21,805	1,125,312,369	69,824,644	6.2

Source: CMAP analysis of CoStar data.

Development on the Route 34 corridor

Prior to the 2007 recession, several large developments were planned for the Route 34 corridor in eastern Sandwich, including a 69,000 square foot indoor waterpark. Construction on the waterpark halted shortly after the recession began, and several partially built structures were eventually demolished. Today, the parcel sits vacant, and has accumulated \$480,000 in tax liens, which makes future development on the site unlikely. Due to the parcel's key location—directly adjacent to the hotel, convention center, and numerous vacant commercial lots—resolving the tax lien is a priority for City and County officials. Talks to address the problem are underway, though an agreement has not been reached.

Critical facilities

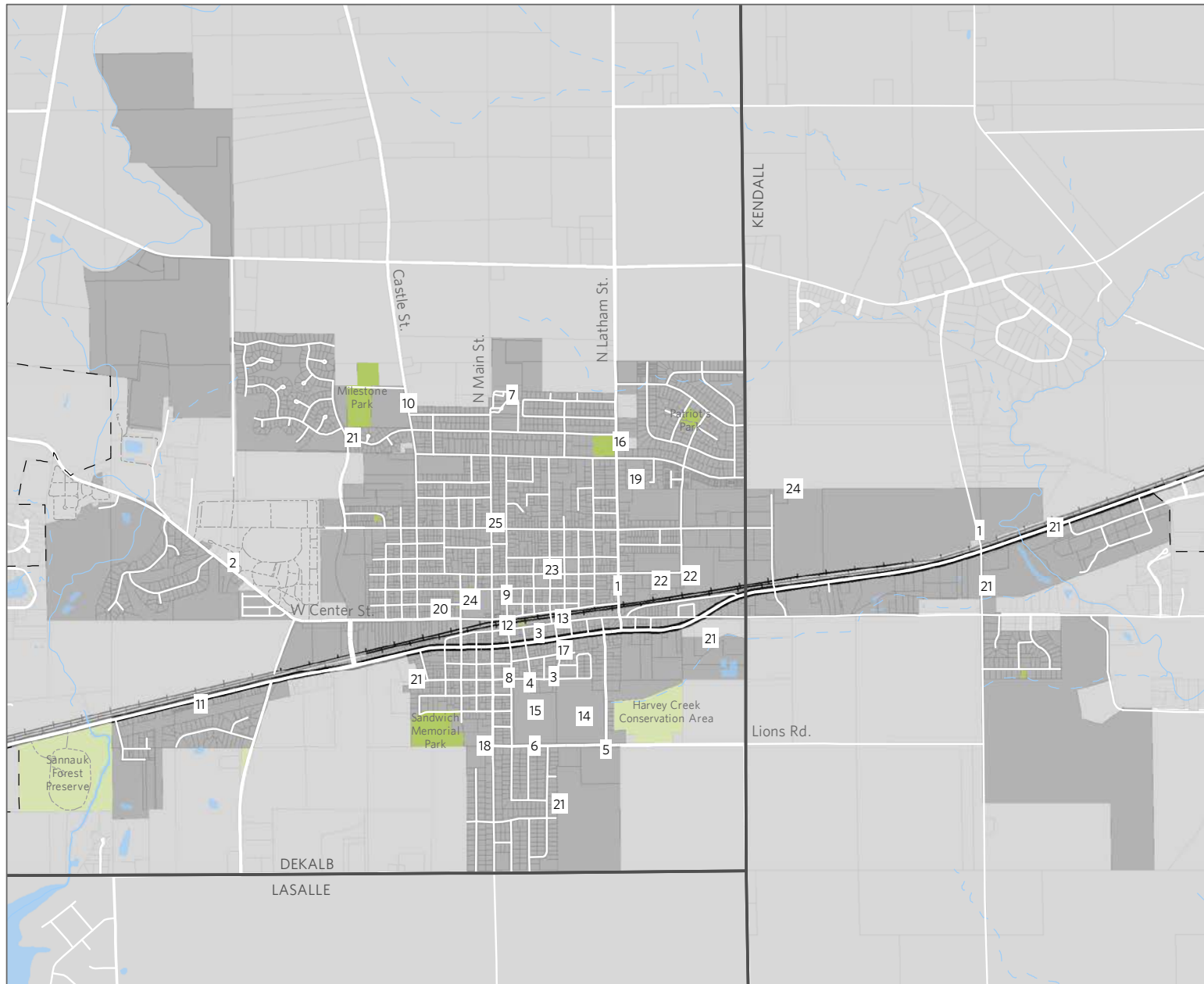
Critical facilities are generally defined as physical assets that provide services or functions essential to the community, especially during a natural hazard or other disruptive event. Government offices, police and fire stations, hospitals, community centers, nursing homes, and physical infrastructure are all examples of critical facilities.

In Sandwich, these facilities are spread throughout the community, which increases the resilience of the overall emergency response and recovery systems. All of these facilities are located outside of the one percent chance floodplain—areas with at least a one percent chance of experiencing a flood during a given year—and most are located within a walkable distance from the downtown area. Figure 8 shows the location of these facilities.



Vacant parcels along the Route 34 corridor in eastern Sandwich
Source: NAIP, 2017

Figure 8. Critical facilities

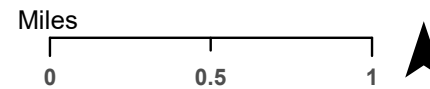


Critical facilities

- 1 Electricity substation
- 2 Fox Valley Older Adults
- 3 Groundwater well and treatment plant
- 4 Herman E. Dummer Elementary School
- 5 Indian Valley Vocational Center
- 6 Lynn G. Haskin Elementary School
- 7 Northwestern Medicine Valley West Hospital
- 8 Open Door Rehabilitation Center
- 9 Post office
- 10 Prairieview Elementary School
- 11 Private airport
- 12 Sandwich City Hall
- 13 Sandwich Community Fire Protection District
- 14 Sandwich High School
- 15 Sandwich Middle School
- 16 Sandwich Park District
- 17 Sandwich Police Department
- 18 Sandwich Public Library
- 19 Sandwich Rehabilitation & Health Care Center
- 20 Sandwich Township
- 21 Sanitary pumping station
- 22 Transmission tower
- 23 W. W. Woodbury Elementary School
- 24 Water tower
- 25 Willow Crest Nursing Pavilion

City of Sandwich

- | | | |
|--------------------------|-----------------|---------------------|
| City of Sandwich | Major road | Intermittent stream |
| Other incorporated areas | Railroad | Stream |
| County border | Pedestrian path | Lake or pond |
| | | Open space |



Tourism

The City of Sandwich is regionally famous for the Sandwich Fair, which brings 175,000 visitors to the city and surrounding area each year. The Fair itself runs for five days in September, though events are held at the fairground throughout the spring, summer, and fall.

In addition to the Fair, residents from across the region come to Sandwich to shop for antiques, watch a play, or attend a festival such as Taste of Sandwich, Bologna Day, or Freedom Days. Sandwich is also home to a 40,200 square foot convention center, which is located on the campus of Timber Creek Inn & Suites, a 100-room luxury hotel in eastern Sandwich.

