



Village of Niles Environmental Action Plan

ADOPTED February 26, 2013



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Chicago Metropolitan
Agency for Planning

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Chapter 1

Introduction

What is sustainability?

“Sustainability” is a somewhat ambiguous term that means different things to different people and organizations. Common themes among various definitions include the importance of preserving natural resources for future generations and ensuring environmental, economic, and social vitality.

The following three definitions of “sustainability” are widely used and accepted:

Sustainability means meeting the needs of the present without compromising the ability of future generations to meet their needs.

(Brundtland Report, Our Common Future, 1987)

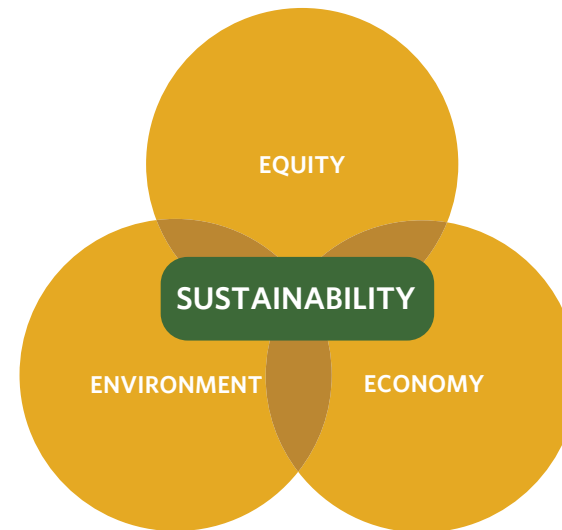
Sustainability requires that any public policy or investment meet certain environmental, economic, and social equity goals.

(CMAP Sustainability Regional Snapshot, 2007)

Sustainability regards the total wealth of society as natural, human, and man-made capital that should be preserved or increased, in addition to financial wealth.

(CMAP Sustainability Regional Snapshot, 2007)

The Three “E’s” of Sustainability



Source: Sustainability Planning Toolkit, ICLEI

What is an Environmental Action Plan?

The recently adopted Niles Comprehensive Plan recognizes the importance of sustainability, stating that the Village should, “Promote the importance of environmental issues and sustainable practices to residents, businesses, and developers through leadership, education, and partnerships.” Considerations related to sustainability are included in call-out boxes within each Comprehensive Plan section; however, the Village determined that a separate planning process was warranted to fully address specific issues and concerns related to the environment. The Niles Environmental Action Plan will serve as a road map for the Village and its various stakeholder groups (residents, business owners, developers, institutions, etc.) to take action toward achieving a sustainable future.

The realm of topics that could be relevant to a plan pertaining to the environment and sustainability is endless. To focus its efforts, the Village chose the following topics as most appropriate and beneficial to address within the Environmental Action Plan:

- Land Use and Development
- Transportation and Mobility
- Open Space
- Waste
- Water
- Energy
- Greenhouse Gases
- Education

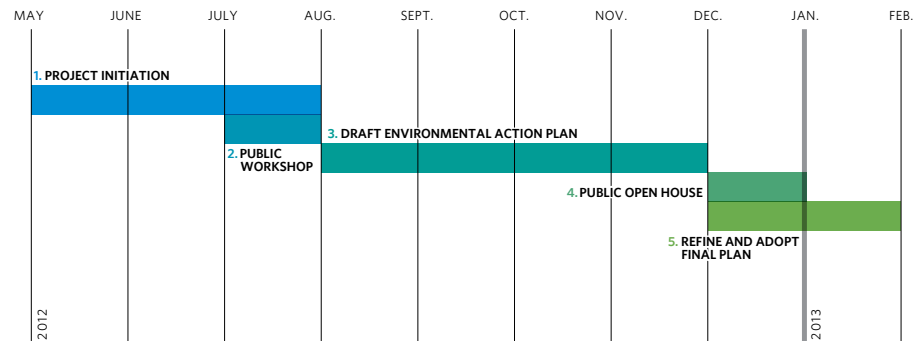
The Plan is organized into sections that correspond to these topic areas. Each section includes:

- A brief introduction to the topic area and its relevance to sustainability.
- Overview of existing conditions.
- Statement of goals as defined through the public process.
- A series of recommendations and action steps that address the established goals and findings of the existing conditions analysis.
- A detailed implementation approach that outlines responsible party, phasing, and additional resources for moving each recommendation item forward.

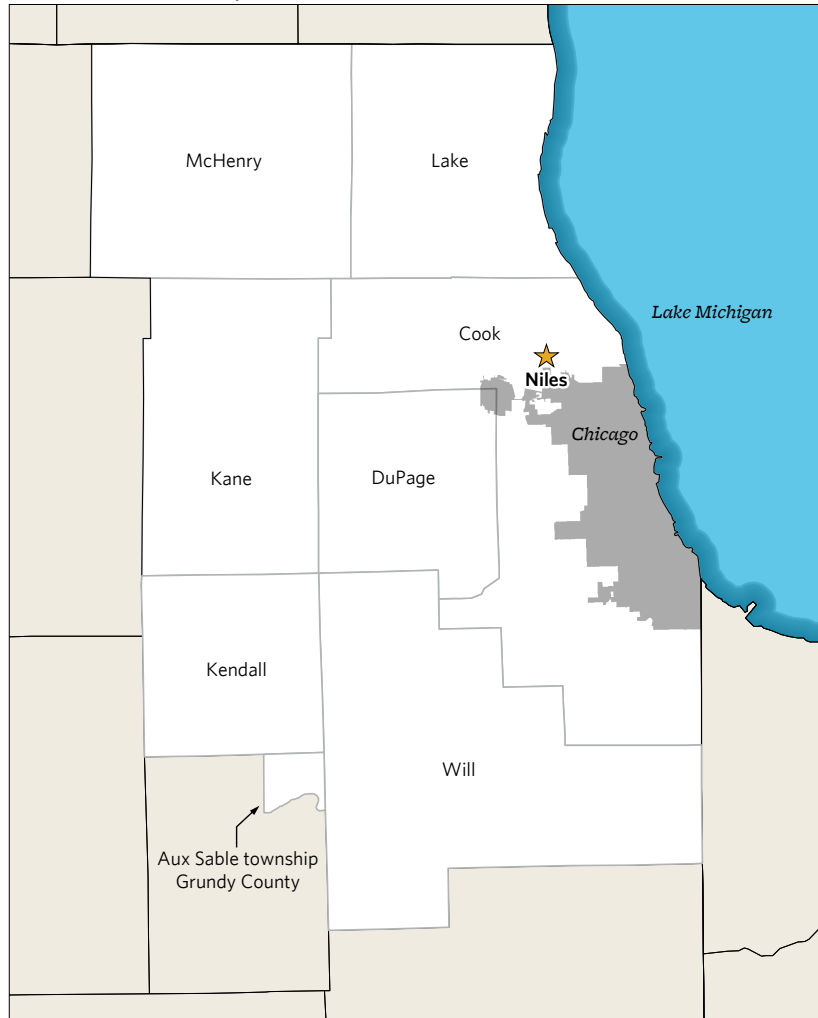
Planning Process

The planning process to create this Environmental Action Plan for Niles took nine months to complete and included several key phases (see Figure 1-A). The project initiation phase, public workshop (held on July 25, 2012), and four steering committee meetings have helped to inform the project team’s understanding of existing conditions in Niles and develop overarching goals related to the environment. Phase 3 of the project revolved around drafting recommendations, action items, and an implementation strategy to help achieve the established goals. The planning process was created with assistance from Village staff and officials to involve a diversity of stakeholders and create a document that will be useful to a variety of audiences, from residents and business owners to government.

Figure 1-A. Project timeline



Source: CMAP.

Figure 1-B. Regional context

Source: CMAP.

Community Profile

Regional and Sub-Regional Context

Just 13 miles from Chicago's loop, Niles is centrally located in the region (see Figure 1-B). The Village shares its boundary with five municipalities, including Park Ridge, Morton Grove, Chicago, Skokie, and Glenview. There are also unincorporated areas adjacent to Niles. The Village is located between three highways -- Interstates 90, 94, and 294 -- which provide automobile access to most parts of the region. Although no Metra stations are located within Niles, two Metra lines sandwich the community on either side, providing a public transportation link with Chicago as well as the north and northwest suburbs.

As a largely built-out community, Niles is expected to see modest growth. Regional forecasts performed by the Chicago Metropolitan Agency for Planning (CMAP) indicate that Niles' population has the potential to grow by almost 20 percent by 2040. Its neighbors could see similar growth; Chicago's projected growth is lowest of the five communities at 13.9 percent, Park Ridge (20.6 percent) and Skokie (22 percent) have similar projections to Niles, and Glenview (32.5 percent) and Morton Grove (34 percent) have slightly higher projected growth.

With almost 4 million square feet of retail space, many national retailers, and the Golf Mill Mall as a commercial anchor, Niles attracts visitors from the sub-region and beyond. Niles ranks fifth in the Chicagoland market and 11th in the State of Illinois for retail sales. In addition, in 2010, Niles was named the "best place in the U.S. to raise children" by Bloomberg/Businessweek.com.

Relationship with the GO TO 2040 Regional Comprehensive Plan

The overall goals of the Niles Environmental Action Plan are to provide guidance for local decision-making, increase awareness of environmental issues, and address community needs and desires in an effort to achieve a sustainable future. While local planning efforts are critically important to achieving community goals and fostering livability, Niles is a part of the larger Chicago metropolitan region and is both influenced by and has an impact on the region.

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 help the region's 284 communities address transportation, housing, economic development, open space, the environment, and other quality-of-life issues.

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." To ensure integration with the comprehensive regional plan, the Village participated in a presentation about GO TO 2040's objectives at the outset of its own process to create a comprehensive plan. In addition, by undertaking a planning process to create an Environmental Action Plan, Niles is proactively planning for its future and demonstrating its commitment to advancing regional priorities.

GO TO 2040's recommendations relate to several of Niles' strengths and opportunities, including:

- Link transit, land use, and housing.
- Expand and improve parks and open space.
- Protect and enhance water, natural resources, and green infrastructure.
- Promote water and energy conservation and efficiency.
- Address greenhouse gas (GHG) emissions.

Most of the above recommendations have already been at least partially addressed in some capacity in Niles, from creating the Milwaukee Avenue Plan to foster a mixed-use transit corridor, to the development of the Niles Community Rain Garden, to the programs implemented in support of the Village's recently awarded Clean Air Counts Gold award.

Previous Plans, Studies, and Reports

Niles 2030 Comprehensive Plan

The Niles 2030 Comprehensive Plan, adopted in October 2011, established a series of recommendations and policies to serve as a guide for decision-making. The Plan makes recommendations related to land use; transportation; parks, open space, and environmental features; community facilities; arts and culture; and urban design and community character. In addition, there are specific redevelopment scenario plans for select thoroughfares in the community. The planning process created a steering committee, called the Comprehensive Plan Sub-Committee, that aided in developing the Plan. Another group appointed by the Mayor, the 2030 Plan Implementation Sub-Committee, is now leading the charge to take action in realizing the Plan's recommendations.

Major recommendations included in the Plan are to:

- Maintain housing diversity and enhance appearance and character of residential areas.
- Revitalize and beautify commercial corridors and shopping centers.
- Retain existing industrial uses and attract contemporary industrial tenants.
- Carefully consider new areas of growth and annexations to ensure fiscal responsibility (particularly for service and infrastructure costs).
- Make targeted improvements to roadway infrastructure to enhance access and circulation.
- Increase pedestrian-friendliness along major roadways by filling in sidewalk gaps and reducing the number of curb cuts.
- Support Pace's efforts to create an Arterial Rapid Transit route on Milwaukee Avenue.
- Continue to coordinate with partners to ensure access to parks and open space.
- Continue efforts to address stormwater management and flooding.
- Implement "Key Planning Concepts" to address urban design and community character (such as parking lot landscaping and buffering, sidewalk connectivity, signage, gateways, etc.).

Milwaukee Avenue Plan

The Milwaukee Avenue Plan, adopted in 2006 and funded by the Regional Transportation Authority (RTA) and developed in cooperation with Pace, proposed improvements to the Milwaukee Avenue corridor in Niles as a response to the corridor's designation as a priority route for ART in Pace's Vision 2020 document. The Plan's major considerations included improvements to transit and traffic patterns along Milwaukee Avenue, as well as design recommendations to ensure walkable and pedestrian friendly development appropriate for an ART corridor. The concept for implementing ART includes several changes from a traditional bus route, including limited stops at half-mile to one-mile increments to decrease travel times; creating stop locations at major intersections to facilitate transfers to other future ART stops and other Pace routes (including the Niles Free Bus system); and traffic signal optimization that will prioritize bus movement through intersections.

The Village has moved forward with making streetscape improvements along the Milwaukee Avenue corridor. These improvements have been pursued in several phases, with funding primarily coming from several grants from the Illinois Transportation Enhancement Program and federal Transportation, Community, and System Preservation Project. Streetscape work includes improvement of crosswalk and intersection lights, brick paver crosswalks, planters, decorative fencing, street furniture, pedestrian lighting, installation of decorative banners, and new sidewalks. This streetscape work has occurred most notably at the major intersections of Milwaukee Avenue with Touhy, Harlem, Howard, and Oakton.

Streetscape improvements along Milwaukee Avenue



Various locations along Milwaukee Avenue in Niles. Source: Village of Niles.

Demographic Profile

Recently released 2010 U.S. Census data offers an opportunity to gain insight into recent demographic changes in Niles. Niles may be characterized as a stable community that has a significant older population and increasing racial and ethnic diversity. Data discussed in this section comes from the 2000 U.S. Census, 2010 U.S. Census (when available), and the 2006-10 American Community Survey, all collected by the U.S. Census Bureau. Niles’ demographic trends were compared with those of Cook County as well as the seven-county region at large, which yielded the following major findings.

Niles’ population slightly decreased in the last decade.

In 2010, Niles had a population of 29,903, representing a marginal 0.9 percent decrease from 2000. In comparison, the population of Cook County decreased by 3.4 percent while that of the greater Chicago region increased by 3.5 percent in the same time period.

Racial and ethnic diversity has increased in Niles.

The number of white residents in Niles decreased by 11.6 percent in the last decade; white residents made up 71.6 percent of the Village population in 2010. All other racial and ethnic groups experienced significant population increases, which occurred at a higher rate than for Cook County and the region at large. The number of Hispanic or Latino residents grew by 70.8 percent while Asian residents grew by 30.5 percent. Black or African American residents had the highest population growth rate with an increase of over 215 percent. However, at just 388 residents total, Black or African American residents are still the smallest racial group in the Village.

Niles has an older population.

By the age of its residents, Niles is one of the oldest communities in the region. The median age of Niles residents is 48.2 years old, compared to a median age in Cook County of 35.3. Over a quarter of the Village’s population is over 65, which is more than double the average for Cook County and the region (where about 11 percent of residents are over 65). Consequently, 43.3 percent of Niles’ population over 16 is not in the labor force, compared to around 30 percent for the County and region.

Table 1-A. Population, households, and household size, 2010

	NILES	COOK COUNTY	REGION
Population	29,803	5,194,675	8,431,386
Households	11,906	1,966,356	3,088,156
Average Household Size	2.41	2.60	2.73

Source: 2010 U.S. Census.

Table 1-B. population and change in population, 2000 and 2010

	NILES	COOK COUNTY	REGION
Population, 2000	30,068	5,376,741	8,146,264
Population, 2010	29,803	5,194,675	8,431,386
Change, 2000-10	-265	-182,066	285,122
Change as %, 2000-10	-0.9%	-3.4%	3.5%

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

Table 1-C. Household income, 2010

	NILES	COOK COUNTY	REGION
Less than \$25,000	2,417	458,462	594,251
\$25,000 to \$49,999	3,223	443,011	650,102
\$50,000 to \$74,999	2,001	349,011	553,681
\$75,000 to \$99,999	1,447	240,948	414,960
\$100,000 to \$149,000	1,625	249,666	460,697
\$150,000 and over	693	195,383	370,397
Median Income ('10)	\$50,829	\$53,942	N/A

Source: 2006-10 American Community Survey, U.S. Census Bureau.

Table 1-D. Race and ethnicity, 2010

	NILES		COOK COUNTY		REGION	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
White	21,332	71.6%	2,278,358	43.9%	4,486,557	53.2%
Hispanic or Latino*	2,582	8.7%	1,244,762	24.0%	1,823,609	21.6%
Black or African American	388	1.3%	1,265,778	24.4%	1,465,417	17.4%
Asian	4,950	16.6%	318,869	6.1%	513,694	6.1%
Other**	551	1.8%	86,908	1.7%	142,109	1.7%

* Includes Hispanic or Latino residents of any race.

** Includes American Indian, Alaska Native, Native Hawaiian, other Pacific Islander, some other race, and two or more races.
Source: 2010 U.S. Census.**Table 1-E. Change in race and ethnicity, 2000-2010**

	NILES		COOK COUNTY		REGION	
	CHANGE IN POPULATION	PERCENT CHANGE	CHANGE IN POPULATION	PERCENT CHANGE	CHANGE IN POPULATION	PERCENT CHANGE
White	-2,801	-11.6%	-280,351	-11.0%	-200,702	-4.3%
Hispanic or Latino*	1,070	70.8%	173,022	16.1%	414,407	29.4%
Black or African American	265	215.4%	-124,670	-9.0%	-72,117	-4.7%
Asian	1,158	30.5%	61,026	23.7%	137,701	36.6%
Other**	43	8.5%	-11,093	-11.3%	5,833	4.3%

* Includes Hispanic or Latino residents of any race.

** Includes American Indian, Alaska Native, Native Hawaiian, other Pacific Islander, some other race, and two or more races.
Source: 2000 U.S. Census; 2010 U.S. Census.**Table 1-F. Age cohorts and median age, 2010**

	NILES		COOK COUNTY		REGION	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
Under 19 years	5,550	18.6%	1,374,096	26.5%	2,346,937	27.8%
20 to 34 years	4,640	15.6%	1,204,066	23.2%	1,790,049	21.2%
35 to 49 years	5,451	18.3%	1,067,351	20.5%	1,807,886	21.4%
50 to 64 years	6,506	21.8%	928,833	17.9%	1,534,488	18.2%
65 to 79 years	4,418	14.8%	436,799	8.4%	679,470	8.1%
80 years+	3,238	10.9%	183,530	3.5%	272,556	3.2%
Median Age ('10)	48.2		35.3		N/A	

Source: 2010 U.S. Census.

Table 1-G. Education levels, 2010

	NILES		COOK COUNTY		REGION	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
Population, 25 years and over	22,445	100.0%	3,413,901	100.0%	5,450,630	100.0%
High school diploma or higher	18,557	82.7%	2,840,274	83.2%	4,661,868	85.5%
Bachelor's degree or higher	6,653	29.6%	1,131,925	33.2%	1,899,328	34.8%

Source: 2006-10 American Community Survey, U.S. Census Bureau.

Table 1-H. Employment status, 2010

	NILES		COOK COUNTY		REGION	
	COUNT	PERCENT	COUNT	PERCENT	COUNT	PERCENT
Population, 16 years and over	25,309	100.0%	4,074,129	100.0%	6,481,308	100.0%
In labor force	14,355	56.7%	2,708,191	66.5%	4,429,414	68.3%
Employed	13,277	92.5%	2,438,989	90.1%	4,020,137	90.8%
Unemployed	1,078	7.5%	267,681	9.9%	395,392	8.9%
Not in labor force	10,954	43.3%	1,365,938	33.5%	2,051,894	31.7%

Source: 2006-10 American Community Survey, U.S. Census Bureau.

Community Outreach

A primary goal of the planning process was to involve many audiences, which helped to create a plan that represents the interests, needs, and vision of the community as a whole. These audiences each have unique perspectives on what environmental issues are most important to address and how the Village might achieve a sustainable future. The public outreach strategy, formulated by CMAP in conjunction with Village staff, emphasized broad-based participation to create a cohesive vision for moving forward. This strategy included close coordination with Village staff and elected officials, regular interaction with a steering committee, technical interviews, and public meetings at key points in the planning process.

