

Village of Hoffman Estates Sustainability Plan

Growing to Greenness!



Table of Contents

Introduction..... 2

Executive Summary 3

Implementation Strategies 5

Green Initiatives 6

Policies and Governance 7

Facilities 10

Vehicles and Equipment 16

Energy 19

Water 23

Resources and Operations 26

Transportation and Mobility 31

Green Planning and Development 37

Education and Outreach 41

Introduction

Sustainability

This Plan calls for consideration of:

- Efficiency
- Environmental impact
- The long-term viability of Village fiscal health

Our regular decision-making processes will incorporate these three key ideas. Concepts set forth in this Plan should confirm that the benefit we receive from a proposed project or program will be equal to, or outweigh, the cost of the resources that we put into it. Other aspects of sustainability include extending the useful life of resources, and decreasing our carbon footprint. Effective use of resources is a progressive method of ensuring reduced costs and waste, and, in some cases, creating improved efficiencies.

Plan Purpose

This Plan formally recognizes the green initiatives that the Village of Hoffman Estates has already undertaken, and will assist in prioritizing future green initiatives and capital projects, identify potential financial savings, and better position the Village for future grant and rebate opportunities.

Plan Development

One of the [goals adopted by the Board of Trustees in 2012](#) identified the development of a green initiative strategy as a priority for the Village. The Village has shown commitment to the pursuit of improving sustainable practices and increasing energy efficiency. The Village has taken on large and small projects to achieve this objective, including two LEED (Leadership in Energy and Environmental Design) Gold buildings, hybrid fleet vehicles, the development of a [Comprehensive Bicycle Plan](#) and building improvements, and has received several environmental awards for its efforts. Through the execution of these projects and programs, it became clear that there is value in formalizing and organizing what the Village has accomplished, as well as defining future efforts. The Village recognizes that, in order to continue to grow as a progressive local community, it is important to organize and communicate our green goals.

Plan Adoption

The Sustainability Plan was approved by the Village Board of Trustees on February 4, 2013.

Executive Summary

This Plan is dedicated to identifying current and past environmental-related programs, and illuminating strategies to support the Village's journey in future sustainability. Awareness, preparation, and prevention are major influences in reducing overall consumption of resources. Stopping the flow of use before it begins greatly decreases environmental and financial inefficiencies and waste. At all levels of the community, improvements can be made to reduce waste and increase productivity and partnerships.

The Village of Hoffman Estates operates nine departments at nine major facilities, and provides municipal services to residents and businesses covering approximately 22.1 square miles. The residential population is 51,895, according to the 2010 U.S. Census, and the Village registers over 2,000 annual business licenses. Hoffman Estates is home to national and international business headquarters, as well as 20 shopping centers. A significant portion of Village housing is affordable, and meets resident needs ranging from rented units to attached and detached single-family homes at a variety of prices. Nearly one-third of the Village boundaries contain forest preserves or preserved open space. While these properties are maintained by the Forest Preserve District of Cook County and the Hoffman Estates Park District, it must be noted that these amenities contribute to the quality of life in the Village.

Hoffman Estates Leadership

The Village of Hoffman Estates has received accolades for its efforts to improve the environment. It continues to be one of the first communities in the state to adopt programs, participate in initiatives and actively involve the community in its programs and education. In recent years, the Village has received the Governor's Sustainability Award, Metropolitan Mayors Caucus Clean Air Counts Gold and Platinum status recognition, and the Northwest Municipal Conference Irwin A. Bock Community Environmental Stewardship Award. In 2009, the Village was one of 10 communities chosen to participate in the yearlong ComEd Energy Challenge because of its status as a leader in municipal environmental action. It is anticipated that the Village will continue to pursue recognition as the programs identified in this Plan are completed.

Planning Process

This Plan was developed through a series of phases in order to incorporate input from staff, elected officials, volunteers and the public. First, a multiple department meeting was held to identify the desired type of strategy. Several departments met to discuss the best format for the strategy in order to make it easy for staff to use. From this meeting, the Plan's structure of narrative, followed by identified projects in the appendix and an index of projects by department, was developed. Input from each department was solicited for inclusion in the draft. After the draft was completed, staff presented it to the Village's applicable volunteer boards and commissions for feedback. A revised draft was developed from public and department comment, and then presented to the Board of Trustees for review and adoption on February 4, 2013.

Tools and Resources

In 2007, the Village developed a [Comprehensive Plan](#) that addresses many aspects of sustainability. Land use and development, efficient buildings, opportunities in transportation improvements, preservation of open space, promotion of unique community traits, and conservation of resources are all addressed by the “Comp Plan.” Throughout each section of this Plan, a subsection heading titled, “*Comp Plan Connection*” identifies where in the Comp Plan details can be found that support that section. Additional mentions of applicability to the [Capital Improvement Plan](#) (CIP) and the Village Board goals are noted throughout the document.

In 2009, the Village enhanced its comprehensive Performance Measurement Program (PMP). The PMP is intended to link collected data regarding Village services to the Village Board goals, Comp Plan, and monthly reports in order to assess performance results. Established performance measurement objectives are meant to detect accomplishments, the outcome, and efficiency of the actions undertaken. Just as we have identified performance measurement as a tool to integrate into budgeting, strategic planning, and continuous improvement efforts, the objectives identified in this Plan are also meant to be integrated into these Village activities.

While there is specific emphasis on prioritizing green initiatives in order to achieve results, objectives in this Plan are complimentary to the performance measures, and could mirror the PMP objectives, build upon them, or identify more appropriate measurement data. Much like the PMP, the objectives identified in this Plan are reviewed at a minimum on an annual basis during the budgeting process. Throughout this Plan, example performance measurement objectives, indicators, and analysis tools are “spotlighted” with a ★ to demonstrate the connection between the PMP and this strategy.

Our Next Steps

The implementation of these outlined strategies will require a combination of internal and external resources. The Plan identifies existing challenges, but also identifies partnerships and programs in place that have brought the Village to where it stands now – as a regional environmental leader. The proposed projects will require planning and funding for time and materials. After the Plan’s adoption, the most current projects will be taken on. A review of each proposed project will be done on an annual basis concurrent with the budget process with periodic updates as appropriate. Some projects may be integrated into the PMP as well. A team comprised of Village departmental staff will be appointed by the Village Manager to assess, prioritize, and manage selected Plan projects based upon Village needs and available resources. Aligning the processes will reinforce that we are seeking to improve the Village’s infrastructure, services and environmental quality, but are also mindful of the impact these programs may have on the Village’s financial sustainability.

Implementation Strategies

The Village of Hoffman Estates has identified the following implementation strategies:

- **Make sustainability visible through Village actions and programs.**
The outlined Plan strategies emphasize the Village's goal to exemplify sustainable behavior within day-to-day and long-term operations. The Village supports the establishment of policies and procedures that enhance the experiences of Village staff, residents, and employees of local businesses. The Village will utilize available communication outlets to publicize green practices internally and externally.
- **Integrate sustainability into Village/capital decision making.**
The outlined Plan strategies emphasize the importance of integrating sustainable best practices into day-to-day and long-range capital planning and procurement.
- **Strive to be a recognized environmental leader in the community.**
The Village should continue to build on environmental recognition through awards, and strive to be one of the first examples of a sustainable community throughout the region.
- **Employee participation and commitment.**
Input from all Village departments was sought during the Plan's development. This feedback was essential because it identified what is important to employees and the mission of each department as well as what may be practical to implement. Commitment to the cause stems from buy-in and participation.
- **Employee leadership and action.**
In addition to a work culture where employees are engaged in our green initiatives, a team of Village staff will be responsible for prioritizing, assessing, and managing programs to ensure they are implemented.
- **Leverage available resources.**
Continue to pursue funding from a variety of resources, including federal, state, and organizational grant opportunities. Channels of communication and partnerships should be facilitated with neighboring communities, businesses, and community groups to foster the preservation of resources.

Green Initiatives

This section identifies the general green initiative principles adopted by and proposed for the Village of Hoffman Estates. The Village's strategic focus is upon the following subcategories:

- Policies and Governance
- Facilities
- Vehicles and Equipment
- Energy
- Water
- Materials, Resources and Operations
- Transportation
- Green Planning and Development
- Education and Outreach

Each subsection includes an overview, highlighted projects and programs, as well as noted connections to the Comp Plan, CIP, or Village Board goals.

Sustainability initiatives can generally be categorized into several broad groups based on the area of focus. Specific strategies can be assigned to one of these categories to help organize efforts to achieve goals in one or more of the focus areas. Some programs will be likely to result in benefits in more than one of these categories. Organizing strategies in this manner can assist with decision-making on implementation when considered at the organizational level. In this Plan, some topic-specific groups are identified along with a discussion of community impacts.

Each subsection may also reference recommended performance measures and other supplementary information, as provided in the Appendix. The Appendix also includes a reference guide called, "Activity Matrix;" a modified version of this section that organizes implemented and proposed activities by responsible Village department.

The Appendix includes the following:

- Index of all current and proposed programs, sorted by category and department
- Resource Inventory
- Energy Efficiency and Conservation Block Grant (EECBG) Strategy Chart
- 2010 Hoffman Estates Municipal Energy Profile Project Report (MEPP)
- Brief recycling guide for Village staff

Policies and Governance

Sustainable municipal operations are at the heart of continuing quality services to our residents and businesses. Efficient procedures, effective goal-setting and analyzing performance can contribute to a more positive and productive work environment and effective provision of service. It is essential to recognize that daily operations begin with the decision-making process. If the sustainable nature of an activity is considered during the decision-making process, the Village should continue to integrate sustainability factors into everyday operation of Village services.

Benefits of considering sustainability factors during the decision-making process include:

- Identification of return on investment and cost savings
- Integration of environmental mindset
- Reduced waste in time, cost, and materials
- Improved ability to long-term plan

Municipal Operations Strategies

Performance Measurement Program

The Village revamped its **Performance Measurement Program (PMP)** in 2009, and uses this tool to determine short- and long-term strategies for management of Village operations. Village departments developed performance measurements and complete reports on a quarterly basis. Performance measures are being used in the Department of Human Resources Management to quantify success in training programs. Using the surveys as a measurement tool allows them to measure their training performance, react, and appropriately guide the development of their next training program. The integration of this Plan into the existing PMP may become a primary tool for budgeting and operating decisions.

Technology Usage

Various uses of technology have been incorporated into daily operations at the Village. As will be discussed later in this Plan, departments have begun to utilize software, devices, and equipment to work more efficiently and reduce waste. As more residents and businesses embrace the use of technology for everyday functions, so, too, should the Village attempt to work with them, especially if it will enhance Village provision of services. Sometimes, the use of technology can benefit external and internal users. For example, moving to an interactive voice response phone system for water billing communications would allow for the collection of basic information to route calls appropriately. Likewise, shut-off notice phone calls made by an automated system would reduce monthly staff time, allowing them to respond to concerns involving more detail. Internally, departmental meetings could more effectively utilize video and phone technologies to reduce meeting travel, and allow the ability to provide increasingly popular training webinars.

Interdepartmental Coordination

Coordination between Village departments may provide new resources for departments. For example, employee trainings required by the **Department of Human Resources Management** were provided by the **Police Department** and the **Department of Health and Human Services**, rather than by an outside party. Utilizing our

trained staff over outside organizations can reduce expenditures. Department cooperation can also assist with dispersing community information. For example, the **Department of General Government** generally produces social media releases, but Health and Human Services, or the **Code Enforcement Division** may reach different segments of the Village population. Staying cognizant of these connections may improve efficiency as well as overall internal and external quality of service.

Fiscal Management of Sustainability Projects

Applying for grants to enhance our environmental efforts is an essential aspect of the green initiatives program and an important aspect of reducing costs. While the Village may develop a sound strategy for implementing some projects through Village resources, additional funding assistance will be necessary for many of the proposed green initiative projects. When applying for funding assistance, funds should be leveraged and savings maximized in order to get the largest impact possible. Other programs, such as technical assistance, loan programs, performance contracting, and other funding mechanisms should be considered when appropriate.

Searching for funding assistance can be time-consuming and difficult. While the direct monetary benefits of a funding award may be obvious, the staff time spent before and after an award may be worth considering. For certain projects, significant time may be spent to secure the funding, monitor the project, close the award, and perform follow-up maintenance or evaluation. Considering the cost of this time is fiscally responsible. There may be a time where the product of a grant program outweighs the other “costs,” and has other qualitative benefits that cannot be monetized.

Community

The Village’s volunteer boards and commissions are instrumental in the development of new strategies to recommend to the Board of Trustees. Programs identified during commission activity are often implemented at the direction of the Board of Trustees. The following boards and commissions are noted for their influence on the implementation of the green initiative strategies found in this Plan.

Capital Improvements Board

The **Capital Improvements Board (CIB)** recommends the needs of public structures and roadways, in terms of expansion and new construction, and recommends priorities of capital construction needs including timetables, scope of work and financing considerations. The CIB will be integral in the continued implementation of sustainable activities throughout the capital decision-making process.

Sustainability Commission

The **Sustainability Commission** is comprised of volunteers who live or work in Hoffman Estates. The Commission is intended to inform the community of the sustainable measures currently undertaken by the Village of Hoffman Estates and endorses sustainable measures for the Village of to undertake as developed by the Commission or as instructed by the Sustainability Plan. The Commission also educates residents and the business community regarding conservational actions that they can implement in their own homes or places of business in order to positively impact, preserve, and sustain the environment. It is anticipated that this Plan will be a guiding tool for the Commission.

Utility Commission

The **Utility Commission** establishes and maintains liaison with the Illinois Commerce Commission and the franchised utilities in the Village. They advise, consult, and cooperate with other governmental agencies for the improvement of the utility service of the Village. The Utility Commission will guide decision-making and recommendations regarding utility-related sustainability activities.

Stormwater Management Committee

The **Stormwater Management Committee** reviews flooding concerns, and provides recommendations to the Board of Trustees for improvements. They review policy and are necessary for the Village to maintain its status with the National Pollutant Discharge Elimination System (NPDES) permit program and Community Rating System (CRS) program. Their role in sustainability for the Village is to reduce downstream flooding and improve storm water quality in a variety of ways. In addition, they are looking at more natural ways to provide storm water management for a more sustainable environment.

Bicycle and Pedestrian Advisory Committee

The **Bicycle and Pedestrian Advisory Committee (BPAC)** works to implement the Comprehensive Bicycle Plan; advocate for programs to encourage biking and walking for recreation and transportation; promote safety and educational campaigns; encourage more usage for bikes and pedestrians; and work with neighboring communities to promote connectivity. They will continue to be a factor in planning Complete Streets and improving connectivity in new and existing development.

Due to the influence of the commissions and committees as well as their inclusion in the Village’s annual budget, it could be beneficial to develop a policy that encourages all Hoffman Estates commissions to keep sustainable practices in mind when sponsoring Village events. Opportunities to encourage green practices may include providing abundant access to recycling containers, purchasing green products and services when costs are equal to or less than traditional materials and services, and reducing paper handouts and waste at events. A similar policy model would be the “Shop Local” policy for Village boards and commissions.

Action Items – Policies and Governance

1. Revise procurement policy to include environmentally preferable purchasing standards for the Village.
2. Complete a Village greenhouse gas (GHG) emissions inventory.
3. Create a sustainability team; an informal or formal structure to communicate sustainability information/ manage projects. ★
4. Pursue further application of “cloud” technology for some Village systems. ★

For additional proposed projects, see Appendix A.

Facilities

The Village's **Public Works Department** maintains all Village facilities. Staff has evaluated facilities for improvement needs. Several of the facilities have had an energy assessment performed by outside consultants. Sustainable opportunities largely include energy efficiency improvements. Some service needs have changed over time, and several buildings call for replacement with facilities that incorporate sustainable design.

Village Hall

The Village Hall was renovated in 2008 to include motion sensors, efficient lighting and communications systems, low-Volatile Organic Compound (VOC) paints, furniture, and flooring. Actions that are required before attempting to certify the facility as an LEED building are described in this Plan. An Energy Star Roof improvement was completed at Village Hall. The exterior wall sign was retrofit with light-emitting diode (LED) lighting. Efficient water fixtures and automatic faucets were installed to reduce water consumption. Improvements were made to the heating, ventilation, and air conditioning (HVAC) system that included new variable air volume (VAV) boxes and controls. Replacement and retrofitting of interior lighting fixtures along with the installation of occupancy sensors were completed to improve lighting and enhance energy efficiency. The addition of LED light fixtures on the exterior of the Village Hall and in the parking lot has also reduced energy consumption.

Future planned initiatives include the replacement of the main building HVAC fans with energy efficient units, along with variable frequency drives and computer control improvements to the mechanical air-supply system.

Police Department

The new 79,110-square-foot **Police Department** building was completed in 2010, and it was certified as an LEED Gold building. The facility uses efficient fixtures for water, lighting, heating and cooling, and other building systems. The Police Department features a green roof to decrease the energy used to heat and cool the building. Sustainability was a top priority set by the Board of Trustees and supported by staff, which will create great efficiencies for the Village for years to come. One of the strongest features is the development of a building envelope, HVAC system, and lighting system that focus on energy efficiency and reduction of long-term life-cycle costs. A 10,000-square-foot green roof lessens the strain on the already energy-efficient HVAC system, and it reduces storm-water runoff. The abundant natural daylight that streams into all areas of the building combined with occupancy sensors significantly reduces the total energy needed to light the facility. Local and recycled materials were used during building construction.

See the chart below for energy and water savings estimates from a baseline figure for the Police Department.

<i>Police Department Energy Comparison</i>				
	Baseline Case	Police Department	Annual Savings	Percent Savings
Water Usage	111,409 gallons/yr	69,414 gallons/yr	41,995 gallons/yr	37.7%
Energy Usage	7,304 MBtu/yr	5,468 MBtu/yr	1,836 MBtu/yr	25.1%
Energy Cost	\$141,102	\$109,759	\$31,343/yr	22.2%

Susan H. Kenley-Rupnow Public Works Center

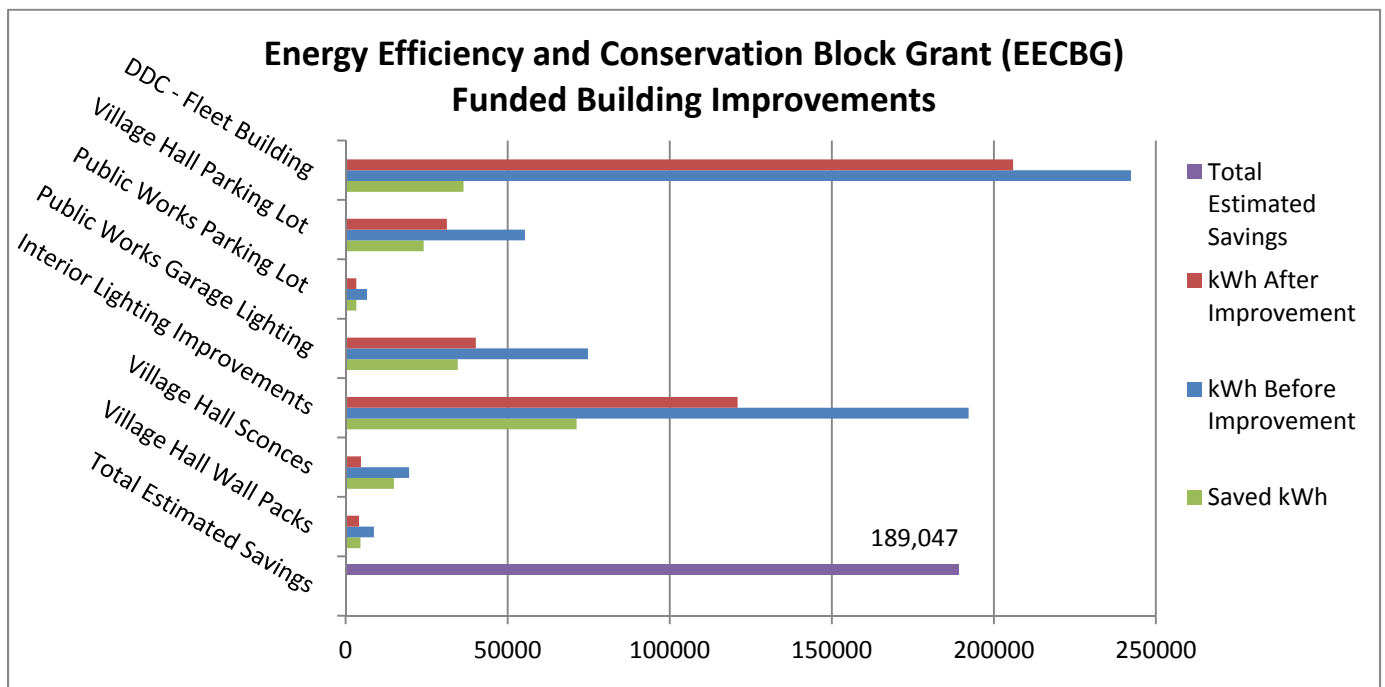
The Susan H. Kenley-Rupnow Public Works Center is a 22-year-old, 58,140-square-foot facility with maintenance shops, administrative offices and a large parking garage for vehicle and equipment storage. In 2010, all interior fluorescent magnetic ballast lighting fixtures (T-12 bulbs) were retrofit to 34 watt (T-8) bulbs with electronic ballasts. The exit lights were also replaced with LEDs. In 2012, the interior high bay garage lights and the exterior parking lot pole lights were replaced with LED fixtures to provide additional energy savings.