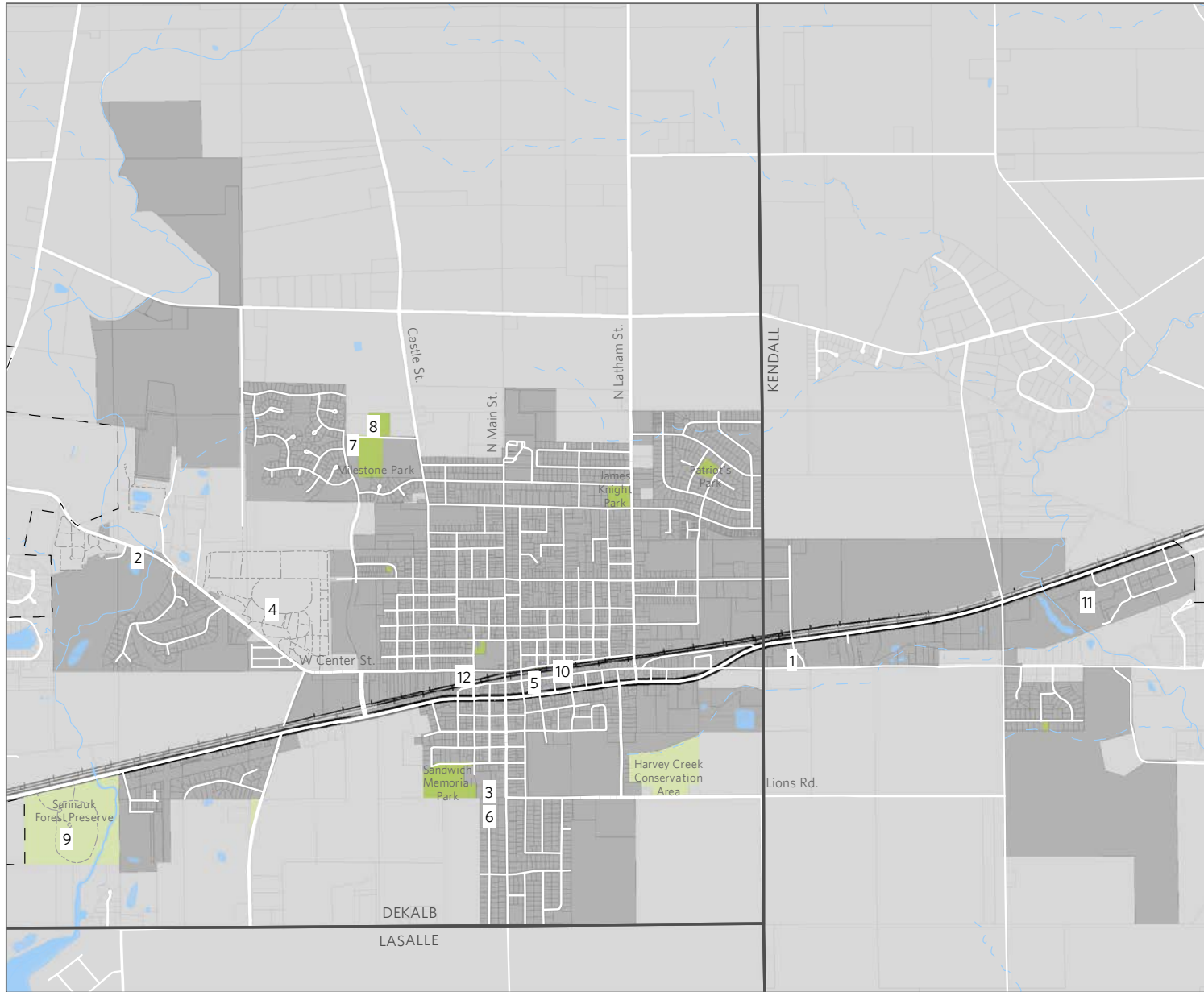
The primary revenue source for tourism promotion activities in Sandwich is a three percent hotel bed tax. Revenues from this tax are split 90%-10% between the DeKalb County Convention and Visitors Bureau and the City of Sandwich. In recent years, the City has partnered with residents and business owners to develop a strategy for using these funds. Specifically, the working group has developed a calendar of events, a map promoting local businesses and destinations, and is working to identify priority projects for streetscape beautification and landscaping in the downtown area.

Figure 9 shows the location of landmarks and attractions in Sandwich and the surrounding area.



Sandwich Fair wind gage near the Sandwich Fairgrounds

Figure 9. Landmarks and attractions



Landmarks and attractions

- 1 Cinema 7
- 2 Edgebrook Country Club
- 3 Fox Valley Family YMCA
- 4 Sandwich Fairgrounds
- 5 Sandwich Opera House
- 6 Sandwich Public Library
- 7 Sandwich Splash Pad
- 8 Sandwich Skatepark
- 9 Sannauk Forest Preserve
- 10 Stone Mill Museum
- 11 Timber Creek Inn & Suites
- 12 Von KleinSmid Mansion

City of Sandwich

- | | | |
|--------------------------|-----------------|---------------------|
| City of Sandwich | Major road | Intermittent stream |
| Other incorporated areas | Railroad | Stream |
| County border | Pedestrian path | Lake or pond |
| | | Open space |

Miles

0 0.5 1



Transportation

A modern, high-performing transportation system is critical for sustaining a vibrant economy and a high quality of life. Because Sandwich is part of a larger regional economy, it is important that the city's transportation system provides internal accessibility within the city itself and external accessibility to surrounding communities, allowing local and regional residents to easily access destinations throughout the region.

Transportation has played a key role in the development of Sandwich from the very beginning. The city was initially founded as a railroad depot, and quickly developed into a local hub for business and industry. The BNSF Railway continues to be a defining feature of downtown Sandwich, though the nearest Amtrak train station is located in the neighboring community of Plano. Today, freight and Amtrak passenger trains continue to pass through town, often at high speeds. A total of eight grade crossings are located in Sandwich, and passing trains are required to sound their horn at each crossing. During stakeholder interviews, numerous residents expressed displeasure with the noise caused by the horns. Generally, Sandwich residents believe the crossings are well marked and safe, though concerns may persist in some areas. In October of 2018, a pedestrian was struck by a passing train at Eddy Street crossing. This may indicate a need for improvements at the crossing.

Today, most Sandwich residents predominantly travel by car or truck. As of 2016, roughly 96 percent of Sandwich residents commuted to work via a shared or private automobile (Table 19). U.S. Route 34, also known as the Walter Payton Memorial Highway and/or Church Street, is the city's primary regional thoroughfare and runs east-west through town, connecting Sandwich to Somonauk and Lake Holiday to the west, and Plano, Yorkville, Oswego, and the greater Aurora area to the east. According to the Illinois Department of Transportation, Route 34 averages 10,700 automobiles per day through Sandwich, and 12,500 cars per day east of town. Other important vehicular thoroughfares include Railroad Street, which runs east-west, and Main Street and Wells/Eddy Street, which run north-south. North Main Street averages 4,900 cars per day through downtown (Figure 10). Due in part to these transportation corridors, the City of Sandwich is more closely connected to communities in neighboring Kendall County than to other parts of DeKalb County.

U.S. Route 34 (Church Street) and Duvick Avenue north of Route 34 are the only designated truck routes in Sandwich. Despite the potential for heavy truck traffic on Route 34, the concentration of industrial properties east of town means that few trucks enter the downtown area or surrounding residential neighborhoods, and truck traffic is generally not seen as a major issue in the community.

Sandwich currently has no bike lanes or dedicated off-road bicycle facilities, but does have an extensive sidewalk system. During stakeholder interviews, some residents expressed concern for the condition of sidewalks in town, but generally considered the area to be walkable, with the exception of the Route 34 corridor in eastern Sandwich. Despite the city’s perceived walkability, just 1.2 percent of Sandwich residents walk or bike to work (Table 19). There is currently no bicycle or pedestrian connection to the Plano Amtrak station, and there is no public transit service in the city—though Fox Valley Older Adult Services does offer dial-a-ride services for senior citizens.

Notably, most streets within Sandwich follow a standard, grid orientation, with the exception of recent housing developments on the city’s periphery. These developments tend to feature curvilinear streets with numerous cul-de-sacs, which reduces walkability and increases the area’s reliance on automobiles.