Environmental Action Plan Steering Committee

The Environmental Action Plan Steering Committee, appointed by the Mayor, was formed to closely guide the process of developing the Plan. The Committee is tasked with providing input on community issues and opportunities, developing overarching goals, and reviewing the draft Existing Conditions Report and plan documents. It is comprised of a diverse cross section of active community stakeholders (including residents; leadership from the Niles Public Library District, Niles Elementary School district 71, and the Niles Park District; and two major businesses with a history of sustainable initiatives), as well as one representative from Village staff, one representative from the Village Board, and participants from the Village's Environmental Committee.

In 2012, four Steering Committee meetings were held during the planning process (on June 21, July 19, September 5, and October 16). The first meeting provided orientation about the project's scope and planning process, and participants brainstormed ideas for goals relating to the Plan's eight sections. After this meeting, CMAP and Village staff developed goal statements, which were then reviewed and revised by the Committee at its July 19 meeting in preparation for the public meeting (which was held the following week). The third meeting served to discuss the findings of the Existing Conditions Report, while the fourth and final meeting focused on reviewing the project team's preliminary recommendations.

Public Kick-off Meeting

To introduce the project and gain insight on issues and opportunities from the community, the Village held a public meeting on July 25, 2012 at the Senior Center. Over 30 residents, community leaders, and stakeholders attended to discuss the goals and topics to be addressed in the Environmental Action Plan. Following a presentation about the planning process and sustainability planning concepts, participants discussed the Plan's eight overarching sections (land use and development, transportation and mobility, open space, waste, water, energy, greenhouse gases, and education) at three small tables. In addition to providing feedback on the goals drafted by the Steering Committee and strengths for each topic, participants also raised concerns and suggestions to improve various aspects of Niles' commitment to sustainability. Ideas ranged from concrete actions, such as changing to a more sustainable Village fleet to broader objectives, such as fostering interagency cooperation for management of open space. At the end of the meeting, the results from these small discussions were reported back to the group.

Public kick-off meeting



Niles Senior Center. Source: Village of Niles (left).

Technical Interviews

To aid in developing an accurate assessment of current conditions, CMAP staff reached out to various individuals throughout the first phase of the project, including representatives from Village staff, the Niles Park District, and businesses. This exchange of information occurred in person, on the phone, or electronically via e-mail, and helped greatly to inform the Plan.

Public Open House

The Village held a public open house to present the draft plan on December 4, 2012 at the Niles Public Library. Approximately 55 residents, business owners, and other stakeholders attended to share their thoughts and learn about the Environmental Action Plan. Four posters, which were organized in stations around the room, summarized the planning process and major Plan recommendations. Several full copies of the draft Plan were also available for attendees to review in more detail. No formal presentation was made; rather, participants were encouraged to review the recommendations, ask questions of Village and/or CMAP staff, and comment verbally or via paper comment forms. In general, enthusiasm and support were voiced in favor of the Plan's recommendations. Several more specific comments were also made, including:

- Support for recycling facilities in schools and parks, as well as special recycling of hazardous materials and electronics.
- Need for education related to environmental topics, beginning with youth.
- Desire for bicycle facilities/lanes and bike sharing.
- Village has an opportunity to lead by example with regard to solar and wind power, and should distribute information to property owners on available grants or incentives for renewable energy.



Chapter 2

Plan Recommendations

This chapter of the Niles Environmental Action Plan includes recommendations for the Village of Niles and its partners, property owners, residents, and other stakeholders to take toward achieving the community's environmental goals. The Plan's goals were established in conjunction with the Steering Committee, Village staff, and participants in the public process.

The recommendations are organized into eight major topics and include detailed implementation steps and funding leads. The eight sections within this chapter are:

A. Land Use and Development	19
B. Transportation and Mobility	25
C. Open Space	33
D. Waste	39
E. Water	47
F. Energy	53
G. Greenhouse Gases	59
H. Education	63



Section A.

Land Use and Development

Sustainable development includes both green buildings and land use patterns that support alternative modes of transportation (such as public transportation, cycling, and walking).

Niles is beginning to see greater incorporation of green and energy efficient building practices, both within Village facilities and in the private sector. Green building features help to conserve natural resources, especially energy, water, and construction materials, and save money on utility bills. Sustainable land use patterns are also key to fostering alternative transportation modes, which help to reduce consumption of fossil fuels and associated pollution, improve accessibility and mobility, and enhance quality of life. Most Niles residents have commercial uses and parks within walking distance of their homes, which greatly adds to community livability.

In addition, as a slightly denser suburb with multiple arterial roadways, Niles is able to support several Pace bus routes, which greatly add to transportation options. The Village has recognized the need to be proactive in encouraging sustainable development and, to that end, participated in a May 2012 workshop sponsored by the U.S. Environmental Protection Agency Technical Assistance for Sustainable Communities program to help determine ways that municipal codes might present barriers to those who want to use sustainable design and green building technologies and techniques.

Existing Conditions Report: Key Findings

The following represent the key findings from the existing conditions analysis related to land use and development. Refer to Appendix 1: Existing Conditions Report for the full existing conditions narrative.

- Single family residential uses represent the largest land use category in the Village, at about 36 percent of total acreage, followed by commercial, industrial, and institutional uses.
- There is relative uniformity in age and architectural style for much of the housing stock, which represents an opportunity to make targeted energy efficiency and other sustainability-related home improvement recommendations.
- Over 39 percent of the Village's housing is comprised of multifamily uses, indicating a diverse housing stock. The townhomes, condominiums, and multifamily rental units in Niles provide options for young families, seniors, and those of modest means.
- Due to historically strong ridership of area Pace routes on and around Milwaukee Avenue, it is designated as a priority ART corridor. While minimum residential supportive densities for ART may exist within some segments of the corridor (especially in multifamily areas), this density is not consistent. Clustering denser housing types near potential ART stops would provide supportive density along the corridor.
- About 88 percent of residents have access to a commercial land use within a walkable distance. However, some commercial areas lack connectivity with surrounding neighborhoods and/or have gaps in sidewalks that discourage pedestrian travel.
- There is a wealth of commercial space in Niles, housed in a wide range of built forms. Two zoning districts permit commercial development and both are very permissive in their requirements, resulting in a lack of cohesion in some areas of the Village. Niles may wish to create a mixed-use zoning district to apply in key locations (such as parts of Milwaukee Avenue) to ensure the type of development that is desired.
- There is increasing implementation of green building practices both at the municipal and property owner levels. However, there is some room for improvement and the Village recently participated in a U.S. EPA workshop to assess ways to remove barriers to sustainable design and green building technologies and techniques.

Identified Goals

The public engagement process to develop this Plan yielded the following goals for land use and development. Each of these goals is addressed through one or more recommendations in this section.

1. Ensure that development regulations allow and/or encourage sustainable development.
2. Create mixed-use, walkable areas.
3. Encourage new green buildings and sustainable retrofits for existing buildings.

Recommendations

The recommendations outlined below will help to achieve the Plan’s identified goals and address the key findings of the existing conditions analysis. The recommendations are organized into two categories: “Priority Recommendations” and “Other Recommendations.”

Priority Recommendations

Priority Recommendations are key strategies that the Village should consider undertaking in the near-term (within the next three years), if possible. Each Priority Recommendation includes action steps to assist with implementation efforts.

1. Update the Village’s development regulations to remove barriers and encourage sustainable practices.

Niles’ building stock and development patterns affect energy, water, and materials consumption; walkability and public transportation options; and community character and marketability. Development regulations (including zoning, subdivision, and building codes, as well as other standalone ordinances) define parameters for development and have a profound effect on a community’s ability to undertake sustainable practices.

Niles has recognized the importance of modernizing its regulations and is planning to undertake a comprehensive revision of its Zoning Ordinance in the near future. At that time, the Village should include amendments that would enable, incentivize, or require sustainable development techniques. To assist in that effort, most other sections of this Plan outline potential amendments as appropriate for their specific topics; the Niles 2030 Comprehensive Plan and EPA Building Blocks workshop memo provide relevant recommendations as well. Amendments to consider that are specifically related to the Land Use and Development chapter include:

- Create a mixed-use zoning district to apply in key locations, such as commercial areas along Milwaukee Avenue. The new district should allow commercial or office uses on the ground floor and office or residential uses on upper floors. This district should require new development to be built along the sidewalk with parking screened from the street by building, as well as other pedestrian-friendly features (such as building entrances along the street and limited drive-throughs and curb cuts).
- Create a multifamily residential zoning district that permits a smaller and more walkable scale of multifamily development than the current R4 zoning district. The new multifamily district should feature reduced setbacks (recommend 10 to 15 feet for front yard), a reduction in or removal of the minimum lot size requirement, reduced minimum space between buildings (if more than one building is proposed — recommend 5 to 10 feet), and parking screened from the street by building. This type of development could be located adjacent to key mixed-use areas and proposed ART stations.

Residential neighborhood (left); commercial storefronts along Milwaukee (right)



Residential neighborhood near Greenwood Park, Commercial uses near Milwaukee and Oakton. Source: CMAP.

- Develop standards to permit accessory dwelling units in some or all residential zoning districts, which will serve to increase density without altering neighborhood character.
- Set a maximum block length and define desired block and street configurations for new subdivisions and commercial developments. These standards should serve to create a walkable, regular street grid and increase connectivity.
- Revisit minimum parking requirements to reduce required parking and associated impervious surface when practical. Explore opportunities for shared parking and parking credits for on-street parking spaces, proximity to transit, car-sharing, etc.
- Adopt simple outdoor lighting regulations that require full cut-off fixtures and recessed canopy lighting.
- Create incentives for compliance with green building minimum certification standards (such as Leadership in Energy and Environmental Design (LEED) for New Construction for new buildings or LEED for Neighborhood Development (ND) for subdivisions). These incentives could include expedited permitting, increased flexibility in development requirements (density bonuses, reduced setbacks), fee waivers, tax breaks, etc.

Action 1: Utilize the recommendations in this Plan, as well as relevant recommendations from the U.S. EPA Building Blocks memo and Niles 2030 Comprehensive Plan, to formulate regulatory language that enables, encourages, and/or requires sustainable design.

2. Adopt a municipal policy to build new Village facilities and retrofit existing facilities to recognized green building standards.

Some local municipalities have chosen to build LEED certified or otherwise sustainable municipal facilities, including Skokie, Glenview, Chicago, Hoffman Estates, Naperville, and Orland Park. The Niles Park District included several notable sustainable design elements in the design of the Oasis Fun Center and Water Park. Although the Park District did not intend to achieve LEED certification, sustainability was an important consideration throughout the design and construction process.

The Village should develop and adopt a policy to design new Village facilities to meet established green building criteria, such as LEED for New Construction or Green Globes for New Construction. While the Village should strive to meet the chosen rating system's minimum certification requirements for all new construction, pursuit of formal certification should be reserved for specific demonstration sites (such as Village Hall – see following recommendation) to minimize associated cost. In addition, the green building features that the Village pursues should be carefully weighed for their costs versus the environmental benefit they will have to ensure sound financial decisions. Interest has also been expressed in retrofitting municipal buildings to meet green building standards for existing buildings (i.e. LEED for Existing Buildings: Operations and Maintenance, Green Globes for Existing Buildings, or Energy Star). The Village has already led by example in incorporating energy efficiency upgrades to some existing facilities and should explore the additional retrofits that would be necessary to meet green building standards. Most recently, Niles West High School was awarded LEED for Existing Buildings: Operations and Maintenance certification; the building improvements have resulted in energy savings of ten percent annually.

Action 1: Representatives from the Department of Community Development, Engineering Division within the Department of Public Services, and others as appropriate should attend educational sessions or workshops on green building and pertinent rating systems to ensure a base of knowledge about the topic.

Action 2: Village staff should review existing rating systems to determine which is most appropriate for Niles to use as a standard and draft a policy for presentation to the Village Board.

Other Recommendations

The recommendations in this section, while still important, are of secondary importance to the Priority Recommendations outlined previously and should be pursued as resources, funding, and/or staff time allow.

1. Create a green building handbook.

As discussed in the existing conditions analysis, there is significant uniformity in Niles' building stock, particularly among residential buildings. Much of this housing was built in the period following World War II and therefore shares many common characteristics. In addition, the existing conditions analysis showed that there are large potential improvements to be made in improving the resource-efficiency of commercial and industrial buildings. Expanding upon the knowledge gained by developing a Village policy on green building, the Village should undertake an effort to develop a green building handbook for property owners that will recommend various ways to improve the sustainability of the existing building stock. The handbook should include tailored recommendations for single family residential, multifamily residential, commercial, and industrial buildings on topics such as energy and water efficiency, stormwater management, landscaping, building materials, waste management, and green cleaning.

2. Explore LEED for Existing Buildings: Operations and Maintenance (or similar) certification for a Village facility.

The U.S. EPA Building Blocks workshop, held in May 2012, noted that achieving LEED for Existing Buildings: Operations and Maintenance (EBOM) certification for Village Hall would be a strong way to demonstrate Niles' commitment to green building principles and would serve as a demonstration for property owners in the community to learn from. Village Hall, as well as the Health and Wellness facility, likely already meet several of the requirements for certification, such as water and energy efficiency features, and many other requirements are recommended in this Plan (such as adopting a sustainable purchasing policy and green maintenance policy and conducting a waste stream audit). LEED EBOM certification, or green building certification through another accepted rating system, should be explored and pursued after these supportive Plan recommendations have been implemented.

Implementation Approach

The following matrix provides implementation guidance for the recommendations proposed within this section. For each recommendation, the appropriate lead party for implementation is identified (along with potential partners), phasing is noted for when the item should be pursued, and additional information on funding and resources is given. Priority Recommendation #1 should be pursued as the Village undertakes a comprehensive rewrite of its zoning ordinance and should encompass not only the specific regulatory recommendations made in this section, but in other sections of this Plan as well. Funding for this task has already been designated in the Village's operating budget.

Table A-1. Implementation matrix

RECOMMENDATION	LEAD & PARTNERS ¹	PHASING ²	FUNDING	RESOURCES
Priority Recommendations				
1. Update the Village's development regulations to remove barriers and encourage sustainable practices.	VON CD	Underway	Operating budget	Building Blocks memo, Comprehensive Plan, LEED ND
2. Adopt a municipal policy to build new Village facilities & retrofit existing facilities to recognized green building standards.	VON CD, PS, Green Team	Short-term	—	LEED NC, LEED EBOM, Green Globes
Other Recommendations				
1. Create a green building handbook.	VON CD, PS	Mid-term	Grants, if needed	Seattle Green Homes Guide
2. Pursue LEED-EBOM (or similar) certification for a Village facility.	VON CD, PS	Mid-term	Operating budget	LEED EBOM

¹ VON: Village of Niles, CD: Community Development Department, PS: Public Services.

² When implementation should occur: Short-term, 0-3 years; Mid-term, 4-6 years; Long-term, 7+ years; Underway, project is already funded or in progress.



Section B.

Transportation and Mobility

Niles' transportation system includes its roadways, public transportation options, and non-motorized transportation facilities that permit bicycling and walking. Efficient, accessible, and effective transportation networks that provide access to alternative modes of travel, such as transit, biking, and walking, are vital for higher quality of life, livability, and sustainability.

Reduced reliance on private automobile trips helps to reduce greenhouse gases emissions from fuel combustion and improve air quality. In 2007, almost 17 percent of Niles' emissions were attributed to fuel combustion from the use of private vehicles. Using alternative forms of transportation is also more cost-effective than travel via private vehicle; one study estimates the annual savings of commuting by public transportation instead of by car at over \$11,000 for the Chicago region.

Additionally, alternative transportation options provide increased mobility to a wider population range, such as the elderly and low-income individuals, who might not have access to automobiles or wish to drive. Increased opportunities for walking and biking are also beneficial from a public health perspective.

Existing Conditions Report: Key Findings

The following represent the key findings from the existing conditions analysis related to transportation and mobility. Refer to Appendix 1: Existing Conditions Report for the full existing conditions narrative.

- Niles roads and alleys are generally in a state of good repair. The Village is well-served by three major highways, which are all located outside municipal boundaries.
- Village residents depend on driving as their primary mode of transportation, particularly for commuting. A smaller share of Village residents than Cook County and regional averages – just seven percent – use public transportation to get to work.
- Niles is near two Metra lines (both located just outside its boundaries) and has several Pace bus routes, which include the local Free Bus as well as regional routes. However, ridership on Pace routes overall has decreased almost ten percent in recent years, with every route but two (Free Bus 412: Shopper Special and 272 Milwaukee Avenue North) decreasing in ridership overall between 2007-12. Almost half of the routes have begun to see increases since 2009, indicating a potential rebound from decreases potentially caused by the downturn in the economy.
- Pace has identified Milwaukee Avenue as a priority ART route, which is expected to be in place by 2016. Other ART routes are proposed for Golf Road, Dempster Road, Harlem Avenue, and Touhy Avenue. These routes will provide an effective means of public transportation for Niles residents and have the potential to catalyze walkable, mixed-use development on adjacent parcels.
- From 2002-06, ridership for the seven Metra stations that are closest to Niles (Edgebrook, Golf, Morton Grove, Dee Road, Edison Park, Norwood Park, and Park Ridge stations) remained relatively stable.
- The predominant mode choices for travel to these stations include driving alone and/or walking. While Niles is connected to the Metra via Pace routes 225 and 241, few Metra riders choose to access the seven stations via bus. Since most of the stations are more than three-quarters of a mile from Niles, it is safe to assume that most Niles residents access the Metra via private vehicle. While the Niles Free Bus represents an opportunity to link residents with Metra, its travel outside Village boundaries is not currently permitted.

- The North Branch Trail is a great amenity for Village residents. Village staff is currently working with the Illinois Department of Transportation (IDOT) to install Niles' first on-road bike lane along Howard Street as part of a regional bikeways project developed in cooperation with the Northwest Municipal Conference.
- Niles residents have voiced a need for improved pedestrian amenities and sidewalks, as well as increased connectivity with shopping centers from residential neighborhoods. The Milwaukee Avenue Streetscape Plan is helping to create a more pedestrian-friendly environment along Milwaukee.

Identified Goals

The public engagement process to develop this Plan yielded the following goals for transportation and mobility. Each of these goals is addressed through one or more recommendations in this section.

1. Reduce dependence on private vehicles for transportation.
2. Improve Pace service, particularly access to Metra stations.
3. Enhance cycling and pedestrian facilities (such as bicycle lanes and sidewalks) and safety.
4. Improve connectivity with the North Branch Trail and other area bicycle paths.
5. Promote and support alternative fuel vehicles.
6. Establish a Village-wide bike plan.

Recommendations

The recommendations outlined below will help to achieve the Plan's identified goals and address the key findings of the existing conditions analysis. The recommendations are organized into two categories: "Priority Recommendations" and "Other Recommendations."

Priority Recommendations

Priority Recommendations are key strategies that the Village should consider undertaking in the near-term (within the next three years), if possible. Each Priority Recommendation includes action steps to assist with implementation efforts. Where appropriate within the Priority Recommendations section, there are recommendations related to regulatory amendments to facilitate sustainable private property development. These regulatory updates should take place in conjunction with the Village's comprehensive ordinance update (see Land Use and Development Priority Recommendation #1).

1. Create a village-wide bicycle and pedestrian plan.

Non-motorized transportation options, such as biking and walking, are essential components of a sustainable transportation system. Biking and walking are pollution-free modes of transportation that are accessible to most community members. While the Village has made progress in improving pedestrian amenities along Milwaukee Avenue, much work remains to be done on Milwaukee and other thoroughfares to create a safe and pleasant environment that encourages walking and biking. Creating a bicycle and pedestrian plan will identify ways to encourage these travel modes while providing for other modes, such as transit and automobiles, as well. Since IDOT has significant control over the design of Niles' major arterial roadways, the plan should emphasize the importance of continuing to work with IDOT to implement Complete Streets that consider the needs of all users in Niles (see following recommendation).