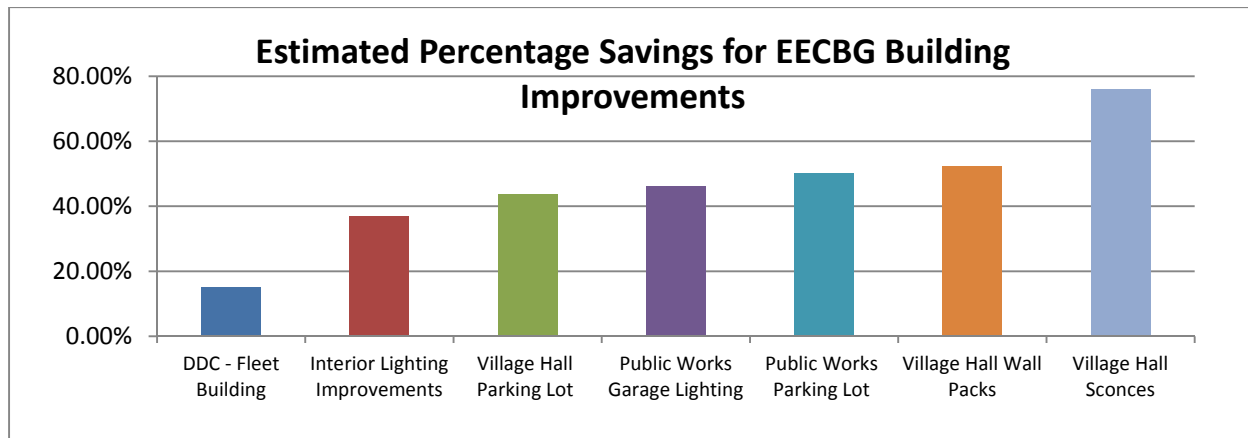
Planned improvements include the replacement of the cooling system with an energy-efficient unit using a more environmentally responsible refrigerant gas. The roof will also be replaced with a new system that will reduce heating and cooling losses.

Fleet Maintenance

The Public Works Fleet Maintenance Facility is a 21-year-old, 20,000-square-foot facility combining a vehicle repair garage and workshop building. In 2010, all interior fluorescent magnetic ballast lighting fixtures (T-12 bulbs) were retrofit to 34 watt (T-8) bulbs with electronic ballasts. The exit lights were also replaced with LEDs. The compressed air system was redesigned with new sequencing controls to reduce demand. A new state-of-the-art Direct Digital Control (DDC) system was installed and commissioned to replace the antiquated HVAC controls. It is estimated that these projects combined will enable a 20 to 25 percent decrease in annual energy usage. Additional energy bills for this building must be tracked in order to identify actual savings from the DDC project.

Potential future projects could include the replacement of the high bay garage lights and exterior parking lot pole lights to LED fixtures, improving the roof system, or upgrading equipment to more efficient models.





Fire Station 21

This 4,092-square-foot single-story wood frame and brick building was built in 1961, and is currently the oldest fire station in the Village. It is an enlarged residential style facility bisected by a three-bay garage for fire equipment. It contains T-12 lighting, several residential type furnaces and A/C units servicing the living areas.

Suggested sustainability improvements include T-12 to T-8 lighting retrofits, replacement of 400 watt metal halide (MH) lighting in the bay area, LED exit signs, occupancy sensors, installation of low-flow showerheads and faucet aerators, and the replacement of forced air bay heaters to radiant-type. This facility is currently being considered for replacement; therefore, upgrades may be limited by prioritization of long-term facility use.

Fire Station 22

This heavily utilized 8,454-square-foot single-story block and brick building was built in 1975, and is currently the second oldest fire station in the Village. It contains a four-bay garage for fire equipment adjacent to living areas. The subgrade level consists of training and exercise rooms. Lighting is primarily provided by T-12 fluorescent fixtures. It contains commercial-type furnaces and A/C units, which service the general living areas.

Suggested sustainability improvements include T-12 to T-8 lighting retrofits, replacement of 400 watt MH lighting in the bay area, LED exit signs, occupancy sensors, installation of low-flow showerheads and faucet aerators, and the replacement of forced air bay heaters to radiant-type. This facility is currently being considered for replacement; therefore, upgrades may be limited by prioritization of long-term facility use.

Fire Station 23

This 7,098-square-foot single-story block and brick building was built in 1975. It contains a three-bay garage for fire equipment adjacent to living spaces. Lighting is primarily provided by T-12 fluorescent fixtures. It contains commercial-type furnaces and A/C units, which service the living and office areas.

Suggested sustainability improvements include T-12 to T-8 lighting retrofits, replacement of 400 watt MH lighting in the bay area, LED exit signs, occupancy sensors, installation of low-flow showerheads and faucet aerators, and the replacement of forced air bay heaters to radiant-type.

Fire Station 24

Fire Station 24 was relocated and newly constructed with local and recycled materials in 2009, and certified as an LEED Gold building. The 21,700-square-foot fire station was designed with numerous sustainable features, and set precedence on the importance of sustainability for the Village of Hoffman Estates. Among the unique features of this building is a high-efficiency HVAC equipment, low-flow plumbing fixtures and more. Overall water usage is reduced by 30% partially through an underground cistern collecting rainwater which is used for washing fire vehicles and landscape irrigation. Permeable pavers and bio-swales filter, reduce storm water runoff, and clean the water before it enters the storm system. Another unique aspect is the native selection of plants that are able to withstand droughts, limiting the amount of irrigation needed.

See the chart below for energy and water savings estimates derived from a baseline figure for a similar building without efficiency features, which demonstrates significant estimated savings.

Fire Station 24 Energy Comparison				
	Baseline Case	Fire Station 24	Annual Savings	Percent Savings
Water Usage	85,567 gallons/yr	58,091 gallons/yr	27,476 gallons/yr	32.1%
Energy Usage	1,361MBtu/yr	1,116 MBtu/yr	245 MBtu/yr	18%
Energy Cost	\$28,735	\$23,583	\$5,152/yr	17.9%

Sears Centre Arena

The Village acquired the [Sears Centre Arena \(SCA\)](#) in 2009, and oversees general building maintenance. The building was constructed in 2006. While the young age of the building would indicate that it has relatively efficient equipment and fixtures installed, an energy assessment was performed in the last few years, as the building changed hands from the previous owner. The SCA has implemented a cleaning program that uses green products, and provides paper towels made of recycled materials. The structure has a computerized energy management system for HVAC, and features a white roof – meant to reflect light – reducing heating and cooling costs. The facility has low-flow toilets, and sinks with shut-off timers. The SCA also hosts an electronics recycling event. While some paper and cardboard office supplies are recycled, the main concourse does not offer recycling because of the difficulty in sorting recyclables from trash. The facility has reviewed the [U.S. Environmental Protection Agency’s \(EPA\) WasteWise](#) facility award program application, and the SCA does fulfill many of the requirements. However, additional improvements need to be made before applying for the award.

Sunderlage Farm

The Sunderlage Farmhouse and Smokehouse are historically significant buildings built in 1856. The Village has acted to preserve the facilities because of their historic value. Community and educational events are periodically held at the farmhouse. There are currently no plans to significantly alter the buildings, but some efficiency and accessibility applications may have a place at the farmhouse.

Pump and Lift Stations

The Village operates 16 pump and lift station facilities, seven water towers, two water high-service pump stations and seven emergency standby wells. Although smaller in square footage, some of these buildings are deteriorating, and do not currently incorporate efficient lighting or other elements of energy conservation. The energy usage in these structures contributes considerably to energy costs in comparison with other Village facilities that have undergone efficiency improvements.

Suggested sustainability improvements include T-12 to T-8 lighting retrofits, LED exit signs and occupancy sensors.

Open Space and Forestry

The Village has been recognized as a [Tree City USA](#) for the past 21 consecutive years. The Village also supports the [Hoffman Estates Park District](#) and the [Forest Preserve District of Cook County](#) in promotion of the use of park and forest preserve facilities as community activity spaces.

The [Virginia Mary Hayter Village Green](#) is a 12-acre park managed by the Village for summer concerts, cultural events, corporate picnics, and other events for the residential and business communities.

Village Snow Operations

The Department of Public Works has taken measures in reducing the amount of chlorides introduced into the environment to support snow and ice control.




In 2008 the Village installed a state of the art salt storage dome located behind the Vehicle Maintenance Facility. The dome is capable of storing 5,500 tons of bulk road salt under roof. The structure is equipped with a conveyor system, which efficiently moves salt into the dome at the time of delivery and eliminates any need to store salt outside for any length of time. This greatly minimizes salt run off.











Directly adjacent to the salt dome are three 5,000 gallon anti/de-icing liquid storage tanks, which are positioned inside a concrete secondary containment system, thus eliminating any potential for leaking into the environment. The tanks store both Organic Liquid (beet juice) and Liquid Calcium Chloride used for ice control.

Comp Plan Connection

[Chapter six](#) of the Village's 2007 Comp Plan identifies open space jurisdiction, strategies, and policies. Including considerations for the management of open spaces, the chapter also addresses ways to increase public awareness of ecological issues. [Chapter nine](#) of the 2007 Comp Plan includes general objectives for addressing "Resource Efficiencies" of Village infrastructure.

Action Items – Facilities

1. CIP building efficiency improvements for Fire Stations 21, 22 and 23. 
2. Retrofit all remaining incandescent exit signs at Village facilities. 
3. Install motion-sensor lighting at Village facilities where they are not installed. 

4. Replace high-intensity discharge (HID) lamp fixtures in Village Hall lobby. 
5. Replacement and control improvements for Village Hall HVAC. 
6. Retro-commission Village Hall using Smart Energy Design Assistance Center (SEDAC) program. 
7. Replace cooling system at Public Works Center. 
8. Replace roof at Public Works Center. 
9. Replace Hi-bay garage lighting with high efficiency lighting in Fleet garage. 
10. Replace 250 watt lights with T-8s and sensors in Fleet garage. 
11. Replace exterior wall packs with high efficiency lighting at Fleet Services Building. 
12. Determine cost of implementing bottle recycling program in SCA concourse.
13. Investigate opportunities for food vendor to reduce waste at the SCA.
14. Utilize SEDAC energy audit services for SCA to identify savings opportunities.
15. Develop a sustainable maintenance standards manual to identify sustainable construction and cleaning materials and products used at Village facilities.
16. Implement no-mow grass zones or hybrid seed for all facilities to reduce annual mowing costs and lawnmower emissions.
17. Install low-flow aerators at Village facilities where they are not installed. 
18. Install a photocell in Public WorksCenter lobby. 

For additional proposed projects, see Appendix A.

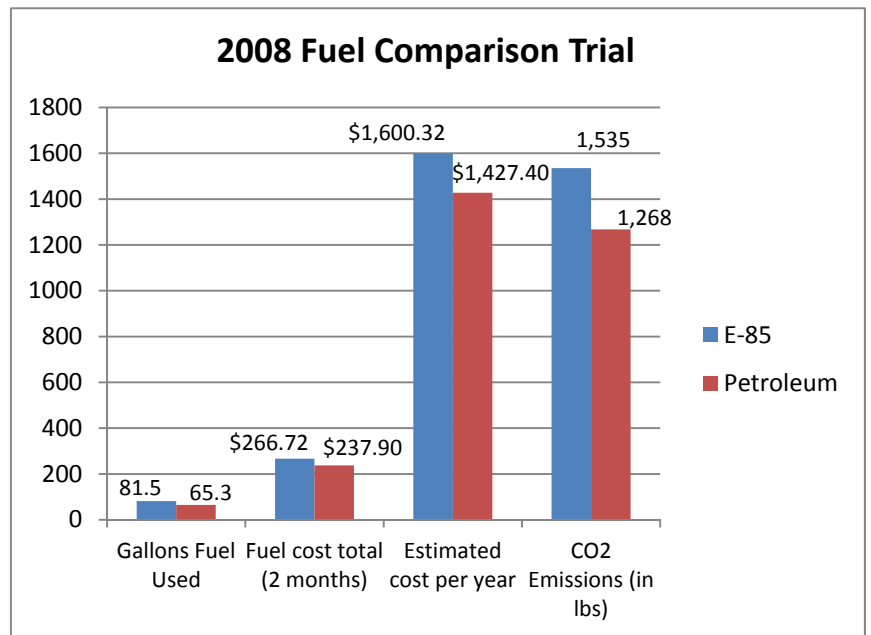
Vehicles and Equipment

The Public Works Department's [Fleet Services Division](#) performs regular maintenance and mileage tracking to ensure best vehicle performance and fuel mileage. In the last few years, vehicle purchases, type of fuel used, vehicle performance and maintenance have all been evaluated and tracked more closely than ever before. This Division also does its part to reduce waste by maintaining vehicles to extend their useful life and utilizes **GovQA** to receive work orders submitted by the Fire Department. Efficiency information relevant to vehicle operations is included in Appendix F.

Fuel Usage

Alternative Fuel Assessment

Twenty-five fleet vehicles are capable of using E-85 fuel. The Village completed a two-month trial use of E-85 fuel in 2008 using two 2001 GMC Sonoma pickup trucks. The trial showed that driving 1,000 miles on E-85 used 81.5 gallons of fuel, cost \$266.72, and released approximately 0.77 metric tons of CO₂. Driving 1,000 miles on petroleum gasoline used 65.3 gallons of fuel, cost \$237.90, and released approximately 0.63 metric tons of CO₂. E-85 fuel has less energy, requiring more fuel to go the same distance as gasoline. At the time, the cost difference and the added emissions did not make it economical to use E-85.



Compressed Natural Gas Vehicles

The Village is interested in improving fleet performance and fuel conservation. One opportunity to do this may mean converting or purchasing some vehicles to use compressed natural gas (CNG) as fuel. Considerations must be made regarding cost, installation, and accessibility of filling equipment before pursuing this option.

Vehicles

Right-Sizing Vehicles

Over the past few years, Public Works has more closely examined vehicles planned for replacement. Not only does staff now take into consideration the fuel economy of a vehicle, but the vehicle's use and the minimum size required are considered in order to reduce fuel consumption. Recent examples include replacement of a large sport utility vehicle (SUV) with a hybrid vehicle used for [J.U.L.I.E. locates](#), and a large V8 pickup truck replaced

with a small 4-cylinder pickup truck. Several police squad cars are moving from a V8 to a V6 engine, which will reduce fuel consumption.

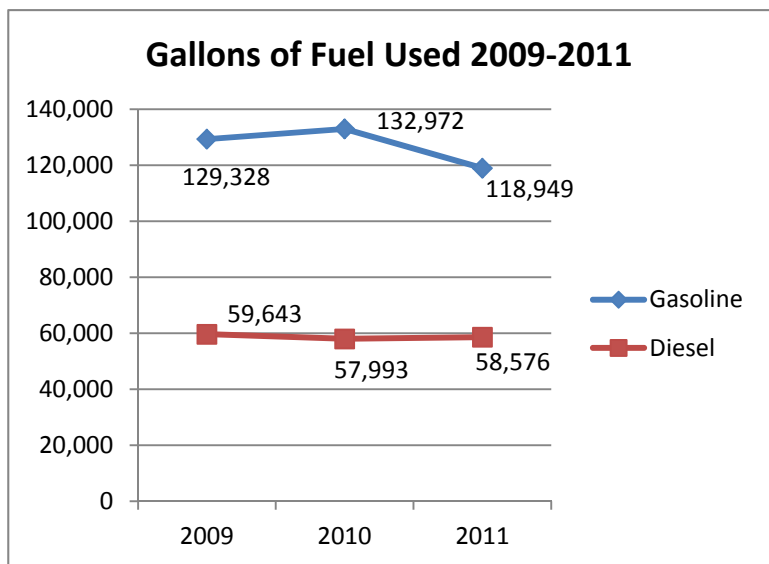
Emissions Reduction

Diesel Emissions Reduction Program

The Village applied for and received grant funding from the [Congestion Mitigation and Air Quality \(CMAQ\)](#) initiative for a diesel emissions reduction program. The vehicles chosen for the project were top priorities in reducing emissions from the Village fleet. The project included vehicle replacement, engine replacement, and engine exhaust retrofit depending on vehicle type and model year.

Reduction in Vehicle Idling

In 2008, the Village created an informal “Anti-Idling Policy” which has prevented thousands of hours of Village vehicle idling for nonemergency vehicles. The idling of Village vehicles is an unnecessary waste of fuel, and contributes pollutants to the environment. Vehicle idling also causes damage to the vehicles engine and exhaust system. This policy significantly reduces overall fuel usage, improves fuel economy, and reduces the emissions produced by the Village fleet. The chart to the right shows the total number of gallons used in a three-year period, shortly after the implementation of the informal policy. Other than significant inclement weather in 2010, fuel usage has generally dropped, possibly because of a reduction in vehicle idling.



Eco-Driving

To further improve fuel efficiency and reduce overall fuel and maintenance costs, a Village employee could take an “eco-driving” method training session, and then teach all employees who drive Village vehicles how to follow this driving method.


Use of Alternative Transportation

The Village has several bicycle police officers that patrol the streets on bicycles in designated areas and for special Village events. It may be impractical to add more bicycle police officers to each schedule, since they are routed to specific calls.

Comp Plan Connection

[Chapter nine](#) of the Village’s 2007 Comp Plan mentions encouraging Village use of efficient vehicles.

Action Items – Vehicles and Equipment

1. Convert some fleet vehicles to CNG fuel. 
2. Pursue additional funds to improve fleet and operations.
3. Implement cost-effective methods of reducing fuel use and produced emissions.

For additional proposed projects, see Appendix A.

Energy

Energy-efficient best practices reduce the cost of operating facilities and reduce harmful emissions released into the atmosphere while producing the energy to power buildings. Village facilities currently operate on a combination of electric and natural gas power. Although some electricity costs of the Village are subsidized by franchise agreements with local energy providers, it is still a significant annual cost to the Village. In the long term, reducing the overall consumption of energy consumed at Village facilities will benefit the community at-large both environmentally and financially, and will cut down on potential future energy needs.

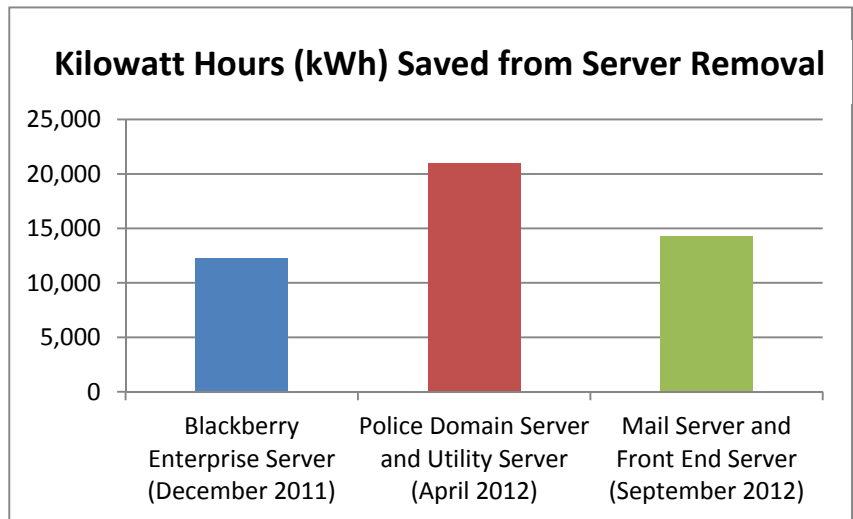
Fiscal Management

Purchase of Renewable Energy Credits

Renewable energy credits (REC) serve as proof that electricity was generated from a renewable energy source. While the energy created by the renewable energy source does not feed directly into the power source used by the Village, the purchase of the REC signifies that, in place of the energy consumed, an equal amount of energy was generated without the use of fossil fuels. The Village purchases RECs for Fire Station 24. The Village chose to pursue a LEED credit for use of RECs for energy consumption at the facility.