Table 19. Mode of travel to work, 2016

	Sandwich		DeKalb County		Chicago Region	
	Count	Percent	Count	Percent	Total	Percent
Work at home*	35	N/A	1,800	N/A	194,259	N/A
Drive alone	3,306	84.0	39,852	82.0	2,813,343	72.6
Carpool	468	11.9	4,921	10.1	327,567	8.5
Transit	17	0.4	979	2.0	524,527	13.5
Walk or bike	49	1.2	2,467	5.1	163,011	4.2
Other**	94	2.4	397	0.8	45,348	1.2
Total commuters	3,934	100	48,616	100	3,873,796	100

*Not included in “Total commuters”

**Includes motorcycles, taxis, and all other unspecified modes of transportation

Source: U.S. Census Bureau, OnTheMap Application and LEHD Origin-Destination Employment Statistics



Route 34 in eastern Sandwich

Natural resources

The greater Sandwich area is located within the Illinois/Indiana Prairie ecoregion, which is characterized by a mix of tallgrass prairie, oak-hickory forests, and oak savannas. Today, much of the area surrounding Sandwich has been developed for urban or agricultural use, though several natural areas remain, including two significant forests located along Little Rock Creek to the east, and Somonauk Creek to the west. A smaller, third creek—Harvey Creek—is located on the southeast side of town, though it has been channelized for much of its length, and little riparian habitat remains. Both Somonauk and Little Rock Creek are home to substantial oak communities, which were once widespread in northeastern Illinois, but are now rare.

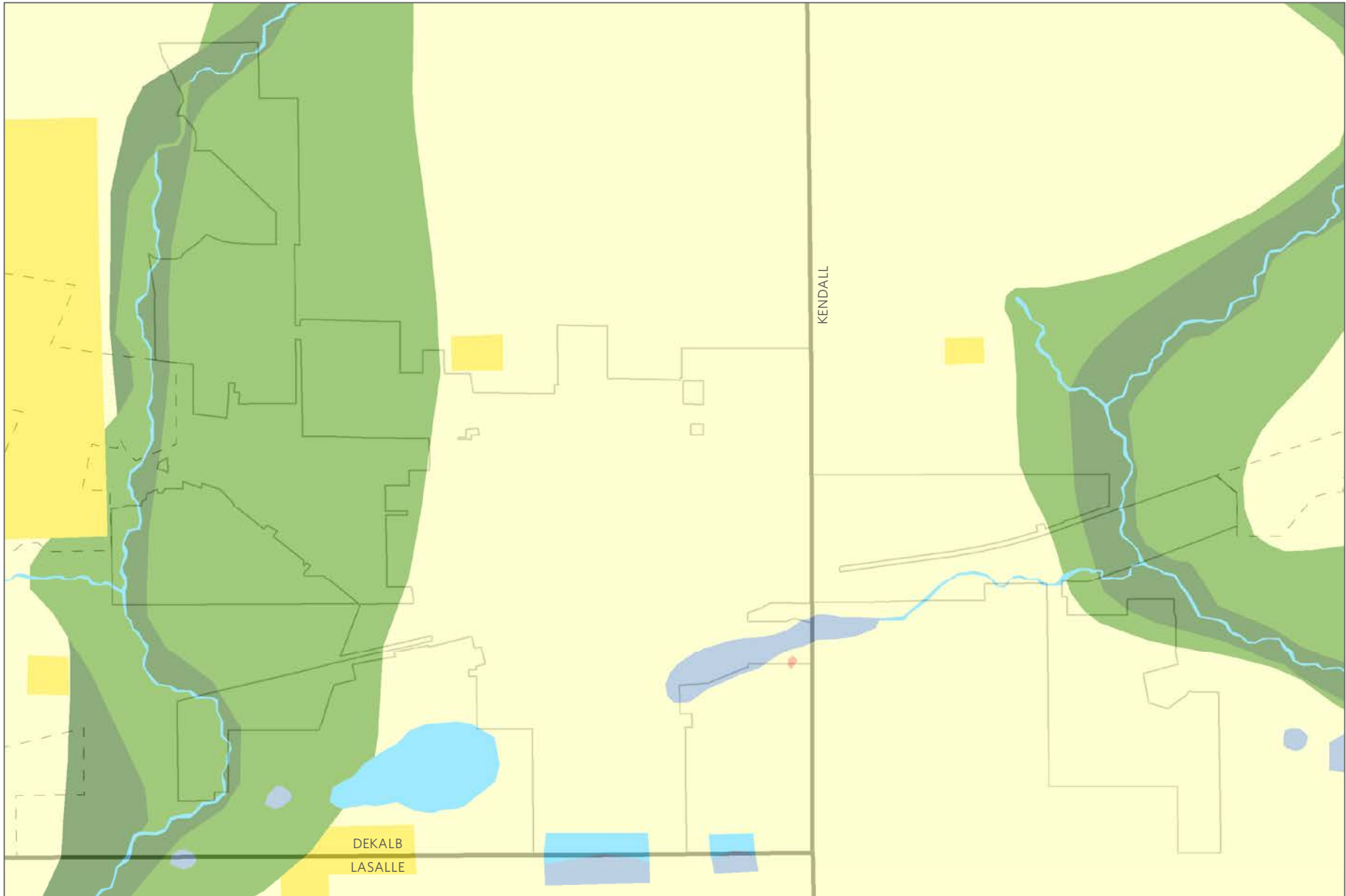
Within the city itself, green infrastructure—in the form of trees, open space, and rain gardens—plays a crucial role in addressing a range of environmental challenges, including stormwater management, heat island mitigation, and air quality maintenance, among others. Understanding how natural systems function, both within the City of Sandwich and in the surrounding area, as well as the larger context of natural resources and natural hazards in northeastern Illinois, is vital for promoting resilience and sustainability.

Predevelopment land cover

The first comprehensive land survey of the Sandwich area was conducted during the 1840s as part of the Public Lands Survey (PLS). When the survey was conducted, the Sandwich area was characterized by a mix of prairie, savanna, woodlands, and wetlands. Downtown Sandwich was primarily open prairie and savanna, though substantial wooded areas were present on the eastern shores of both Somonauk and Little Rock Creeks, due to the protection these waterways provided from the wildfires that make grassland ecosystems possible. The survey also recorded the location of Davis Lake southwest of downtown between Route 34 and 48th/County Line Road (now drained), as well as two smaller ponds near the border with LaSalle County.

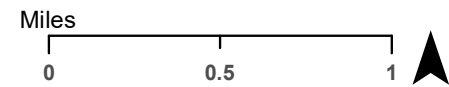
Notably, all three Sandwich area creeks were substantially smaller when the survey was conducted. This change is likely the result of reduced on-site stormwater infiltration due to agricultural and urban development during the last 150 years. When rain falls on a prairie or forest, the water is quickly absorbed into the soil, but when rain falls on a roadway or rooftop, it cannot be absorbed, and instead flows off the site, traveling downhill until it reaches a waterway. Similarly, water that falls on agricultural land is typically directed into nearby streams via underground tiles before it can infiltrate into the soil. Due in part to this process, much of what is today Harvey Creek was originally identified as swampland, rather than a true creek.

Figure 11. Predevelopment land cover



1840s land cover in Sandwich

- | | | |
|------------|------------------------|--------------------------|
| Prairie | Topographic/barren | City of Sandwich |
| Forest | Settlement/agriculture | Other incorporated areas |
| Bottomland | Water | County border |
| Swamp | | |



Wetlands

Wetlands provide valuable habitat for native plants and animals, which is particularly important in areas that have been heavily affected by urban and agricultural development. These areas are also important for stormwater management. During periods of heavy rain, wetlands provide temporary stormwater storage, which reduces the amount of water entering streams, lakes and rivers.