Niles has already made significant progress toward implementing this recommendation. In October 2012, the Village was awarded a Community Planning grant through CMAP that will provide funding for creating the plan.

Action 1: Work with CMAP to hire a consultant to create a bicycle and pedestrian plan.

Action 2: Continue to seek funding for and implement streetscape improvements per the Milwaukee Avenue Streetscape Plan.

Alternative transportation options in Niles



Trail within Niles portion of Cook County Forest Preserve (left); Free Bus in Niles residential area (right).
Source: Village of Niles (left), CMAP (right).

2. Adopt a Complete Streets policy.

A Complete Streets policy typically mandates that roadway projects in a community are designed with consideration for all street users, regardless of age, ability, income, or mode of travel. In conjunction with developing its bicycle and pedestrian plan, Niles should develop and adopt a Complete Streets policy that outlines design criteria for roadways to meet the needs of all users. In an infill community like Niles, the majority of roadway improvements will likely be designed and implemented by the Village rather than by developers. Therefore, it is essential that Village planners and engineers participate in the development of the policy and coordinate closely with IDOT to ensure its success.

Action 1: During the planning process to create a bicycle and pedestrian plan, the Village should develop and adopt a Complete Streets policy. This policy should be closely coordinated with IDOT.

3. Increase community awareness of alternative modes of transportation.

In conjunction with enhancing alternative modes of transportation, increasing community awareness of the cost- and time-effectiveness of these travel modes will help to raise the number of community members who use them on a regular basis. The Village should actively communicate the economic and environmental benefits of using alternative transportation modes through a variety of channels, such as on its website, cable access, newsletter, and through printed materials in key gathering places in town. The Village's website, Village Hall, and Pace bus shelters should also post clear logistical materials (bus schedules and routes, maps of biking and walking routes, etc.). In addition, the Village should partner with schools to provide related educational activities such as teaching bicycle safety, facilitating Walk to School Week, implementing Safe Routes to School, Bike to the Park, etc. Schools should also consider conducting field trips using available transit and pedestrian amenities.

Action 1: Develop educational materials to illustrate the benefits of alternative modes of transportation. Work with Pace as necessary to develop materials related to public transportation.

Action 2: Distribute and promote materials through a variety of channels.

Action 3: Encourage alternative transportation through partnerships with the Niles Park District, schools, and other community organizations.

4. Work with Pace to improve and streamline service.

Although many of the regional Pace routes that run throughout Niles are heavily used, there is room for increased ridership. Providing ART service along Milwaukee Avenue will greatly increase the quality of public transportation options in Niles. When the Village and Pace embark on the process to implement ART, supportive planning efforts to streamline other existing Pace routes (including the Niles Free Bus) and improve service should take place. It is unlikely that resources and funding will be available to improve Pace service across the board. Rather, the Village, in conjunction with Pace, should identify priority routes and focus resources to maximize the impact of these investments, as well as explore opportunities including amenities such as new shelters and real-time tracking information at bus stops. In addition, the Village should continue its support of Pace-planned ART implementation on other major arterials, such as Golf Road, Dempster Road, Harlem Avenue, and Touhy Avenue.

Although Niles does not have any Metra stations within its borders, there are seven stations in close proximity that serve Niles commuters. It is noteworthy that of Niles' 13 Pace bus routes, only two provide a direct connection with a Metra station. Many residents feel that taking the bus to the Metra is so time-intensive that, in practice, it is not an option at all. The Village and Pace should explore ways to ensure that connections to the Metra stations from the Village, specifically during the morning and early evening rush hours, are effectively serving residents and employers. Potential options could include expanding Free Bus service to connect with Metra, at least during rush hour periods, or publicizing Pace's demand-response and ridesharing programs to employers and residents. Ridesharing programs coordinate moving residents or commuters from one location to another via a customized transit route. Furthermore, the Village may consider partnering with major employers along with Pace to provide a shuttle service connecting Metra stations with work places.

Action 1: Reach out to large employers and residents in the Village to increase awareness of Pace's demand-response and ridesharing programs. Information can be shared via the Village's monthly "green bag" (see Education section), website, and direct outreach to interested area businesses.

Action 2: Undertake a holistic planning process for Pace service in conjunction with the ART planning process for Milwaukee Avenue. This planning process is expected to be initiated by Pace in the next five years.

Table B-1. Weekday Pace ridership, 2007-2012*

ROUTE		RIDERSHIP, MAY 2012	RIDERSHIP, MAY 2007	PERCENT CHANGE, 2007-12
Local (free)	411 Niles Local	664	727	-8.7%
	412 Shopper Special	244	235	3.8%
	413 South End Special	61	74	-17.6%
	Total, local routes	969	1,036	-6.5%
Regional	250 Dempster Street	3,085	3,152	-2.1%
	270 Milwaukee Avenue	2,834	3,214	-11.8%
	272 Milwaukee Avenue North	757	684	10.7%
	423 Linden CTA-Glen-Harlem CTA	987	1,201	-17.8%
	208 Golf Road	2,323	2,461	-5.6%
	225 Central-Howard	179	211	-15.2%
	226 Oakton Street	750	801	-6.4%
	240 Dee Road	558	702	-20.5%
	241 Greenwood-Talcott	312	401	-22.2%
	290 Touhy Avenue	3,185	3,776	-15.7%
	Total, regional routes	14,970	16,603	-9.8%
Total, all routes		15,939	17,639	-9.6%

*Includes ridership for all bus stops (including those outside the community).

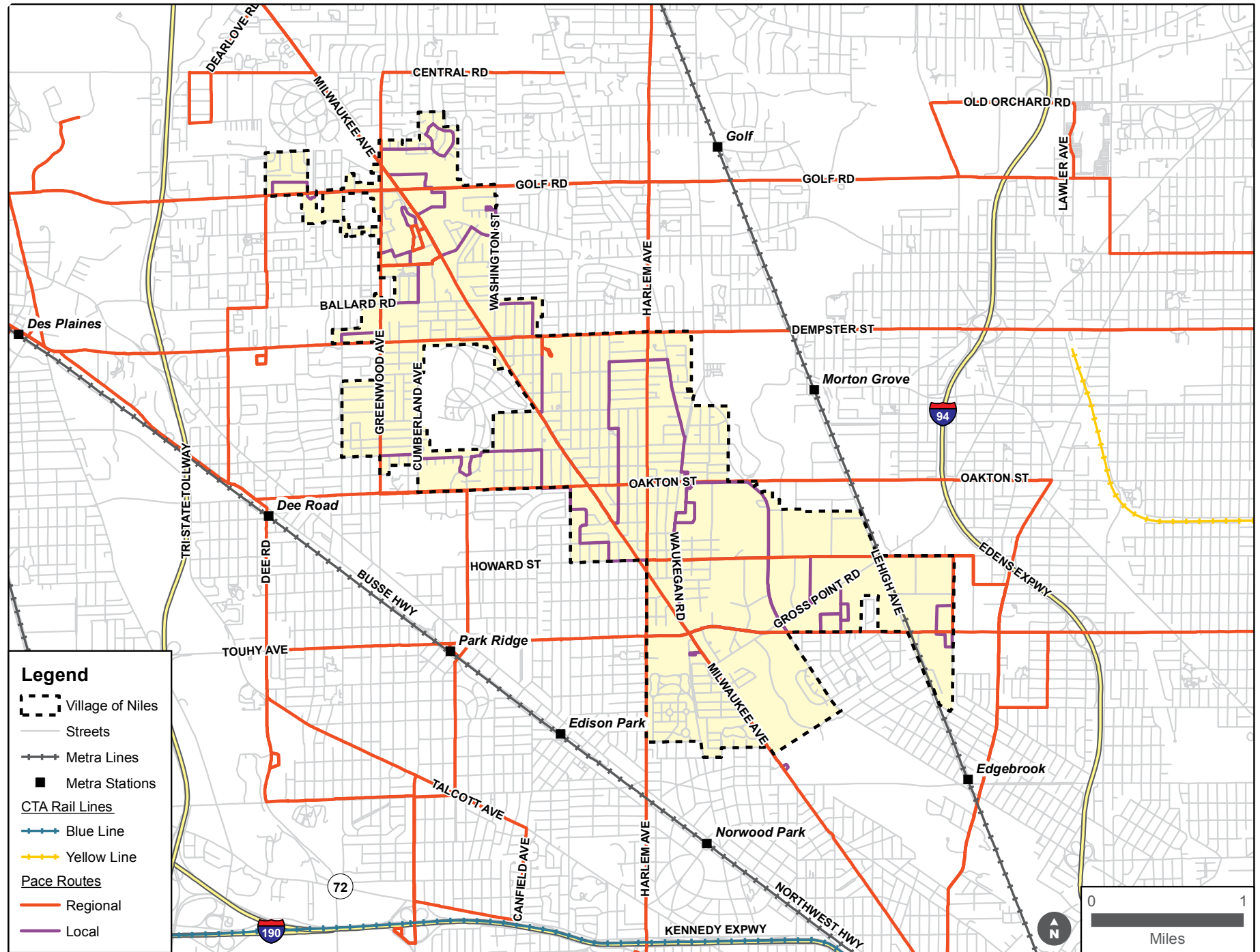
Source: Regional Transportation Management Authority Mapping and Statistics (www.rtams.org).

5. Permit and/or require the installation of bicycle facilities.

This recommendation should be pursued in conjunction with a comprehensive update of the Village's development regulations. Please refer to Land Use & Development Priority Recommendation #1 for information on implementation.

Providing adequate infrastructure will facilitate and encourage alternative modes of transportation. The Village should expressly permit, if not require, the installation of bicycle parking spaces in the Zoning Ordinance, Section X. Off-Street Loading and Off-Street Parking. If the Village decides to require the installation of bicycle facilities, it should consider the standards set for new multiunit residential, retail, and nonresidential buildings by the LEED for Neighborhood Development rating system (Neighborhood Pattern and Design [NPD] Credit 5 or Smart Location and Linkage [SLL] Credit 4).

Figure B-1: Public transportation



Source: CMAP.

Other Recommendations

The recommendations in this section, while still important, are of secondary importance to the Priority Recommendations outlined previously and should be pursued as resources, funding, and/or staff time allow.

1. Establish car sharing services at central locations in the Village.

Car sharing services, such as I-GO and Zipcar, improve mobility and reduce the need for private vehicle ownership. Car sharing has also been shown to reduce road congestion and overall community vehicle miles traveled (VMT). A typical car sharing program stations vehicles in centralized locations in a community; program members reserve these vehicles, typically for short trips, using the Internet and mobile devices. The Golf Mill Mall or Village Hall may be ideal locations to locate car-sharing vehicles. One successful suburban model for car-sharing makes a vehicle available to municipal employees during regular business hours and open to the public during peak and evening hours when users are most likely to run errands. Niles should investigate demand for such a program and meet with car sharing company representatives to determine its feasibility.

2. Adopt a municipal green fleet policy for future vehicle purchases.

As the Village replaces older and non-operational municipal vehicles, special consideration should be made for the purchase of low emission vehicles, including alternative fuel and hybrid vehicles, and equipment. Where possible, the Village should encourage the selection of smaller size vehicles to achieve increased miles per gallon and reduced emissions. The Village Green Team (see Education section) should assess current vehicle inventory and project future fleet needs, and research other municipality's green fleet policies to develop the policy narrative. Relative costs should be considered to ensure feasibility.

3. Encourage employer strategies to reduce vehicle trips.

The Village should work with major Niles employers to investigate the benefit of offering flexible work conditions that allow telecommuting, a compressed schedule, or flextime when feasible. Studies have indicated that implementing flexible work schedules significantly reduces emissions associated with commuting and also has the potential to reduce an employer's energy use and water demand, which could have significant cost savings. The Village should also work with major employers to investigate the use of car/vanpooling (perhaps in partnership with Pace) or rideshare matching. In addition to the overall benefits of congestion reduction and air quality improvements, such programs offer financial benefits to employers due to reductions in annual parking infrastructure costs. Studies estimate employers could save \$360 to \$2,000 per parking space annually depending on land, construction, operations costs, and type of parking. Employees actively participating in rideshare programs realize financial savings on gas, car maintenance, and wear and tear.

Implementation Approach

The following matrix provides implementation guidance for the recommendations proposed within this section. For each recommendation, the appropriate lead party for implementation is identified (along with potential partners), phasing is noted for when the item should be pursued, and additional information on funding and resources is given. Half of the Priority Recommendations for this section are already on the way to implementation in some form or fashion (#1 and 2), as creating a bicycle and pedestrian plan is slated to begin in the spring of 2013. Funding has been procured for this major planning effort through CMAP's Community Planning Program. While Priority Recommendation #4 is critically important to expanding public transportation options in the community, the Village is dependent upon Pace's schedule for reassessing its bus routes and implementing ART service. The Village should continue to be vigilant in moving this important recommendation forward.

Table B-2. Implementation matrix

RECOMMENDATION	LEAD & PARTNERS ¹	PHASING ²	FUNDING	RESOURCES
Priority Recommendations				
1. Create a village-wide bicycle & pedestrian plan.	VON CD, PS, Engineering, IDOT	Underway	Community Planning Program	Active Transportation Alliance
2. Adopt a Complete Streets policy.	VON CD, PS, Engineering, IDOT	Underway	—	Active Transportation Alliance
3. Increase community awareness of alternative modes of transportation.	VON CD, Green Team, Env. Comm.	Short-term	—	
4. Work with Pace to improve and streamline service.	VON PS, Pace, Metra	Mid-term	Pace, operating budget	Milwaukee Avenue Plan
Other Recommendations				
1. Establish car sharing locations at central locations in the Village.	VON	Mid-term	Operating budget	I-Go, ZipCar
2. Adopt a municipal green fleet policy for future vehicle purchases.	VON PS, Green Team	Mid-term	Illinois Green Fleet	Clean Air Counts
3. Encourage employer strategies to reduce vehicle trips.	Env. Comm.	Long-term	—	

¹ VON: Village of Niles, CD: Community Development Department, PS: Public Services, IDOT: Illinois Department of Transportation.

² When implementation should occur: Short-term, 0-3 years; Mid-term, 4-6 years; Long-term, 7+ years; Underway, project is already funded or in progress.

Section C.

Open Space

Preserving, maintaining, and providing adequate access to quality parks and open space is key to building livable, sustainable communities. From neighborhood parks to forest preserves, open spaces provide a range of important community benefits, including stormwater management, wildlife habitat, recreational opportunities, and aesthetic features.

By providing pervious surfaces that allow water to percolate back into the ground, open space serves as an integral component of flood protection and water quality control. For open space to effectively provide these critical ecosystem benefits, its ecological health must be maintained. In addition to ecological functions, open space networks can help to increase a community's marketability, quality of life, and aesthetic appeal. Neighborhoods with ample open spaces tend to have higher property values and property tax revenues for local governments. Moreover, promoting open space can be a powerful tool for improving public health. Open spaces with recreational facilities, such as trails and athletic courts, provide public amenities for communities to use, and encourage active lifestyles.

Existing Conditions Report: Key Findings

The following represent the key findings from the existing conditions analysis related to open space. Refer to Appendix 1: Existing Conditions Report for the full existing conditions narrative.

- Niles has ten pocket or neighborhood parks and seven community or school parks with various recreational amenities. The Village's open space ratio is 10.5 acres per 1,000 residents (the recommended minimum ratio is ten acres per 1,000 residents) but the ratio drops to just 3.5 acres per 1,000 residents if the forest preserve area is excluded. Eighty-seven percent of residents are within walking distance of an open space area.
- Adult residents identified a need for open space areas that support passive recreational activities, such as walking. Most of Niles' parks are relatively small and programmed with sports fields and facilities, playgrounds, etc. that are geared toward younger residents.
- A 209-acre segment of the Cook County Forest Preserve is located within Niles and provides critical wildlife habitat, greenway connections, and recreational opportunities via the North Branch Trail. However, residents have expressed a desire for increased cyclist and pedestrian connectivity from the forest preserve to residential areas and shopping centers.
- The Niles Community Rain Garden serves as an important demonstration project both for biodiversity and stormwater management. The area naturally and sustainably filters runoff from 36,000 square feet of impervious surface, which would otherwise contribute to flooding the community's sewers during large rain events.

Identified Goals

The public engagement process to develop this Plan yielded the following goals for open space. Each of these goals is addressed through one or more recommendations in this section.

1. Preserve and promote open space and parks.
2. Increase connectivity of open spaces.
3. Use sustainable management practices for open space areas.
4. Increase pervious coverage and native plantings.
5. Preserve existing trees and increase tree canopy coverage.

Recommendations

The recommendations outlined below will help to achieve the Plan's identified goals and address the key findings of the existing conditions analysis. The recommendations are organized into two categories: "Priority Recommendations" and "Other Recommendations."

Priority Recommendations

Priority Recommendations are key strategies that the Village should consider undertaking in the near-term (within the next three years), if possible. Each Priority Recommendation includes action steps to assist with implementation efforts. Where appropriate within the Priority Recommendations section, there are recommendations related to regulatory amendments to facilitate sustainable private property development. These regulatory updates should take place in conjunction with the Village's comprehensive ordinance update (see Land Use and Development Priority Recommendation #1).

1. Support the creation of a Park District Master Plan.

The Niles Park District is primarily responsible for the Village's parks and associated facilities but has yet to establish a formal long-term plan for the future of open space in Niles. The National Recreation and Parks Association recommends an open space ratio of ten acres per 1,000 residents. While the Village meets this standard with 10.5 acres per 1,000 residents, the ratio drops to just 3.5 acres per 1,000 residents if the forest preserve area is excluded. During the public process, many older residents voiced that there is not enough open space in Niles and/or that parks do not serve their more passive recreational interests. In addition, many do not perceive the forest preserve area as within the community, as it is physically separated from most residential neighborhoods by high-traffic arterial roadways and industrial uses.

The Village should support the Park District in efforts to create a Master Plan that aids in decision-making related to land acquisition, facility development, and maintenance. The Master Plan could serve to inventory existing properties and facilities, assess the Park District's major audiences and determine gaps in service, locate potential areas of expansion (if desired) and improvements, and identify costs and funding sources. In addition, the Master Plan may set forth standards for sustainable maintenance and landscaping practices. The Village is already participating in a multi-jurisdictional effort to improve connectivity with the forest preserve that runs through the Northern

Niles parks



Golf Mill Park. Source: CMAP.



Cook County Des Plaines River corridor through another Local Technical Assistance program project awarded by CMAP. The Park District may consider exploring ways to enhance connectivity with and awareness of the Cook County forest preserve to the east of Niles to increase its utility as an open space area for the community. To achieve this, the Park District will likely want to coordinate closely with the Village, Forest Preserve District of Cook County (FPDCC), and other partners. Strategies could include installing wayfinding signage within the community, linking existing trails and bike lanes with the North Branch Trail, and implementing crossing improvements at key major intersections (such as at Cleveland and Caldwell) to enhance safety.

Action 1: The Village should aid the Park District in identifying potential funding sources to develop a Master Plan and serve in an advisory/supportive capacity as desired.

2. Utilize sustainable landscaping practices for municipal properties.

The Village has already begun to incorporate sustainable landscapes into its municipal properties, most notably within the Niles Community Rain Garden. Native plantings reduce the need for irrigation and pesticides, provide essential wildlife habitat, and minimize the need for mowing. Potentially in conjunction with the Park District, the Village should consider a policy to utilize native and/or adapted plantings and sustainable land management strategies whenever possible at all of its facilities. Sustainable land management strategies could include using natural and/or organic substitutes for chemical pesticides and planting a diversity of species, particularly those that require reduced maintenance and watering.

Action 1: Research and develop maintenance standards for municipal properties.