In-House Server Reduction

The [Information Systems \(IS\) Department](#) has reduced server use by transferring data to an offsite location hosted by our current software provider. Servers take a significant amount of energy to heat and cool equipment. This move has reduced annual electricity load going to the servers by approximately 58 percent for an annual savings of 47,567 kWh. The Village should attempt to identify additional ways to reduce server load, and, in turn, reduce energy consumption.



Green Power Provided by Municipal Energy Aggregation

On March 20, 2012, voters approved a referendum for the Village of Hoffman Estates to seek lower electricity supply rates for its residents through an opt-out electricity aggregation program. The [aggregation program](#) allows municipalities to pool residential and small commercial retail customers together for the joint purchase of electricity. By creating these economies of scale, a community can leverage the buying power of thousands of residents and small businesses to obtain a lower price for the supply of electricity. Residents were automatically enrolled in the reduced rate program unless they opted out. Although the power is supplied by ComEd infrastructure, the power being purchased by the residents is considered green energy, generated by renewable

power sources, such as wind, solar and geothermic equipment. Due to rates being very low, the Village chose to have 100 percent of the energy distributed in Hoffman Estates be “green.” As part of the agreement for green energy, the Village will be accepting a civic contribution, which is slated to be used toward the Village’s green initiative projects identified in this Plan. The Village will need to seek a new agreement in 2014 when this agreement term ends.

Infrastructure

Continual changes in technology create a need for assessment of Village facilities and equipment on a periodic basis. The Village regularly considers making improvements because, as products become more efficient and intelligent, some of the prices become more affordable.

Environment and Ecology

Energy Code Adoption

The Village has adopted the 2009 **International Energy Conservation Code (IECC)** codes and building standards to improve efficiency in all inspected and newly constructed buildings. At the time of this writing, Village staff was preparing for the adoption of the 2012 IECC codes and building standards. Since the adoption of the 2009 IECC codes, the Village has performed over 750 inspections that are related to the adopted energy code.

Local Energy Profile

The **Center for Neighborhood Technology (CNT)** led **Municipal Energy Profile Project (MEPP)** is funded by the **Illinois Clean Energy Community Foundation (ICECF)**, with support from **ComEd**, **Nicor**, Peoples Gas, North Shore Gas and the **Illinois Department of Transportation (IDOT)**. The Hoffman Estates energy and emissions profile summarizes the Village’s energy usage in comparison with Cook County. The profile was made as a benchmark for prioritizing strategies for energy efficiency and conservation based on energy consumption and greenhouse gas emissions data. The MEPP includes the following information:

- Aggregate annual electricity consumption from account-level data analyzed by sector
- Aggregate annual natural gas consumption from account-level data analyzed by sector
- Annual transportation data by vehicle miles traveled
- Annual emissions profile by sector

MEPP’s Village of Hoffman Estates energy and emissions profile assisted with prioritization of Plan strategies for energy efficiency and conservation, and has been included as Appendix D.

Community

The Village has implemented energy conservation strategies that affect or encourage the community to participate. Some of these efforts include promotion of educational awareness, such as Earth Hour, O-Zone Awareness and Action Days, and information about energy conservation in the Village newsletter and on the Village’s website. Other strategies depend on participation or are in response to public requests.

Energy Assessment Training

Village Code Enforcement officials have become certified home energy raters capable of performing energy assessments for residential properties. Significant training on energy systems and codes were undertaken by staff, and they have collectively logged over 600 hours performing energy assessments since 2010.

Residential Energy Assessment Program

The Village's energy raters have been trained to perform comprehensive home **energy assessments** to measure air leakage, locate deficiencies of insulation, and identify indoor air quality safety issues. They use a combustion gas detector, combustion analyzer, a blower door test, and an infrared camera, and provide a detailed assessment of the home to the homeowner.

Green Permitting

Resident and commercial applications for alternative and renewable energy systems are accepted by the Village. Each request is reviewed on an individual basis to ensure that the proposed system is certified, and that it will be installed by a licensed professional. Several businesses have used the Village's variance process to permit renewable energy system placement when the proposal did not meet existing code standards.

Community Energy Challenge

In 2009 and 2010, the Village participated in the ComEd Community Energy Challenge with 10 other municipalities from the region. The pilot program was intended to introduce a variety of energy saving programs and rebate opportunities to residents and businesses of the community, as well as incent energy saving measures for municipal infrastructure. The community whose residents and businesses reduced energy usage the most won the challenge. While Hoffman Estates did not win, it was recognized for exceptional effort in encouraging participation by Village businesses and for its public outreach.

Energy Emergency Planning

In 2010, the Village was awarded a Local Energy Assurance Planning (LEAP) grant from the U.S. Department of Energy (DOE). The grant provided the opportunity to receive a profile analysis of energy usage for several major Village facilities. The profile was developed in order to have a better picture of what current energy consumption levels are for critical facilities to better prepare for needs in an energy emergency. The analysis was used in part to develop an Energy Assurance Plan (EAP) to be used in a short- or long-term energy emergency. The EAP includes information regarding energy providers, communication operations, critical Village and community facilities, and a [business outreach and education program](#). The Village has generators for use at public facilities in the instance of an energy emergency. Refer to the EAP for details about energy planning.

Comp Plan Connection

[Chapter nine](#) of the Village's 2007 Comp Plan states that the design and construction of energy efficient buildings is encouraged, and a desire to reduce municipal energy consumption is identified.

Action Items – Energy

1. Increase frequency of residential energy assessment program in conjunction with the Community Development Block Grant (CDBG) housing rehabilitation program. ★
2. Implement overnight shutdown policies, review current sleep mode, and energy-save modes to see if improvements can be made to improve energy efficiencies for computers and other electronics.

For additional proposed projects, see Appendix A.

Water

The Village has established strategies to manage water, and plays a role in regional planning efforts. The [Public Works Department water unit](#)'s responsibilities include water supply, distribution and quality assurance (complying with Illinois EPA and U.S. EPA standards), operation maintenance and repairs, and monthly well exercises and water sampling. Public Works also assists homeowners in investigating high-water usage if the resident cannot determine the cause, and implements the Village's cross connection control and backflow prevention programs. Water efficiency is beneficial not only to the municipality, but also to private property owners and users.

Water Management

Storm Water Management

The program includes the maintenance of 218 miles of storm sewer mains in addition to the many miles of creeks inside Village boundaries. Program staff also monitors flow condition of 73 miles of private storm sewer mains. The Village's storm water management uses best management practices (BMPs), as required by the National Pollutant Discharge Elimination System (NPDES) program.

Sanitary Waste Conveyance

The program includes maintenance on 16 lift station facilities, 5,166 manholes, 186 miles of gravity sewer main pipe and 13.4 miles of force mains, as well as the cleaning, root cutting and videotaping of sewer main lines. Maintenance of the lift stations contain mechanical, electrical and fail-safe systems that must be continuously operated and maintained in order to prevent sewer backups and spills into the environment. The electrical systems include control panels, variable frequency drives and emergency power generators and mechanical components, which include pumps, valves and discharge piping. The fail-safe system includes the **Supervisory Control and Data Acquisition (SCADA)** system. It is important that this equipment continues to run efficiently and effectively, due to continuous use.

Environment and Ecology

Rain Barrel Program

At this time, the Village refers residents to the rain barrel program operated through the [Metropolitan Water Reclamation District \(MWRD\)](#). The Village provided a rain barrel program in cooperation with MWRD in 2010 because the pickup stations were a long distance from the Village. The Village took orders for 80 barrels within one week, picked them up, and provided a pickup location in town. The Village used the *Citizen* newsletter, water bills, and the website to promote the very successful program. The water bill notices garnered the most immediate responses from residents, and that it is best to use a pre-pay system, rather than a reservation and pay upon pickup policy. Over the next few years, Hoffman Estates residents were encouraged to work directly with MWRD, because MWRD opened a pickup location in nearby Schaumburg.

Green Roof at Police Department

The 10,000-square-foot green roof constructed at the Village's Police Department contributes to reduction in storm water runoff, and decreases the levels of carbon dioxide in the atmosphere.

Installation of Variable Frequency Drives

Installation of variable-frequency drives (VFD) on water/sewer station pumps reduced the energy used to initiate running the pumps. The Village could benefit from initiating a mechanism to track the energy saved by the VFDs installed.

Water Sprinkling Ban/Restrictions

A sprinkling ban is in effect from every May 15 to Oct. 1 for more effective irrigation. Evaporation rates are highest in the middle of the day when the sun is high; therefore, watering in the early morning or late evening allows more water to be absorbed directly into the ground.

Community

Water Sense EPA Partner

In late 2009, the Village of Hoffman Estates began working with the [U.S. EPA WaterSense](#) program to bring residents information and tips on how to conserve water. WaterSense is an EPA-sponsored partnership program that seeks to protect the future of our nation's water supply by promoting water efficiency, and enhance the market for water-efficient products, programs, and practices. The WaterSense program is very similar in design to the Energy Star program and label.

Chicago Metropolitan Agency for Planning Water Plan

The [Chicago Metropolitan Agency for Planning \(CMAP\)](#) developed the Water 2050: Northeastern Illinois Water Supply/Demand Plan to identify CMAP's strategy to promote efficiency and conservation of regional water resources. The Village will cooperate with and support regionally coordinated water system plans through [Northwest Suburban Municipal Joint Action Water Agency \(NSMJAWA\)](#) of Hoffman Estates, Schaumburg, Hanover Park, Elk Grove Village, Mount Prospect, Streamwood, and Rolling Meadows. The NSMJAWA plan provides for actions in everyday operation, and actions for emergency conditions that occur in the water system, which result in a complete disruption of flow to member communities.

Joint Action Water Agency Allocation

The Joint Action Water Agency's (JAWA) total allocated annual pumping capacity for the Village is 8.5 million gallons per day (MGD), with a maximum peak daily capacity of 15.3 MGD. According to the NSMJAWA criteria design memo, the northwest pump was designed with allocated pumping capacity of 6.5 MGD for Village north and south pressure zones. The western development area (WDA) standpipe pump station was designed with allocated pumping capacity of 2.0 MGD for the WDA pressure zone. Public Works has projected that, in 2020, average daily water use for the WDA pressure zone will be approximately 3.5 MGD, and a peak day use of 6.3 MGD.





The Illinois Department of Natural Resources (IDNR) limits the amount of water that can be drawn from Lake Michigan each day. Per agreement, the water allocation permitted by IDNR for Hoffman Estates (Permit No. 2009-076) is seen in the chart to the right.

The slight annual increase permitted indicates that, even as the Village population and development changes, the amount of our water consumption will need to stay close to previous levels. This maintenance of water consumption levels will be an important strategy for the Village in the next few years.

Comp Plan Connection

Chapter nine of the Village’s 2007 Comp Plan encourages water efficient buildings, wetland and water body protection, and reductions in erosion and storm water runoff.

Action Items – Water

1. Adhere to prescribed water usage levels for the Village through 2020. ★
2. Initiate a mechanism to track the energy saved by installed VFDs.
3. Replace obsolete hydrants to prevent failure and leaks. 
4. Replace aged valves to prevent failure and leaks. 
5. Replace and repair water mains located in corrosive soil to prevent failure and leaks. 
6. Install low-flow aerators in Village facilities that do not currently have them. 
7. Identify location and necessary resources to install a community rain garden.

For additional proposed projects, see Appendix A.

IDNR Lake Michigan Water Allocation

2011	-----	6.169 MGD
2012	-----	6.237 MGD
2013	-----	6.305 MGD
2014	-----	6.373 MGD
2015	-----	6.441 MGD
2016	-----	6.511 MGD
2017	-----	6.582 MGD
2018	-----	6.653 MGD
2019	-----	6.724 MGD
2020	-----	6.794 MGD

Resources and Operations

Conserving resources and reducing consumption are important aspects of environmental sustainability. Recognizing this, the Village has implemented residential and commercial recycling, provided various recycling programs and events, and promoted a change of habits and mindset to be conscious of resource consumption. A large portion of the Village's waste reduction efforts are implemented in partnership with the [Solid Waste Agency of Northern Cook County \(SWANCC\)](#).

As an organization, the Village uses many materials and supplies to carry out its functions. Purchasing sustainable or environmentally preferable materials will reduce overall environmental impact, and set an example for Village businesses and residents.

Waste Reduction

Waste Wise

The Village is a member of [WasteWise](#), a free, voluntary partnership program sponsored by the U.S. EPA. The Village reports annually on efforts made to prevent pollution and conserve natural resources. The Village's sustainability coordination and the Public Works Department have ties to this program.

Village Facility Recycling Efforts

Recycling containers have been installed in both public and employee areas of Village facilities using funds provided by the EECBG. Employees have been educated on what items can be recycled, and signs are placed near recycling containers to help. Additional education regarding the containers and other Village recycling programs should continue.

Efforts to Reduce Waste

The Village has encouraged staff to print e-mails less frequently, and to copy materials onto both sides of the paper. Staff has made a significant effort to reduce printed memos, agendas, packets and minutes. The [IS Department](#) maintains a database on Hoffnet (intranet site) for all committee and board agendas, packets and minutes.

In the last few years, drastic cuts have been made to the purchase of polystyrene cups and dining materials in favor of reusable containers. Efficiencies created for [J.U.L.I.E.](#) locates have prevented excess travel, paper usage and communications. As much as possible, the Public Works' Fleet Services staff uses a computer system to reduce paper usage and increase efficiency in orders and work tickets.

The [Police Department](#) has formatted some reports and documents for electronic completion and submittal. Officers are able to write some reports in their squad cars, and send it to their supervisor to have it electronically approved. Police recently stopped records from being microfiched. While having staff scan the records into the report management system is more labor intensive, this method permits an easier records search. The Village has experienced several obstacles in the process of moving from hand-written tickets to an electronic ticketing system. The Village should continue to seek ways to reduce administrative staff time spent entering and processing hand-written tickets.

Water billing has initiated an opportunity for residents to elect to receive paperless water billing and have their bills e-mailed to them. A good way to continue to decrease paper waste and to provide a desired service to residents is to increase the number of residents enrolled in the paperless billing program.

Document Imaging Dimensions (DID) is the company that provides the Village with toner. They recycle all parts of the toner cartridges and provide maintenance of our printing equipment. The Village has participated in several of their green initiatives in the past, and plans to continue doing so.

The [Village Clerk's](#) office sends a resident packet to new homeowners in town. The information is sent out when water billing creates an account for a new owner/tenant. Apartment tenants were being sent the welcome packet, but, due to high resident turnover, costs and materials were reduced by sending the information only to homeowners. New resident information is also available on the Village website.

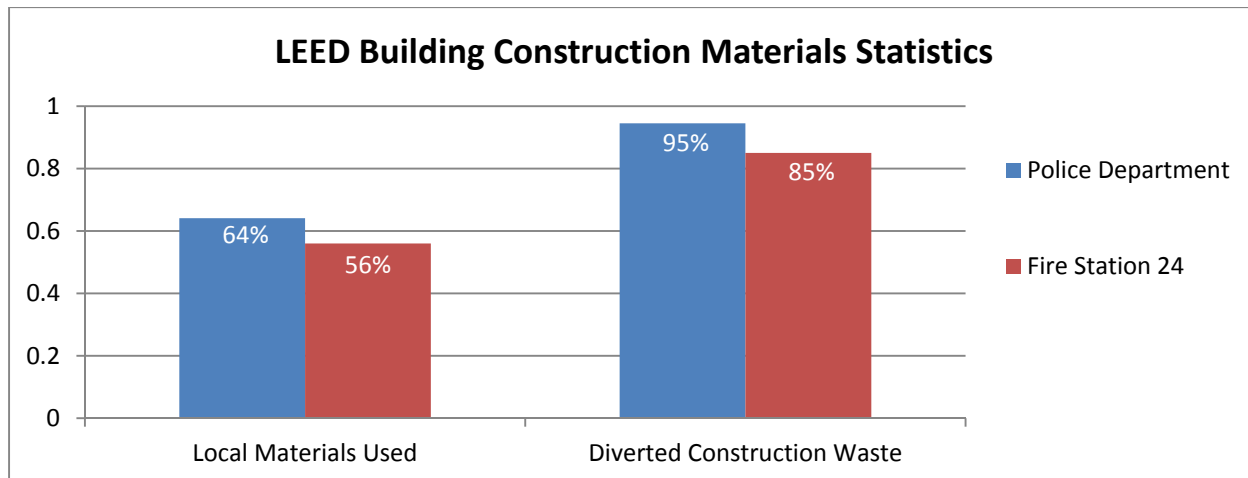
The [Department of Human Resources Management](#) has increased the amount of information provided to employees on the intranet page, as well as external information on the Village's employment website. Improved transparency and the availability of more information have reduced paper use, as well as the number of repeated questions received. Human Resources has discovered, however, that there is a benefit to some face-to-face interaction. Internally, using the intranet could be beneficial if it is publicized more, but it needs to be made apparent to employees in order to have it used successfully.

The Village's [Snow/Ice Control Fleet Trucks](#) are all equipped with computerized speed control material application systems (salt spreaders) allowing the correct amount of product application given warranted weather conditions. This system also provides on board computerized application of the liquid pre-wetting of salt at the spinner, which provides for a more controlled application of wetted salt thus reducing salt usage and promoting sensible salting practices.

Organic liquid anti-icing/deicing product (beet juice) is applied to the Village's bridge deck and facility parking lots as an anti-icing measure reducing salt use and labor/fleet hours. As weather conditions warrant, beet juice will more often be the product utilized as a salt pre-wetting agent reducing the amount of chlorides being applied to Village streets.

Local and Recycled Construction Materials

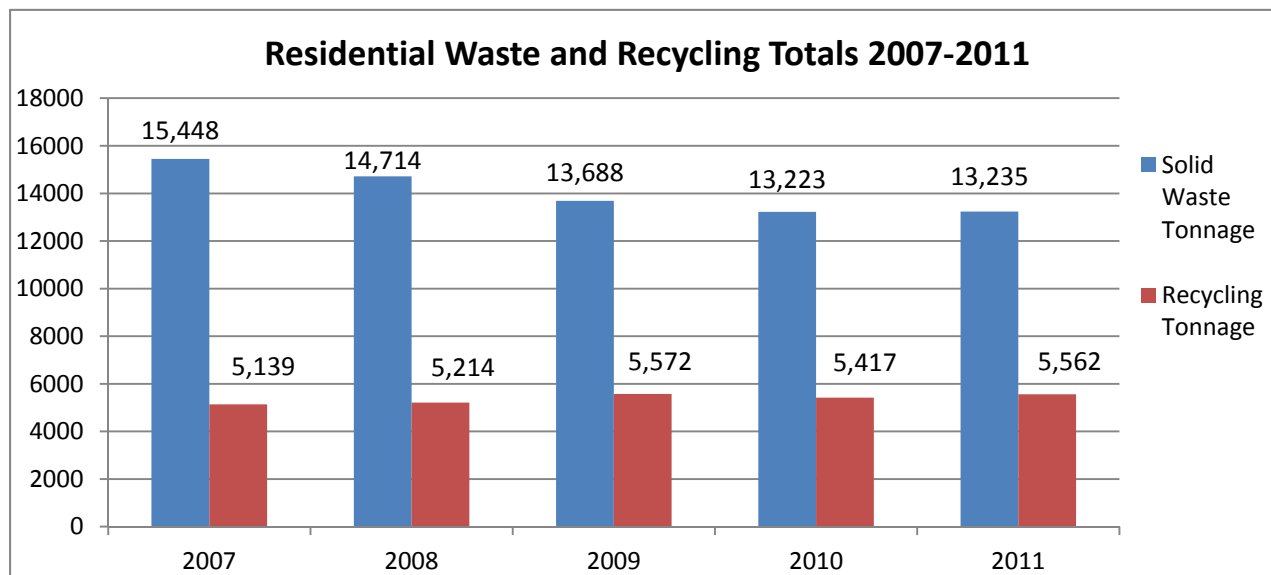
In addition to the sustainable design and features, the LEED Gold Police Department and Fire Station 24 buildings were both constructed in an environmentally friendly manner. To reduce pollutants associated with transportation and fabrication, and to support the local economy, local and recycled materials were incorporated in the construction. Fire Station 24 was constructed with 56 percent (\$647,379.86) of materials provided locally, and the Police Department was constructed with 64.1 percent (\$2,898,639.19) of materials provided locally. The construction process also aimed to generate minimal waste, and to divert waste from landfills by recycling or salvaging excess materials. Over 85 percent of construction waste from Fire Station 24 and over 90.45 percent of waste from the Police Department building was diverted from a landfill.