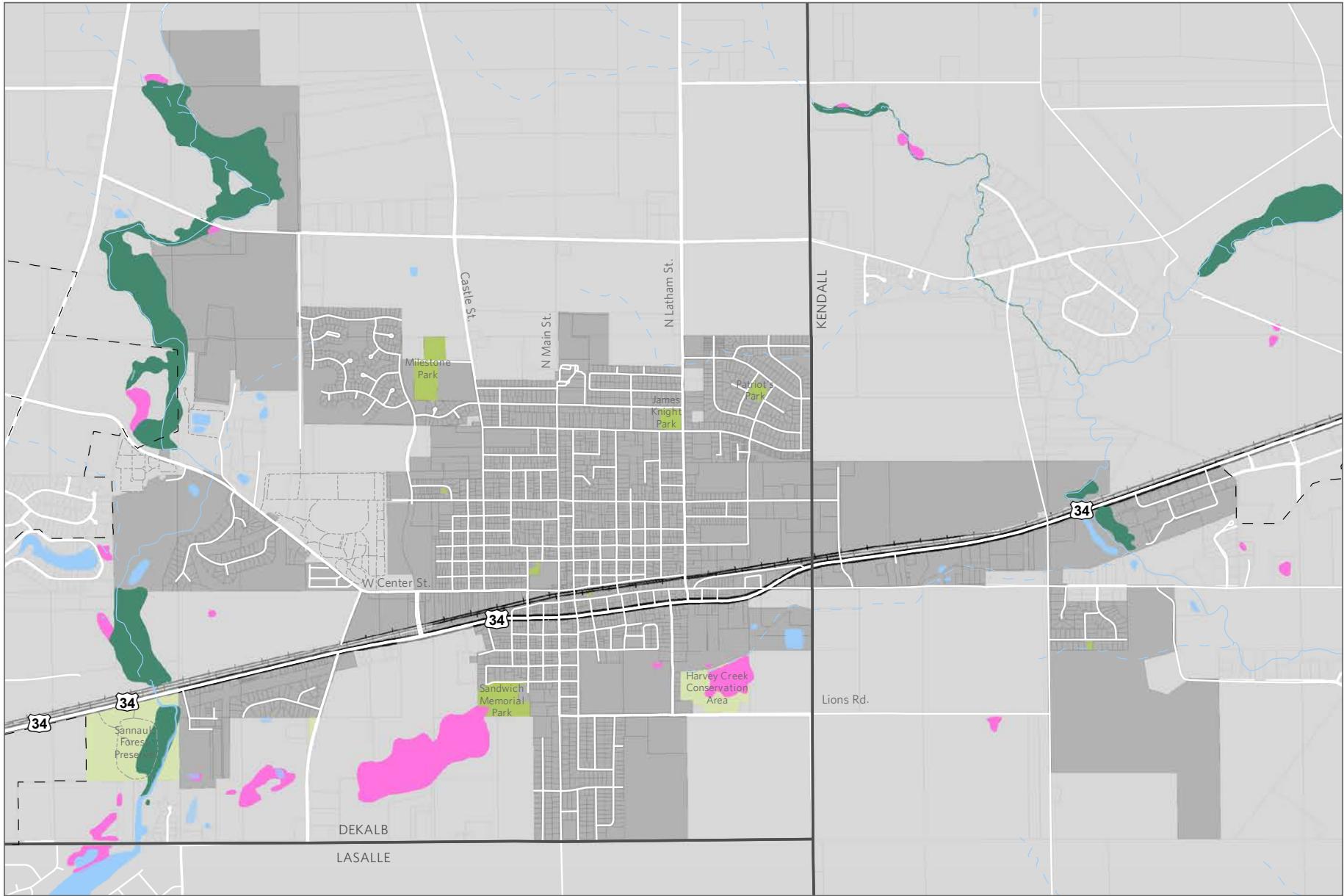
In the Sandwich area, most wetlands are concentrated along current and former waterways. A significant wetland corridor exists along Somonauk Creek, and an additional farmed wetland exists on the Davis Lake site, just southwest of town. Figure 12 shows the locations of these wetlands. This map was generated using satellite imagery and hydrologic data, and may include small wetlands sites that no longer function as active wetlands.

Wetlands should be a top priority for conservation and stewardship efforts. These areas have a tremendous capacity for stormwater retention, and should be included in site plans for major developments. Where wetlands have already been developed (for urban or agricultural use), landowners and property managers should be encouraged to implement best practices for water quality, such as native landscaping, invasive species removal, and reduced fertilizer use. Potential strategies for these areas can be found in CMAP's 2011 [Blackberry Creek Watershed Action Plan](#).













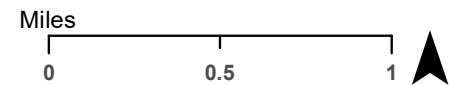
Little Rock Creek in eastern Sandwich

Figure 12. Wetlands



Wetlands in Sandwich

- | | | |
|---|--|--|
|  Water |  City of Sandwich |  Major road |
|  Emergent wetland |  Other incorporated areas |  Railroad |
|  Forested/shrub wetland |  County border |  Pedestrian path |
| | |  Open space |



Source: The National Wetlands Inventory, 2019.

Agriculture

Agriculture has been an important part of Sandwich's economy and culture throughout its 150-year history. Similar to much of Illinois, the vast majority of farms in Sandwich and the surrounding area are used for large-scale corn and soybean production. Two notable exceptions to this trend are Montalbano Farms, which specializes in organic produce, and Hinsdale Nursey, which produces a range of trees and shrubs for landscaping. Both of these establishments are located northeast of town.

Agriculture in the Sandwich area is particularly important because of the extremely high quality of the region's soils. Approximately 70 percent of Sandwich's 1.5 mile extended planning area (including developed portions of the city itself) is classified as prime agricultural soils, and an additional 5 percent is classified as having soils of statewide importance—a ranking just below prime. Some of these soils have already been lost to development, and preserving as much of the remaining soils as possible is an issue of regional and national importance.

Green infrastructure

Green infrastructure is often defined differently depending on scale. At the regional level, green infrastructure refers to the network of parks, natural areas, and open space that provide wildlife habitat, manage stormwater, and filter toxins from water and air. At the local level, green infrastructure most frequently refers to site-specific interventions such as rain gardens, bioswales, and trees. These all use natural processes to address urban challenges such as flooding, the heat island effect, noise pollution, and air quality.

These benefits, known as ecosystem services, have few costs aside from occasional maintenance and stewardship, and in many cases would be cost prohibitive to replace. A high-quality wetland, for example, may provide valuable flood protection to a nearby community. Were the wetland to be developed, the flood protection it provided would need to be replaced by artificial means such as detention ponds, storm sewers, and/or levies. It is often cheaper to preserve these areas than to replace the services they provide.

At the local level, Sandwich's greatest green infrastructure asset is its urban forest. Most of the city's older neighborhoods have a healthy canopy comprised of native hardwoods and naturalized conifers. The downtown area, as well as several newly developed subdivisions on the city's periphery, generally lack street trees. Large, mature trees help to keep the city cool during summer months, reduce air and noise pollution throughout the year, and help to maintain property values.

The Sandwich area also features two important nature preserves: the Harvey Creek Conservation Area and the Sannauk Forest Preserve. The Harvey Creek Conservation Area is located in southeastern Sandwich and is maintained by the Sandwich Park District. This property is critical for supporting water quality in both Harvey Creek and the greater Fox River-Big Rock Creek Watershed. The area also contains a variety of wetland and prairie plants that help to absorb stormwater and reduce flooding. The Sannauk Forest Preserve, located just west of Sandwich, is maintained by DeKalb County and provides habitat for a range of aquatic and terrestrial plants and animals living in the Somonauk Creek corridor.

Threatened and endangered species

Two species included on the Illinois Endangered and Threatened Species list—the Kirtland’s snake and the Slippershell mussel—have been recorded in the Sandwich area. Both are listed as threatened.



Kirtland’s snake (*Clonophis kirtlandii*)
Source: Peter Paplanus, Flickr



Slippershell mussel (*Alasmodonta viridis*)
Source: Wikipedia commons

Local open space

The Sandwich Park District currently operates nine parks in the Sandwich area, as well as a community center (park offices), skate park, and splash pad. In addition to maintaining these facilities, the District organizes a full calendar of community events for residents of all ages, including movie nights, recreational sports leagues, and holiday festivals.