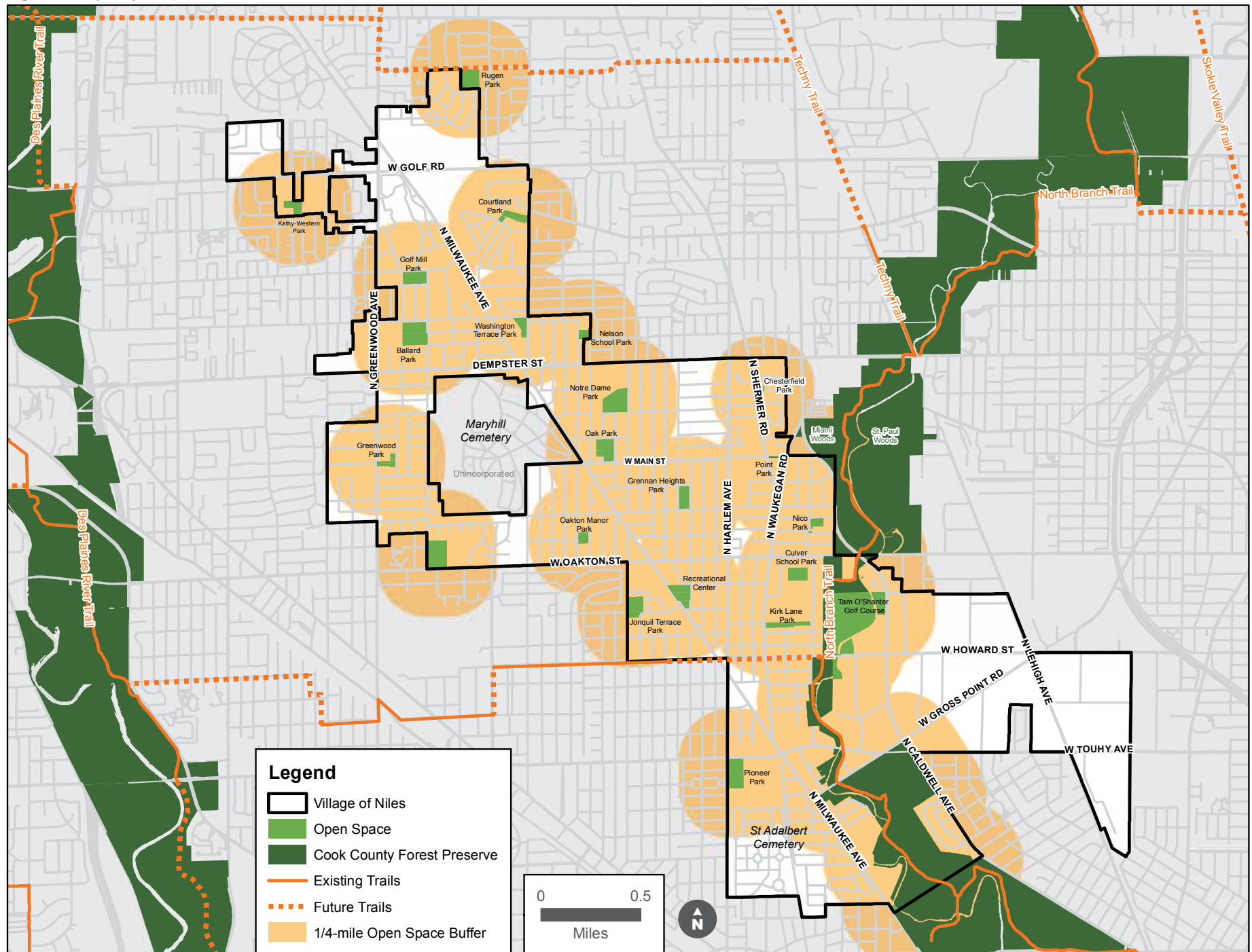
3. Increase tree canopy and diversity.

This recommendation should be pursued in conjunction with a comprehensive update of the Village's development regulations. Please refer to Land Use & Development Priority Recommendation #1 for information on implementation.

A robust tree canopy offers aesthetic benefits, helps to mitigate the urban heat island effect, sequesters carbon emissions, provides shade, and reduces flooding. There are many ways to encourage increased tree canopy through development regulations. For example, the Village could increase the required installation of parkway trees from one tree per every 60 feet of right-of-way to one per every 40 feet. In addition, the Village could amend its Landscape Ordinance to require that a minimum of 50 percent of parking lot hardscape is replaced by a combination of tree canopy coverage (canopy coverage should be projected to ten years after installation), shade from other structures (i.e. electric vehicle charging stations), permeable pavers, landscape islands, or pavement with a solar reflectance index of at least 29. In addition, all landscape islands should have a minimum width of nine feet to promote healthy trees. The Village should also promote a diverse mix of tree species to mitigate species-specific diseases (such as the Emerald Ash Borer).

The Village could also consider creating a tree protection ordinance to protect existing trees. Such an ordinance typically seeks to protect trees in sensitive areas, large and/or old trees, and heritage trees, and ensures that new trees are planted in the event that existing trees must be removed.

Figure C-1. Open space areas



Source: CMAP.

4. Permit native plantings in the Village’s development regulations.

This recommendation should be pursued in conjunction with a comprehensive update of the Village’s development regulations. Please refer to Land Use & Development Priority Recommendation #1 for information on implementation.

Section 106-66 of the Village’s Weed Ordinance requires that all vegetation grown in the front or side yard of private property is kept under a height of six inches. However, many native plantings, which provide beneficial stormwater management functions and natural habitat, have heights in excess of six inches and are thereby prohibited under the Ordinance. The Village should allow exceptions in the Weed Ordinance for native plantings and gardens (including community gardens -- see Other Recommendation #1) in all yards. In addition, Section XII. Landscape of the Village’s Zoning Ordinance should expressly permit native plantings.

Other Recommendations

The recommendations in this section, while still important, are of secondary importance to the Priority Recommendations outlined previously and should be pursued as resources, funding, and/or staff time allow.

1. Create a community garden program.

Creating community gardens on vacant parcels, school yards, parks, or other public gathering places provides a functional use for open space as well as a place for community. Such programs can be managed by a municipality or non-profit organization, or implemented individually by businesses, institutions, or other organizations. The recently-formed Niles Garden Club has shown interest in facilitating such a program. The Village should be supportive of these efforts and ensure that community gardens are permitted in all zoning districts.

Implementation Approach

The following matrix provides implementation guidance for the recommendations proposed within this section. For each recommendation, the appropriate lead party for implementation is identified (along with potential partners), phasing is noted for when the item should be pursued, and additional information on funding and resources is given. It is worth noting that two of this section’s recommendations -- Priority Recommendation #1 and Other Recommendation #1 -- are primarily dependent upon the implementation efforts of other institutions (i.e. Niles Park District and Niles Garden Club, respectively). The Village should serve as a supporting partner for their efforts and offer help when possible, whether by writing letters of support for grant applications or participating in steering committees or meetings when asked, etc.

Table C-1. Implementation matrix

RECOMMENDATION	LEAD & PARTNERS ¹	PHASING ²	FUNDING	RESOURCES
Priority Recommendations				
1. Support the creation of a Park District Master Plan.	Park District, VON, FPDCC	Short-term	Operating budget or grants	Trust for Public Land
2. Utilize sustainable landscaping practices for Village properties.	VON PS, Green Team, Park District	Short-term	—	Conserve Lake County
Other Recommendations				
1. Create a community garden program.	Niles Garden Club, VON, Env. Comm.	Mid-term	Annie’s Grants for Gardens	Adopt-a-Lot, Lots 2 Green

1 VON: Village of Niles, FPDCC: Forest Preserve District of Cook County, PS: Public Services.
2 When implementation should occur: Short-term, 0-3 years; Mid-term, 4-6 years; Long-term, 7+ years; Underway, project is already funded or in progress.

Table C-2. Open space areas

PARK	SIZE (AC.)	TYPE	AMENITIES
Chesterfield Park	0.25	Pocket park	Playground
Courtland Park	2.75	Neighborhood park	Basketball court, playground
Golf Mill Park	4.55	Community park	Basketball/tennis courts, athletic field, playground, picnic area
Greenwood Park	1.25	Neighborhood park	Basketball court, playground, picnic area
Grennan Heights Park	3.67	Neighborhood park	Basketball/tennis courts, baseball/athletic fields, playground
Jonquil Terrace Park	4.60	Community park	Tennis courts, baseball/athletic fields, playground
Kirk Lane Park	4.50	Neighborhood park	Basketball/tennis courts, playground
N.I.C.O. Park	2.03	Neighborhood park	Basketball/tennis courts, baseball fields, playground
Notre Dame College Prep	8.25	School park	Baseball/athletic fields
Oak Park	5.25	Community park	Basketball/tennis court, baseball fields, playground
Oakton Manor Park	1.80	Neighborhood park	Tennis court, baseball field, playground, picnic area
Pioneer Park	7.10	Community park	Baseball/athletic fields, playground, picnic area
Point Park	0.50	Pocket park	Playground, picnic area
Tam O'Shanter Golf Course	37.50	Golf course	Golf course
Washington Terrace Park	2.50	Neighborhood park	Basketball court, baseball field, playground
Wetlands	2.29	Natural area	
Total	313.04		

Source: Niles Park District, CMAP GIS analysis.

Section D.

Waste

Waste reduction, recycling, reuse, and composting are essential to sustainability for a variety of reasons. According to a 2009 emissions report by the U.S. EPA, the way we produce, consume, and dispose of our products and food accounts for 42 percent of U.S. GHG emissions.

Landfilling waste also consumes energy and can contaminate water and degrade natural habitat. Space is an issue as well; there are only 14 more years of projected landfill capacity in the Chicago metropolitan region, the fewest number of years remaining for landfill life of all regions in the state. It is important to divert waste from landfills by reducing the amount of waste that will later need to be thrown away, recycling and reusing appropriate materials, and composting organic waste to break it down naturally.

Existing Conditions Report: Key Findings

The following represent the key findings from the existing conditions analysis related to waste. Refer to Appendix 1: Existing Conditions Report for the full existing conditions narrative.

- The Village’s refuse hauler (currently Groot) provides waste hauling services to all of Niles as well as recycling services for single family dwellings. The Village also provides recycling services to condo buildings via the refuse hauler by request. Businesses and apartment buildings contract separately with the refuse hauler for recycling, which is not required. 53.5 percent of condo buildings, 36.7 percent of businesses, and 9.6 percent of apartment buildings choose to provide recycling services to their tenants.
- In fiscal year (FY) 2012, those in Niles served by the refuse hauler produced 40,777.1 total tons of waste, staying essentially the same from the previous year. The overall recycling rate dropped slightly, from 20.3 percent in FY 2011 to 19.5 percent in FY 2012. By comparison, the national recycling rate in 2010 was 34 percent.
- The residential sector (which includes all residential accounts served by the current refuse hauler) recycled 27.8 percent of their waste while the commercial sector recycled about 16.4 percent. This is likely a reflection of the commercial sector’s low participation in contracting recycling services.
- Despite the fact that construction and demolition debris (C&D) comprises 22 percent of municipal solid waste in Cook County, there is currently no requirement for recycling these materials in Niles.
- Niles, often in conjunction with the Solid Waste Agency of Northern Cook County (SWANCC), offers a variety of recycling opportunities for various materials, including holiday lights, light bulbs, household electronics, and hazardous waste.
- No formal programs currently exist in Niles to encourage food composting. However, the refuse hauler collected 767 tons of yard waste in 2012, which was composted.

Identified Goals

The public engagement process to develop this Plan yielded the following goals for waste. Each of these goals is addressed through one or more recommendations in this section.

1. Reduce the amount of landfilled waste.
2. Improve recycling rates and increase access to recycling facilities.
3. Encourage responsible composting.
4. Require material and building reuse.

Recommendations

The recommendations outlined below will help to achieve the Plan’s identified goals and address the key findings of the existing conditions analysis. The recommendations are organized into two categories: “Priority Recommendations” and “Other Recommendations.”

Priority Recommendations

Priority Recommendations are key strategies that the Village should consider undertaking in the near-term (within the next three years), if possible. Each Priority Recommendation includes action steps to assist with implementation efforts. Where appropriate within the Priority Recommendations section, there are recommendations related to regulatory amendments to facilitate sustainable private property development. These regulatory updates should take place in conjunction with the Village’s comprehensive ordinance update (see Land Use and Development Priority Recommendation #1).

1. Expand community recycling efforts.

The existing conditions analysis for this planning process noted that Niles should make an effort to increase the number of businesses, condo buildings, and multifamily buildings that provide recycling services to tenants. Since the commercial sector has an especially low participation rate in utilizing recycling services and an overall low recycling rate as a result, it may be most effective to identify ways to make recycling more attractive to this sector. In particular, smaller businesses may have trouble making the economics of recycling work. The Village should strive to resolve this issue with the new commercial franchise agreement to be determined in 2017. In the meantime, the Village should promote the current opportunity for the commercial sector to obtain a free 95-gallon recycling bin.

Communities around the region and beyond have found that increasing the size of recycling carts for single family units has resulted in a higher recycling rate. For example, the City of Joliet recycled 40 percent more materials in the three months after larger carts were introduced than during the previous three-month span. Many Niles residents expressed a need for larger recycling bins during the public process. While residents currently have the option to rent larger carts for \$27 per year, the additional cost may be a deterring factor for many in the community. To facilitate higher recycling rates, the Village should consider replacing the existing 18-gallon recycling bins that residents use with 65-gallon wheeled recycling carts. Since there is a cost associated with implementing this strategy, the Village should seek to include recycling carts as a part of the next residential refuse and recycling contract, which will be determined in 2015.

In addition, any new residential refuse and recycling contract should explore the feasibility of creating a centralized recycling drop-off location dedicated to serving the needs of the Village's multifamily and condominium buildings. The drop-off station should be conveniently located for most multifamily buildings in the Village and clearly labeled to indicate that the station is to serve those residents only. The Village should also encourage condo buildings to establish recycling services.

Lastly, the Village should also continue to work with SWANCC to expand opportunities for residents and businesses to recycle electronic and hazardous waste by increasing both the number of events and the types of materials that can be dropped off. In addition, the Village should continue to publicize public locations for disposing of special materials (i.e. batteries, CFL bulbs, and old cell phones at Village Hall), as well as the permanent electronic and hazardous waste drop-off sites found on SWANCC's website.

Action 1: Work to develop a refuse agreement to provide larger recycling carts and create a central drop-off location for multifamily buildings.

2. Undertake public education to reduce waste and increase reuse and recycling.

Clear communication with the public helps to increase participation in recycling; for example, after Baton Rouge launched a recycling education campaign in 2007, the city's recycling rate increased by around 16 percent. Educational efforts in Niles should focus on communicating the importance of recycling, what types of materials can be recycled, and where community members can recycle those materials. As a first step (also suggested in Priority Recommendation #4), the Village should clearly and effectively label recycling bins to demonstrate recyclable materials and re-label trash cans as "landfill" to clearly illustrate the impacts of waste disposal. The Village should also consider targeting educational and promotional activities to different audiences to reduce waste and increase recycling. Information and resources may be distributed in a variety of ways, such as through the Village's website and displays, public service announcements, news articles, schools, and kick-off events.

Table D-1. Refuse and recycling, 2011-12

SECTOR	RECYCLING RATE, FY 2011*	RECYCLING RATE, FY 2012*
Residential**	29.2%	27.8%
Commercial	17.0%	16.4%
Total	20.3%	19.5%

*Recycling rate divides total tons of recycling (recycling + yard waste) by total waste (to landfill, recycling, + yard waste).

**Includes all residential accounts served by Groot.

Source: Groot Industries, Inc.

Potential target audiences for educational efforts include the commercial sector, multifamily and condo buildings, and school children. The Village should focus early educational efforts on increasing the adoption of sustainable waste management practices by businesses and industry and encouraging all sectors to offer recycling services to tenants (see Priority Recommendation #1). It is also important to educate school children about waste and recycling. Not only will children be impacted in the future by how we currently manage our resources and waste, but they also can bring valuable messages and behaviors home based on what they learned in school. The Village should work with SWANCC, U.S. EPA, and the Illinois Department of Commerce and Economic Opportunity (DCEO) to promote and utilize the resources they offer.

Action 1: Coordinate with SWANCC, U.S. EPA, and DCEO to promote and make their resources available to schools, the park district facilities, the library, and other Village locations.

Action 2: The Green Team (see education section for explanation of Green Team) should coordinate to develop materials for posting to the Village's website and displays and other means of communication.

Overflowing recycle bin (left); clearly labeled recycling kiosk (right)



Recycling bin in Niles residential area; misc. Whole Foods Market. Source: Village of Niles (left), CMAP (right).

3. Adopt a municipal environmentally preferable purchasing policy (EPP).

Many municipalities are creating EPPs to guide municipal purchasing and contracting decisions in a sustainable fashion. The Village Green Team (see Education section) should create and adopt an EPP that sets forth standards for purchasing sustainable products, such as recycled paper and tissues, energy and water efficient appliances and other equipment, green cleaning products, and other environmentally sound products. In conjunction with the development of this policy, the Village should conduct a waste audit of Village facilities that serves to identify volume and sources of existing waste and ways to further reduce, reuse, and recycle. SWANCC has resources to assist the Village in performing a simple version of this audit as a starting point.

Action 1: Compile information on purchasing practices by Village department.

Action 2: Research and develop an EPP for use in procurement and contracting.

4. Provide opportunities to recycle in public places.

Currently, other than municipal buildings, Niles does not have recycling facilities in public outdoor places. To demonstrate a community-wide commitment to waste reduction and recycling, the Village should install recycling bins alongside trash bins as funding becomes available. Strategic locations could include bus stops, street intersections, parking lots for public facilities, athletic fields, and areas designated for special events. Village staff should coordinate with the Park District and refuse hauler to identify appropriate specific locations that have the potential to result in high diversion rates. In addition, the Village should ensure that all municipal office spaces continue to offer opportunities for employees to recycle.

Action 1: Identify funding sources for purchasing bins.

Action 2: Research bin types and select the best option. Label bins with words and pictures showing appropriate content. At the same time, affix the label “landfill” to garbage bins to raise awareness. Consider asking students or artists to decorate the bins.

Action 3: Coordinate with the Park District and refuse hauler to identify installation locations and install bins.

5. Adopt a construction and demolition debris recycling ordinance.

This recommendation should be pursued in conjunction with a comprehensive update of the Village’s development regulations. Please refer to Land Use & Development Priority Recommendation #1 for information on implementation.

Debris resulting from construction and demolition comprises almost 22 percent of Cook County’s waste stream. To minimize this source of waste, the Village should develop and adopt a C&D recycling ordinance that requires a certain percentage of materials generated during construction, renovation, and demolition to be recycled. Chicago’s C&D ordinance, adopted in 2006, requires that a minimum of 50 percent of recyclable debris is recycled; this ordinance is typical of many C&D ordinances that have been adopted around the nation. The Niles Park District utilized this method to minimize waste during the construction of the Oasis Fun Center and Water Park by reusing 2,600 tons of demolition on the site.

Other Recommendations

The recommendations in this section, while still important, are of secondary importance to the Priority Recommendations outlined previously and should be pursued as resources, funding, and/or staff time allow.

1. Initiate a residential pilot composting program.

Some businesses in Niles are currently taking steps to implement commercial composting. The Village refuse hauler expects to begin picking up food scraps from the community's four Jewel stores as well as other select businesses by the end of the first quarter of 2013. To further decrease the amount of organic waste sent to landfill, Niles should partner with the refuse hauler and SWANCC to pilot a residential food waste composting program. Residential composting programs typically provide residents with a composting cart (similar to a recycling cart) that is filled with food scraps, soiled paper, and yard waste for pickup. The waste hauler then delivers the material to a composting facility for decomposition into humus, which can be used to improve soil quality. Several communities in the region are implementing such programs; Oak Park's recently launched program is now being expanded due to its success. Niles may wish to include this program as part of its 2015 contract with the refuse hauler for residential properties.

The Village should also encourage backyard composting to residents and promote SWANCC's composting workshops and Eco-Landscaping Guide via the Village's website and other channels of communication. SWANCC has three demonstration compost bins at the Glenview Transfer Station, and is producing a DVD on home composting.