Community

Residential and Commercial Recycling

Hoffman Estates has had active curbside residential recycling since 1991. The Village contracts with [Groot Industries, Inc.](#) to provide waste removal and disposal, as well as both residential and commercial recycling services. To offer better recycling services to residential properties, the Village modified its 2008 contract with Groot so that every house would be provided with a recycling toter. With this modification, all recycling could be comingled, and the toters are easier to store and transfer recyclables to curbside for pickup. The immediate result was a four percent increase in recycling tonnage in 2009 for the Village. According to SWANCC, as of fall 2012, Hoffman Estates' recycling accounts for approximately twenty-nine percent of all solid waste left at the curb. While it is a very good rate, the community may be able to increase this amount with additional education efforts. The chart on page 28 shows a somewhat static recycling total, which could also indicate recycling education may jump-start additional recycling efforts.



The Village negotiated its first commercial waste franchise waste program for all commercial, industrial, and institutional buildings in 2008. This contract benefitted local businesses by providing free basic recycling services, and helped the Village realize an environmental benefit of fewer solid waste trucks on the Village streets, emitting less greenhouse gases.

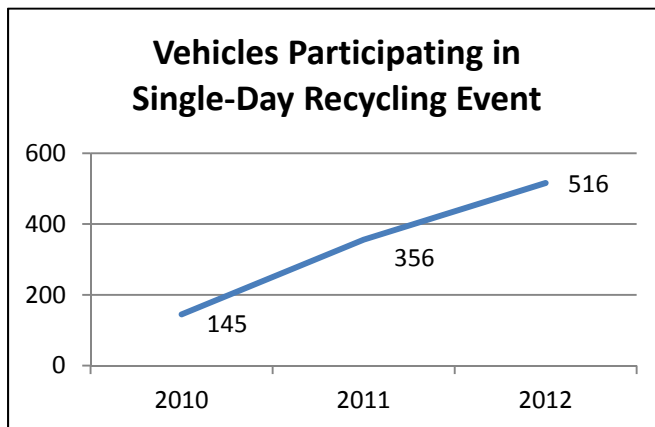
Furthermore, to help reduce greenhouse gas emissions generated by trucks, Groot has pledged to convert their trucks used in Hoffman Estates from diesel-powered to CNG vehicles during the term of the current contract. The transition to CNG vehicles will help to reduce this harmful impact on community air quality.

For a quick and handy guide for recyclable materials, see Appendix C.

Recycling Programs and Events

To increase recycling for items that are not collected routinely at the curbside, the Village has worked with environmental partners, such as SWANCC, to offer and promote recycling programs and events at Village facilities. The programs provide recycling opportunities for items that cannot be recycled at the curbside or disposed of in the landfill, such as electronics, batteries, medical waste, fluorescent light bulbs, and holiday lighting.

Community Electronics Recycling: Small electronics are collected five days a week in containers in the Village Hall lobby. In 2011 and 2012, larger electronics have been collected locally in the Village Hall parking lot from April to November, through SWANCC. Larger electronics can also be dropped off at the SWANCC Glenview Transfer Station, or at the public works facility in Winnetka from November to April.

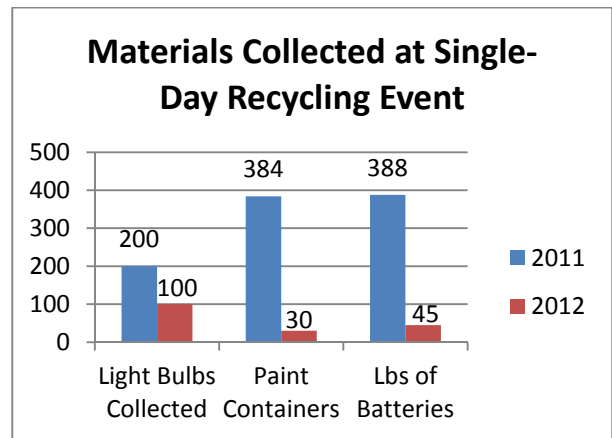
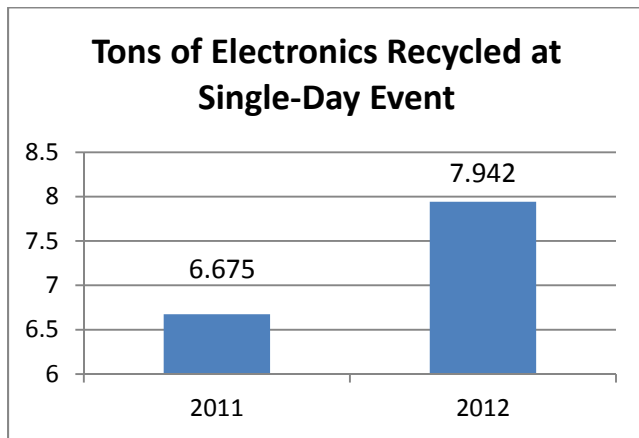


Document Destruction/Electronics Recycling Event: The Village partners with SWANCC to host an annual combined document destruction and electronics recycling event for household items on a Saturday in August at the Susan H. Kenley-Rupnow Public Works Center. The following recycling services are offered: electronics, document destruction, sharps/Rx drugs, fluorescent light bulbs, latex paint (with charge), and batteries.

Household Chemical Waste: Household Chemical Waste (HCW) collections are provided by the Illinois EPA, and are open to all Illinois residents. The nearest collection site is located at Naperville Fire Station 4, 1971 Brookdale Road, Naperville, IL. The collection site is open from 9 a.m. to 2 p.m. on Saturdays and Sundays. More information about this collection site and HCW collection can be found on the SWANCC residential waste webpage.

Battery Collection/Recycling Program: The Village collects household batteries for recycling at the front counter of the Village Hall. Accepted materials include AAA, AA, C, D and 9V. All rechargeable batteries (lithium, NiMh and NiCad) must have masking tape on contact points (ends of battery) or be contained in an individual self-locking plastic bag. Batteries are accepted from individual residents; collections are not accepted from schools, institutions, or businesses that have collected on their employee’s behalf.

Several changes took place between 2011 and 2012 that may have impacted the amount of items collected at the single-day recycling events. As of January 2012, a larger number of standard household electronics were banned from the landfill and required an alternative disposal. This most likely accounts for the large jump in recycled electronics in 2012. The Village implemented a battery collection and recycling program shortly after the single-day event in 2011, which could indicate the significant decrease in batteries in 2012. Paint container collection was advertised in 2011 but was not in 2012, and some education materials on the proper and safe disposal of water-based (latex) paint were also released between 2011 and 2012 recycling collection events.



Comp Plan Connection

Chapter nine of the Village’s 2007 Comp Plan encourages the reuse of materials and recycled content, use of regional materials to reduce transportation, and reducing construction waste.

Action Items – Resources and Operations

1. Develop a system to identify the total weight of internal waste and recycling streams and perform a waste audit to determine future actions to improve waste reduction programs.
2. Increase the number of residents enrolled in the paperless billing program. ★
3. Move to paperless reports for fire inspections. ★
4. Continue to work to further implementation of wireless police report writing.
5. Improve accessibility of a resident and staff comprehensive directory for local recycling of household items.

For additional proposed projects, see Appendix A.

Transportation and Mobility

The [Village of Hoffman Estates](#) is served by a number of transportation modes for both local and regional travel needs. There is a well-established network of arterials carrying a tremendous amount of regional traffic within and through the Village. Collector and local roads supplement the arterial network. Since many of these arterials are under control by other agencies, balancing regional and local travel is a challenge for the Village. The Jane Addams Memorial Tollway (I-90) bisects the Village, resulting in issues of continuity and connectivity between the northern and southern portions of the community.

Key transportation issues, such as traffic flow, intersection design, pedestrian crossings, sidewalk continuity, bicycle accommodations, crash prevention and the demand for increased and improved transit services, are all of concern to the Village. Reducing vehicle congestion on major roads helps to deter drivers from diverting to Village collector and local streets. Addressing delay problems, managing traffic flows through residential areas and broadening the type and availability of alternative modes of transportation all help to decrease air pollution, and protect the well-being of the residents and businesses.

The three categories of transportation sustainability initiatives are listed below with some examples of the general types of programs within each:

1. **Mobility/Movement** – intended to improve both traffic operations and choices for travel. Examples include targeted projects to reduce congestion, especially during peak travel hours; bicycle and pedestrian projects to offer attractive and convenient routes to serve shorter distance trips; and transit service enhancements and additions to offer alternatives to driving, as well as to serve those without access or the ability to travel independently.
2. **Environment/Ecological** – intended to design, construct, maintain, and operate the transportation system through explicit consideration of environmental effects. Examples include evaluating evolving sustainability rating systems used to score and strengthen road, bicycle/pedestrian and transit projects; investigation of street and streetscape design elements, such as permeable pavement and rain gardens to better manage runoff; and developing expanded and accessible mode choices to create travel options.
3. **Community** – intended to strengthen the sense of community through responsible practices. Examples include investigating means to improve connectivity among neighborhoods by providing safe and convenient routes and crossings of major streets; enhancing programs focused on lifestyle choices by encouraging walking and bicycling for recreational and shopping purposes; and coordinated and thoughtful planning, design and management of the transportation system to connect to local and regional destinations.

Mobility and Movement

Complete Streets 

The adoption of the Complete Streets philosophy through Board of Trustees resolution (Resolution No. 1501-2011) establishes the policy on which to base specific implementation strategies. While the Village previously advanced a number of projects over the years to improve accommodations for non-motorized users, the

Complete Streets resolution furthers these efforts by broadening the scope of future projects. Building off elements of the Village's Comprehensive Bicycle Plan, Comp Plan, and involvement of the BPAC, the Complete Streets policy will lead development of updates to Village codes and guidelines with the ultimate goal of benefiting all users of the transportation system. "Road diet" is a term used to describe the repurposing of pavement width to improve traffic operations and accommodate other types of users by more closely matching the demand for use of the road with the available space on the street. A typical example is a four lane undivided street that is restriped to a center two-way left-turn lane, and one travel lane in each direction. This change can improve safety and operations by removing left-turn traffic from a shared through lane. Analysis must evaluate the effects of reducing the number of through lanes along with the benefits of improved safety and operations achieved by separating the left-turn traffic from the through flow. Depending on the width of the street, on-street parking, and/or bicycle lanes might also fit within the curb to curb width of the street if there is a demand for these types of accommodations. Operational and safety improvements can be realized at a fraction of the cost of rebuilding the street.

Comprehensive Bicycle Plan

Adopted by the Board of Trustees in May 2010, the [Comprehensive Bicycle Plan](#) outlines the planning process and opportunities for implementing bicycle facilities. The plan provides the tools to make the Village of Hoffman Estates bicycle friendly by presenting decision makers with the five E's of bicycle planning: engineering, encouragement, education, enforcement, and evaluation. A main component is engineering new facilities to connect with those existing in and around the Village. The plan and map include over 50 miles of potential on-street and 15 miles of off-street bicycle facilities that, when completed, will allow every resident to bike from their house to any destination in the Village, and connect with the existing facilities in neighboring communities. There are also seven potential Jane Addams Memorial Tollway (I-90) bicycle and pedestrian crossings in and around the Village. The Comprehensive Bicycle Plan was created by staff with help from the BPAC in coordination with residents, neighboring communities, bicycle clubs, bicycle advocacy organizations, and regional planning agencies. Some projects will leverage grant funds to improve connectivity among areas of the Village that improve mode choice and mobility. To date, over 19 miles of the identified bicycle system have been implemented. The most significant amount was funded through a federal grant to implement bicycle routes and bicycle destination signing. Smaller components, such as bicycle parking for popular destinations, can also be evaluated.

Pace Suburban Bus Service

The need for more comprehensive coverage in the Village has been a point of discussion for a number of years. [Pace Suburban Bus Service](#) is the suburban bus transit provider for suburban Chicago, and operates several routes in the Village. Along with other communities, the Village helps fund Pace Route 554, which travels through the central part of the Village connecting to Elgin to the west and Schaumburg to the east. Through the collective efforts of participating communities, the Route's operating hours were expanded to significantly increase service on weekdays, along with adding Saturday service for the first time. Americans with Disabilities Act (ADA) Paratransit Service also became available for the first time in the Village when the improvements to Route 554 were implemented. Ridership has increased by 130 percent on a daily basis since the modifications to the Route were made in August 2011. Without community support, the Route would not be serving nearly as

much of the area as it does. Previously, the Village obtained grant funds for what became Pace Route 557, a feeder service connecting Village businesses with the Metra commuter rail station in Barrington. Businesses and Pace shared funding when the grant funds were expended. While the service last for about 10 years, it was discontinued due to a lack of financial commitments from businesses. What the project did demonstrate is that this type of feeder service is feasible from an operational standpoint, and it showcased the use of external funding sources to improve mobility and mode choice for employees of the business.

Regional Transit Authority Study

Community-based transit services are being explored through a **Regional Transportation Authority (RTA)** grant that is evaluating feasibility and operating plans for a flexible route bus transit program in the Village. The goal is to connect areas with higher potential demand for public transit to corridors, such as Route 554 and destinations of interest within and beyond the Village. Making transit more accessible to those with travel options, as well as offering an alternative to driving for some trips, are two of the program goals. Developing a transit familiarity and culture in the Village is a long-term process, but one that will complement other future higher-capacity transit services in the Village and region.

Tollway Corridor Transit Options

Jane Addams Memorial Tollway (I-90) Corridor Transit Options are under development by Pace. Park-and-ride facilities plus a distributor service to connect transit locations along the corridor with business and residential population concentrations are two components of the Plan. Improved mode choice and connectivity to regional destinations could be achieved with successful implementation. Longer term visions include the potential for bus rapid transit service on I-90, as well as the Suburban Transit Access Route (STAR) Line commuter rail option along I-90 and the EJ&E/CN rail corridor. The timing and funding for these projects will need to be determined. Implementation of either of these services would dramatically change the character of not just the Village, but the region as well, by introducing travel options for suburb-to-suburb trips in addition to improved regional mobility. The use of managed lanes on I-90 is being considered by the Illinois Tollway as a means to manage traffic flow. If complemented by new transit services, this approach can be successful in helping to address travel issues and needs of the corridor and region.

Taxi Discount Program

The Village created a **Taxi Discount Program** in late 2008 aimed at improving mobility for certain Village residents. Based on age, disability or income, registration in the Taxi Discount Program offers access to coupons used to reduce the cost of transportation. Intended primarily to assist with local trips and those outside the service hours or areas covered by other existing transit services, the program provides flexibility and greater independence for residents who either cannot or chose not to drive. While this program does not reduce carbon emissions, it does provide alternative transportation for those who require it to sustain quality of life within the community.

Environment and Ecology

Sustainability Ratings

Sustainability ratings for transportation projects are a means to evaluate how well the planning, design, operation and maintenance of facilities are measuring against a set of defined conditions or goals. As outlined elsewhere in this Plan, sustainable features, such as natural and environmental resources, energy consumption, community context, accommodation of all potential users, noise and aesthetics, storm water management, and water quality, are some of the items that could be explicitly included in such an evaluation. As with most complex decision making, choices will need to be made that result in trading off gains in some areas with compromises in others while still operating within a reasonable and responsible project budget. This methodology is relatively new and evolving in the transportation field. The Village is not currently implementing this methodology, but staying abreast of these developments and applying its principles could be an approach to incorporating this type of assessment into decisions at all stages of transportation project development.

Environmental Design Practices

Design practices, such as investigating and evaluating application and durability of permeable pavement in certain situations, can be considered during project development. Features, such as rain gardens in parkways, bioswales and biofiltration solutions, can be considered for certain projects. These techniques strive to mitigate or limit negative effects of storm water runoff. Landscaping improvements incorporated as part of larger road projects can be accomplished in a more cost-effective way in some cases than if done independently. In addition to the community and aesthetic benefit, increased green space and plant material help to reduce the heat island effect of road and development projects by limiting the hardscape.

Recycling and Reuse of Road Construction Materials

Recycling and reuse of road construction materials, such as remixing ground pavement into a new surface layer, is a means to reduce the need for virgin materials. This has been a practice of the Village's annual street rehabilitation project for a number of years. In addition to the direct effect of reducing demand for new materials, transportation distances and fuel costs are reduced, as is the overall project cost.

Community Connectivity

During development of the Comp Plan update and the creation of the [Comprehensive Bicycle Plan](#), community input identified the need to improve connectivity among areas of the Village. Two large forest preserves constitute over 30 percent of the Village land area, and offer great natural and recreational amenities. However, these large expanses do increase distances and separation among the different geographic parts of the Village. Linking these forest preserve land with one another with an expanded path system would help reduce the sense of disconnection.

Another sense of separation among community members is the division created by major roads, such as the Jane Addams Memorial Tollway (I-90), and wide arterial roads, such as Golf, Higgins and Roselle roads. Improving the ability to cross these arterial roads, either in vehicles or when walking or biking, largely depends on what can be done at signalized intersections. As these roads are under the jurisdiction of either the state or Cook County, coordination must occur with these agencies. Strategies, such as modified signal timing, enhanced signal detection for bicyclists and pedestrians, and signal equipment, such as countdown timers to assist with crossings, make navigating across these wide streets more achievable. Crossing I-90 requires a higher level of

commitment to project development and funding, most likely meaning grant funding assistance to make these projects a reality. Multiple crossing locations were identified in the Comprehensive Bicycle Plan either over, under, or on intersecting roadways. Grant applications have been filed for Tollway crossings, and will be the main determinant of when these changes occur.

Community

Encouragement and Recognition Programs

Encouragement and recognition programs, such as “Bicycle Friendly” and “Walk Friendly” community designations, help to increase awareness of the options available to connect the community. The federal “Safe Routes to School” funding program also has featured initiatives to encourage healthy lifestyle choices, such as the walking school bus. Groups of parents, along what might traditionally be a school bus route, volunteer to walk with their children to school, stopping along the way to pick up others in the same manner a bus would. This encourages a healthier choice of transportation, and also brings members of the community together. Other encouragement programs in the schools are designed to reward walking or bicycling travel to and from school when accompanied by the appropriate level of adult supervision.

Fiscal Management of Transportation Programs

The health of the community can also be measured in financial terms. For transportation projects, the extent to which state, federal, or other outside funding sources are leveraged to implement sustainable methods and practice can be evaluated. When a street is being resurfaced or reconstructed, there is an opportunity to incorporate complete street practices, such as bicycle lanes, pedestrian improvements, etc., within the scope of work. These changes can often be done more cost effectively as part of a larger project compared to a stand-alone effort. Projects on certain qualifying streets also are more attractive when competing for the limited amount of grant funding when the scope of the project includes all users as reflected in the Complete Streets philosophy. The Village’s Road Improvement Impact Fee program is another example in which nontraditional funding is used to implement congestion reduction projects. Developments in certain parts of the Village pay a fee that is proportionate to the impact the new traffic it generates will have on the regional road system. These fees, in turn, can be leveraged against other agency contributions, such as is the case for the Barrington Road at I-90 Interchange project. The interchange is intended to improve connectivity for the community with special emphasis on improving emergency access for transports to St. Alexis Medical Center.

Regional Partners

The broadly defined community includes a number of regional transportation partners. To accomplish large-scale projects effectively, a number of agencies must communicate and work cooperatively to achieve the project goals. The Village has longstanding and active relations with many of these agencies, including:

- [IDOT](#)
- [Cook County Highway Department](#)
- [Forest Preserve District of Cook County](#)
- [Illinois Tollway](#)

- [Northwest Municipal Conference \(NWMC\)](#)
- [Pace Bus](#)
- [Metra](#)
- [RTA](#)
- [O’Hare Noise Compatibility Commission \(ONCC\)](#)

Community Education Opportunity

A “reduce engine idling” campaign encourages motorists not to idle vehicles at drive-through facilities. Banks, pharmacies, fast food restaurants and other uses that offer drive-through or drive-up service could help reduce emissions and fuel consumption by encouraging patrons to turn off their engine while waiting for service at a drive-through window. The Village could assist by helping to create educational programs citing the cost savings and guidelines when drivers should consider shutting off the engine. The Public Works Department implemented an informal “Anti-Idling Policy,” and has prevented approximately 230 metric tons of carbon dioxide from entering the atmosphere.