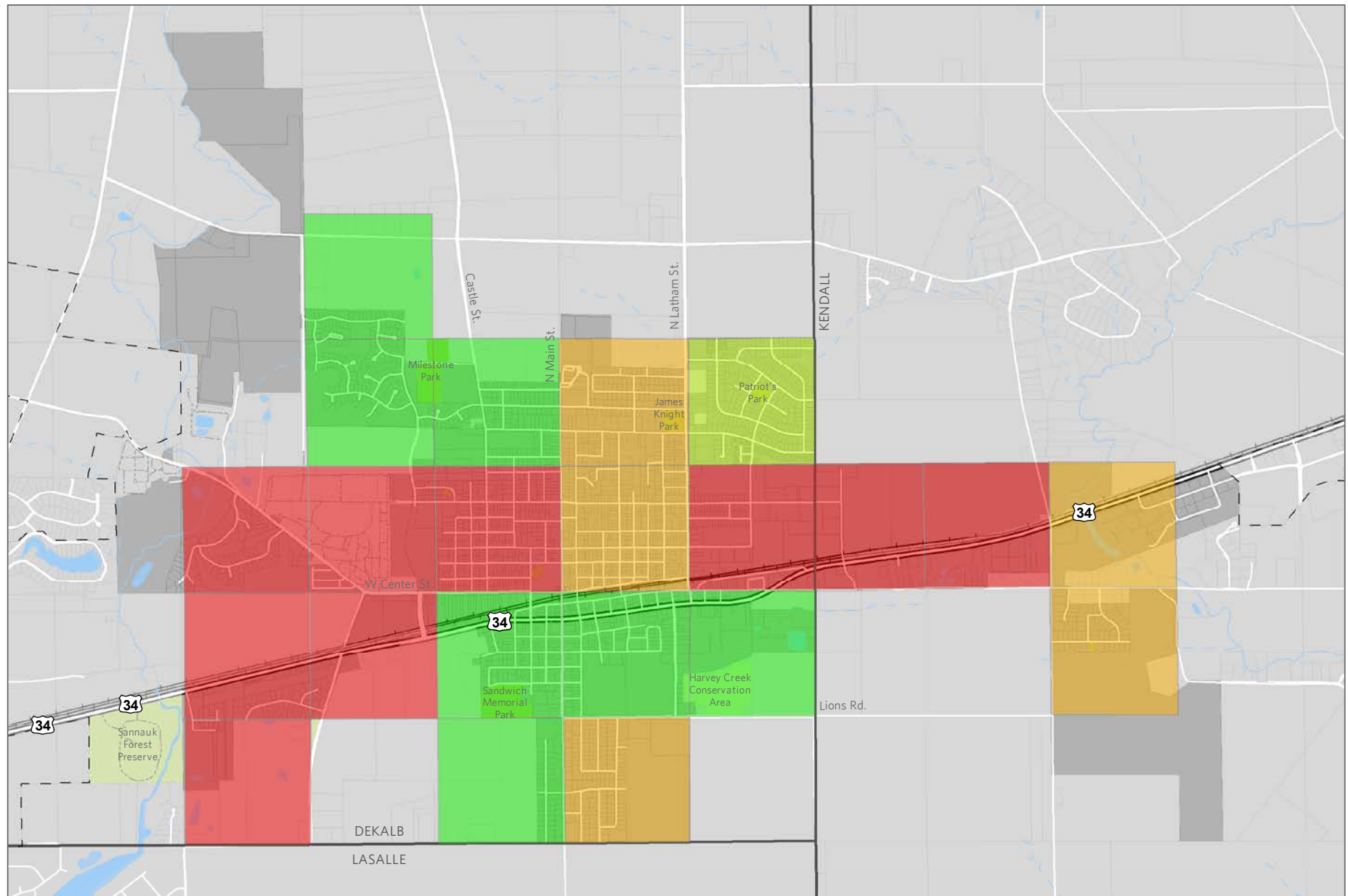
The District is an independent taxing authority with a taxing jurisdiction coterminous to the City of Sandwich. Residents of surrounding communities that do not have a park district (including Plano, Somonauk, and Lake Holiday) frequently participate in Sandwich Park District programs. These individuals pay a non-resident fee when registering for activities and events.

Park access

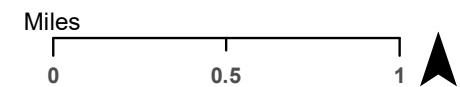
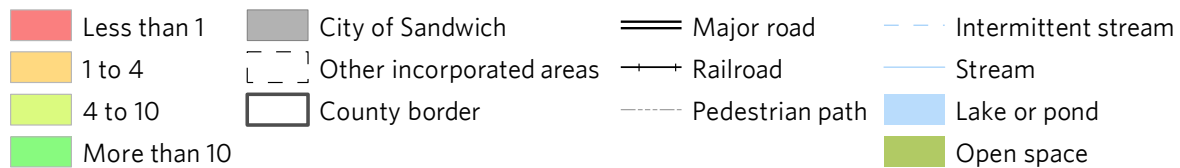
Park access in the City of Sandwich is generally good. Citywide, Sandwich averages 12.3 acres per 1,000 residents, which is well above ON TO 2050’s goal of 10 acres per 1,000 residents. It is important to note, however, that this number is slightly inflated by a few locations with very good access; the city’s median score, which is a better measure of the average resident, is just 2.38 acres per 1,000 residents.

Figure 13 shows park access in Sandwich neighborhoods. The city’s southern and far northwestern neighborhoods have the best park access, while neighborhoods in north-central Sandwich and along the Route 34 Corridor east and west of town have the least access.

Figure 13. Access to parks



Access to parks in Sandwich

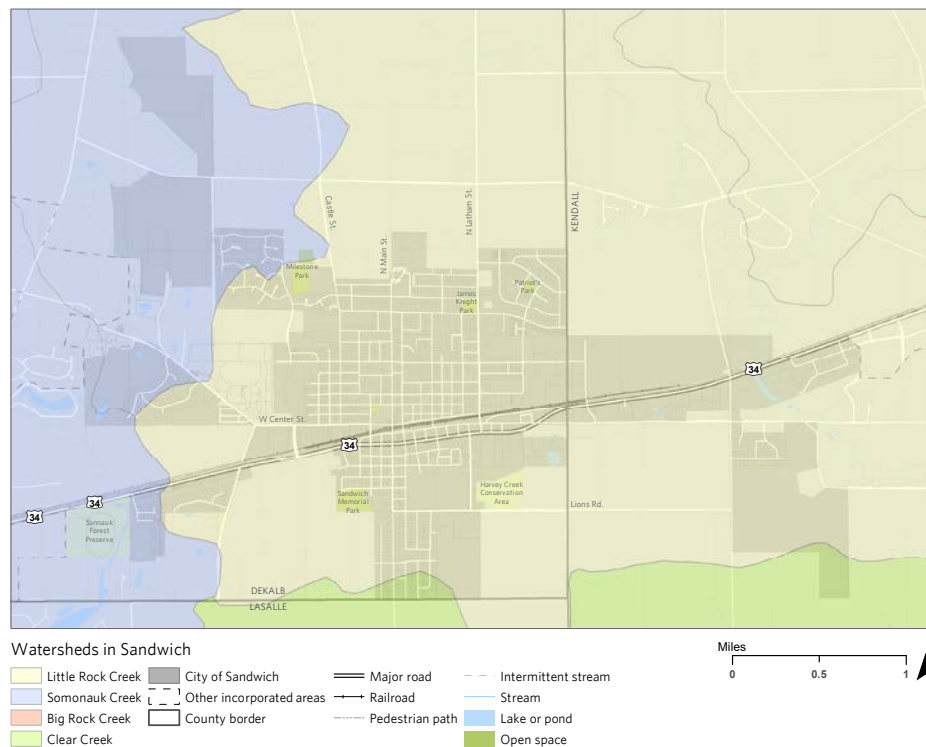


Note: Park access measures per capita access to public parks. Forest preserves, golf courses, and other private facilities are not included.
 Source: Analysis of Chicago Metropolitan Agency for Planning Land Use Inventory, 2019.