2. Consider adoption of residential Pay-As-You-Throw service.

If the Village considers charging residents for waste hauling in the future, a Pay-As-You-Throw (PAYT) program or modified volume-based program (sometimes referred to as a fixed plus variable fee) should be explored. One Iowa survey found an average recycling increase of about 50 percent after communities implemented PAYT programs. In such a program, residents are charged for the volume of refuse (such as a bag or bin) they throw away, similar to the way that Niles businesses are currently charged for the amount of service they require. The modified volume-based approach allows residents to receive a base level of trash service at no charge and then pay for anything they generate above and beyond that amount. For example, Madeira, Ohio, residents receive a 35-gallon trash cart to fill for free and pay \$0.75 for every additional bag. There is no fee for the collection of recyclables in either the PAYT or volume-based approach. These programs could partially or wholly replace the charge for residents' waste collection through property taxes or a fixed fee, thereby treating trash services like gas, electricity, and other utilities.

3. Utilize deconstruction techniques for Village facilities.

Deconstruction is the careful disassembly of buildings that makes it possible to recover building components and materials for direct reuse. Deconstruction uses less energy and fewer raw materials than recycling and is comparable in cost, especially since recovered materials can be resold. The Village should consider utilizing deconstruction and reuse rather than demolition whenever possible for Village facilities to serve as an example for property owners in the community.

Implementation Approach

The following matrix provides implementation guidance for the recommendations proposed within this section. For each recommendation, the appropriate lead party for implementation is identified (along with potential partners), phasing is noted for when the item should be pursued, and additional information on funding and resources is given. The implementation of three recommendations in this section (Priority Recommendation #1, Other Recommendations #1 and 2) are at least partially dependent on the outcome of new refuse contracts to be established in 2015 (residential) and 2017 (commercial). The Village should be cognizant of the importance of these opportunities to ensure that longer-term goals for waste reduction and recycling are being met through the partnership with the refuse hauler. In the lag time between now and new refuse contracts, the Village should prime community stakeholders with a variety of educational efforts and continued encouragement to offer recycling services.

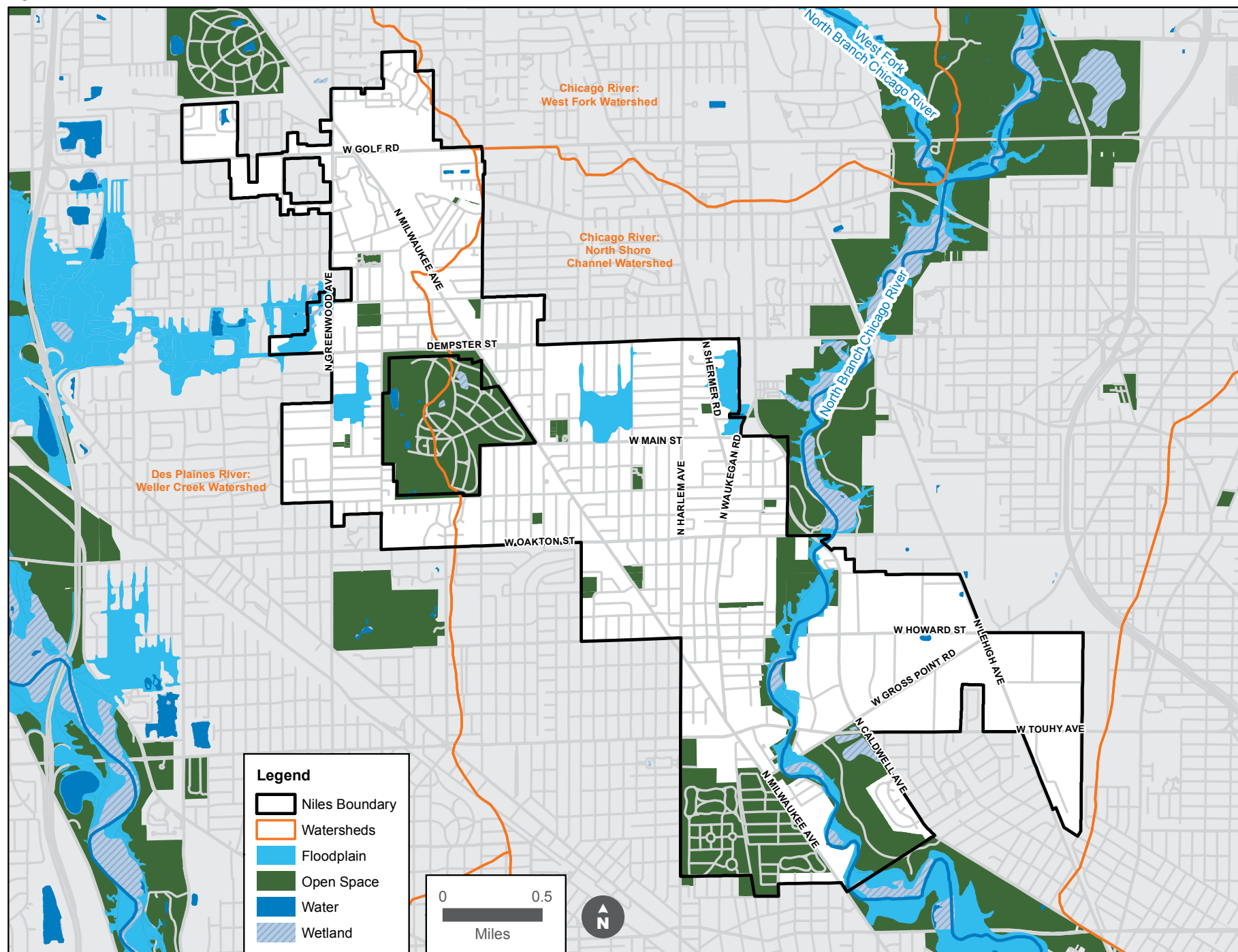
Table D-1. Implementation matrix

RECOMMENDATION	LEAD & PARTNERS ¹	PHASING ²	FUNDING	RESOURCES
Priority Recommendations				
1. Expand community recycling efforts.	VON PS, refuse hauler	Short-term	—	
2. Undertake public education to reduce waste & increase reuse & recycling.	Green Team, SWANCC	Short-term	U.S. EPA's recycling grants; DCEO zero waste schools	SWANCC; U.S. EPA; DCEO employer toolkit
3. Adopt a municipal EPP policy.	Green Team	Short-term	—	
4. Provide opportunities to recycle in public places.	VON PS, Park District, refuse hauler	Mid-term	Public space bin grants; Illinois Recycling Grants	Eureka Recycling; Waste 360
Other Recommendations				
1. Initiate a residential pilot composting program.	VON, refuse hauler, SWANCC	Mid-term	DCEO Food Scrap grant program	SWANCC; U.S. EPA; City of Highland Park
2. Consider adoption of residential Pay-As-You-Throw service.	VON, refuse hauler	Mid-term	—	U.S. EPA PAYT
3. Utilize deconstruction techniques for Village facilities.	VON PS	Mid-term	—	Delta Institute

¹ VON: Village of Niles, PS: Public Services, SWANCC: Solid Waste Agency of Northern Cook County.

² When implementation should occur: Short-term, 0-3 years; Mid-term, 4-6 years; Long-term, 7+ years; Underway, project is already funded or in progress.

Figure E-1. Water resources



Source: CMAP.



Chapter E.

Water

Proactive and pragmatic management of water resources and infrastructure is vital to sustaining a vibrant community. Based on current allocation permits, lake water availability is adequate to the year 2030, with some additional potential to serve new communities that currently use groundwater.

The only major water body within Niles, the North Branch of the Chicago River, faces serious pollution and contaminant issues that inhibit recreation and aquatic life. In addition, stormwater management and flooding have had far-reaching impacts in Niles, particularly after the 100-year flood in September 2008. These issues underscore the need to take action in protecting and managing water resources. The Village has already done so to a certain extent; it has made great strides in creating a plan to improve stormwater management and is keeping pace with maintaining its wet weather infrastructure. In addition, demonstration projects like the Niles Community Rain Garden illustrate to residents and developers that best management practices (BMPs) for stormwater can be a functional, aesthetically pleasing, and environmentally sound way of mitigating flooding issues.

Existing Conditions Report: Key Findings

The following represent the key findings from the existing conditions analysis related to water. Refer to Appendix 1: Existing Conditions Report for the full existing conditions narrative.

- The average per capita water use in the Village was 110 gallons per capita per day (GPCD) in 2011. By contrast, the 2005 average water use in Cook County was 93.8 GPCD. This increased rate of water consumption may be attributed to the Village’s relatively large number of industrial businesses, which are traditionally significant water users.
- The North Branch of the Chicago River is designated as an “impaired stream” that, due to pollution, no longer serves its various ecological and recreational functions. A Total Maximum Daily Load (TMDL) Plan has been developed to help mitigate the sources of pollution, which include stormwater runoff, combined sewer overflows, and point source pollution. In addition, capital projects like the Cleveland Relief Sewer (which separate the combined sewer into separate storm and sanitary sewers) will help to reduce combined sewer overflows and improve water quality.
- The Niles Stormwater Commission has been working to address stormwater management and flooding issues in the community. The Commission has identified four specific recommendations areas -- homeowner education, Village policy, Village operations, and capital programs.
- The Stormwater Relief and Flood Assistance Program, passed in June 2012, implements several of the Stormwater Commission’s recommended capital projects and flood control assistance programs. The Program is funded by a special 0.25 percent increase in sales tax.
- Niles recently adopted a Stormwater Management Ordinance, which establishes release rates and required storage for a 100-year event, as well as appropriate detention facilities. Stormwater BMPs are not listed as required or preferred in the Ordinance.
- The Niles Bio-Infiltration Facility and Community Rain Garden represent BMPs that serve as examples of green infrastructure to manage stormwater to residents and developers.
- The Village enforces an outdoor watering ordinance during summer months to conserve water and has also worked with Coca-Cola to distribute rain barrels to residents for rainwater reuse.

Identified Goals

The public engagement process to develop this Plan yielded the following goals for water. Each of these goals is addressed through one or more recommendations in this section.

1. Promote water conservation, efficiency, and reuse.
2. Address flooding through innovative stormwater management practices.
3. Continue to manage and maintain water infrastructure.
4. Reduce water pollution.
5. Provide educational opportunities for the public on the importance of water issues.

Recommendations

The recommendations outlined below will help to achieve the Plan’s identified goals and address the key findings of the existing conditions analysis. The recommendations are organized into two categories: “Priority Recommendations” and “Other Recommendations.”

Priority Recommendations

Priority Recommendations are key strategies that the Village should consider undertaking in the near-term (within the next three years), if possible. Each Priority Recommendation includes action steps to assist with implementation efforts. Where appropriate within the Priority Recommendations section, there are recommendations related to regulatory amendments to facilitate sustainable private property development. These regulatory updates should take place in conjunction with the Village’s comprehensive ordinance update (see Land Use and Development Priority Recommendation #1).

1. Promote water conservation through educational opportunities.

Changing behavior related to water use can have a significant impact on water conservation. Providing resources and educational opportunities to the public is often an effective way to realize such behavioral changes. As a first step, the Village should become a municipal WaterSense member and promote the use of water-efficient products by property owners. WaterSense is a program administered by the U.S. EPA that promotes water efficiency and conservation. The program evaluates water-efficient products, appliances, and fixtures and, if threshold criteria are met, certifies them as WaterSense products. WaterSense also provides free outreach and educational materials to disseminate to residents and businesses. The Village should partner with home improvement stores to offer rebates for the purchase of WaterSense labeled products and appliances.

The Village can also undertake independent educational initiatives related to water conservation. Staff should develop materials to include in the water bill on ways to enhance conservation and efficiency, such as tips on proper installation of water-using fixtures, fittings, and appliances; marketing of related policies and programs (watering ban during summer months, rain barrel distribution, water audits, etc.); and other educational information. CMAP has developed template water bill inserts on household water leaks, aging infrastructure, the finite nature of Lake Michigan as a water source, and lawn watering for municipalities or water utilities to use. In addition, the Village, as feasible, should replace water-inefficient fixtures and appliances with WaterSense products and install educational signs to tout these and other water conservation messages in public restrooms, swimming pools, and public facilities.

Water audits serve to identify leaks, which can be a major source of water waste. To lead by example, the Village should strive to reduce its water consumption for municipal operations by performing water audits of its facilities and implementing the recommendations from those audits. In addition, the Village should publicize opportunities for property owners, especially industrial uses (which are typically the largest water users), to perform water audits on their properties. Lastly, the Village can work with school environmental or science clubs to conduct audits in schools and explore ways to reduce water use and waste.

Action 1: Investigate becoming a WaterSense member, promote WaterSense fixtures to property owners, and follow WaterSense's outreach and educational recommendations.

Action 2: Partner with home improvement stores to offer rebates for WaterSense products.

Action 3: Work with the Green Team to develop further educational materials related to water. Distribute these through the Village's web site, displays, and other avenues.

2. Include BMPs in the Stormwater Management Ordinance.

This recommendation should be pursued in conjunction with a comprehensive update of the Village's development regulations. Please refer to Land Use & Development Priority Recommendation #1 for information on implementation.

The Village's recently adopted Stormwater Management Ordinance is a positive step toward managing flooding and improving water quality. To build on this, the Village should create and adopt standards for stormwater BMPs in the ordinance. These BMPs could include permeable pavers, green roofs, cisterns, bioswales, rain gardens, vegetated stormwater planters, retention basins or areas, and underground gravel storage.

3. Set impervious coverage limits for all zoning districts.

This recommendation should be pursued in conjunction with a comprehensive update of the Village's development regulations. Please refer to Land Use & Development Priority Recommendation #1 for information on implementation.

The Village's current Zoning Ordinance sets a maximum impervious coverage limit of 60 percent for the R1 and R2 single family residential zoning districts. To encourage natural stormwater infiltration and greenery, the Village should set impervious coverage limits for all zoning districts. The maximums should be based on the intensity of permitted uses (for example, residential districts may generally have lower impervious coverage maximums than commercial districts) and potential for pervious area based on district setback requirements and lot sizes.

4. Expressly permit permeable pavers and create standards for their use.

This recommendation should be pursued in conjunction with a comprehensive update of the Village's development regulations. Please refer to Land Use & Development Priority Recommendation #1 for information on implementation.

Permeable pavers reduce run-off by allowing stormwater to infiltrate into the ground. The Village should expressly permit permeable pavement options in Zoning Ordinance Section X. Off-Street Loading and Off-Street Parking and provide standards for their use. The standards should define the types of permeable pavement that are allowed and requirements based on the project type or use (i.e. parking lots, on-street parking, sidewalks).

5. Adopt CMAP's Model Water Use Conservation Ordinance.

This recommendation should be pursued in conjunction with a comprehensive update of the Village's development regulations. Please refer to Land Use & Development Priority Recommendation #1 for information on implementation.

Niles should adopt CMAP's Model Water Use Conservation Ordinance in whole or in part to ensure that its ordinances support water conservation. CMAP's model ordinance includes conservation measures for residential and nonresidential (commercial/industrial/institutional) uses with consideration for both building features and landscape. The ordinance also includes information on water pricing and educational initiatives.

Other Recommendations

The recommendations in this section, while still important, are of secondary importance to the Priority Recommendations outlined previously and should be pursued as resources, funding, and/or staff time allow.

1. Continue existing efforts.

The Village, in conjunction with the Coca Cola Bottling Plant, has already been proactive in distributing rain barrels and educating the public about their use and should continue to do so. In addition, the Niles Stormwater Commission has been aggressively pursuing solutions to stormwater management issues. The Commission should continue implementation of the capital projects and homeowner assistance identified through the recently-adopted Stormwater Relief and Flood Assistance Program.

2. Encourage and expand rainwater reuse.

In the past, Niles has encouraged property owners to capture rainwater in rain barrels for irrigation purposes. In addition, recently passed State legislation directs the Illinois Department of Public Health to develop standards for building systems that harvest rainwater for non-potable reuse within buildings (i.e. for flushing toilets, cooling towers, etc.). Once such standards have been adopted, the Village should encourage rainwater harvesting systems for internal non-potable reuse to help conserve water, particularly for new construction.

3. Review the Village's water pricing structure.

In the longer term, the Village should review its water pricing structure to ensure that prices encourage conservation and allow for adequate revenue to undertake necessary infrastructure improvements. Currently, water consumption in Niles is billed on a flat rate structure. Some communities have instituted seasonal rates and/or increasing block rate structures, where the cost per unit increases when the user passes established consumption thresholds. Such a pricing structure sends a strong conservation message to the community's largest water users and has the potential to stabilize revenue for water infrastructure operation and maintenance.

Implementation Approach

The following matrix provides implementation guidance for the recommendations proposed within this section. For each recommendation, the appropriate lead party for implementation is identified (along with potential partners), phasing is noted for when the item should be pursued, and additional information on funding and resources is given.

Table E-1. Implementation matrix

RECOMMENDATION	LEAD & PARTNERS ¹	PHASING ²	FUNDING	RESOURCES
Priority Recommendations				
1. Promote water conservation through educational opportunities.	Green Team, Env. Comm.	Short-term	—	WaterSense; CMAP model ordinance
Other Recommendations				
1. Continue existing efforts.	VON, Coca-Cola, Niles Stormwater Comm	Underway	Sales tax	
2. Encourage and expand rainwater reuse.	VON CD, Engineer	Mid-term	—	IDPH; IAPMO Green Plumbing Code
3. Review the Village's water pricing structure.	VON FD	Mid-long term	—	CMAP model ordinance

¹ VON: Village of Niles, CD: Community Development Department, IDPH: Illinois Department of Public Health, IAPMO: Illinois Association of Plumbing & Mechanical Officials, FD: Finance Department.

² When implementation should occur: Short-term, 0-3 years; Mid-term, 4-6 years; Long-term, 7+ years; Underway, project is already funded or in progress.

Niles resident with a rain barrel (left); Ballard Pumping Station (right)



Niles rain barrel giveaway (left); Niles Ballard Pumping Station (right). Source: Village of Niles.



Section F.

Energy

The Chicago region's energy supply is generated and sourced predominantly from coal, nuclear, and natural gas. The combustion of fossil fuels (like coal and natural gas) is responsible for almost 77 percent of Niles' GHG emissions and contributes to volatile organic compounds (VOCs), ozone, and heavy metals that can degrade air quality and affect public health.

In addition, excessive consumption of electricity and natural gas unnecessarily balloons utility bills for residents and business owners, and these costs are only expected to increase in coming years. Improving the energy efficiency of building systems and appliances, increasing renewable energy resources, and encouraging energy conservation measures and behavioral changes can help to save money and reduce pollution and emissions.

Existing Conditions Report: Key Findings

The following represent the key findings from the existing conditions analysis related to energy. Refer to Appendix 1: Existing Conditions Report for the full existing conditions narrative.

- Non-residential uses were responsible for over 81 percent of electricity consumption in 2007, while the residential sector consumed almost 19 percent. The non-residential sector's higher than average consumption may be explained by the presence of large commercial and industrial users. Such users have the potential for great cost savings in reducing electricity consumption, as is illustrated by the Shure example.
- For natural gas, the non-residential sector was responsible for 62.7 percent of consumption, while the residential sector was responsible for 37.3 percent. This is essentially the opposite of consumption patterns for Cook County. Again, this trend may be partially explained by the ratio of large commercial and industrial buildings to residential buildings and the relatively small footprints of Niles' housing stock.
- Much of the Village's housing stock was built prior to 1990, which could indicate a need to update these buildings with energy efficient features and systems. The relative uniformity of residential buildings represents an opportunity to make targeted recommendations that would be useful to many homeowners in the Village.
- Village government has led the way in implementing energy efficiency upgrades, including the installation of high-efficiency lighting and a variable frequency drive at the Ballard Pump Station, as well as retro commissioning of the Fitness Center (which resulted in optimization of operations, maintenance, and energy efficiency).
- Renewable energy systems represent an opportunity to reduce energy consumption in Niles. The Village is currently considering adding provisions for such systems within its Zoning Ordinance.