Comp Plan Connection

[Chapters seven](#) and [nine](#) of the Village’s 2007 Comp Plan include discussion of Transit-Oriented Development opportunities, mainly associated with the STAR Line project. This land and development planning approach could also be applied to other primary transit corridor, such as the major arterials through the Village, as well as the points where these routes intersect one another.

Action Items – Transportation

1. Support regional transportation objectives, such as the STAR Line task force with next phase of studies.
2. Apply for grants and other funding opportunities to help finance transportation improvements. ★
3. Support sub-regional transportation objectives, such as completing the RTA study conclusions and recommendations.
4. Revise subdivision code to reflect Complete Streets principles and development manuals to benefit and create an efficient and safe environment for all road users.
5. Review different sustainability-based rating and evaluation procedures for potential applicability to Village transportation projects.
6. Identify gaps in the pedestrian sidewalk system, and create a plan to address these through the availability of various funding programs.
7. Implement components of Comprehensive Bicycle Plan to improve connectivity in the area.
8. Identify feasible opportunities for remote workplace activities, flex time, and telecommuting.

For additional proposed projects, see Appendix A.

Green Planning and Development

The Village takes an active role in the crucial planning and development processes of safely and comprehensively constructing buildings and community amenities. The Village applies regulations, such as building, zoning, and subdivision code requirements, to enforce proper construction, and to encourage well-designed sites appropriate for their designated use. The Village also works to establish a diverse economic base to provide employment, products, and services to community residents. This section describes how the Village plans to preserve community assets while looking forward to a future of continually improving sustainable and successful developments.

Key development issues, such as use of sustainable development practices, prioritizing land use and development opportunities, and maintaining a balanced, supported, and stable local economy, are all of concern to the Village. Planning processes and development practices that have incorporated sustainability principles should aim to minimally impact the land and surrounding properties. The community will benefit from concentration on redevelopment of existing sites, responsible development of vacant land (green space), and land use decisions that have long term benefits. There is a significant connection between the Village's [2007 Comp Plan](#) and the activities identified in this section. Strategies defined here should be complimentary to the efforts outlined in the Comp Plan.

Development Regulation and Standards

Revision of Village Municipal Code

In the fall of 2012, the Village made revisions to its zoning and subdivision codes due to recent changes to common development practices. The amendments included the integration of Complete Streets principles into the [Village Municipal Code](#), in keeping with a recently adopted resolution to adhere to Complete Streets practices. Other updates included the reference to the most current [Illinois Arborist Association \(IAA\)](#) species ratings publication, requirements to make exterior lighting more energy efficient, requirements for alternative energy sources, such as the use of wind turbines and solar power for commercial and industrial businesses, and development regulations for the design and location of alternative fuel car charging/fueling stations. More substantial changes to land use regulations will be considered in the future.

Green Building Code Activities

Hoffman Estates, in partnership with the [International Code Council \(ICC\)](#) and surrounding organizations, continues to establish itself as a showcase municipality for sustainable green infrastructure and model programs. Green Building practices promote construction of buildings that are healthier for the occupants, healthier for the environment and influence builders to become sustainable in their building practices. As part of its EECBG strategy, the Village developed and implemented a residential green building code program. The program was comprehensive, including adoption of current national energy codes (IECC 2009 and 2012), review of the existing Municipal Code for any restrictions to promotion of alternative and efficient energy technology, and a code education program. Development of the green building code and related policies helped create a sustainable, lasting Village program on which all future building or remodeling projects will be based.

Along with Illinois' adoption of the 2009 IECC, the Village began requiring exterior window and door permits for existing homes. Through the enforcement of proper installation and performance standards significant energy savings have been realized on hundreds of homes in the Village over the past year. The green building code program's purpose through EECBG funds was to encourage builders, developers and architects to use new technologies, products and practices that:

- Conserve energy, water and other natural resources, thereby lowering water and electricity costs
- Provide healthier indoor air
- Strengthen our local economy and provide long-term economic returns
- Improve durability and reduce maintenance
- Use building materials in an environmentally effective manner

For its efforts discussed above, the [Village Code Enforcement Division](#) was recognized nationally in October 2012 as the inaugural Grand Prize Winner of the *Excellence in Energy Code Compliance Award* from the ICC for the Village's outstanding efforts in energy code compliance.

Design Objectives

Green Development Guidelines

The Village of Hoffman Estates recognizes the importance and desirability of incorporating environmentally sustainable design techniques and maintenance practices into development, and has established guidelines for encouraging these actions in the subdivision code. As developers and non-residential sites apply for permits before any construction activities, staff is able to review plans and note any observance of green building practices. Development of a "green building construction code" for commercial buildings could be an option to improve energy efficiency and site planning in the next few years. The green construction code would integrate general concepts found in the [U.S. Green Building Council's \(USGBC\)](#) LEED system without requiring an extensive and costly certification process.

Transit-Oriented Development/Mixed Use Development

The creation of a space that encourages pedestrian activity, includes nearby business or residential properties and is located near or adjacent to a transit system can be characterized as "Transit Oriented Development (TOD)." TOD generally integrates Complete Street principles, making the developed area walkable and friendly to all forms of vehicle, pedestrian and mass transit. Mixed use developments have similar characteristics, but do not require a mass transportation option nearby, and can range from high-density construction to lower density residential with some adjoining commercial space. The Comp Plan includes a more detailed summary of TOD applications for the Village. In 2011, the Village applied for a CMAP grant for assistance in updating the Village code to reflect current TOD and mixed-use practices, but was not awarded assistance. In order for the Village to encourage development of TOD or mixed-use areas, revisions must be made to the Village's zoning and subdivision codes. Although the Village created a commercial mixed-use (CMU) zoning district, no mixed use properties have been developed. The Village should explore opportunities to integrate TOD and mixed use into other zoning classifications.

Development of Sustainable Building Standards

The Village has constructed two buildings to LEED standards, and has made improvements using sustainable technologies at other Village facilities. In addition to the use of efficient building standards at Village facilities, other framework has been established for improving the sustainable quality of housing and commercial building inventory. [Grant funding](#) allowed the development of green residential code training, as well as improvements to current Village Municipal Code requirements for site development and transportation planning.

Residential Housing Objectives

The Village's [2007 Comp Plan](#) encourages the remodeling or redevelopment of homes at least 40 years old. The bulk of the infrastructure in the central area of Hoffman Estates was built between 1970 and 1990, positioning much of the housing stock in need of various improvements. Two programs that the Village has implemented to assist in the rehabilitation of older homes include the discount energy assessments available through the Code Enforcement Division, and the single-family home rehabilitation loan program for income-eligible households through the Village's [CDBG program](#). There may be additional opportunities to collaborate with other adjacent communities for development challenges. An example of recent community collaboration is the connected bicycle routes and paths that have been coordinated to connect at municipal borders, and a joint water system repair project undertaken by Hoffman Estates and the Village of Schaumburg. Another opportunity for the Village to reach housing objectives would be to develop housing within a CMU zoning district.

Community

Green Economy

Some businesses located in Hoffman Estates can be identified as using green practices either in their operations or in the construction of their facility. The Village is proud to have these businesses call Hoffman Estates home, and have [tried to encourage other businesses](#) to follow suit. In recent years, the Village has made an effort to communicate with businesses about energy savings, potential rebates and incentives for energy-saving projects, and have worked with business when they want to incorporate sustainable attributes into the development of their site. The Village also has a webpage specific to green strategies for businesses, as well as a [Green Business Recognition Program \(GBRP\)](#) to showcase businesses that have applied for and meet established guidelines for use of sustainable practices. Several incoming businesses have commented on the Village's dedication to green business programs. The practice of the Village actively working with new and existing businesses to recognize sustainable development, operations, and production should be encouraged.

Buying Local

There is currently a national movement to purchase products and food that are produced locally. This effort reduces the carbon footprint left by shipping items, and it supports the local economy. Increasingly, governments are becoming more aware of the positive outcomes of growing and purchasing local food. Local food production and providing access to healthy foods locally are focused upon in the CMAP GO TO 2040 plan. Through education efforts and other opportunities yet to be identified, the Village may be able to encourage residents to grow their own produce, or purchase products that are manufactured or grown as close to home as

possible. Sustainable neighborhoods provide basic amenities within a reasonable distance from residences. The Village will benefit from economic development efforts concentrated upon bringing food sources, fuel, workplaces, and entertainment to areas of the Village that have less access to these resources. An effort to promote local shopping for products and food will increase the amount of local sales taxes reinvested in the community. It would be environmentally and fiscally beneficial to better educate the public about the positive impacts of local choices as the Village continues to promote Hoffman Estates stores and services.

Comp Plan Connection

The Village's current [Comprehensive Plan](#) does contain aspects of sustainable planning and served as a foundation to initial sustainability efforts. As interests in green initiatives and returns-on-investment have grown, the matter of sustainability has expanded beyond the content of the Comprehensive Plan. Although the Comprehensive Plan and this Sustainability Plan are their own documents, it is anticipated that elements of sustainability will be woven throughout future comprehensive planning.

Livability is one element at the heart of sustainability planning, and is identified in the [CMAP GO TO 2040](#) plan as well as various other planning agency resources. Several aspects of "livability" are focused on in [chapter nine](#) of the Village's 2007 Comp Plan, including:

- Strengthening the local economy by offering appropriate housing for the business workforce
- Reducing the cost of providing public services (water, sewer, roads)
- Reducing commuting time and traffic
- Helping to preserve space for parks and outdoor recreation

The Comp Plan identifies the reduction of energy consumed and the prevention of degradation of environment by promoting connected, compact, and complete neighborhood initiatives. Some initiatives include TOD, providing for transit amenities and neighborhood walkability. Diversity in housing availability and pricing, as well as diversity in site use and a reduction in parking footprints, are cited examples. Community outreach in planning, promoting cultural continuity, energy savings, adaptive use of historical buildings and local distinction are also included.

Action Items – Green Planning and Development

1. As part of the Village's next update to the Comprehensive Plan, relevant aspects of the Sustainability Plan should be incorporated into appropriate sections to allow the Plans to function as companion policy documents.
2. Assess the benefit of developing a strategy to encourage local food production and purchase by residents, restaurants, and produce sellers.

For additional proposed projects, see Appendix A.

Education and Outreach

The Village recognizes the importance of reaching out and engaging residents, businesses and external and internal municipal players in sustainability efforts. In order to have the greatest impact, all actors must be involved and educated on how their individual efforts can benefit themselves and the environment.

Outreach Strategies

Technical Assistance

Technical assistance from Village staff has been offered to help businesses trying to “go green.” Many Village employees have gained certifications and belong to organizations that increase their knowledge, skills and expertise in regards to sustainable efforts (e.g., LEED green associate, member of the USGBC, building energy analysts and ICC-certified energy instructor, energy inspector, and energy plan examiner).

Through assistance from the EECBG fund to purchase equipment and train and certify staff, Hoffman Estates is the only municipality in the region to have the equipment and staff to conduct energy inspections in-house on new commercial and residential construction as required by the 2009 IECC. Staff has assisted developers and their subcontractors to meet compliance to this code by demonstrating how duct inspections are conducted with this equipment.

Web Presence

To educate and reach out to residents, a [“Growing to Greenness” website](#) was created, and continues to be the brand of the Village’s green initiatives program. The page serves as an information resource for news about Village sustainability projects, and informs residents and local businesses on how they can get involved or benefit from going green. Furthermore, the Village utilizes its social media pages on Facebook, Twitter, LinkedIn and YouTube to promote green programs and activities to residents and businesses. In addition to the web resources, the Village’s main page features the latest news and need-to-know information. As the use of digital, video and online information grows, the Village will need to continue to find ways of presenting the most current information to the public using media that they are most receptive to.

Communications

The Village uses every communication outlet to provide our residents and businesses with resources that are accessible and meaningful. The constant communication and availability of resources is valuable in helping to educate and encourage residents and business to join in growing to greenness. Commonly used communication vehicles include:

- Website
- *Citizen* newsletter
- Press releases
- Social media
- HETV cable channel
- Electronic message signs

- Water billing inserts
- Blast e-mails
- Mailings
- Signs in Village facilities
- Use of environmental partners' media

Green Business Recognition Program ★

In 2011, the Village of Hoffman Estates initiated a [GBRP](#) that was designed by staff with input from the Village's Green Initiatives Commission. The program recognizes Hoffman Estates businesses focused on sustainable environmental and economic practices. The program also offers educational opportunities for participants to learn and share best practices; therefore, even a business who may just be beginning to think about "going green" can use the program to their advantage. The Village is available to provide assistance with resources and tools to support businesses' green efforts.



Sustainable Codes and Best Practices Workshop

An energy code educational workshop was held as part of a code development program funded by the EECBG. Several builders, architects, and code officials attended the seminar taught by Village Code Enforcement staff. Primary topics included new amendments to and a general overview of the Illinois energy code, building science, how wind, stack effect and total air infiltration affects a home, and changes to the new 2012 IECC. The seminar also screened a Hoffman Estates-produced video of how a field energy inspection should be conducted, and how a blower door test is done. The workshop solidified the Village's place as an authority on energy programs in the state of Illinois. Municipalities from all over the state have called for information about the energy code. At a regional level, attendees of the program take the knowledge gained and apply it to improved design, building techniques and energy code management.

Community

Regional Organizations and Partners

Hoffman Estates leverages many environmental partners to expand on its sustainable programs and resources offered to residents and businesses. See Appendix B, "Resource Inventory," for the list of environmental partners for their areas of focus, contact information, and responsible municipal departments that work with each partner.

Village Awards and Recognition

Hoffman Estates has received recognition for its efforts in environmental sustainability from many respected organizations. The Village takes pride in its accomplishments, and hopes to continue this tradition to bring attention and awareness to the community's efforts.

Village Awards and Recognition
Participant in the ComEd Community Energy Challenge – 2009-2010
Gold Level Community Status, Clean Air Counts – 2010
Irwin A. Bock Award for Excellence in Public Administration, Environmental Stewardship, NWMC – 2010
Platinum Level Community Status, Clean Air Counts – 2011
Illinois Governor’s Sustainability Award, Illinois Sustainable Technology Center – 2011
Grand Prize Winner of Excellence in Energy Code Compliance, International Code Council – 2012

Community Events

The Village is present at various community events to reach out to residents and businesses about energy savings, water conservation, green building, and air quality, and to support our environmental partners. Village commissions provide support to this effort by offering programs such as school recyclable art projects, community and heritage pride events, and an annual Village Improvement Day.

Citizen Participation

The Village has formed advisory volunteer commissions that assist the Village in its various missions. The Sustainability Commission, along with the commissions most relevant to sustainable issues are discussed in the *Policies and Governance* Section. It is very important to have resident input on prospective programs for the Village.

Comp Plan Connection

The Comp Plan is related primarily to the planning and physical state of the Village. Due to the nature of education and outreach being relatively intangible, there is not a direct connection to the Comp Plan. However, efforts to communicate Village successes regarding planning, service provision and development will continue, as well as efforts to identify opportunities for residents and businesses to engage in further green actions.

Action Items – Education and Outreach

1. Enhance the GBRP, including drawing more attention to green businesses in order to promote future growth in green businesses. ★
2. Format this Plan in an easily-linked web format.
3. Encourage development of “citizen challenges” as an educational opportunity.
4. Revisit promotion of Citizens Utility Board (CUB) energy saver program.
5. Promote sustainability education efforts for local businesses. ★

For additional proposed projects, see Appendix A.

Activity Matrix Keys

Categories:

DEV	- Green Planning and Development
E&O	- Education and Outreach
ENERGY	- Energy
FAC	- Facilities
P&G	- Policies and Governance
R&O	- Resources and Operations
TRANS	- Transportation and Mobility
V&E	- Vehicles and Equipment
WATER	- Water

Departments:

DS	- Development Services
FD	- Fire Department
FI	- Finance
GG	- General Government
HHS	- Health and Human Services
HR	- Human Resources Management
IS	- Information Systems
PD	- Police Department
PW	- Public Works
SCA	- Sears Centre Arena

Sustainability Primary Action Items

#	Primary Dept	Activity	Category	Description	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
1	DS	Assess benefit of developing a strategy to encourage local food production and purchase by residents, restaurants, and produce sellers.	DEV	Green Initiatives Commission could explore this opportunity.	Not Started	Low	\$0.00	Medium	GG
2	DS	Incorporate relevant aspects of the Sustainability Plan into appropriate sections of the next Comprehensive Plan.	DEV	As part of the Village's next update to the Comprehensive Plan, relevant aspects of the Sustainability Plan should be incorporated into appropriate sections to allow the Plans to function as companion policy documents.	Not Started	Medium	\$0.00	Medium	GG
3	DS	Increase frequency of residential energy assessment program in conjunction with the CDBG housing rehabilitation program.	ENERGY	Village has resources to provide this service at reduced rate or waived/reimbursed through CDBG "administration" funding. Promotes energy conservation for households in need.	On-Going	Medium	\$0.00	Long	
4	DS	Support Regional Transportation Objectives.	TRANS	Such as supporting the STAR Line Task Force with next phase of studies.	On-Going	Medium	\$0.00	On-Going	GG
5	DS	Support Sub-Regional Transportation Objectives.	TRANS	Such as completing the RTA study conclusions and recommendations.	On-Going	Medium	\$0.00	On-Going	
6	DS	Apply for grants and other funding opportunities to finance transportation improvements.	TRANS	Seek grants and rebates.	On-Going	High	\$0.00	On-Going	
7	DS	Revise Subdivision Code to reflect Complete Streets principles.	TRANS	Also revise development manuals.	In Progress	Medium	\$0.00	Short	
8	DS	Review sustainability based rating and evaluation procedures for potential applicability to Village transportation projects.	TRANS	Applying sustainability-based ratings could improve the overall life-span and cost-efficiency of transportation infrastructure.	Not Started	Low	\$0.00	Medium	
9	DS	Identify gaps in the pedestrian sidewalk system and create a plan to address these through the availability of various funding programs.	TRANS	Seek grants and rebates.	Not Started	Low	\$0.00	Medium	PW
10	DS	Implement components of Comprehensive Bicycle Plan to improve connectivity in the area.	TRANS	Work with the Bicycle and Pedestrian Advisory Committee. Should identify ways to make the system more accessible and attractive to users (stickered signage with geo-info, etc?)	In Progress	Low	\$5,000 - \$800,000	Long	DS
11	DS	Identify feasible opportunities for remote workplace activities, flex time, and telecommuting.	TRANS	Possible savings in Village expenses, fuel, energy costs, etc.	Not Started	Low	\$0.00	Long	GG
12	FD	Reconstruct Station 21 in a new location to sustainable building standards.	FAC	Programmed in CIP.	Not Started	Medium	\$6,000,000	Long	PW
13	FD	Significantly improve or reconstruct Fire Station 22 to sustainable building standards.	FAC	Programmed in CIP.	Not Started	Medium	\$10,000,000	Long	PW
14	FD	Move to paperless reports for fire inspections.	R&O	Inspection reports would be able to be downloaded and quickly accessible than filed.	Not Started	Medium	\$10,000	Medium	IS/DS
15	FI	Increase the number of residents enrolled in the paperless billing program.	R&O	Decreases paper waste and provides a desired residential service.	On-Going	Medium	\$0.00	On-Going	GG
16	FI	Revise Procurement Policy to include environmentally preferable purchasing standards for the Village.	P&G	Suggest green vendors, and use of recycled materials in procurement and capital expenditures.	Not Started	Medium	\$0.00	Medium	