Watersheds

Watersheds are areas of land in which all surface water drains to a common location, such as a lake, river, or stream. Watersheds are important to natural resource management because water quality within a waterway is affected by activity everywhere within its watershed. If a watershed is contaminated with fertilizer, oil, sediment, or litter, these contaminants will eventually find their way into the waterway, reducing its ability to provide recreation, drinking water, or natural habitat. Impervious surfaces—including buildings, roads, parking lots, and other hard surfaces that prevent stormwater from filtering into the soil—intensify the impact of these contaminants by increasing the quantity of stormwater entering local waterways.

Figure 14. Watersheds in Sandwich



Source: National Resources Conservation Service (NRCS), HUC-12 Watersheds for Illinois, 2005.

As shown in Figure 14, the majority of Sandwich is located within the Little Rock Creek Watershed. Rainwater falling in the city is most often carried to the creek by the City’s sewer system, which discharges into Harvey Creek, and continues onward to Little Rock Creek. Parts of western Sandwich are located within the Somonauk Creek Watershed, including several recently annexed parcels in the city’s northwest corner. A small portion on the city’s far south side, extending one block north of the LaSalle County line, is naturally located within the Clear Creek Watershed, but has been rerouted to Little Rock Creek via regrading and municipal drainage systems and agricultural field tiles.

All of these smaller watersheds are part of the much larger Fox River Watershed, which extends from southeastern Wisconsin to the confluence of the Fox and Illinois Rivers in Ottawa, Illinois.

Floodplains and flood susceptibility

Floodplains are areas adjacent to waterways that are susceptible to inundation by floodwater. The one percent chance floodplain, commonly known as the 100-year floodplain, refers to areas with at least a one percent chance of experiencing a flood during a given year. Because these areas are at a higher risk of flooding, development within floodplains is subject to greater scrutiny during the design review process, and any structures built in these areas must purchase flood insurance through the National Flood Insurance Program (NFIP) to be eligible for a federally-insured mortgage.

As shown in Figure 15, floodplains within the City of Sandwich are located along Little Rock Creek to the east, Harvey Creek to the southeast, and Somonauk Creek to the west. Very little development has occurred within the mapped floodplain, though a scrap yard located adjacent to the water treatment plant in southeastern Sandwich is partially within the floodplain, and may be a source of contamination during high water events. It is important to note, however, that floodplains are dynamic, and can change rapidly in response to development or changing precipitation patterns. Floodplain maps are expensive to update, and as a result, often show historical conditions, rather than the current, functional floodplain. To account for this, mapped floodplain boundaries should be seen as the minimum extent of the actual floodplain.

Another important constraint of floodplain maps is their focus on riverine, or river-based flooding. Sandwich, and many communities in northeastern Illinois, also face important challenges from urban flooding, which occurs when stormwater has nowhere to go, and begins to accumulate in low-lying areas, such as roads, parking lots, and basements. Areas with a high risk for urban flooding are not included in floodplain maps. Urban flooding risk is strongly influenced by development patterns, and it is significantly easier and more cost effective to mitigate prior to development than to remediate after development has occurred. Generally, this is done by carefully reviewing development proposals to ensure sufficient stormwater facilities, including sewers, detention basins, and bioswales, are provided for, and confirming that they have been installed before construction begins.

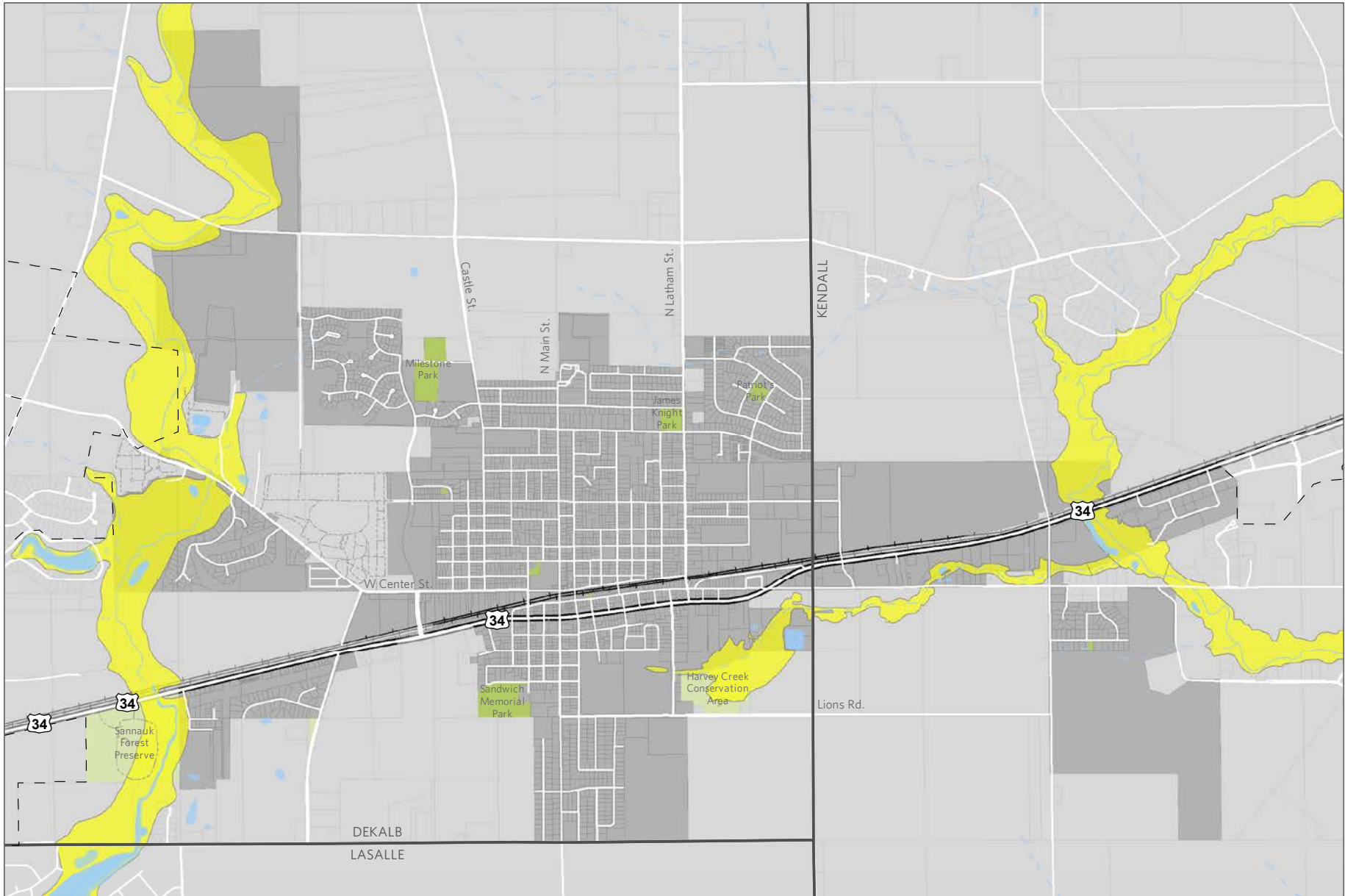
Currently, there are two areas of repetitive flooding in the City of Sandwich. The Sandhurst subdivision, located in northeastern Sandwich, was built atop an intermittent stream, which emerges during periods of moderate and heavy rain. When this occurs, roadways in the northern edge of the development become impassable, and damage to property and vehicles may occur.

The second area of concern in Sandwich is the airport subdivision on the southwest corner of town. This area is located near the topographic low point of the county, and does not have adequate stormwater facilities. The intersection of Wright Drive and Wright Court in particular has experienced recurrent flooding in recent years.