Identified Goals

The public engagement process to develop this Plan yielded the following goals for energy. Each of these goals is addressed through one or more recommendations in this section.

1. Promote energy efficiency and conservation.
2. Promote renewable energy, especially via demonstration projects.

Recommendations

The recommendations outlined below will help to achieve the Plan's identified goals and address the key findings of the existing conditions analysis. The recommendations are organized into two categories: "Priority Recommendations" and "Other Recommendations."

Priority Recommendations

Priority Recommendations are key strategies that the Village should consider undertaking in the near-term (within the next three years), if possible. Each Priority Recommendation includes action steps to assist with implementation efforts. Where appropriate within the Priority Recommendations section, there are recommendations related to regulatory amendments to facilitate sustainable private property development. These regulatory updates should take place in conjunction with the Village's comprehensive ordinance update (see Land Use and Development Priority Recommendation #1).

1. Launch an energy efficiency campaign.

Reducing overall energy consumption lowers utility bills, lessens strain on infrastructure, and reduces associated GHG emissions. The existing conditions analysis showed that over 81 percent of electricity consumption and 62 percent of natural gas consumption was attributed to commercial, industrial, and institutional uses in 2007. Significant reductions in energy consumption, along with cost savings, are possible if these uses in particular begin to implement energy efficiency measures.

To that end, the Village should undertake a multifaceted energy efficiency campaign centered on public outreach and education. First, due to the overall age of the building stock, the Village should encourage property owners to engage in energy audits to pinpoint efficiency improvements that would reduce consumption and costs. The Village can direct property owners to existing programs, such as CMAP's Energy Impact Illinois program, which provides resources for both do-it-yourself and professional energy audits, as well as funding to assist in implementing audit recommendations. The Village can also recommend that property owners trade in old appliances, such as air conditioners and refrigerators, for newer, more energy efficient models. Encouraging property owners to trade appliances in, rather than purchase a new model completely, ensures that old, inefficient appliances are taken out of use (rather than becoming a second refrigerator in the garage, for example). The Village should consider partnering with ComEd, retailers, or manufacturers for appliance trade-in rebate programs.

Energy Impact Illinois also has resources for property owners interested in building retrofits; retrofitting is a systems-based approach to updating a building that has the potential to reduce energy consumption by up to 30 percent. Retrofitting a building is typically more time- and cost-intensive than implementing the recommendations of an energy audit, but also has the potential to save far more energy and money over the long term. Building retrofits employ the use of energy conservation measures and technological upgrades to increase building performance especially as related to building envelope, heating and cooling systems, lighting, hot water systems, and other appliances and systems. Technologies most often used include air-sealing and insulation, energy-efficient windows and lighting, high efficiency boilers and furnaces, heat recovery systems, programmable thermostats or energy management systems, solar or tankless hot water systems, and high efficiency equipment.

In addition to promoting energy audits and building retrofits, simple behavioral changes can result in energy savings of between five and 15 percent. These common-sense changes include turning off unused lights, performing simple air conditioning maintenance, reducing heating and increasing cooling temperatures by three degrees, and unplugging electronics that are not in use. The Village should publicize the importance of these conservation measures, as well as the virtues of energy audits and retrofits, through a comprehensive energy efficiency campaign. The campaign should compile resources for property owners in both a digital location (such as on the Village's website) and a physical location (perhaps within Village Hall or the Niles Library). In addition, Niles can spread the word and provide tips through workshops, informational sessions at the newly established "green bag" event (see Education section), and digital (listservs) and print media (Focus on Niles newsletter, local newspapers).

Action 1: The Green Team (see Education section) or Environmental Committee should compile resources on energy audits, retrofits, and behavioral tips to save energy.

Action 2: Compiled resources should be posted on the Village's website and printed materials made available.

Action 3: The Village should reach out to the community via workshops, green bag sessions, and other community events. Targeted outreach to large commercial and industrial uses should be pursued as the opportunity arises.

2. Investigate providing energy from renewable sources through electricity aggregation.

The Village has promoted and should continue to promote Clean Air Counts' Energy Savings Program, an opt-in program that offers reduced electricity costs to households and local businesses through Integrys Energy, a certified third-party electricity supplier. These savings are in effect through June 2013, when the Village will reconsider whether to pursue municipal electricity aggregation. Many communities around the region have conducted special referenda to purchase energy on behalf of residential and small commercial customers through aggregation and several (including Oak Park, Lombard, Highland Park, and Park Forest) have committed to purchase Renewable Energy Certificates to offset the emissions associated with traditional sources of electricity. Committing to provide electricity from renewable sources is often associated with a nominal price increase but has a very positive impact on a community's emissions rate. The Village should explore the possibility of purchasing Renewable Energy Certificates or allowing customers to choose one or the other if and when it pursues aggregation.

Action 1: Research options for purchasing Renewable Energy Certificates if and when the Village pursues municipal electricity aggregation.

Action 2: In the meantime, continue to promote Clean Air Counts' Energy Savings Program to residents and businesses.

3. Enable renewable energy systems in development regulations.

This recommendation should be pursued in conjunction with a comprehensive update of the Village's development regulations. Please refer to Land Use & Development Priority Recommendation #1 for information on implementation.

Some zoning standards, such as height, setback, roof, and accessory use requirements, may unintentionally prohibit renewable energy systems from being installed. To facilitate the development of such systems, the Village should identify and remove any regulatory barriers that may exist, and expressly permit the systems as accessory structures in all zoning districts.

4. Enable and/or require alternative fuel stations in development regulations.

This recommendation should be pursued in conjunction with a comprehensive update of the Village's development regulations. Please refer to Land Use & Development Priority Recommendation #1 for information on implementation.

Niles should encourage new developments to include fueling facilities for alternative fuel vehicles (such as those that run on electricity or compressed natural gas and other low emission vehicles). This can be achieved by expressly permitting such fueling stations within parking lots. In addition, the Village should consider requiring new commercial construction that receives at least one Village incentive to include such facilities. The Village can also lead by example through providing charging stations at municipal facilities (i.e. Village Hall). There are rebate programs available from various entities, including Illinois DCEO, for those wishing to install alternative fuel stations.

5. Keep the energy code up to date.

This recommendation should be pursued in conjunction with a comprehensive update of the Village's development regulations. Please refer to Land Use & Development Priority Recommendation #1 for information on implementation.

In 2009, the State of Illinois signed laws into effect that require all new commercial and residential buildings to follow the standards of the 2009 International Energy Conservation Code (IECC). The IECC was updated again in 2012, and that version is slated to become the new standard for development on January 1, 2013. These energy standards are enforced at the local or county level, depending on where development occurs. The last energy code adopted by the Village of Niles was the 2006 IECC, indicating that some catch-up is needed to comply with State requirements. The Village should be aggressive in adopting the State's standards and training staff on the requirements of the newest IECC to ensure that new development that occurs is as energy efficient as possible.

Other Recommendations

The recommendations in this section, while still important, are of secondary importance to the Priority Recommendations outlined previously and should be pursued as resources, funding, and/or staff time allow.

1. Continue to incorporate energy efficiency into Village facilities.

The Village has been already been proactive in upgrading its facilities with energy efficient features. Staff should continue to pursue grants and implement these features to reduce energy consumption and cost at the municipal level. In addition, the Village should share this research and experience with the public to assist property owners in undertaking their own upgrades.

2. Pursue a model renewable energy system on a municipal site.

In addition to reducing overall energy consumption in Niles, it is important to increase the amount of energy derived from clean and renewable sources, such as solar, wind, and geothermal. To demonstrate the accessibility and viability of renewable energy sources, the Village should pursue the installation of a renewable energy system on a municipal site. The demonstration site should be chosen based on its suitability for the type of renewable energy system being considered; for example, Village Hall's roof, which predominantly runs east-west, would be an ideal location for an array of solar panels because of its wide expanse of southern exposure. In addition, the demonstration site should be a venue that attracts foot traffic from property owners and would allow public access to the system. Lastly, the Village should include educational signage and materials to increase awareness of the installed system and prompt property owners to investigate private use of the systems. An interactive way to engage visitors could be to install a control panel on-site that shows the amount of energy produced by the system in real-time with associated cost savings.

Implementation Approach

The following matrix provides implementation guidance for the recommendations proposed within this section. For each recommendation, the appropriate lead party for implementation is identified (along with potential partners), phasing is noted for when the item should be pursued, and additional information on funding and resources is given. Most of the recommendations in this section pertain to either educating community members about energy issues or updating relevant development regulations to encourage energy efficiency and renewable energy systems. However, it should be noted that simply providing educational materials and removing regulatory barriers will not result in energy savings. Implementation of real energy-saving practices is key to reducing energy consumption and associated GHG emissions. With that in mind, Niles should strive to provide information on a variety of grant, rebate, or other funding opportunities to community members that will aid in actually implementing such measures. In addition, purchasing Renewable Energy Certificates (see Priority Recommendation #2) has the potential to greatly offset the pollution and emissions associated with traditional electricity consumption, and should be vigorously pursued if the opportunity arises.

Table F-1. Implementation matrix

RECOMMENDATION	LEAD & PARTNERS ¹	PHASING ²	FUNDING	RESOURCES
Priority Recommendations				
1. Launch an energy efficiency campaign.	Green Team, Env. Comm.	Short-term	Small Business Energy Savings	Flex Your Power; Cool Cities; Energy Impact Illinois
2. Investigate providing energy from renewable sources through electricity aggregation.	Village Mgr., Board	Short-term	—	Oak Park, IL
Other Recommendations				
1. Continue to incorporate energy efficiency into Village facilities.	VON PS, Asst. Village Mgr.	Underway	IL Clean Energy Community Foundation	IMEA Electric Efficiency program
2. Pursue a model renewable energy system on a municipal site.	Asst. Village Mgr.	Short-mid term	IL Clean Energy Community Foundation	

¹ VON: Village of Niles, PS: Public Services, IMEA: Illinois Municipal Electric Agency.

² When implementation should occur: Short-term, 0-3 years; Mid-term, 4-6 years; Long-term, 7+ years; Underway, project is already funded or in progress.



Section G.

Greenhouse Gases

GHGs, such as carbon dioxide, methane, and nitrous oxide, trap heat in the atmosphere and directly affect the quality of our air and ecosystems. While GHGs can result from natural processes, industrial development and other human activities (primarily the combustion of fossil fuels for electricity, heat, and transportation) are responsible for the overwhelming majority of GHG emissions today.

The increased concentration of GHGs in the atmosphere is resulting in a global increase in temperature and, with growing rates of industrialization, consumption, and development, this trend is only expected to worsen in the future. In the past two decades alone, U.S. GHG emissions have risen by ten percent.

The cumulative effects of the changing climate are leading to significant changes to many complex environments on the planet. Since 1900, the average temperature of the Earth's surface has risen by 1.2 to 1.4°F. The environmental degradation resulting from increased GHG emissions, such as melting ice caps, increases the planet's vulnerability to further emissions, creating a feedback loop cycle that accelerates future climate change.

The effects of climate change vary from region to region. The Chicago metropolitan area is already experiencing climate change impacts, including more frequent heat waves and severe weather events. Given the implications of climate change for the area's economy, public works infrastructure, ecosystems, air quality, public health, and quality of life, municipalities stand to benefit from addressing GHG emissions in sustainability planning efforts. Reducing and mitigating GHG emissions, as well as adapting municipal policies and infrastructure to address climate change, can help municipalities to be more resilient.

Existing Conditions Report: Key Findings

The following represent the key findings from the existing conditions analysis related to GHGs. Refer to Appendix 1: Existing Conditions Report for the full existing conditions narrative.

- In 2007, Niles emitted about 19.6 metric tons (MT) per capita, while Cook County’s emissions rate was significantly lower at 14.9 MT per person. Electricity use was responsible for over half of the Village’s emissions, natural gas use was responsible for 22.4 percent, and transportation was responsible for 16.9 percent. Combined, energy use and transportation were responsible for 93.6 of the Village’s emissions.
- Since the non-residential sector is responsible for a disproportionately large share of the Village’s energy consumption, it stands to reason that it is also responsible for a majority of the emissions attributed to energy. Incorporating energy efficiency retrofits in commercial, industrial, and institutional buildings may result in the most dramatic GHG emissions reductions in Niles.
- Niles’ share of emissions attributed to transportation was over four percent lower than the Cook County average, a potential indication of its location efficiency. Both its average household and on-road VMT rates were also lower than the County average (see Transportation section for a discussion of household VMT).
- Niles was recently recognized by Clean Air Counts with a Gold award for implementing a variety of strategies to reduce emissions and improve air quality.

Identified Goals

The public engagement process to develop this Plan yielded the following goal for greenhouse gases. This goal is addressed through the recommendations in this section.

1. Reduce greenhouse gas emissions.

Recommendations

The recommendations outlined below will help to achieve the Plan’s identified goals and address the key findings of the existing conditions analysis. The recommendations are organized into two categories: “Priority Recommendations” and “Other Recommendations.”

Priority Recommendations

Priority Recommendations are key strategies that the Village should consider undertaking in the near-term (within the next three years), if possible. Each Priority Recommendation includes action steps to assist with implementation efforts.

1. Pursue a Clean Air Counts Platinum award.

Niles recently received a Clean Air Counts Gold award for its efforts to reduce GHG emissions and energy consumption through building retrofits, promoting green cleaning products, constructing the Niles Community Rain Garden, and conducting community outreach. The Village should build on these efforts to achieve the next Clean Air Counts award level, a Platinum award. Many recommendations in this Plan would help Niles to realize a Platinum award, including:

- Adopt land use revisions that provide for walkable communities and decrease vehicle use (Land Use and Development section).
- Adopt an outdoor lighting ordinance (Land Use and Development section).
- Adopt LEED standards for municipal buildings (Land Use and Development section).
- Modify the Weed Ordinance to allow native plantings (Open Space section).
- Create stringent purchasing policies for green products (Waste section).
- Purchase renewable energy credits for the community (Energy section).
- Adopt energy efficient building codes (Energy section).
- Outreach efforts to promote clean air initiatives (Energy section).
- Adopt an anti-idling ordinance (Greenhouse Gases section).

Action 1: Identify and complete activities that would aid the Village in achieving the requirements of the Platinum award.

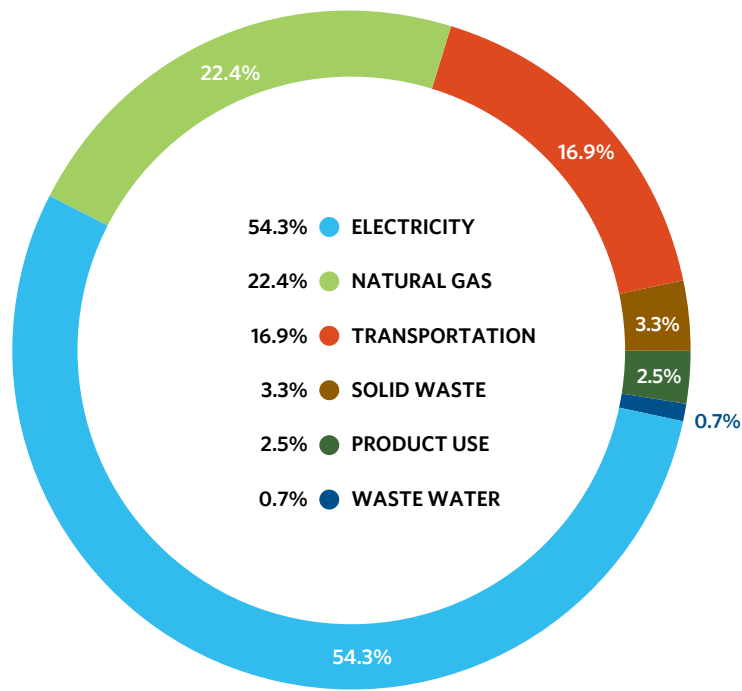
Action 2: Document those activities and submit an application to Clean Air Counts.

2. Adopt an anti-idling policy.

Reduced idling results in lower fuel consumption, improved air quality, and extended life for vehicles. The Village should enact an anti-idling policy that applies to all vehicles operated by the municipality and its contractors. The policy should state a maximum acceptable idling time, e.g. zero to five minutes in a 60-minute period, while stating provisions for weather and vehicles with specialized equipment, such as emergency vehicles.

Action 1: Research anti-idling ordinances and develop language for a Village policy for presentation to the Board.

Figure G-1. Greenhouse gas emissions by sector, 2007



Source: CMAP.

Other Recommendations

The recommendations in this section, while still important, are of secondary importance to the Priority Recommendations outlined previously and should be pursued as resources, funding, and/or staff time allow.

1. Pursue emissions reductions via sustainable energy, transportation, waste, and land use practices.

GHG emissions may be primarily attributed to the combustion of fossil fuels associated with our transportation choices and energy consumption (natural gas and electricity), with a small amount attributed to waste management. As such, many of the strategies that Niles can undertake to reduce emissions are embedded within this Plan’s specific sections (i.e. Land Use and Development, Transportation and Mobility, Waste and Energy). Table G-3 summarizes the relevant recommendations from these sections; refer to the specific recommendations for further information.

Table G-1. Greenhouse gas emissions by sector, 2007

SECTOR	NILES		COOK COUNTY	
	CO2 EQUIVALENT (MMT)	SHARE OF TOTAL	CO2 EQUIVALENT (MMT)	SHARE OF TOTAL
Electricity	0.325	54.3%	35.47	45.2%
Natural gas	0.134	22.4%	19.34	24.6%
Transportation	0.101	16.9%	16.48	21.0%
Solid waste	0.020	3.3%	3.71	4.7%
Product use	0.015	2.5%	0.68	0.9%
Wastewater	0.004	0.7%	2.79	3.6%
Total	0.599	100.0%	78.47	100.0%

Source: Municipal Energy & Emissions Profile, Center for Neighborhood Technology.

Implementation Approach

The following matrix provides implementation guidance for the recommendations proposed within this section. For each recommendation, the appropriate lead party for implementation is identified (along with potential partners), phasing is noted for when the item should be pursued, and additional information on funding and resources is given. As mentioned above, emissions reductions are largely seen from changes made in transportation, land use and development, and energy consumption patterns; as such, the majority of recommendations in this Plan that will impact emissions are found in other sections (see Other Recommendations #1). However, the Priority Recommendations included in this section were found to have strong linkages with emissions reductions and were included for that reason.

Table G-2. Implementation matrix

RECOMMENDATION	LEAD & PARTNERS	PHASING ¹	FUNDING	RESOURCES
Priority Recommendations				
1. Pursue a Clean Air Counts Platinum award.	Asst. Village Mgr.	Short-term	Operating budget	Clean Air Counts
2. Adopt an anti-idling policy.	Asst. Village Mgr.	Short-term	—	Clean Air Counts
Other Recommendations				
1. Pursue emissions reductions via sustainable energy, transportation, waste, & land use practices.	<i>See relevant recommendations listed in Table G-3.</i>			

¹ When implementation should occur: Short-term, 0-3 years; Mid-term, 4-6 years; Long-term, 7+ years; Underway, project is already funded or in progress.

Table G-3. Other emissions-related recommendations

RECOMMENDATION	PAGE #
LAND USE & DEVELOPMENT	
Update the Village's development regulations to remove barriers & encourage sustainable practices.	18
Adopt a municipal policy to build new Village facilities & retrofit existing facilities to recognized green building standards.	19
Create a green building handbook.	20
TRANSPORTATION & MOBILITY	
Create a village-wide bicycle & pedestrian plan.	25
Adopt a Complete Streets Policy.	25
Increase community awareness of alternative modes of transportation.	26
Work with Pace to enhance & streamline service.	26
Permit and/or require the installation of bicycle facilities.	27
Establish car sharing services at central locations in the Village.	27
Adopt a municipal green fleet policy for future vehicle purchases.	29
Encourage employer strategies to reduce vehicle trips.	29
WASTE	
Expand community recycling efforts.	39
Undertake public education to reduce waste & increase reuse & recycling.	39
Provide opportunities to recycle in public places.	40
Adopt a construction & demolition debris recycling ordinance.	41
Initiate a residential pilot composting program.	41
Consider adoption of residential Pay-As-You-Throw service.	41
ENERGY	
Launch an energy efficiency campaign.	52
Investigate providing energy from renewable sources through electricity aggregation.	53
Enable renewable energy systems in development regulations.	53
Keep the energy code up to date.	54
Continue to incorporate energy efficiency into Village facilities.	54
Pursue a model renewable energy system on a municipal site.	54

Section H.