	Primary Dept	Activity	Category	Description	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
17	GG	Enhance the Green Business Recognition program including drawing more attention to green businesses in order to promote future growth in green businesses.	E&O	Offer educational opportunities for participants to learn and share best practices. Engage additional businesses in the program.	On-Going	Low	\$0- \$500	On-Going	DS
18	GG	Format Sustainability Plan in an easily-linked web-format.	E&O	Complete upon approval of Sustainability Plan. Make available internally and externally.	Not Started	Low	\$0.00	Short	
19	GG	Revisit promotion of CUB energy saver program.	E&O	Charge for the Green Initiatives Commission.	Not Started	Low	\$0.00	Short	
20	GG	Encourage development of "citizen challenges" as an educational opportunity.	E&O	Charge for the Green Initiatives Commission. Perhaps seek assistance from recognized green businesses.	Not Started	Low	\$0.00	On-Going	
21	GG	Promote sustainability education efforts for local businesses.	E&O	Charge for the Green Initiatives Commission.	In Progress	Medium	\$0.00	On-Going	DS
22	GG	Perform a waste audit to determine future actions to improve waste reduction programs.	R&O	Develop a system to identify the total weight of internal waste and recycling streams.	Not Started	Low	\$0.00	Short	
23	GG	Improve accessibility of a comprehensive directory for local recycling of household items.	R&O	Directory primarily for Village staff and residents.	Not Started	Medium	\$0.00	Short	
24	GG	Complete a Village greenhouse gas (GHG) emissions inventory.	P&G	Creates a baseline from which to measure improvements, education, and other factors.	Not Started	High	\$0.00	Medium	
25	GG	Create a sustainability team; informal, or formal structure to communicate sustainability information/ manage projects.	P&G	Determine specifics about how this team or point person operates.	Not Started	High	\$0.00	On-Going	
26	GG	Identify location and necessary resources to install a community rain garden.	WATER	Identify level of maintenance required. Perhaps involve Park District. Have been grants that provide funding for this.	Not Started	Low	\$0.00	Short	PW
27	IS	Implement overnight shut down policies, review current sleep mode and energy save modes to see if improvements can be made to improve energy efficiencies for computers and other electronics.	ENERGY	Immediate energy savings. If energy bill tracking remains through Energy Star Portfolio Manager, should be able to reconcile savings.	Not Started	High	\$0.00	Short	
28	IS	Pursue further application of "Cloud" technology for some Village systems.	P&G	Complete when applicable.	In Progress	Medium		Long	
29	PD	Pursue application of e-ticketing.	R&O	Significantly reduces staff time used for ticket processing.	In Progress	Medium		Long	IS
30	PD	Further implementation of wireless report writing.	R&O	Village has software needed but activity is tied to CAD.	In Progress	Medium		Long	IS
31	PW	Retro-commission Village Hall using Smart Energy Design Assistance Center (SEDAC) program.	FAC	Requires commitment of \$10,000 to improve facility based upon retro-commissioning findings within one year. May consider HVAC replacement within this cost.	Not Started	Medium	\$10,000.00	Long	
32	PW	Retrofit lighting and building efficiency improvements for Fire Stations 21-23	FAC	Primarily lighting improvements; as possible. Potential funds from state funding programs.	Not Started	Low		Long	FD
33	PW	Replace HID fixture in Village Hall lobby	FAC	As possible. Potential funds from state funding programs.	Not Started	Medium		Long	
34	PW	Install photocell in Public Works Center lobby.	FAC	Potential matching and rebate funds from state programs.	Not Started	Low		Long	

	Primary Dept	Activity	Category	Description	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
35	PW	Retrofit exit signs to LED fixtures at Village Hall, Public Works, Fire, and outbuildings.	FAC	Potential matching and rebate funds from state programs.	Not Started	Medium		Long	GG
36	PW	Replacements and controls improvements for Village Hall HVAC.	FAC	Funding needed. Minimal funds may be available through state funding programs.	Not Started	High		Long	
37	PW	Replace cooling system at Public Works Center.	FAC	High efficiency replacement. Funding needed. Minimal funds may be available through state funding programs.	Not Started	High		Long	
38	PW	Replace roof at Public Works Center.	FAC	Install a cool roof to save energy. Funding needed. Minimal funds may be available through state funding programs.	Not Started	High		Long	
39	PW	Replace 250W bulbs with T-8 in Public Works Fleet garage.	FAC	Potential matching and rebate funds from state programs.	Not Started	Medium		Long	
40	PW	Replace hi-bay garage lighting with high efficiency lighting in Fleet garage.	FAC	Potential matching and rebate funds from state programs.	Not Started	Medium		Medium	
41	PW	Replace exterior wall packs with high efficiency lighting at Fleet Services Building.	FAC	Potential matching and rebate funds from state programs.	Not Started	Medium		Medium	
42	PW	Develop a sustainable maintenance standards manual.	FAC	Identifies sustainable construction as well as cleaning materials and products used at Village facilities.	Not Started	Medium	\$0.00	Medium	
43	PW	Implement No-Mow grass zones or hybrid seed for some facilities to reduce annual mowing costs.	FAC	Research other communities that have implemented similar policies. Calculate financial savings from implementation.	Not Started	Medium		Medium	
44	PW	Investigate additional funds to improve fleet and operations including support for alternative-fuel infrastructure and alternative-fuel vehicles.	V&E	Seek grants and rebates.	On-Going	Medium	\$0.00	On-Going	
45	PW	Convert some fleet vehicles to Compressed natural gas (CNG) fuel.	V&E	Funding needed. Minimal funds may be available through state funding programs.	Not Started	Medium		Long	
46	PW	Install low-flow aerators in Village facilities that do not currently have them.	WATER	Seek grants and rebates.	Not Started	Low		Long	
47	PW	Adhere to prescribed water usage levels for the Village through 2020.	WATER	According to JAWA requirements.	In Progress	High	\$0.00	On-Going	GG
48	PW	Initiate tracking saved energy from installed VFDs.	WATER	Provides data for existing systems and provides baseline reference for future projects.	In Progress	Medium	\$0.00	On-Going	
49	PW	Replace and repair water mains located in corrosive soil.	WATER	Conduct a professional study of past project work and current condition of the water mains to identify best options among cathodic protection, repair or section replacement.	Not Started	Medium		Long	
50	PW	Replace aged valves.	WATER	Replacement will prevent failure and leaks.	Not Started	Medium		Long	
51	PW	Replace obsolete hydrants.	WATER	Replacement will prevent failure and leaks.	Not Started	Medium		Long	
52	SCA	Determine cost of implementing bottle recycling program in Sears Centre Arena concourse.	FAC	Action could get centre recognized for award.	Not Started	Medium	\$0.00	Short	
53	SCA	Investigate opportunities for food vendor to reduce waste at the Sears Centre Arena.	FAC	Discuss with food vendor; specify related changes in contract	In Progress	Medium	\$0.00	Short	
54	SCA	Utilize SEDAC energy audit services for Sears Centre Arena to identify savings opportunities.	FAC	Energy audit results would identify specific infrastructure and fixtures to improve.	Not Started	High	\$0.00	Medium	

Sustainability Secondary Action Items

#	Primary Dept	Activity	Category	Description	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
1	All	Increase utilization of the Intranet to provide policy reminders and environmental and non-environmental information to Village employees.	E&O	Improve transparency and utilize Hoffnet to provide more practical and FAQ information. Employee education and training – integration into existing training and daily operations.	On-Going	TBD	\$0.00	On-Going	
2	All	Investigate Village processes that could be improved through enhanced use of electronic communication or technology to reduce paper consumption and increase efficiency.	OMR	Software is available that will keep appointments, notes, and provide billing capabilities all in one package (HHS). Adobe Acrobat (HR)	On-Going	TBD	\$0.00	On-Going	
3	DS	Use technology and social media to attract economic development; showcase the community and its sustainable development mentality, manage account listings, information accessibility.	DEV	Zoom Prospecter website an example of this. Social media and cable programming could be tools.	On-Going	TBD	\$0.00	On-Going	
4	DS	Develop TOD guidelines to define appropriate land uses, site layouts and design standards. Revise Development Codes to promote sustainable development practices.	DEV	Identify ways to promote policies to foster the creation of transit-oriented developments. Work funded by EECBG and CPPW grant funding, 2012.	Not Started	TBD	\$0.00	Medium	
5	DS	Further develop a program that provides a range of technical support and training opportunities to assist builders and developers in making “green” choices including development of a commercial green retrofit program.	DEV	Some work has been done through the EECBG code development program. As requirements at the State and Federal level, Hoffman Estates should continue to be a leader. Benefits in reducing community energy usage and emissions. Staff is already trained to recommend some improvements. Potential funding from TIF or CDBG. SEDAC a resource.	In Progress	TBD	\$0.00	Medium	
6	DS	Inform and educate the home-buying public on the value of sustainable homes.	DEV	Information purposes only. Promotes renovation of existing homes and potential to increase home values and sale price.	Not Started	TBD	\$0.00	Short	
7	DS	Explore development of a small business incubator.	DEV	Identify a location, necessary resources, cost, logistics. Explore appropriate networks. Promotes shared resources and supports local small business.	Not Started	TBD	\$0.00	Long	
8	DS	Create inventory of green buildings in Village.	DEV	Aids in communication and support for current businesses and future development.	On-Going	TBD	\$0.00	On-Going	
9	DS	Develop a strategy to address vacant commercial buildings to encourage a thriving local economy.	DEV	Addresses on-going VB goal #6. Currently seeking solutions to AT&T building vacancy.	In Progress	TBD	\$0.00	Long	
10	DS	Assess value of creating incentives to attract green businesses.	DEV	Thus far, it has not been practical to offer financial incentives, however providing links to non-monetary incentives may be explored.	Not Started	TBD	\$0.00	Medium	
11	DS	Encourage applications of bioswales, permeable pavement, and similar water conservation tools.	FAC		In Progress	TBD	\$0.00	On-Going	PW
12	DS	Encourage use of “cool roofs” (Village –wide)	FAC	Development related and possibly Green Initiatives Commission as education resource.	On-Going	TBD	\$0.00	On-Going	GG
13	DS	Require new construction or redevelopment to recycle a percentage of construction waste.	OMR		On-Going	TBD	\$0.00	On-Going	

	Primary Dept	Activity	Category	Description	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
14	DS	Investigate benefit of encouraging or requiring Point-of-Sale energy disclosures for home sales	P&G		Not Started	TBD	\$0.00	Short	GG
15	DS	Develop a strategy to encourage use of Village bicycle facilities to commute to work and to shop.	TRANS	Promote path and route usage. Highlight particular routes for commuters and shopping areas.	Not Started	TBD	\$0.00	Medium	
16	DS	Assess Village facilities and develop understanding of demand management program for road users (decreasing demand of facilities).	TRANS		Not Started	TBD	\$0.00	Medium	
17	DS	Explore ideas for procedures or policies including Air Pollution Action Days and idling in school and loading zones	TRANS		Not Started	TBD	\$0.00	Medium	GG
18	DS	Revise Village Code to encourage plantings that do not require additional watering, native plantings.	WATER		In Progress	TBD	\$0.00	Short	PW
19	FD	Determine cost benefit of tablets and other technology applications for paramedic calls.	OMR		Not Started	TBD	\$0.00	Short	FI
20	FD	Improve conditions and technical opportunities to continue education and paramedic training from remote fire stations.	P&G	Training takes place for multiple shifts, multiple times per month. Finding a way to interconnect multiple locations will reduce travel, wear on apparatus.	On-Going	TBD		On-Going	IS
21	GG	Explore opportunities for a farmer's market or expansion to existing community garden.	DEV	Improves community access to fresh produce; increases availability for garden plots beyond two existing community gardens.	Not Started	TBD	\$0.00	Medium	PW
22	GG	Develop relationships with schools – engagement and resources for youth "green" programming.	E&O	Identify appropriate school contacts	On-Going	TBD	\$0.00	On-Going	
23	GG	Work with environmental partners to sponsor, maintain and promote recycling opportunities for non-traditional or hazardous items as well as donation and reuse of materials such as clothing or construction materials.	OMR	Document Imaging Dimensions (DID) is the group that provides the Village with toner and recycles all used cartridges.	On-Going	TBD	\$0.00	On-Going	All
24	GG	Apply for awards and recognition for waste reduction programs.	OMR	EPA award at Sears Centre	On-Going	TBD	\$0.00	On-Going	
25	GG	Identify internal and external publications to include green tips wherever possible.	OMR		On-Going	TBD	\$0.00	On-Going	
26	GG	Identify ways of disposing of non-auctioned materials and equipment in an environmentally responsible way.	OMR	Make sure we have a clear trail of where materials are being disposed of or reused or recycled. [Find out about radio equipment]	On-Going	TBD	\$0.00	On-Going	
27	GG	Identify more opportunities to use fillable electronic forms in Adobe or EGov.	OMR	Fillable electronic forms would aid productivity and efficiencies.	In Progress	TBD	\$0.00	On-Going	
28	GG	Continue to lead in Air Quality Initiatives through regional recognition programs and initiatives (maintain Clean Air Counts Platinum Status, leadership in Partners for Clean Air)	P&G		On-Going	TBD	\$0.00	On-Going	PW
29	GG	Consider whether to pursue STAR Community Rating and what resources would be needed to initiate the process.	P&G	Pilot program in progress now (2012). Cost to program certification.	Not Started	TBD	\$0.00	Medium	

	Primary Dept	Activity	Category	Description	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
30	GG	Consider staffing position to manage green programs/efficiency manager and/or inclusion of "green" job responsibilities into job descriptions.	P&G	Would institutionalize sustainability actions into everyday practices.	Not Started	TBD	\$0.00	Medium	TBD
31	GG	Formally adopt the anti-idling policy and include within the Village's personnel manual.	V&E	Policy will be recognized by all employees with access to and awareness of Village vehicles.	Not Started	TBD	\$0.00	Short	HR
32	GG/DS	Support regionally coordinated water management plans.	WATER	Although previous regional efforts have not been extremely successful, a continued effort should be made to coordinate with other agencies.	On-Going	TBD	\$0.00	On-Going	PW
33	HHS	Incentivize employees to participate in wellness programs.	P&G	Incentives may increase participation and overall wellness of staff. In turn, could reduce overall village expenditures on health insurance premiums.	Not Started	TBD		Medium	FI/HR
34	HHS	Consider a Village-wide anonymous risk assessment to identify what areas of health could be improved upon.	P&G	Long -term costs to the Village may be reduced.	Not Started	TBD		Medium	HR
35	HR	Install kiosks for employee changes to benefit programs and employment applicants outside the Human Resources office.	OMR	Additional use for these machines should be explored; software advances needed before can determine true benefits.	Not Started	TBD		Short	IS
36	HR	Explore ways to make hiring procedures more efficient and effective.	P&G		On-Going	TBD	\$0.00	On-Going	
37	IS	Re-visit uses and opportunities for use of the video and webinar conferencing software and equipment.	P&G		Not Started	TBD	\$0.00	On-Going	
38	PW	Use Energy Star Portfolio Manager to track changes in energy usage.	ENERGY	Identify WHO will be responsible for inputting data. How to implement and use resulting data.	In Progress	TBD	\$0.00	On-Going	
39	PW	Integrate Energy Star Portfolio Manager into decision-making processes and Performance Measurement.	FAC	Village plans to utilize the free program. How to implement and use resulting data.	On-Going	TBD	\$0.00	On-Going	
40	PW	Determine whether contracted work will be required to adhere to specific standards – anti-idling policy, recycled components, local suppliers, worksite recycling, and others.	OMR		Not Started	TBD	\$0.00	Short	DS
41	PW	Identify a funding source for installation of compressed natural gas station for Village fleet and public use.	V&E	Seek grants and rebates.	Not Started	TBD	\$0.00	Long	
42	PW	Investigate "ecodriving" training course for Village employees to cut fuel and maintenance costs.	V&E	Calculate potential savings from reduction in fuel used. Compare with cost of driving course.	Not Started	TBD	\$0.00	Short	
43	PW	Identify ways to actively promote water education about conservation, leak detection, and outdoor fixtures to conserve water.	WATER		In Progress	TBD	\$0.00	On-Going	

Sustainability Primary Action Items

#	Category	Activity	Description	Primary Dept	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
1	DEV	Incorporate relevant aspects of the Sustainability Plan into appropriate sections of the next Comprehensive Plan.	As part of the Village's next update to the Comprehensive Plan, relevant aspects of the Sustainability Plan should be incorporated into appropriate sections to allow the Plans to function as companion policy documents.	DS	Not Started	Low	\$0.00	Medium	GG
2	DEV	Assess benefit of developing a strategy to encourage local food production and purchase by residents, restaurants, and produce sellers.	Green Initiatives Commission could explore this opportunity.	DS	Not Started	Low	\$0.00	Medium	GG
3	E&O	Enhance the Green Business Recognition program including drawing more attention to green businesses in order to promote future growth in green businesses.	Offer educational opportunities for participants to learn and share best practices. Engage additional businesses in the program.	GG	On-Going	Low	\$0- \$500	On-Going	DS
4	E&O	Format Sustainability Plan in an easily-linked web-format.	Complete upon approval of Sustainability Plan. Make available internally and externally.	GG	Not Started	Low	\$0.00	Short	
5	E&O	Revisit promotion of CUB energy saver program.	Charge for the Green Initiatives Commission.	GG	Not Started	Low	\$0.00	Short	
6	E&O	Promote sustainability education efforts for local businesses	Charge for the Green Initiatives Commission.	GG	On-Going	Medium	\$0.00	On-Going	DS
7	E&O	Encourage development of "citizen challenges" as an educational opportunity.	Charge for the Green Initiatives Commission. Perhaps seek assistance from recognized green businesses.	GG	Not Started	Low	\$0.00	On-Going	
8	ENERGY	Increase frequency of residential energy assessment program in conjunction with the CDBG housing rehabilitation program.	Village has resources to provide this service at reduced rate or waived/reimbursed through CDBG "administration" funding. Promotes energy conservation for households in need.	DS	On-Going	Medium	\$0.00	Long	
9	ENERGY	Implement overnight shut down policies, review current sleep mode and energy save modes to see if improvements can be made to improve energy efficiencies for computers and other electronics.	Immediate energy savings. If energy bill tracking remains through Energy Star Portfolio Manager, should be able to reconcile savings.	IS	Not Started	High	\$0.00	Short	
10	FAC	Reconstruct Station 21 in a new location to sustainable building standards.	Programmed in CIP.	FD	Not Started	Medium	\$6,000,000	Long	PW
11	FAC	Significantly improve or reconstruct Fire Station 22 to sustainable building standards.	Programmed in CIP.	FD	Not Started	Medium	\$10,000,000	Long	PW
12	FAC	Retro-commission Village Hall using Smart Energy Design Assistance Center (SEDAC) program.	Requires commitment of \$10,000 to improve facility based upon retro-commissioning findings within one year. May consider HVAC replacement within this cost.	PW	Not Started	Medium	\$10,000.00	Long	
13	FAC	Retrofit lighting and building efficiency improvements for Fire Stations 21-23	Primarily lighting improvements; as possible. Potential funds from state funding programs.	PW	Not Started	Low		Long	FD
14	FAC	Replace HID fixture in Village Hall lobby	As possible. Potential funds from state funding programs.	PW	Not Started	Medium		Long	
15	FAC	Retrofit exit signs to LED fixtures at Village Hall, Public Works, Fire, and outbuildings.	Potential matching and rebate funds from state programs.	PW	Not Started	Medium		Long	GG
16	FAC	Replacements and controls improvements for Village Hall HVAC.	Funding needed. Minimal funds may be available through state funding programs.	PW	Not Started	High		Long	

	Category	Activity	Description	Primary Dept	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
17	FAC	Replace cooling system at Public Works Center.	High efficiency replacement. Funding needed. Minimal funds may be available through state funding programs.	PW	Not Started	High		Long	
18	FAC	Replace roof at Public Works Center.	Install a cool roof to save energy. Funding needed. Minimal funds may be available through state funding programs.	PW	Not Started	High		Long	
19	FAC	Install photocell in Public Works Center lobby.	Potential matching and rebate funds from state programs.	PW	Not Started	Low		Long	
20	FAC	Replace 250W bulbs with T-8 in Public Works Fleet garage.	Potential matching and rebate funds from state programs.	PW	Not Started	Medium		Long	
21	FAC	Replace hi-bay garage lighting with high efficiency lighting in Fleet garage.	Potential matching and rebate funds from state programs.	PW	Not Started	Medium		Medium	
22	FAC	Replace exterior wall packs with high efficiency lighting at Fleet Services Building.	Potential matching and rebate funds from state programs.	PW	Not Started	Medium		Medium	
23	FAC	Develop a sustainable maintenance standards manual.	Identifies sustainable construction as well as cleaning materials and products used at Village facilities.	PW	Not Started	Medium	\$0.00	Medium	
24	FAC	Implement No-Mow grass zones or hybrid seed for some facilities to reduce annual mowing costs.	Research other communities that have implemented similar policies. Calculate financial savings from implementation.	PW	Not Started	Medium		Medium	
25	FAC	Determine cost of implementing bottle recycling program in Sears Centre Arena concourse.	Action could get Centre recognized for award.	SCA	Not Started	Medium	\$0.00	Short	
26	FAC	Investigate opportunities for food vendor to reduce waste at the Sears Centre Arena.	Discuss with food vendor; specify related changes in contract	SCA	In Progress	Medium	\$0.00	Short	
27	FAC	Utilize SEDAC energy audit services for Sears Centre Arena to identify savings opportunities.	Energy audit results would identify specific infrastructure and fixtures to improve.	SCA	Not Started	High	\$0.00	Medium	
28	R&O	Move to paperless reports for fire inspections.	Inspection reports would be able to be downloaded and quickly accessible than filed.	FD	Not Started	Medium	\$10,000	Medium	IS/DS
29	R&O	Increase the number of residents enrolled in the paperless billing program.	Decreases paper waste and provides a desired residential service.	FI	On-Going	Medium	\$0.00	On-Going	GG
30	R&O	Perform a waste audit to determine future actions to improve waste reduction programs.	Develop a system to identify the total weight of internal waste and recycling streams.	GG	Not Started	Low	\$0.00	Short	
31	R&O	Pursue application of e-ticketing.	Significantly reduces staff time used for ticket processing.	PD	In Progress	Medium		Long	IS
32	R&O	Improve accessibility of a comprehensive directory for local recycling of household items.	Directory primarily for Village staff and residents.	GG	Not Started	Medium	\$0.00	Short	
33	R&O	Further implementation of wireless report writing.	Village has software needed but activity is tied to CAD.	PD	In Progress	Medium		Long	IS
34	P&G	Revise Procurement Policy to include environmentally preferable purchasing standards for the Village.	Suggest green vendors, and use of recycled materials in procurement and capital expenditures.	FI	Not Started	Medium	\$0.00	Medium	
35	P&G	Complete a Village greenhouse gas (GHG) emissions inventory.	Creates a baseline from which to measure improvements, education, and other factors.	GG	Not Started	High	\$0.00	Medium	
36	P&G	Create a sustainability team; informal, or formal structure to communicate sustainability information/ manage projects.	Determine specifics about how this team or point person operates.	GG	Not Started	High	\$0.00	On-Going	
37	P&G	Pursue further application of "Cloud" technology for some Village systems.	Complete when applicable.	IS	In Progress	Medium		Long	