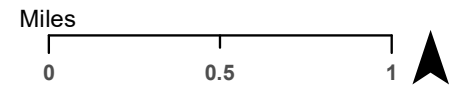
Roadway flooding in Sandwich
Source: City of Sandwich

Figure 15. Floodplains



Floodplains in Sandwich

- | | | |
|---|---|---|
|  100-year floodplain |  Major road |  Intermittent stream |
|  City of Sandwich |  Railroad |  Stream |
|  Other incorporated areas |  Pedestrian path |  Lake or pond |
|  County border |  Open space | |



Source: Federal Emergency Management Agency (FEMA) National Flood Hazard Layer, 2019.

Water supply

Maintaining an adequate supply of high-quality drinking water is critical for Sandwich's future. Within city limits, the City of Sandwich provides drinking water through a municipally-run system that withdraws water from the Ironton-Galesville aquifer via two primary wells and one emergency well. Historically, this aquifer has provided residents of Sandwich and the surrounding area with a reliable supply of clean drinking water, though recent regional-scale analysis by the Illinois State Water Survey has called the long-term viability of the aquifer into question.

Water from the deep aquifers in northeastern Illinois, such as the Ironton-Galesville and St. Peter aquifers, is being withdrawn at levels that exceed the natural recharge rate. Given that this resource is shared across many different communities and private businesses, use of the aquifer in one area can affect the supply of nearby communities. In Illinois, groundwater withdrawals are governed under the rule of reasonable use, with no permitting program for withdrawals to ensure a long-term supply.

In recent years, overuse of the deep aquifers has led to significant drawdown. The most heavily affected areas are located east of Sandwich from Joliet in the south and to Aurora in the north. In response to this drawdown, several communities have begun exploring alternative sources of drinking water, including the Fox and Kankakee Rivers and Lake Michigan.

The flow of water across both the Ironton-Galesville and St. Peter aquifers is interrupted by the Sandwich Fault, a geologic feature located to the east of downtown Sandwich. Although the fault is not seismically active, it could present a barrier to the free flow of water. Given the community's location on the western side of the fault, this barrier may prevent Sandwich from experiencing aquifer drawdown at the scale that will likely be seen in other parts of the region. Nonetheless, water management, including water conservation, will remain an important consideration for the foreseeable future, and could help the community delay or avoid expensive capacity expansion in the coming years.



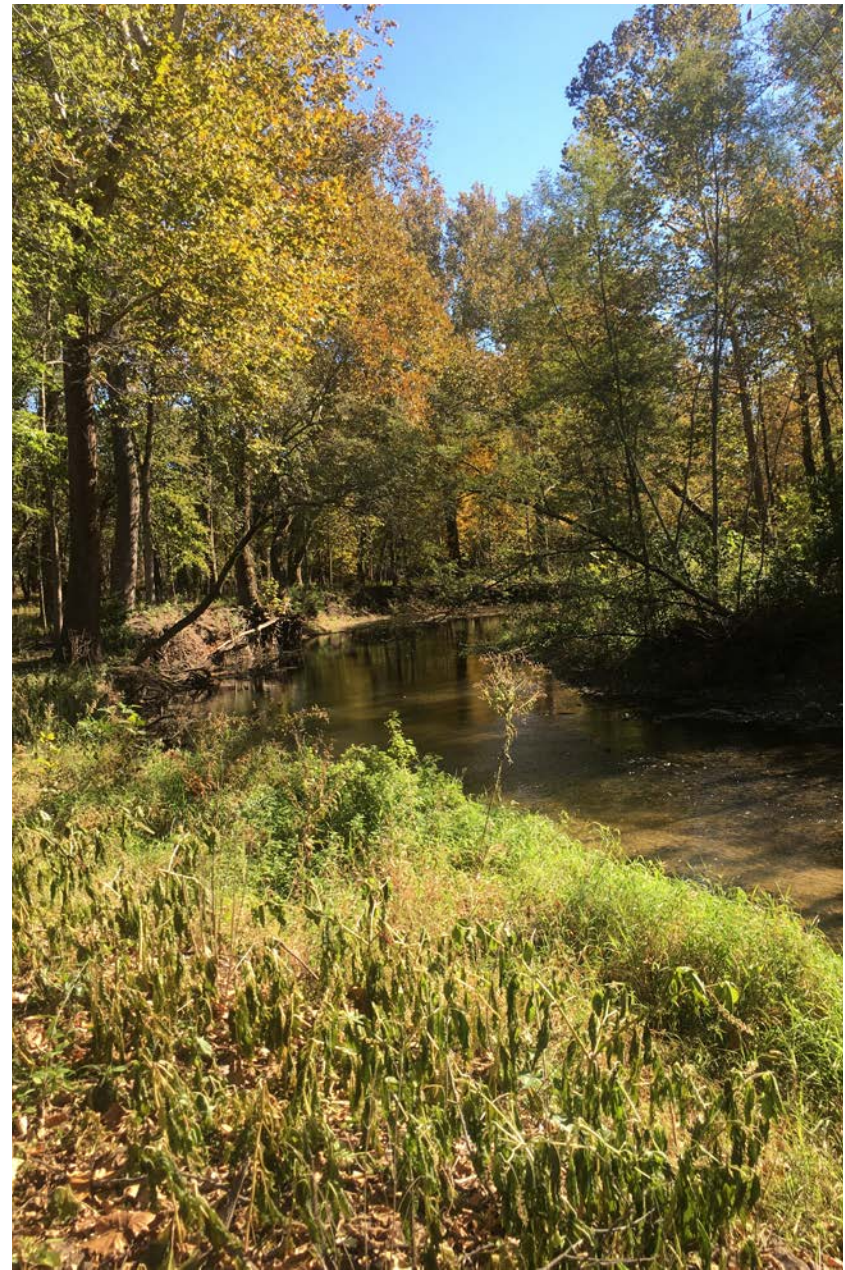
Sandwich water tower and Township building

Water quality

Streams and waterways in the Sandwich area generally have good water quality, though not all water bodies have been assessed for all uses. Both Somonauk Creek and Little Rock Creek are in attainment of the Clean Water Act for aesthetic quality and aquatic life, but have not been assessed for primary or secondary contact. The Fox River, into which all water in Sandwich eventually drains, is non-attaining for fish consumption and aesthetic quality.

Most of the Sandwich area has permeable ground cover, which is good for water quality. However, the proliferation of agriculture in the region may present other challenges, including streambank erosion and nitrate accumulation. These impacts may be mitigated by shoreline buffers, cover crops, and other innovative approaches.

To help protect water quality in the Little Rock Creek, the City of Sandwich has joined Applied Ecological Service in applying for a section 319 grant to develop a watershed-based plan for Little Rock Creek. If completed, this project will bring together stakeholders from across the region to develop an actionable plan for improving water quality in the creek.



Little Rock Creek

Governance and municipal capacity

Sandwich's municipal government is organized as a non-home rule city, with legislative powers held by the City Council, and executive powers held by the mayor. Both the mayor and aldermen are elected for four-year terms with no term limits.

Relative to other small towns in northeastern Illinois, the City of Sandwich's per capita revenues are fairly low. The City is highly reliant on state sales tax disbursements instead of locally imposed taxes and fees. This is not currently a problem, but may increase the City's exposure to financial challenges during short-term economic downturns or long-term changes in the retail sector. The City's ability to generate revenue is constrained in part by its non-home rule status, which restricts both the type and amount of taxes it can impose.

The City of Sandwich currently employs a small staff consisting of 14 full-time, non-police employees. Of these 14 employees, the majority (10) are in public works. The City has a private law firm on retainer for legal consulting and does not currently employ a city planner, nor do they have a planning consulting firm on retainer. While some departments may benefit from additional staff, Sandwich's current staff levels are comparable to other small-towns in the region. In recent years, nearby communities in Kendall County have had success hiring shared employees to fill important rolls that do not warrant a full-time employee at a single municipality. This may provide a workable model for filling staff positions in Sandwich in today's fiscal environment.