Education

According to the U.S. EPA, “environmental awareness influences individual behavior, and individual behavior is a fundamental factor affecting environmental conditions.”

While Village government and its Environmental Committee have been proactive in encouraging and implementing environmental initiatives, the collective actions of residents, business owners, institutions, and other stakeholders are a true determinant of the community’s sustainability. In addition, environmental education for youth is particularly important as it helps to integrate sustainable practices as habits in their everyday lives.

Existing Conditions Report: Key Findings

The following represent the key findings from the existing conditions analysis related to education. Refer to Appendix 1: Existing Conditions Report for the full existing conditions narrative.

- The Village maintains a website for environmental information, including articles on topics such as air quality and energy efficient lighting. The Community Rain Garden also presents an invaluable opportunity for education to the community.
- General educational opportunities related to the environment are also provided by external partners, such as SWANCC and the FPDCC. The FPDCC focuses on biodiversity and ecology, while SWANCC's programming is focused on waste reduction.
- Many schools are incorporating learning opportunities related to the environment and sustainability. Culver School has implemented several green initiatives, while Emerson Middle School has taken a multi-disciplinary approach to teaching students about sustainability.
- Many participants at the public kick-off meeting voiced an interest in more effective distribution of information related to sustainability.

Identified Goals

The public engagement process to develop this Plan yielded the following goals for education. Each of these goals is addressed through one or more recommendations in this section.

1. Provide sustainability-related educational opportunities for a variety of audiences (business community, youth, homeowners, etc.).
2. Effectively publicize opportunities and Village initiatives related to sustainability.

Recommendations

The recommendations outlined below will help to achieve the Plan's identified goals and address the key findings of the existing conditions analysis. The recommendations are organized into two categories: "Priority Recommendations" and "Other Recommendations."

Priority Recommendations

Priority Recommendations are key strategies that the Village should consider undertaking in the near-term (within the next three years), if possible. Each Priority Recommendation includes action steps to assist with implementation efforts.

1. Create an internal staff "Green Team."

To assess internal municipal practices and policies and facilitate the implementation of this Plan's recommendations, the Village should create an internal "Green Team" consisting of at least one person from each department (similar to the employee safety committee). The Green Team should assign staff responsibilities to implement specific recommendations of this Plan, continue to assess internal practices, and develop the municipal policies suggested in this Plan. The Green Team can also help to research and create educational content for the public (see Priority Recommendations #3). The team should meet bi-weekly or monthly, depending on availability, to ensure that progress is being made toward achieving objectives.

Action 1: The Assistant Village Manager/Village Manager should appoint at least one staff member from each department to participate in the Green Team.

Action 2: The Green Team should meet and create a work plan for its first year following adoption of this Plan.

2. Provide educational opportunities to Village staff.

The active participation and leadership of Village departments and staff members is necessary to achieve the goals set forth by this Plan. To ensure effective leadership with regard to sustainable practices and issues, the Village should facilitate staff access to educational opportunities that serve to enhance awareness. Such opportunities could include encouraging staff to attend related workshops, presentations, and webinars, especially on topics directly related to their work; organizing a staff leadership retreat to set internal sustainability goals and priorities; and engaging staff in developing educational content and events on sustainability for the public. The easiest way to coordinate such an effort may be to designate a point person (such as the Assistant Village Manager) to gather and distribute information on related educational opportunities for staff (presentations, workshops, etc.); solicit assistance from departments on developing educational content for the public (fact sheets, brochures, information on grant opportunities, etc.); and organize retreats, internal Green Team meetings (see Priority Recommendation #1), and “green bag” events (see Other Recommendation #1).

Action 1: Designate a point person to be responsible for coordinating educational opportunities for staff.

Action 2: The point person should work with leadership to establish a reasonable budget for educational opportunities and research and distribute information to Village departments about related opportunities.

Action 3: The point person should coordinate a staff retreat to set sustainability goals; the retreat may serve as a kick-off to the establishment of the Green Team.

3. Create centralized depots of information for the public.

The newly created “Green Team” (see Priority Recommendation #1 of this section), in conjunction with the Environmental Committee, should communicate with the public in a variety of ways about environmental issues, the recommendations of this Plan, upcoming events, grant opportunities, and other pertinent resources. The Village should create a centralized physical location for information and resources, such as at Village Hall or the Niles Public Library, and should also coordinate with staff of other institutions (such as the library, Park District, teen center, senior center, etc.) to explore opportunities for additional displays. The information presented should be updated regularly and include the Village’s progress towards achieving environmental goals. In addition, the Village’s website should feature a dedicated environmental/sustainability section that serves as a depot for related information.

There is a wealth of materials related to sustainability available online and through the Village’s partners, but it will require a conscious effort to gather and package the materials in a way that is relevant to Niles residents, businesses, and other stakeholders. To that end, the Green Team and Environmental Committee should create a list of potential topics and split responsibilities for researching and creating educational materials.

Action 1: Identify a centralized location and specific space within the Village (such as the lobby of Village Hall or the library) to serve as a permanent depot for sustainability-related resources and information that can be updated regularly.

Action 2: Create a dedicated page on the Village’s website for environmental content; include updates on the home page when new content is added. Dedicate space for interesting tips, environmental facts (such as the amount of energy saved by using compact fluorescent lights [CFLs]), and links to resources, such as grants available for environmental projects.

Action 3: Develop and populate the web page and centralized physical space with pertinent information.

Action 4: Coordinate with partners to identify additional locations for displays of appropriate content for target audiences.

Educational signage (top); volunteers at the Niles Community Rain Garden (bottom)



Source: Village of Niles.

Other Recommendations

The recommendations in this section, while still important, are of secondary importance to the Priority Recommendations outlined previously and should be pursued as resources, funding, and/or staff time allow.

1. Coordinate a monthly “green bag” event.

The Village should designate a specific time and day each month to hold a “green bag” event on environmental topics of interest. The event should be held at a central location that is easily accessible to everyone. Partners, such as the FPDCC, the Niles Park District, and SWANCC, may be good sources for topics and speakers, along with local experts, volunteers, businesses, and institutions, such as Oakton Community College. Additional topics of interest and suggestions for speakers can be solicited on the Village website, through the Green Team and other Village staff, and through Village communications with residents. Private businesses, organizations, or individuals that have implemented sustainability-related projects may also be resources for presentations. The City of Highland Park’s Sustainability Strategic Plan provides several examples of community gatherings focused on environmental issues and initiatives.

2. Showcase exemplary demonstration projects.

As highlighted in this Plan, there are many efforts taking place in Niles in both the public and private sectors to protect and enhance the environment. It will be helpful to showcase those efforts to encourage their adoption by other members of the community. To do so, the Village should develop case studies to be posted on the Village’s website (in conjunction with private sector participants if applicable). In addition, when possible, the Village should facilitate tours of demonstration projects (as is done with the Niles Community Rain Garden) and create and install informational signage that explains each public demonstration project so that visitors can learn about them. Another way to encourage more property owners to pursue sustainable practices is to create a “green spotlight” award program to highlight model environmental practices by community members.

The Village should first identify potential demonstration projects to highlight. It may be helpful to solicit projects from the community on the Village’s website and/or within the newsletter. Then, the Village should determine the best way to showcase each project, whether via conducting tours, installing educational signage, developing case study material for distribution, asking the project sponsor to present his or her work at a “green bag” event (see Other Recommendation #1), or some combination of these efforts.

Implementation Approach

The following matrix provides implementation guidance for the recommendations proposed within this section. For each recommendation, the appropriate lead party for implementation is identified (along with potential partners), phasing is noted for when the item should be pursued, and additional information on funding and resources is given. The first Priority Recommendation, creating a staff Green Team, is a foundational step for many recommendations in this and other Plan sections and should be pursued immediately after Plan adoption. The establishment of the Green Team is critical to guiding educational initiatives provided both to Village staff and the community as well as assessing and improving the sustainability of municipal practices to ensure that the government is leading by example.

Table H-1. Implementation matrix

RECOMMENDATION	LEAD & PARTNERS ¹	PHASING ²	FUNDING	RESOURCES
Priority Recommendations				
1. Create an internal staff “Green Team.”	Asst. Village Mgr. or Village Mgr.	Short-term	—	Northbrook Green Team
2. Provide educational opportunities to Village staff.	VON	Short-term	Operating budget	CMAQ; Chicago Wilderness; SWANCC
3. Create centralized depots of information for the public.	Green Team, Env. Comm.	Short-term	—	Northbrook, IL website
Other Recommendations				
1. Coordinate a monthly “green bag” event.	VON, local businesses	Mid-term	—	EarthShare Illinois; Chicagoland Environmental Network
2. Showcase exemplary demonstration projects.	Green Team, local businesses, residents	Mid-term	Operating budget	

¹ VON: Village of Niles, SWANCC: Solid Waste Agency of Northern Cook County.

² When implementation should occur: Short-term, 0-3 years; Mid-term, 4-6 years; Long-term, 7+ years; Underway, project is already funded or in progress.



Chapter 3.

Monitoring & Reporting

Monitoring the Village's progress towards the goals and recommendations of this Plan and annually reporting that progress to community members is important in several ways.

First, monitoring and reporting helps the Village to remain on track in achieving its goals and ensures accountability for the commitments in this Plan. Reporting back to the community will prevent this Plan from becoming a “shelf document” that is never used or implemented. This is particularly important in relation to environmental issues, since making progress in reversing current environmental trends is critical to long-term sustainability. Second, communicating the Village's progress on a regular basis serves as an educational tool to help community members understand current environment-related events and initiatives in Niles, as well as ways that they can incorporate sustainable practices into their personal lives. Lastly, regular reporting brings recognition for the hard work taking place to create a greener Niles.

To facilitate reporting, the Village should create a Sustainability Scorecard that provides an at-a-glance snapshot of the Village’s progress by Plan section (see Table 3-A for an example scorecard). The scorecard should list the recommendations for each section, include an approximate percent complete for each recommendation, and report the total number of recommendations underway and total number complete for each section. If desired, the scorecard may also include metrics to quantify sustainability trends and changes in the community (see Sustainability Metrics). In addition, each section should have a short narrative that contains information on efforts that took place during the previous year and a work plan that details tasks for the upcoming year. The report could potentially be released through the Focus on Niles newsletter, posted on the Village’s website and at sustainability displays in the community, and announced at public events and through the Village’s cable station.

Table 3-A. Scorecard example

LAND USE & DEVELOPMENT	2014	2015	2016	2017	2018
Strategies Complete	0	1	2		
Strategies Underway	2	3	4		
	PERCENT COMPLETE				
RECOMMENDATIONS	0%		50%		100%
1. Update Village’s development regulations to encourage sustainable practices.					
2. Adopt a municipal green building policy.					
3. Create a green building handbook.					
4. Pursue LEED-EBOM (or similar) certification for Village Hall.					
Narrative: Explain past year’s initiatives & next year’s work plan.					

Sustainability Metrics

Tracking metrics related to the environment and sustainability is a powerful way to demonstrate the impacts of related initiatives and programs, and is typically a central tenet of sustainability planning. It may be informative for the Village to track certain metrics to assess the progress being made. The following list contains examples of metrics that would be relatively simple for the Village to track over time. Most of these examples were calculated as part of the Existing Conditions Report (see Appendix 1); the numbers included in that report can be used as a baseline against which to measure future progress. The Village can also develop other metrics as desired to analyze specific topics.

- Pace ridership (available online through the Regional Transportation Asset Management System, www.rtams.org).
Baseline metric: In May 2012, there were 15,939 weekday riders on all Pace routes that serve Niles.
- Recycling rate (request from refuse hauler).
Baseline metric: In 2012, Niles residents and businesses recycled 19.5 percent of their trash.
- Average water consumption per household (tabulated by Village).
Baseline metric: In 2011, Niles' average water consumption was 110 gallons per capita per day.
- Energy consumption (request from ComEd and Nicor).
Baseline metric: In 2007, average electricity consumption per household was 7,457 kilowatts and average natural gas consumption per household was 804 therms.
- Number of community educational events related to the environment (tabulated by Village)
Baseline metric to be calculated by the Village.

Table 3-B summarizes all of this Plan's recommendations for reference, along with the leaders for implementation and phasing information.

Table 3-B. Summary of plan recommendations

RECOMMENDATION	LEAD & PARTNERS ¹	PHASING ²
LAND USE & DEVELOPMENT		
Update the Village's development regulations to remove barriers and encourage sustainable practices.	VON CD	Underway
Adopt a municipal policy to build new Village facilities/retrofit existing facilities to recognized green building standards.	VON CD, PS, Green Team	Short-term
Create a green building handbook.	VON CD, PS	Mid-term
Pursue LEED-EBOM (or similar) certification for a Village facility.	VON CD, PS	Mid-term
TRANSPORTATION & MOBILITY		
Create a village-wide bicycle & pedestrian plan.	VON CD, PS, Engineering, IDOT	Underway
Adopt a Complete Streets policy.	VON CD, PS, Engineering, IDOT	Underway
Increase community awareness of alternative modes of transportation.	VON CD, Green Team, Env. Comm.	Short-term
Work with Pace to improve and streamline service.	VON PS, Pace, Metra	Mid-term
Establish car sharing locations at central locations.	VON	Mid-term
Adopt a municipal green fleet policy for future vehicle purchases.	VON PS, Green Team	Mid-term
Encourage employer strategies to reduce vehicle trips.	Env. Comm.	Long-term
OPEN SPACE		
Support the creation of a Park District Master Plan.	Park District, VON, FPDCC	Short-term
Utilize sustainable landscaping practices for Village properties.	VON PS, Green Team, Park District	Short-term
Create a community garden program.	Niles Garden Club, VON, Env. Comm.	Mid-term

¹ VON: Village of Niles, CD: Community Development Department, PS: Public Services, IDOT: Illinois Department of Transportation, FPDCC: Forest Preserve District of Cook County, SWANCC: Solid Waste Agency of Cook County, FD: Finance Department.

² When implementation should occur: Short-term, 0-3 years; Mid-term, 4-6 years; Long-term, 7+ years; Underway, project is already funded or in progress.

Table 3-B. Summary of plan recommendations (continued)

RECOMMENDATION	LEAD & PARTNERS ¹	PHASING ²
WASTE		
Expand community recycling efforts.	VON PS, waste hauler	Short-term
Undertake public education to reduce waste & increase reuse and recycling.	Green Team, SWANCC	Short-term
Adopt a municipal EPP policy.	Green Team	Short-term
Provide opportunities to recycle in public places.	VON PS, Park District, refuse hauler	Mid-term
Initiate a residential pilot composting program.	VON, SWANCC, refuse hauler	Mid-term
Consider adoption of residential Pay-As-You-Throw service.	VON, refuse hauler	Mid-term
Utilize deconstruction techniques for Village facilities.	VON PS	Mid-term
WATER		
Promote water conservation through educational opportunities.	Green Team, Env. Comm.	Short-term
Continue existing efforts.	VON, Niles Stormwater Comm	Underway
Encourage and expand rainwater reuse.	VON CD, Engineer	Mid-term
Review the Village's water pricing structure.	VON FD	Mid-long term

¹ VON: Village of Niles, CD: Community Development Department, PS: Public Services, IDOT: Illinois Department of Transportation, FPDCC: Forest Preserve District of Cook County, SWANCC: Solid Waste Agency of Cook County, FD: Finance Department.

² When implementation should occur: Short-term, 0-3 years; Mid-term, 4-6 years; Long-term, 7+ years; Underway, project is already funded or in progress.

Table 3-B. Summary of plan recommendations (continued)

RECOMMENDATION	LEAD & PARTNERS ¹	PHASING ²
ENERGY		
Launch an energy efficiency campaign.	Green Team, Env. Comm.	Short-term
Investigate providing energy from renewable sources through electricity aggregation.	Village Mgr., Board	Short-term
Continue to incorporate energy efficiency into Village facilities.	VON PS, Asst. Village Mgr.	Underway
Pursue a model renewable energy system on a municipal site.	Asst. Village Mgr.	Short-mid term
GREENHOUSE GASES		
Pursue a Clean Air Counts award.	Asst. Village Mgr.	Short-term
Adopt an anti-idling policy.	Asst. Village Mgr.	Short-term
EDUCATION		
Create an internal staff "Green Team."	Asst. Village Mgr. or Village Mgr.	Short-term
Provide educational opportunities to staff.	VON	Short-term
Create centralized depots of information for the public.	Green Team, Env. Comm.	Short-term
Coordinate a monthly "brown bag" event.	VON, local businesses	Mid-term
Showcase exemplary demonstration projects.	Green Team, local businesses & residents	Mid-term

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² When implementation should occur: Short-term, 0-3 years; Mid-term, 4-6 years; Long-term, 7+ years; Underway, project is already funded or in progress.

References

Introduction

- “Economic Development.” Village of Niles. Retrieved 8/22/12 from <http://www.vniles.com/Content/templates/?a=953>.
- “Milwaukee Avenue Streetscape Phase II Update.” Village of Niles. Retrieved 8/23/12 from <http://www.vniles.com/Content/templates/?a=207&cat=45>.
- “Population Forecast.” Chicago Metropolitan Agency for Planning. Retrieved 8/22/12 from <http://www.cmap.illinois.gov/population-forecast>.
- Village of Niles 2030 Comprehensive Plan.

Land Use & Development

- “Boardwalk Bound.” Wight & Company. Retrieved 11/21/12 from http://www.wightco.com/uploaded/docs/content/12274632727971_Parks%20and%20Rec%20Business%208%2008%20Boardwalk%20Bound.pdf.
- “Existing Buildings (LEED EBOM).” U.S. Green Building Council. Retrieved 10/21/12 from <https://new.usgbc.org/leed/rating-systems/existing-buildings>.
- “Green Building Programs.” Green Building Initiative. Retrieved 10/21/12 from <http://www.thegbi.org/green-globes/new-construction.shtml>.
- “Green Globes for Existing Buildings.” Green Building Initiative. Retrieved 10/21/12 from <http://www.thegbi.org/green-globes/continual-improvement-for-existing-buildings.shtml>.
- “Green Home Guides.” Seattle Office of Sustainability. Retrieved 10/24/12 from <http://www.seattle.gov/dpd/GreenBuilding/SingleFamilyResidential/Resources/RemodelingGuides/default.asp>.
- “Local Sustainability Matching Fund.” Funders Network. Retrieved 12/5/12 from <http://www.fundersnetwork.org/participate/green-building/local-sustainability-matching-fund>.
- “LEED 2009 for Neighborhood Development (see NPD Credit 1: Walkable Streets).” U.S. Green Building Council. Retrieved 11/14/12 from <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148>.

- “New Construction and Renovations (LEED NC).” U.S. Green Building Council. Retrieved 10/21/12 from <https://new.usgbc.org/leed/rating-systems/new-construction>.
- “Niles West LEEDs the way in energy efficiency.” The Bugle. Retrieved 11/21/12 from http://www.buglenewspapers.com/niles/article_d3f8fc78-3d70-11e1-b01f-0019bb30f31a.html.
- “Public Policies Adopting or Referencing LEED.” U.S. Green Building Council. Retrieved 11/6/12 from <http://www.usgbc.org/DisplayPage.aspx?CMSPageID=1852>.
- “Summary of Government LEED Incentives.” U.S. Green Building Council. Retrieved 11/6/12 from <http://www.usgbc.org/ShowFile.aspx?DocumentID=2021>.