	Category	Activity	Description	Primary Dept	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
38	TRANS	Support Regional Transportation Objectives.	Such as supporting the STAR Line Task Force with next phase of studies.	DS	On-Going	Medium	\$0.00	On-Going	GG
39	TRANS	Support Sub-Regional Transportation Objectives.	Such as completing the RTA study conclusions and recommendations.	DS	On-Going	Medium	\$0.00	On-Going	
40	TRANS	Apply for grants and other funding opportunities to finance transportation improvements.	Seek grants and rebates.	DS	On-Going	High	\$0.00	On-Going	
41	TRANS	Revise Subdivision Code to reflect Complete Streets principles.	Also revise development manuals.	DS	In Progress	Medium	\$0.00	Short	
42	TRANS	Review sustainability based rating and evaluation procedures for potential applicability to Village transportation projects.	Applying sustainability-based ratings could improve the overall life-span and cost-efficiency of transportation infrastructure.	DS	Not Started	Low	\$0.00	Medium	
43	TRANS	Identify gaps in the pedestrian sidewalk system and create a plan to address these through the availability of various funding programs.	Seek grants and rebates.	DS	Not Started	Low	\$0.00	Medium	PW
44	TRANS	Implement components of Comprehensive Bicycle Plan to improve connectivity in the area.	Work with the Bicycle and Pedestrian Advisory Committee. Should identify ways to make the system more accessible and attractive to users (stickered signage with geo-info, etc.)	DS	In Progress	Low	\$5,000 - \$800,000	Long	DS
45	TRANS	Identify feasible opportunities for remote workplace activities, flex time, and telecommuting.	Possible savings in Village expenses, fuel, energy costs, etc.	DS	Not Started	Low	\$0.00	Long	GG
46	V&E	Investigate additional funds to improve fleet and operations including support for alternative-fuel infrastructure and alternative-fuel vehicles.	Seek grants and rebates.	PW	On-Going	Medium	\$0.00	On-Going	
47	V&E	Convert some fleet vehicles to Compressed natural gas (CNG) fuel.	Funding needed. Minimal funds may be available through state funding programs.	PW	Not Started	Medium		Long	
48	WATER	Identify location and necessary resources to install a community rain garden.	Identify level of maintenance required. Perhaps involve Park District. Have been grants that provide funding for this.	GG	Not Started	Low	\$0.00	Short	PW
49	WATER	Install low-flow aerators in Village facilities that do not currently have them.	Seek grants and rebates.	PW	Not Started	Low		Long	
50	WATER	Adhere to prescribed water usage levels for the Village through 2020.	According to JAWA requirements.	PW	In Progress	High	\$0.00	On-Going	GG
51	WATER	Initiate tracking saved energy from installed VFDs.	Provides data for existing systems and provides baseline reference for future projects.	PW	Not Started	Medium	\$0.00	On-Going	
52	WATER	Replace and repair water mains located in corrosive soil.	Conduct a professional study of past project work and current condition of the water mains to identify best options among cathodic protection, repair or section replacement.	PW	Not Started	Medium		Long	
53	WATER	Replace aged valves.	Replacement will prevent failure and leaks.	PW	Not Started	Medium		Long	
54	WATER	Replace obsolete hydrants.	Replacement will prevent failure and leaks.	PW	Not Started	Medium		Long	

Sustainability Secondary Action Items

#	Category	Activity	Description	Primary Dept	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
1	DEV	Use technology and social media to attract economic development; showcase the community and its sustainable development mentality, manage account listings, information accessibility.	Zoom Prospector website an example of this. Social media and cable programming could be tools.	DS	On-Going	TBD	\$0.00	On-Going	
2	DEV	Develop TOD guidelines to define appropriate land uses, site layouts and design standards. Revise Development Codes to promote sustainable development practices.	Identify ways to promote policies to foster the creation of transit-oriented developments. Work funded by EECBG and CPPW grant funding, 2012.	DS	Not Started	TBD	\$0.00	Medium	
3	DEV	Further develop a program that provides a range of technical support and training opportunities to assist builders and developers in making "green" choices including development of a commercial green retrofit program.	Some work has been done through the EECBG code development program. As requirements at the State and Federal level, Hoffman Estates should continue to be a leader. Benefits in reducing community energy usage and emissions. Staff is already trained to recommend some improvements. Potential funding from TIF or CDBG. SEDAC a resource.	DS	In Progress	TBD	\$0.00	Medium	
4	DEV	Inform and educate the home-buying public on the value of sustainable homes.	Information purposes only. Promotes renovation of existing homes and potential to increase home values and sale price.	DS	Not Started	TBD	\$0.00	Short	
5	DEV	Explore development of a small business incubator.	Identify a location, necessary resources, cost, logistics. Explore appropriate networks. Promotes shared resources and supports local small business.	DS	Not Started	TBD	\$0.00	Long	
6	DEV	Create inventory of green buildings in Village.	Aids in communication and support for current businesses and future development.	DS	On-Going	TBD	\$0.00	On-Going	
7	DEV	Develop a strategy to address vacant commercial buildings to encourage a thriving local economy.	Addresses on-going VB goal #6. Currently seeking solutions to AT&T building vacancy.	DS	In Progress	TBD	\$0.00	Long	
8	DEV	Assess value of creating incentives to attract green businesses.	Thus far, it has not been practical to offer financial incentives, however providing links to non-monetary incentives may be explored.	DS	Not Started	TBD	\$0.00	Medium	
9	DEV	Explore opportunities for a farmer's market or expansion to existing community garden.	Improves community access to fresh produce; increases availability for garden plots beyond two existing community gardens.	GG	Not Started	TBD	\$0.00	Medium	PW
10	E&O	Increase utilization of the Intranet to provide policy reminders and environmental and non-environmental information to Village employees.	Improve transparency and utilize Hoffnet to provide more practical and FAQ information. Employee education and training – integration into existing training and daily operations.	All	On-Going	TBD	\$0.00	On-Going	
11	E&O	Develop relationships with schools – engagement and resources for youth "green" programming.	Identify appropriate school contacts	GG	On-Going	TBD	\$0.00	On-Going	
12	ENERGY	Use Energy Star Portfolio Manager to track changes in energy usage.	Identify who will be responsible for inputting data. How to implement and use resulting data.	PW	In Progress	TBD	\$0.00	On-Going	
13	FAC	Encourage applications of bioswales, permeable pavement, and similar water conservation tools.		DS	In Progress	TBD	\$0.00	On-Going	PW
14	FAC	Integrate Energy Star Portfolio Manager into decision-making processes and Performance Measurement.	Village plans to utilize the free program. How to implement and use resulting data.	PW	On-Going	TBD	\$0.00	On-Going	

	Category	Activity	Description	Primary Dept	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
15	FAC	Encourage use of “cool roofs” (Village –wide)	Development related and possibly Green Initiatives Commission as education resource.	DS	On-Going	TBD	\$0.00	On-Going	GG
16	OMR	Investigate Village processes that could be improved through enhanced use of electronic communication or technology to reduce paper consumption and increase efficiency.	Software is available that will keep appointments, notes, and provide billing capabilities all in one package (HHS). Adobe Acrobat (HR)	All	On-Going	TBD	\$0.00	On-Going	
17	OMR	Require new construction or redevelopment to recycle a percentage of construction waste.		DS	On-Going	TBD	\$0.00	On-Going	
18	OMR	Determine cost benefit of tablets and other technology applications for paramedic calls.		FD	Not Started	TBD	\$0.00	Short	FI
19	OMR	Work with environmental partners to sponsor, maintain and promote recycling opportunities for non-traditional or hazardous items as well as donation and reuse of materials such as clothing or construction materials.	Document Imaging Dimensions (DID) is the group that provides the Village with toner and recycles all used cartridges.	GG	On-Going	TBD	\$0.00	On-Going	All
20	OMR	Apply for awards and recognition for waste reduction programs.	EPA award at Sears Centre	GG	On-Going	TBD	\$0.00	On-Going	
21	OMR	Identify internal and external publications to include green tips wherever possible.		GG	On-Going	TBD	\$0.00	On-Going	
22	OMR	Identify ways of disposing of non-auctioned materials and equipment in an environmentally responsible way.	Make sure we have a clear trail of where materials are being disposed of or reused or recycled. [Find out about radio equipment]	GG	On-Going	TBD	\$0.00	On-Going	
23	OMR	Identify more opportunities to use fillable electronic forms in Adobe or EGov.	Fillable electronic forms would aid productivity and efficiencies.	GG	In Progress	TBD	\$0.00	On-Going	
24	OMR	Install kiosks for employee changes to benefit programs and employment applicants outside the Human Resources office.	Additional use for these machines should be explored; software advances needed before can determine true benefits.	HR	Not Started	TBD		Short	IS
25	OMR	Determine whether contracted work will be required to adhere to specific standards – anti-idling policy, recycled components, local suppliers, worksite recycling, and others.		PW	Not Started	TBD	\$0.00	Short	DS
26	P&G	Investigate benefit of encouraging or requiring Point-of-Sale energy disclosures for home sales		DS	Not Started	TBD	\$0.00	Short	GG
27	P&G	Improve conditions and technical opportunities to continue education and paramedic training from remote fire stations.	Training takes place for multiple shifts, multiple times per month. Finding a way to interconnect multiple locations will reduce travel, wear on apparatus.	FD	On-Going	TBD		On-Going	IS
28	P&G	Continue to lead in Air Quality Initiatives through regional recognition programs and initiatives (maintain Clean Air Counts Platinum Status, leadership in Partners for Clean Air)		GG	On-Going	TBD	\$0.00	On-Going	PW
29	P&G	Consider whether to pursue STAR Community Rating and what resources would be needed to initiate the process.	Pilot program in progress now (2012). Cost to program certification.	GG	Not Started	TBD	\$0.00	Medium	
30	P&G	Explore ways to make hiring procedures more efficient and effective.		HR	On-Going	TBD	\$0.00	On-Going	

	Category	Activity	Description	Primary Dept	Status	Priority	Approximate Cost	Approximate Timeframe	Secondary Dept
31	P&G	Consider staffing position to manage green programs/efficiency manager and/or inclusion of "green" job responsibilities into job descriptions.	Would institutionalize sustainability actions into everyday practices.	GG	Not Started	TBD		Medium	TBD
32	P&G	Incentivize employees to participate in wellness programs.	Incentives may increase participation and overall wellness of staff. In turn, could reduce overall village expenditures on health insurance premiums.	HHS	Not Started	TBD		Medium	FI/HR
33	P&G	Consider a Village-wide anonymous risk assessment to identify what areas of health could be improved upon.	Long-term costs to the Village may be reduced.	HHS	Not Started	TBD		Medium	HR
34	P&G	Re-visit uses and opportunities for use of the video and webinar conferencing software and equipment.		IS	Not Started	TBD	\$0.00	On-Going	
35	TRANS	Develop a strategy to encourage use of Village bicycle facilities to commute to work and to shop.	Promote path and route usage. Highlight particular routes for commuters and shopping areas.	DS	Not Started	TBD	\$0.00	Medium	
36	TRANS	Assess Village facilities and develop understanding of demand management program for road users (decreasing demand of facilities).		DS	Not Started	TBD	\$0.00	Medium	
37	TRANS	Explore ideas for procedures or policies including Air Pollution Action Days and idling in school and loading zones.		DS	Not Started	TBD	\$0.00	Medium	GG
38	V&E	Formally adopt the anti-idling policy and include within the Village's personnel manual.	Policy will be recognized by all employees with access to and awareness of Village vehicles.	GG	Not Started	Medium	\$0.00	Short	PW
39	V&E	Identify a funding source for installation of compressed natural gas station for Village fleet and public use.	Seek grants and rebates.	PW	Not Started	Medium	\$0.00	Long	
40	V&E	Investigate "ecodriving" training course for Village employees to cut fuel and maintenance costs.	Calculate potential savings from reduction in fuel used. Compare with cost of driving course.	PW	Not Started	Low	\$0.00	Short	
41	WATER	Revise Village Code to encourage plantings that do not require additional watering, native plantings.		DS	In Progress	TBD	\$0.00	Short	PW
42	WATER	Support regionally coordinated water management plans.	Although previous regional efforts have not been extremely successful, a continued effort should be made to coordinate with other agencies.	GG/DS	On-Going	TBD	\$0.00	On-Going	PW
43	WATER	Identify ways to actively promote water education about conservation, leak detection, and outdoor fixtures to conserve water.		PW	In Progress	TBD	\$0.00	On-Going	

RESOURCE INVENTORY - GRANTS, TOOLS, TECHNICAL ASSISTANCE

FACILITIES			
RESOURCE CATEGORY	SOURCE	NAME	DESCRIPTION
Tool	U.S. EPA	ENERGY STAR Portfolio Manager	Online tool used for tracking energy and water consumption and performance; provides baseline for like facilities.
Tool	ENERGY STAR	Programmable Thermostat Calcluator	Calculates energy savings and payback time for installation of an ENERGY STAR programmable thermostat.
ENERGY EFFICIENCY			
RESOURCE CATEGORY	SOURCE	NAME	DESCRIPTION
Grant	U.S. Dept of Energy	Local Energy Assurance Planning (LEAP) Grant	The grant provided a profile analysis of energy usage for several major Village facilities and includes information regarding energy providers, communication operations, critical Village and community facilities, and a business outreach and education program.
Grant	U.S. Dept of Energy	Energy Efficiency and Conservation Block Grant	Funding provided by the American Recovery and Reinvestment Act (ARRA) of 2009. Twelve projects were completed with \$515,100.
Grant	Illinois Clean Energy Community Foundation	Energy efficiency infrastructure improvements and programs grant	Grant program for projects that benefit the public by implementing energy efficient technologies.
Tool	ComEd	Smart Ideas	Smart Ideas for Business and Smart Ideas for Homes programs. Provide incentives for energy efficeincy improvements including replacement of HVAC systems, refrigeration, motors, and lighting. Offers technical support and small rebates for residents.
Tool	U.S. Dept of Energy	Motor Master	MotorMaster+ software provides a catalog of over 20,000 AC motors, includes a motor inventory management system for tracking maintenance, efficiency and savings analyses.
Tool	U.S. Dept of Energy	Pumping System Assessment Tool	Assists with assessment of efficiency of pumping system operations. Calculates potential energy and cost savings.
Tool	U.S. Dept of Energy	Federal Energy Management Program; Purchasing Specifications for Energy Efficient Products	Provides product specifications, energy cost calculators, and model procurement language.

WATER			
RESOURCE CATEGORY	SOURCE	NAME	DESCRIPTION
Tool	U.S. EPA	WaterSense	WaterSense is a voluntary partnership program sponsored by the U.S. Environmental Protection Agency. Its mission is to protect the future of our nation's water supply by promoting and enhancing the market for water-efficient products and services. WaterSense partners have access to resources and tools that promote water efficiency.
Tool	Metropolitan Planning Council	What Our Water's Worth	Ongoing campaign led by the Metropolitan Planning Council and Openlands to raise awareness about the value of water in northeastern Illinois and northwestern Indiana. Regional stories, newsletter, water footprint calculator, rebates for WaterSense products.
MATERIALS AND RESOURCES			
RESOURCE CATEGORY	SOURCE	NAME	DESCRIPTION
Technical Assistance	U.S. EPA	WasteWise	The WasteWise program is a free, voluntary, EPA program designed to assist organizations eliminate costly solid/industrial waste through waste prevention and recycling practices. This program offers technical assistance, partner networking meetings, conservation calculators, waste tracking tools and awards/recognition from the EPA.
Technical Assistance	SWANCC	Solid Waste and Recycling Services	The Solid Waste Agency of Northern Cook County is a unit of local government and a non-profit corporation that provides resources to its constituents aimed to improve solid waste management and increase recycling. These resources include, but are not limited to local waste disposal contacts, educational information and recycling drop-off locations.
Grant	IL Dept. of Commerce & Economic Opportunity	Illinois Recycling Grants Program	Program for recycling grants coordinated by the IL DCEO. Does not provide funding for personnel expenses. Grants are structured to assist with purchase of equipment, education, and promotion.
Tool	Green Guard Environmental Institute	Green Guard Product Guide	Database of low-emitting materials and products.
Tool	Green Seal	Green Seal Certified Products	Database of environmentally-friendly products and services.
GREEN PLANNING AND DEVELOPMENT			
RESOURCE CATEGORY	SOURCE	NAME	DESCRIPTION
Technical Assistance; Grant; Tool	CMAP	Chicago Metropolitan Agency for Planning	Provides technical assistance to municipalities for sustainable planning activities.

TRANSPORTATION AND MOBILITY

RESOURCE CATEGORY	SOURCE	NAME	DESCRIPTION
Grant	U.S. EPA	Midwest Clean Diesel Initiative	Region 5's initiative offers grants for deisel-emission reduction projects. Includes diesel exhaust retrofits, vehicle replacement, idle reduction technologies and use of cleaner burning fuels.
Grant	IL EPA	Illinois Green Fleet	Fuel rebates, recognition program, information guides, idling information and fact sheets
Tool	EERE	Clean Cities	Information and financial assistance, fact sheets, newsletters, and technical informational materials.
Tool	Clean Cities	Chicago Area Clean Cities (CACC)	Encourages use of clean fuels and clean vehicle technologies in the Chicago metropolitan area. Basic information resource.

EDUCATION AND OUTREACH

RESOURCE CATEGORY	SOURCE	NAME	DESCRIPTION
Tool	Volunteer Boards and Commissions	Sustainability Commission	The Sustainability Commission is comprised of volunteers who live or work in Hoffman Estates and are appointed by the Village Board. The Commission is a leader in Hoffman Estates' mission to become a sustainable community. They suggest programs, services and activities that Village residents, businesses and the municipality can participate in year-round. They also offer support for Village activities such as recycling events, an environmental fair, and student environmental education programs.
Tool	Sustainability Commission	Green Business Recognition Program	The Green Business Recognition Program (GBRP) is designed to act as an education and awareness tool in promoting the Village goal of sustainability. The program encourages local business patronage by recognizing Hoffman Estates businesses who participate in the program. The GBRP is open to all businesses located within the Village of Hoffman Estates, including small and large independent business as well as shopping center tenants. Participation is 100% voluntary and free, and applications are accepted year-round.

RECYCLING PROGRAM INFORMATION

GROOT

RECYCLING CATEGORY	SOURCE	ITEMS TO DISPOSE	WHERE TO DISPOSE	MORE INFO
Household and Business Recycling	Groot	Paper Bags, Newspaper, magazines, catalogues, office paper, telephone directories, cardboard, food packaging boxes, advertising papers and mail	Provided curbside recycling tote containers; can be co-mingled (plastics, paper, metals); <i>rinse any food out of containers, remove non-recyclable packing material, and leave plastic caps on bottles.</i>	www.groot.com/
		All Plastic Bottles and containers numbered #1-5, plastic beverage and food containers, microwave meal and food storage containers, milk, water, juice, and soda bottles, liquid detergent and other household non-hazardous soaps, yogurt cups		http://www.hoffmanestates.org/index.aspx?page=172
		Aluminum cans, steel and tin cans, steel jar lids, glass bottles and jars. Green, Brown, and clear glass only. No mirrors or coat hangers!		