In addition to general administration, a primary challenge for delivering quality public services in Sandwich is the high cost of capital improvements relative to the small size of the community. This challenge means that public officials must be careful to prioritize funds appropriately to maximize the return on their investment. The City does not currently maintain a Capital Improvement Plan (CIP), which is a useful tool for planning future expenditures, and the City's most recent comprehensive plan was completed in 2003.



Sandwich City Hall and Opera House

Section 4 Recommendations



Recommendations

The City of Sandwich would benefit from a variety of planning initiatives, several of which are listed below. These recommendations were developed through conversations with City officials, Sandwich residents, and local and regional stakeholders. Where appropriate, resources for implementing the recommendations are included.

Primary recommendation

Create a new comprehensive plan for Sandwich and the surrounding area

The primary recommendation of this report is the creation of a new comprehensive plan. Much of the information included in this Planning Priorities Report is directly applicable to comprehensive planning, and should be used to expedite the planning process. By using this report as the basis for a comprehensive plan, the City will be able to allocate more resources to public outreach and community engagement, which will result in a higher-quality, and a more implementable, final product. Using the report in this way will also allow for more in-depth analysis of thematic topics, as discussed below.

The following summaries are intended to guide the scoping process for the comprehensive plan, but should not be seen as an exclusive or exhaustive list of relevant topics.

Land use and development

The City of Sandwich is at a critical point in its history. During the coming years, residential development may resume, potentially changing both the City's revenues and obligations, and the general character of Sandwich and the surrounding area. To ensure that future development enhances Sandwich's social, economic, and environmental wellbeing, City officials should use the comprehensive planning process as an opportunity to carefully study the direct and indirect impacts of various types of development, and revise land use and development regulations to encourage the most beneficial development patterns. Specifically, the plan should study the impact of high- and low-density residential development on Sandwich's schools, roadways, libraries, parks, infrastructure, and natural resources, relative to the benefits they provide through tax revenues and business expenditures.

In addition to exploring the type of development Sandwich should pursue, the plan should highlight preferred locations for new development. This may include areas already served by City utilities, or areas where schools, libraries, and other public services have additional capacity. The plan should also highlight priority areas for preservation, including wetlands, riparian zones, and important agricultural areas, and explore opportunities for conservation development in areas of town where natural resources are present. Finally, the plan should include an analysis of current and projected groundwater supplies to ensure that future growth does not come at the expense of the community's long-term sustainability.

Infrastructure and critical facilities

Maintaining high-quality infrastructure and critical facilities—including roads, sewers, public facilities, and other assets that support daily life—is essential to Sandwich’s future. To ensure that these assets continue to meet the community’s needs, the comprehensive plan should expand upon the information contained within this report to create an inventory of Sandwich’s infrastructure, including information on the condition of the city’s existing systems, and estimates of when these assets will need to be replaced. The plan should highlight the importance of ensuring that critical services are provided in a cost-effective manner, and should ensure that future development promotes long-term financial sustainability. This analysis will help inform future decisions regarding development, redevelopment, and service expansions, and could assist with a future Capital Improvement Plan (CIP).

The plan should also explore opportunities for improving the quality of infrastructure and public services through shared services agreements with neighboring communities.

Transportation

To remain a vibrant, competitive community, Sandwich must maintain a balanced transportation system that works for all residents. This is particularly important for retaining elderly residents and attracting younger families who have different transportation preferences. A comprehensive plan can help to create such a system by identifying gaps in the city’s bicycle and pedestrian facilities, and providing targeted recommendations for connecting residents to key destinations, including parks, schools, and employment centers. To preserve convenient access to areas beyond the City of Sandwich, the plan should identify the areas with the highest rates of traffic congestion and/or safety challenges, and provide land use and urban design solutions for addressing them.

Natural resources

Sandwich and the surrounding area features considerable natural resources, including wildlife areas, groundwater aquifers, and some of the best agricultural soils in the country. Future planning efforts in the city should recognize the value of these resources, and seek to preserve them for future generations.

It is also essential that future planning efforts address current challenges with stormwater management, water supply, and farmland preservation. Specifically, a future comprehensive plan should explore strategies for addressing existing concerns with urban flooding through green and gray infrastructure solutions, and include recommendations to ensure that future developments do not experience similar problems. The City should also work with local and regional partners to identify opportunities for water conservation, which may reduce the need for more costly infrastructure projects in the future. These efforts should include strategies for both the municipal system, which draws from the deep sandstone aquifer, and private systems, which typically draw from shallow aquifers. Specific interventions may include improved agricultural practices, updated landscaping standards, and/or requiring an assessment of water supply impacts before approving new development. Finally, a future comprehensive plan should include an analysis of the social and economic value of agriculture in Sandwich and the surrounding area.

Governance and municipal capacity

Small communities, such as Sandwich, must be careful to use their limited resources as efficiently and effectively as possible. To this end, the comprehensive plan should explore opportunities for shared services and shared investments with neighboring communities. This may take the form of shared employees—such as an economic development director or finance officer—who work part-time for multiple municipalities, or joint-financed infrastructure projects that serve multiple communities.

In addition to these topics, a new comprehensive plan should also address long-standing community issues, such as Sandwich's preferred relationship with Lake Holiday, historic preservation in the downtown area, and long-term preferences for the city's future development. To ensure the plan continues to provide long-term value to Sandwich residents and the greater Chicago region, the plan should draw from ON TO 2050 policy recommendations, and emphasize the plan's three principles of inclusive growth, prioritized investment, and resilience. Comprehensive planning is a resource-intensive process, and can cost well over \$100,000. To reduce the financial burden to the City, Sandwich officials should continue to apply for technical assistance grants from CMAP and other state and federal agencies.

Additional recommendations

Improve municipal budgeting practices and adopt a capital improvement plan

Municipal budgets and capital improvement plans (CIPs) are important tools for prioritizing limited resources and achieving a community's goals. Efficient and effective budgeting is a complicated process that requires specialized expertise. Fortunately, several organizations in northeastern Illinois provide resources for assisting with the process.

In the near term, hosting or attending a municipal budgeting workshop or training session may be the most cost-effective way of increasing the City's expertise in budget creation and implementation. This training should provide a comprehensive overview of the budget-making process, review best practices, and explain how municipal budgets can be used to advance community goals while ensuring financial resources are used responsibly. The trainings should also include case studies from other communities in northeastern Illinois, and provide direction on how the City can improve current budgeting practices.

The [Government Finance Officers Association](#) and the [Illinois Government Finance Officers Association](#) regularly host budgeting and accounting seminars for municipal staff, and the Northern Illinois University [Center for Governmental Studies](#) offers trainings on a variety of subjects, including custom-designed workshops for municipalities. In recent years, CMAP has also begun to pilot capacity building trainings, and may expand the program in the future to include resources for this topic.

Conduct Quiet Zone feasibility study for the BNSF railway

During stakeholder interviews, numerous residents and business owners expressed concern about the loud noise caused by passenger and freight trains passing through downtown Sandwich. There are currently eight grade crossings within city limits, and passing trains must sound their horn at each crossing. The result is an extended period of noise that can disrupt outdoor activities throughout the city, and may discourage development in the downtown area.

Preliminary research by the City has found that Sandwich may be eligible for a Quiet Zone, though FRA guidance indicates that gaining a Quiet Zone designation may cost anywhere from \$30,000 per crossing to more than \$1 million. These costs are location specific, and depend on the number of crossings present and the safety improvements that are needed.

Because of the large amount of community interest in the project, and the potential for safety improvements, the City should move forward with a feasibility study, and contingent upon the results of the study, apply for Quiet Zone designation. A suite of resources to assist with the Quiet Zone application process is available on the [Federal Railroad Administration's website](#).



The Eddy/Wells Street rail crossing in downtown Sandwich



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