Transportation & Mobility

- “Bike 2015 Plan.” City of Chicago. Retrieved 10/28/12 from <http://www.bike2015plan.org/pdf/bike2015plan.pdf>.
- “Complete Streets.” Active Transportation Alliance. Retrieved 12/5/12 from <http://www.activetrans.org/completestreets>.
- “Complete Streets Policy.” City of Des Plaines, Illinois. Retrieved 10/28/12 from <http://www.smartgrowthamerica.org/documents/cs/policy/cs-il-desplaines-policy.pdf>.
- “Green Fleet Policy Ordinance.” Clean Air Counts. Retrieved 11/6/12 from <http://www.cleanaircounts.org/content/green%20fleet%20policy%20ordinance.pdf>.
- “I-GO Car Sharing.” I-GO. Retrieved 12/5/12 from <http://www.igocars.org/>.
- “Illinois Green Fleets.” Illinois Environmental Protection Agency. Retrieved 12/5/12 from <http://www.illinoisgreenfleets.org/index.html>.
- “LEED for Neighborhood Development, v9.” U.S. Green Building Council. Retrieved 10/28/12 from <https://new.usgbc.org/resources/leed-neighborhood-development-v2009-current-version>.
- “Municipal Energy Profile Project.” Center for Neighborhood Technology. On file with Village staff.
- “Parking Spaces/Community Places: Finding the Balance through Smart Growth Solutions.” U.S. Environmental Protection Agency. Retrieved 11/15/12 from

<http://www.epa.gov/dced/pdf/EPAParkingSpaceso6.pdf>.

“Policy on Infrastructure Guidelines for Non-Motorized Travel Investments.” Lake County Division of Transportation. Retrieved 10/28/12 from <http://www.lakecountyil.gov/Transportation/Publications/Documents/Nonmotorized%20Policy%20Guidlines.pdf>.

“Roads and Bridges Agenda.” Cook County, Illinois. Retrieved 10/28/12 from <http://www.smartgrowthamerica.org/documents/cs/policy/cs-il-cookcounty-ordinance.pdf>.

“Transit Savings Report.” American Public Transportation Association. Retrieved 8/2/12 from <http://www.publictransportation.org/tools/transitsavings/Pages/default.aspx>.

“Working 4 Utah.” State of Utah. Retrieved 11/15/12 from http://www.dhrm.utah.gov/Working4Utah_FinalReport_Dec2009.pdf.

“Zipcar.” Zipcar, Inc. Retrieved 12/5/12 from <http://www.zipcar.com/>.

Open Space

“Chapter 42. Tree Preservation and Landscaping.” City of Lake Forest, Illinois. Retrieved 10/29/12 from <http://www.cityoflakeforest.com/pdf/cd/treeord.pdf>.

“From Fitness Zones to the Medical Mile: How Urban Park Systems Can Best Promote Health and Wellness.” The Trust for Public Land. Retrieved 11/15/12 from <http://cloud.tpl.org/pubs/ccpe-health-promoting-parks-rpt.pdf>.

“Grants for Gardens.” Annie’s Homegrown, Inc. Retrieved 12/5/12 from <http://www.annies.com/school-gardens/grants-for-gardens/>.

“LEED for Neighborhood Development, v9 (see GIB Credit 9).” U.S. Green Building Council. Retrieved 10/28/12 from <https://new.usgbc.org/resources/leed-neighborhood-development-v2009-current-version>.

“Let’s Get Started With Conservation@Home.” Conserve Lake County. Retrieved 12/5/12 from <http://www.conservelakecounty.org/conservationhome/cah-lets-get-started>.

“Lots 2 Green Community Resources.” Lots 2 Green. Retrieved 12/5/12 from <http://codegreen-usa.org/Lots2Green.htm>.

“Section 3 – Tree and Natural Area Preservation.” City of Austin, Texas. Retrieved 10/29/12 from [http://austintech.amlegal.com/nxt/gateway.dll/Texas/environ/section3-treeandnaturalareapreservation?f=templates\\$fn=default.htm\\$3.o\\$vid=amlegal:austin_environment](http://austintech.amlegal.com/nxt/gateway.dll/Texas/environ/section3-treeandnaturalareapreservation?f=templates$fn=default.htm$3.o$vid=amlegal:austin_environment).

“Section 106-66.” Niles, Illinois Code of Ordinances. Retrieved 10/29/12 from <http://library.municode.com/index.aspx?clientId=11092>.

“Section XII(F)(3)(a).” Niles, Illinois Code of Ordinances. Retrieved 10/29/12 from <http://library.municode.com/index.aspx?clientId=11092>.

“Sustainable Urbanism Performance-Based Modules.” Center for Applied Transect Studies. Retrieved 10/29/12 from <http://www.transect.org/modules.html>.

“The Economic Benefits of Open Space, Recreation Facilities, and Walkable Community Design.” Active Living Research. Retrieved 10/29/12 from <http://atfiles.org/files/pdf/Economic-Benefits-Active.pdf>.

Waste

“Buying Better.” Delta Institute. Retrieved 11/15/12 from <http://www.buyingbetter.org/index.gsp>.

“Composting Workshops.” Solid Waste Agency of Northern Cook County. Retrieved 11/15/12 from <http://www.swancc.org/programs/composting-workshops>.

“Construction and Demolition Debris Recycling.” City of Chicago. Retrieved 10/26/12 from http://www.cityofchicago.org/city/en/depts/cdph/supp_info/environmental_permitsandregulation/construction_anddemolitiondebrisrecycling.html.

Curbside Value Partnership. Retrieved 12/5/12 from <http://www.recyclecurbside.org/>.

“DCEO Food Scrap Grants.” Illinois Recycling Association. Retrieved 12/5/12 from <http://illinoisrecycles.org/facts/7-ira/24-dceo-food-scrap-grant>.

“Deconstruction and Reuse.” Delta Institute. Retrieved 11/15/12 from <http://www.delta-institute.org/content/deconstruction-reuse>.

“Development of Best Practices in Public Space Recycling.” Eureka! Recycling. Retrieved 12/5/12 from http://www.eurekarecycling.org/imageupload/file/Eureka-Public_Space_Recycling-final_web.pdf.

- “Eco-Friendly Marketplace (recycled content and non-hazardous products).” Solid Waste Agency of Northern Cook County. Retrieved 11/15/12 from <http://www.swancc.org/resources/eco-friendly-marketplace-directory>.
- “Education increases city’s recycling rate.” American City & County. Retrieved 11/15/12 from http://americancityandcounty.com/pubwks/solid_waste/education_increases_citys_recycling.
- Email correspondence with Mary Allen, Recycling and Education Director from SWANCC, 10/9/12.
- “Food Scrap Recycling.” U.S. Environmental Protection Agency. Retrieved 12/5/12 from <http://www.epa.gov/region1/composting/pdfs/FoodScrapRecycling.pdf>.
- “Green Purchasing.” Delta Institute. Retrieved 10/26/12 from <http://www.delta-institute.org/content/green-purchasing>.
- “Illinois Zero Waste Schools Program.” Illinois Department of Commerce and Economic Opportunity. Retrieved 12/5/12 from http://www.ildceo.net/dceo/Bureaus/Energy_Recycling/Education/ISTEP_Zero_Waste_Schools.htm.
- “Increase Your Community Recycling Rate.” Hamilton County, Ohio. Retrieved 11/15/12 from <http://hamiltoncountyrecycles.org/index.php?page=increase-your-community-recycling-rate&phpMyAdmin=6cc27d7dd895326f499d2a63df77f345#collection>.
- “Improving Your Recycling Program.” U.S. Environmental Protection Agency. Retrieved 11/15/12 from <http://www.epa.gov/region4/rcra/mgtoolkit/improving.html#remind>.
- “Joliet, Ill., sees recycling rate rise with bigger bins.” Waste and Recycling News. Retrieved 11/15/12 from <http://www.wasterecyclingnews.com/article/20111117/NEWS02/31179995/joliet-ill-sees-recycling-rate-rise-with-bigger-bins>.
- “Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices.” U.S. Environmental Protection Agency. Retrieved 11/15/12 from http://www.epa.gov/oswer/docs/ghg_land_and_materials_management.pdf.
- “Outreach Materials (sources for grants).” U.S. Environmental Protection Agency. Retrieved 12/5/12 from <http://www.epa.gov/epawaste/conservetools/localgov/outreach/index.htm>.
- “Nonhazardous Solid Waste Management and Landfill Capacity in Illinois: 2010.” Illinois Environmental Protection Agency. Retrieved 11/15/12 from <http://www.epa.state.il.us/land/landfill-capacity/2008/report.pdf>.
- “Recycling Goes Public.” Waste360. Retrieved 12/5/12 from http://waste360.com/mag/waste_recycling_goes_public.
- “Resource Conservation and Recovery.” U.S. Environmental Protection Agency. Retrieved 11/15/12 from <http://www.epa.gov/statelocalclimate/documents/pdf/ResourceConservGuide.pdf>.
- “Pay As You Throw (PAYT) in the US: 2006 Update and Analyses.” U.S. Environmental Protection Agency. Retrieved 11/15/12 from <http://www.epa.gov/epawaste/conservetools/payt/pdf/serao6.pdf>.
- “Pay-As-You-Throw.” U.S. Environmental Protection Agency. Retrieved 11/15/12 from <http://www.epa.gov/osw/conservetools/payt/index.htm>.
- Phone conversation with Frank Hillegonds, Municipal Affairs Manager at Groot Industries, 10/9/12.
- Phone conversation with Karen Rozmus, Oak Park Recycling Coordinator, 10/4/12.
- “Public Space Grant.” The Coca-Cola Foundation. Retrieved 12/5/12 from <http://bingrant.org/public-space-grant-overview/>.
- “Recycling (grant info).” Illinois Department of Commerce and Economic Opportunity. Retrieved 12/5/12 from http://www.commerce.state.il.us/dceo/Bureaus/Energy_Recycling/Recycling/.
- “Recycling Works: A Toolkit for Reducing Waste in the Workplace.” Illinois Department of Commerce and Economic Opportunity. Retrieved 12/5/12 from <http://www2.illinois.gov/gov/green/documents/workrecyclingtoolkit.pdf>.
- “Solid Waste Agency of Northern Cook County.” Solid Waste Agency of Northern Cook County. Retrieved 11/15/12 from <http://www.swancc.org/>.
- “Teachers: Composting and Recycling.” U.S. Environmental Protection Agency. Retrieved 12/5/12 from http://www.epa.gov/osw/education/teach_comp.htm.

Water

“Appendix B – Zoning Ordinance, Section VII. Residence Districts.”

Niles, Illinois Code of Ordinances. Retrieved 11/15/12 from

<http://library.municode.com/index.aspx?clientId=11092>.

“Article 5: Site Stormwater Management (Cook County Watershed Management Ordinance).” Metropolitan Water Reclamation District of Greater Chicago.

Retrieved 10/29/12 from [http://www.mwrd.org/pv_obj_cache/pv_obj_id_](http://www.mwrd.org/pv_obj_cache/pv_obj_id_D9771FC25B20ACoEAEoFDFo8FD3DA195B35B8700/filename/10_Draft_TGM_Article_5.pdf)

[D9771FC25B20ACoEAEoFDFo8FD3DA195B35B8700/filename/10_Draft_TGM_Article_5.pdf](http://www.mwrd.org/pv_obj_cache/pv_obj_id_D9771FC25B20ACoEAEoFDFo8FD3DA195B35B8700/filename/10_Draft_TGM_Article_5.pdf).

“Bill Inserts.” Chicago Metropolitan Agency for Planning. Retrieved 10/31/12 from

<http://www.cmap.illinois.gov/water-2050/bill-inserts>.

“Every Drop Counts.” Contractor Magazine. Retrieved 10/30/12 from

<http://contractormag.com/blog/every-drop-counts>.

“IAPMO Green (IAPMO Green Plumbing and Mechanical Supplement).”

International Association of Plumbing and Mechanical Officials.”

Retrieved 12/5/12 from http://www.iapmo.org/pages/iapmo_green.aspx.

“Illinois Green Infrastructure Grant Program for Stormwater Management (IGIG).”

Illinois Environmental Protection Agency. Retrieved 11/15/12 from

<http://www.epa.state.il.us/water/financial-assistance/igig.html>.

“Model Water Conservation Ordinance.” Chicago Metropolitan Agency

for Planning. Retrieved 10/30/12 from [http://www.cmap.illinois.gov/](http://www.cmap.illinois.gov/moving-forward-in-detail/-/asset_publisher/Q4En/content/model-water-conservation-ordinance?isMovingForward=1)

[moving-forward-in-detail/-/asset_publisher/Q4En/content/](http://www.cmap.illinois.gov/moving-forward-in-detail/-/asset_publisher/Q4En/content/model-water-conservation-ordinance?isMovingForward=1)
[model-water-conservation-ordinance?isMovingForward=1](http://www.cmap.illinois.gov/moving-forward-in-detail/-/asset_publisher/Q4En/content/model-water-conservation-ordinance?isMovingForward=1).

“Pervious Concrete Pavement.” U.S. Environmental Protection Agency.

Retrieved 10/30/12 from [http://cfpub.epa.gov/npdes/stormwater/menuofbmps/](http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=137)

[index.cfm?action=browse&Rbutton=detail&bmp=137](http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm?action=browse&Rbutton=detail&bmp=137).

“Water 2050: Northeastern Illinois Regional Water Supply/Demand Plan.”

Chicago Metropolitan Agency for Planning. Retrieved 11/15/12 from

<http://www.cmap.illinois.gov/regional-water-supply-planning>.

“WaterSense.” U.S. Environmental Protection Agency. Retrieved 10/30/12 from

http://www.epa.gov/watersense/partners/why_join.html.

“What is Green Infrastructure?” U.S. Environmental Protection Agency. Retrieved 10/29/12

from http://water.epa.gov/infrastructure/greeninfrastructure/gi_what.cfm.

Energy

“Cool Cities.” Sierra Club. Retrieved 12/5/12 from

<http://illinois.sierraclub.org/rpg/coolcities.html>.

“Electric Vehicle Charging Infrastructure for the Oregon I-5 Metro Areas of

Portland, Salem, Corvallis, and Eugene.” State of Oregon. Retrieved 11/15/12 from

<http://www.oregon.gov/ODOT/HWY/OIPP/docs/evdeployguidelines3-1.pdf>.

“Electric Vehicles in Illinois.” Illinois Department of Commerce

and Economic Opportunity. Retrieved 10/24/12 from

http://www.ildceo.net/dceo/Bureaus/Energy_Recycling/ev.htm.

Energy Impact Illinois. Retrieved 12/5/12 from <http://energyimpactillinois.org/>.

Flex Your Power. Retrieved 12/5/12 from <http://www.fypower.org/>.

“How to Apply (grants).” Illinois Clean Energy Community Foundation.

Retrieved 12/5/12 from <http://www.illinoiscleanenergy.org/how-to-apply/>.

“Illinois Energy Conservation Code for Commercial and Residential Buildings.”

Illinois Department of Commerce and Economic Opportunity. Retrieved 10/24/12 from

http://www.ildceo.net/dceo/Bureaus/Energy_Recycling/IECC.htm.

“IMEA Electric Efficiency Program.” Illinois Municipal Electric Agency.

Retrieved 12/5/12 from <http://www.imea.org/EnergyEfficiency.aspx>.

“List of Communities Pursuing an Opt-Out Municipal Aggregation Program.”

Plug In Illinois. Retrieved 10/24/12 from

<http://www.pluginillinois.org/MunicipalAggregationList.aspx>.

“Make the most of rebates and incentives.” ComEd. Retrieved 10/23/12 from

<https://www.comed.com/home-savings/rebates-incentives/Pages/default.aspx>.

- “Municipal Code of Ordinances (Sec. 154.56 – 154.59: solar, wind, geothermal).” Village of Schaumburg, Illinois. Retrieved 11/15/12 from <http://library.municode.com/index.aspx?clientId=15012&stateId=13&stateName=Illinois>.
- “Municipal Energy Profile Project.” Center for Neighborhood Technology. On file with Village staff.
- “Oak Park opts for all-green electricity and big savings on rates.” Oak Park, Illinois. Retrieved 12/5/12 from <http://www.oak-park.us/aggregation/>.
- “PAS Essential Info Packets: Planning and Zoning for Solar Energy.” American Planning Association. Retrieved 10/24/12 from <http://planning.org/pas/infopackets/open/eip30.htm>.
- “Sec. 18-501. International Energy Code adopted.” Niles, Illinois Code of Ordinances. Retrieved 10/24/12 from <http://library.municode.com/index.aspx?clientId=11092>.
- “Small Business Energy Savings.” Peoples Gas. Retrieved 12/5/12 from http://www.peoplesgasdelivery.com/business/pdf/rebates_direct.pdf.
- “Solar and Wind Energy Rebate Program.” Illinois Department of Commerce and Economic Opportunity. Retrieved 11/15/12 from http://www.illinoisbiz.biz/dceo/Bureaus/Energy_Recycling/Energy/Clean+Energy/01-RERP.htm.

Greenhouse Gases

- “Anti-idling Municipal Resolution.” Metropolitan Mayors Caucus. Retrieved 11/5/12 from http://www.cleanaircounts.org/documents/anti%20idling%20municipal_resolution.pdf.
- Clean Air Counts. Retrieved 12/5/12 from <http://www.cleanaircounts.org/>.
- “Idling Reduction Programs for the Chicago Metropolitan Area.” Metropolitan Mayors Caucus. Retrieved 10/28/12 from <http://www.cleanaircounts.org/documents/Idling%20Reduction%20Programs.pdf>.
- “Sources of Greenhouse Gas Emissions.” U.S. Environmental Protection Agency. Retrieved 11/15/12 from <http://epa.gov/climatechange/ghgemissions/sources.html>.

Education

- “Apply for a Grant.” Captain Planet Foundation. Retrieved 12/5/12 from <http://captainplanetfoundation.org/apply-for-grants/>.
- “Beyond the Horizon: Using Foresight to Protect the Environmental Future.” U.S. Environmental Protection Agency. Retrieved 11/15/12 from nepis.epa.gov/Exe/ZyPURL.cgi?Dockkey=50000TQE.txt.
- EarthShare Illinois (listing of speakers available from area environmental organizations). Retrieved 11/15/12 from <http://www.earthshare-illinois.org/speakers.html>.
- “Grants and Awards.” National Environmental Education Foundation. Retrieved 12/5/12 from <http://www.neefusa.org/grants/index.htm>.
- “Highland Park Community Sustainability Strategic Plan.” City of Highland Park, Illinois. Retrieved 11/15/12 from <http://www.cityhpil.com/documents/21/sustainabilityplan.pdf>.
- “Northbrook Green Team Accomplishments.” Village of Northbrook, Illinois. Retrieved 12/5/12 from <http://www.northbrook.il.us/index.aspx?page=351>.

Acronyms

ART	Arterial Rapid Transit	IECC	International Energy Conservation Code
BMP	best management practice	IDOT	Illinois Department of Transportation
CD	Community Development Department	IMEA	Illinois Municipal Electric Agency
C&D	construction and demolition debris	LEED	Leadership in Energy and Environmental Design
CFL	compact fluorescent light	MT	metric tons
CMAP	Chicago Metropolitan Agency for Planning	NC	New Construction
DCEO	Illinois Department of Commerce and Economic Opportunity	ND	Neighborhood Development
EAP	Environmental Action Plan	NPD	Neighborhood Pattern and Design
EBOM	Existing Buildings: Operations and Maintenance	PAYT	Pay-As-You-Throw
EPP	Environmentally Preferable Purchasing Policy	PS	Public Services
FD	Finance Department	RTA	Regional Transportation Authority
FPDCC	Forest Preserve District of Cook County	TMDL	total maximum daily load
FY	fiscal year	SLL	Smart Location and Linkage
GHG	greenhouse gases	SWANCC	Solid Waste Agency of Northern Cook County
GPCD	gallons per capita per day	U.S. EPA	U.S. Environmental Protection Agency
HUD	U.S. Department of Housing and Urban Development	VMT	vehicle miles traveled
IAPMO	International Association of Plumbing and Mechanical Officials	VON	Village of Niles



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