VILLAGE PROGRAMS

RECYCLING CATEGORY	SOURCE	ITEMS TO DISPOSE	WHERE TO DISPOSE	MORE INFO
Electronics	SWANCC	Cable receivers, computers (including tablets), digital converter boxes, DVD players and recorders, electronic mice, electronic keyboards, fax machines, monitors, portable digital music players, printers, satellite receivers, scanners, small scale servers, televisions, video game consoles, VHS recorders.	December to April: Glenview Transfer Station 1151 N River Rd Across from the Maryville Academy Saturdays: 9:00 am - 11:30 am	Village Contact: Public Works x6800 http://www.swancc.org/index.php/programs/electronics-recycling
			April through November: Village of Hoffman Estates; 1900 Hassell Road; signs will be posted, Citizen article will post day of the week and time.	http://www.hoffmanestates.org/index.aspx?page=612
Small Electronics	Recycling Avenue	Cellular phones, laptops, and MP3 players	Village Hall Front Lobby (1900 Hassell Rd); Business Hours: 8:30 a.m. - 5:00 p.m.	http://www.avenuestoindependence.org
Ink and Toner Cartridges	Clover Technologies	Ink and toner cartridges from home and business use	Village Hall box at rear of Front Counter (1900 Hassell Rd); Business Hours: 8:30 a.m. - 5:00 p.m.	http://www.hoffmanestates.org/index.aspx?page=612

VILLAGE PROGRAMS(Continued)

RECYCLING CATEGORY	SOURCE	ITEMS TO DISPOSE	WHERE TO DISPOSE	MORE INFO
Household Batteries	SWANCC	AAA, AA, C, D and 9V. All rechargeable batteries (lithium, NiMh, and NiCad) MUST have masking tape on contact points (ends of battery) or be contained in an individual self-locking plastic bag.	Village Hall Front Counter (1900 Hassell Rd); Business Hours: 8:30 a.m. - 5:00 p.m.	http://www.hoffmanestates.org/index.aspx?page=612
Light Bulbs	SWANCC	Burnt out CFL and fluorescent light bulbs	Village Hall Front Counter (1900 Hassell Rd); Business Hours: 8:30 a.m. - 5:00 p.m.	http://www.hoffmanestates.org/index.aspx?page=612

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (IEPA)

RECYCLING CATEGORY	SOURCE	ITEMS TO DISPOSE	WHERE TO DISPOSE	MORE INFO
Household Chemical Waste	Illinois Environmental Protection Agency (IEPA)	Aerosol paints, antifreeze, cleaning products, drain cleaner, fluorescent bulbs, gasoline, herbicides, hobby chemicals, insecticides, lawn chemicals, medicines, mercury, oil based paint, paint thinners, pesticides, pool chemicals, solvents, used motor oil	Nearest collection site is located at Naperville Fire Station #4, 1971 Brookdale Road, Naperville, IL. The collection site is open from 9:00 a.m. to 2:00 p.m. Saturdays and Sundays. The site does NOT accept latex paint.	http://www.swancc.org/index.php/chemicals/residential
Latex Paint and Used Cooking Oils	Illinois Environmental Protection Agency (IEPA)	Latex water-based paint. Oil-based paints should be disposed of with Household Chemical Waste. (See above)	Use all paint or cooking oil, or, dry out completely with sand or kitty litter and dispose of in curbside waste disposal.	http://www.hoffmanestates.org/index.aspx?page=172

For disposal of other items, please email grow2green@hoffmanestates.org or call Ashley Monroe at: 847-781-2669

Hoffman Estates Energy and Emissions Profile

This profile provides energy consumption and greenhouse gas emissions data analyzed specifically for Hoffman Estates. It is designed to give you information about how energy is consumed by your entire community. Use this report to prioritize strategies for energy efficiency and conservation and measure their progress.

The Value of Your Profile

Your profile includes annual citywide electricity and natural gas consumption, vehicle miles traveled, and a greenhouse gas emissions profile. Having this aggregate baseline data at the local level is important because it makes it possible to accurately benchmark energy use. Simply put, you cannot measure energy savings without first knowing your actual energy consumption. Further, pinpointing your community's energy trends will help you target the most effective programs to reduce energy use and costs.

About the Project

Your community's profile is part of a larger project called the Municipal Energy Profile Project (MEPP). The goal of MEPP is to provide all municipalities in the seven-county Chicago metropolitan region¹ with an energy and emissions profile and corresponding tools and resources to help each community best utilize the information presented in the profile.²

At the regional level, MEPP helps municipalities obtain a crucial starting point to discuss energy issues within their community. The communities in the Chicago metropolitan region will be better equipped to tap into existing regional and state resources while positioning the region for ongoing funding towards building a sustainable future.

This project is funded by the Illinois Clean Energy Community Foundation and relies on support from ComEd, Nicor, Peoples Gas, North Shore Gas, and Illinois Department of Transportation.

What's in Your Energy and Emissions Profile?

Introduction sections have been included before each dataset to familiarize readers with a few key concepts.

Section 1: Using Your Profile

Section 2: Electricity Consumption in Hoffman Estates

Section 3: Natural Gas Consumption in Hoffman Estates

Section 4: Transportation - Vehicle Miles Traveled in Hoffman Estates

Section 5: Emissions Profile for Hoffman Estates

¹ The seven counties in the region include Cook, DuPage, Kane, DuPage, Lake, McHenry and Will.

² CNT Energy is providing a MEPP guidebook; workshops and free technical assistance.

Section 1: Using Your Profile

While many municipalities have begun to identify strategies that impact municipal operations, recent funding opportunities provide an unprecedented opportunity to adopt broader community-wide strategies that will help residents and business owners reduce energy use and costs. The aggregate data and information provided in this profile can help in strategy development in the following ways:

- 1) **Baseline Metrics**: Serves as a starting point from which to measure the progress of strategies and programs.
- 2) **Accurate Data and Measurements**: Provides a more accurate picture of your community's average energy consumption based on actual utility data instead of national or regional averages. This will help you better calculate the potential for strategy savings, both individually and at scale.
- 3) **Data Indicators**: May assist in identifying some areas for targeting strategies. For example, a municipality whose average household energy consumption is significantly higher than the county may want to investigate the reasons why and identify potential residential energy saving strategies. (e.g. Is our average higher due to larger houses? Is it because we have an older, less efficient housing stock?)

More detailed examples are provided in the Guidebook for the Municipal Energy Profile Project.

Guidebook for the Municipal Energy Profile Project

To further investigate how you might use this profile, CNT Energy invites you to review the Guidebook for the Municipal Energy Profile Project; available at www.cntenergy.org. The Guidebook includes the following topics:

- Understanding your profile
- Municipal energy strategies
- Community-wide energy strategies
- Funding resources and technical assistance
- Glossary of energy terms and acronyms

Technical Assistance

Through the early part of 2011, CNT Energy will continue to provide free technical assistance to help communities understand their profile and provide information and resources for specific energy-related issues in their communities. For more information, please contact us:

Lindy Wordlaw, Senior Planner
773-269-4012 ▪ lindy@cntenergy.org

Kimberly Loewen, Planner
773-269-4089 ▪ kloewen@cntenergy.org



Section 2: Electricity Consumption in Hoffman Estates

Electricity

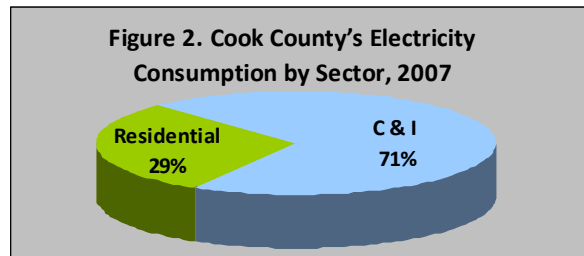
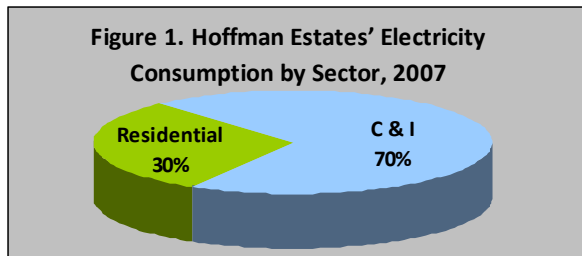
Electricity consumption in both the residential and commercial/industrial (C & I) sectors is currently increasing nationwide. Growth in consumer electronics and information technology equipment, as well as an increase in home size and air conditioning use are prominent reasons for consumption increases in the residential sector. In the commercial/industrial sector, increasing consumption is driven by telecommunication and network equipment along with specialized technologies such as medical imaging advancements.³ Electricity is measured in kilowatt (kWh) hours.

Total Consumption

In 2007, the amount of electricity consumed in Hoffman Estates was 507 million kWh (Table 1). 30% of the village's electricity consumption occurred in the residential sector; the remaining 70% was consumed in the C & I sector. Figure 1 and Figure 2 compare electricity consumption by sector in Hoffman Estates and Cook County⁴.

Table 1. Total Electricity Consumption (kWh), 2007

	Hoffman Estates	Cook County
Residential	153,285,336	14,915,965,265
C & I	353,528,589	35,664,503,040
Total	506,813,925	50,580,468,305



Residential Consumption and Costs

In the residential sector, the village's average annual consumption per household is 8,494 kWh. Factors that affect electricity usage include square footage, presence and efficiency of air conditioning, efficiency of lighting, appliances and systems, and occupant behavior. Table 2 compares village's average annual consumption and cost per household to that of the county.

Table 2. Residential Electricity Consumption & Costs, 2007

	Hoffman Estates	Cook County
Number of Households	18,047	1,939,190
Average kWh per Household	8,494	7,692
Average Annual \$ per Household*	\$914	\$828

*Calculated using average residential sales per kWh (ICC Utility Sales Statistics 2007)

³ Energy Information Administration: "Miscellaneous Electricity Services in the Buildings Sector", AEO2007 <http://www.eia.doe.gov/oiaf/aeo/otheranalysis/mesbs.html>

⁴ For municipalities located within more than one county, the county that contains the largest area of the municipality was used for comparison purposes for this report.

Section 3: Natural Gas Consumption in Hoffman Estates

Natural Gas

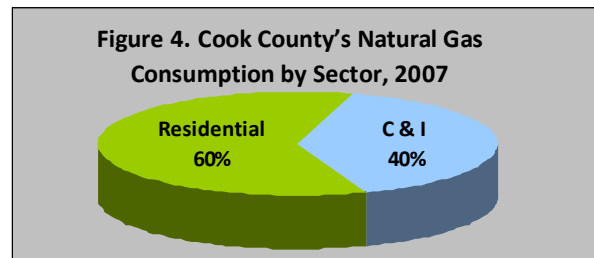
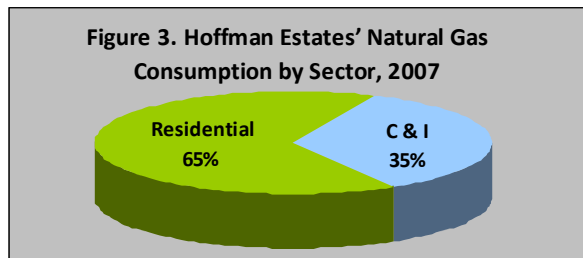
In Northern Illinois, natural gas is the primary space heating fuel. In addition to space heating, natural gas is commonly used for hot water heaters, clothes dryers, and cooking in the residential sector. However, natural gas consumption has been decreasing slightly over time in both the residential and commercial/industrial sectors as homes and buildings become more efficient and de-industrialization occurs. Natural gas is measured in therms.

Total Consumption

In 2007, the amount of natural gas consumed in Hoffman Estates was 24.5 million therms (Table 3). 65% of the village's natural gas consumption occurred in the residential sector; the remaining 35% was consumed in the C & I sector. Figure 3 and Figure 4 compare natural gas consumption by sector in Hoffman Estates and Cook County.

Table 3. Total Natural Gas Consumption (Therms), 2007

	Hoffman Estates	Cook County
Residential	15,901,994	2,191,453,638
C & I	8,626,612	1,442,823,862
Total	24,528,606	3,634,277,500



Residential Consumption and Costs

In the residential sector, the village's average annual consumption per household is 881 therms. Factors that affect natural gas usage include building size, building age, building envelope efficiency, efficiency of the furnace, boiler and water heater, as well as occupant behavior and building operations and maintenance. Table 4 compares the village's average annual consumption and cost per household to that of the county.

Table 4. Residential Natural Gas Consumption & Costs, 2007

	Hoffman Estates	Cook County
Number of Households	18,047	1,939,190
Average Therms per Household	881	1,130
Average Annual \$ per Household*	\$782	\$1,274

*Calculated using average residential sales per therm (ICC Utility Sales Statistics 2007)

Section 4: Transportation – Vehicle Miles Traveled in Hoffman Estates

Typically, transportation accounts for the second largest portion of energy usage after buildings. For this report, Vehicle Miles Traveled (VMT) was tabulated from travel statistics provided by the Illinois Department of Transportation (IDOT) and scaled to your municipality based on Illinois Environmental Protection Agency (IL EPA) odometer and population data.

Total Consumption

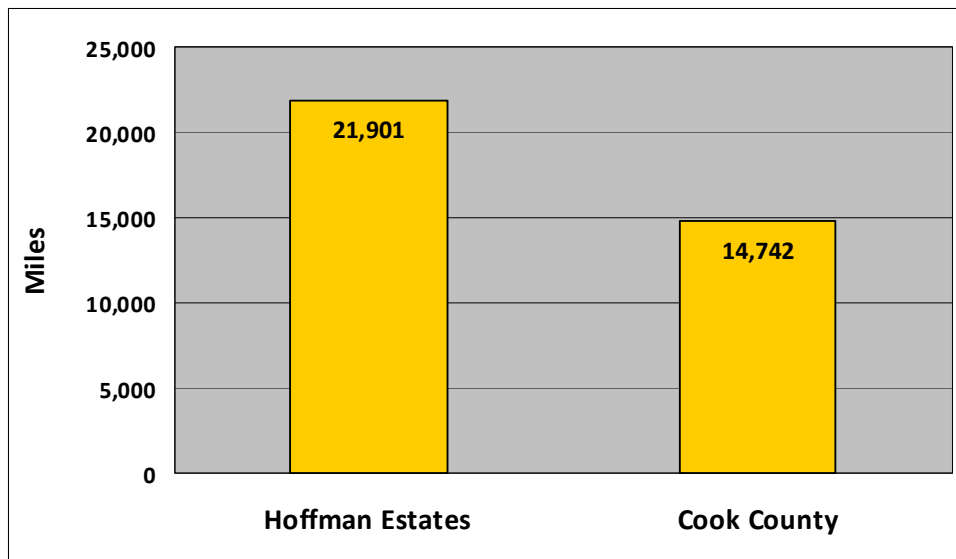
In 2007, total on-road travel on Hoffman Estates roads accounted for 496 million miles (Table 5), which captures trips only within municipal boundaries. Further analysis shows that the average household in Hoffman Estates drove 21,901 miles (Figure 5), totaling 395 million miles for all Hoffman Estates households.

Table 5. Vehicle Miles Traveled (VMT), 2007

	Hoffman Estates	Cook County
Total On-Road VMT	495,849,591	32,843,861,704
Household VMT	395,238,797	28,587,771,005

Factors that affect VMT per household include access to jobs, proximity to businesses and amenities, availability of public transportation, and community walkability. Variations are also influenced by many different demographic factors including income, household size, and workers per household. For example, large households with higher incomes may own multiple cars and drive more. Households situated close to reliable public transit or major employment centers may experience decreased annual VMT because they are not as dependent on cars.

Figure 5. Average Vehicle Miles Traveled per Household, 2007



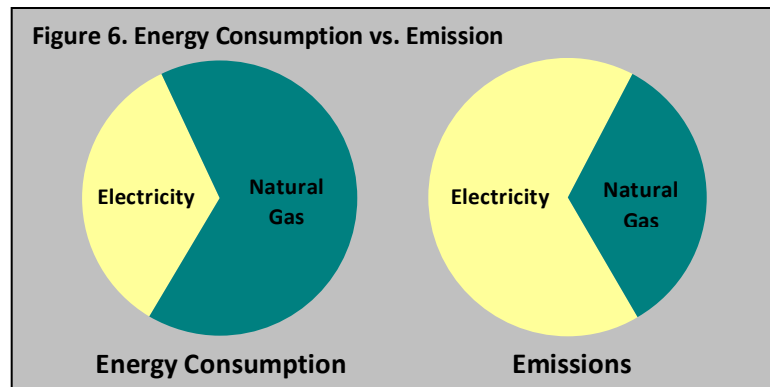
Section 5: Emissions Profile for Hoffman Estates

The Connection between Energy and Emissions

In addition to understanding energy consumption, it is important to recognize the relationship between energy and greenhouse gas emissions. Emissions attributed to electricity consumption are different from those attributed to natural gas consumption because of differences in the production of energy from different sources.

Most of the world's energy originates from the burning of fossil fuels including coal, petroleum, and natural gas. Fossil fuels consist of hydrogen and carbon, and when burned, the carbon combines with oxygen to create carbon dioxide.

However, all energy is not created equal. The amount of carbon dioxide produced for a given unit of energy depends on the carbon content of the fuel source. For example, coal (used to produce electricity) emits nearly two times the carbon dioxide per unit of energy compared to natural gas. Understanding this off balanced relationship is important when calculating emissions and identifying strategies to reduce emissions. Figure 6 illustrates this off balanced relationship between energy consumption and emissions, using data from the Chicago metropolitan region. Understanding this off balanced relationship is important when calculating emissions and identifying strategies to reduce emissions.



Emissions Calculations

Your municipal greenhouse gas emissions profile was calculated for 2007 using United Nations Intergovernmental Panel on Climate Change (IPCC) methods and local data sources in combination with modeling of national data to local demographics. All data presented are measured in metric tons (MT) or million metric tons (MMT) CO₂e (carbon dioxide equivalent), to enable comparison internationally.

Emissions were calculated for the six major categories of greenhouse gases regulated under the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). Emissions were converted into CO₂e using global warming potentials from the IPCC Fourth Annual Assessment Report. Activity data were translated into emissions using standard emissions factors and global warming potentials.

Emissions Profile for Hoffman Estates

An energy profile in the community serves as the basis for conducting a community greenhouse gas emissions profile. In addition to energy and transportation, which are by far the biggest contributors to greenhouse gas emissions, this emissions profile includes estimates for solid waste, waste water, and product use based on regional totals previously analyzed for a regional profile developed for the Chicago Metropolitan Agency for Planning (CMAP).

Below is the breakdown of Hoffman Estates' emissions by sector (Table 6 and Figure 7).

Table 6. Hoffman Estates' Emissions by Sector, 2007

Sector	MMT CO ₂ e
Electricity	0.355
Natural Gas	0.131
Transportation	0.249
Solid Waste	0.037
Waste Water	0.007
Product Use	0.028
TOTAL	0.807

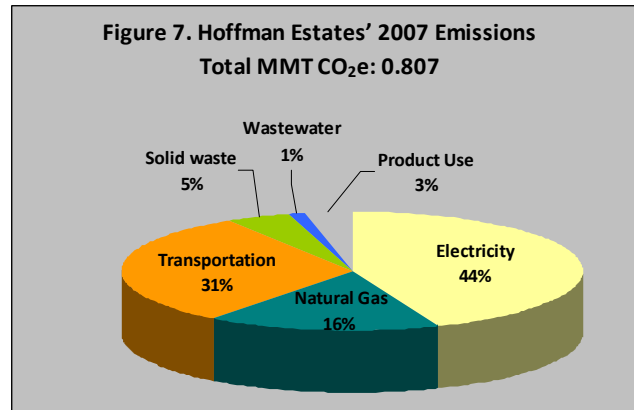


Figure 8 provides another context through comparison of Hoffman Estates' and Cook County's 2007 emissions per capita.

Figure 8. Per Capita Emissions, 2007



Energy Efficiency and Conservation Block Grant (EECBG) Project Summary

Allocated: \$515,100		Award Date: 9/29/09 - Amended 01/11 and 02/12				
PROJECT	LOCATION	DESCRIPTION	DEPARTMENT	BUDGETED	SPENT	
1	Interior Energy Efficient Lighting Retrofit	Public Works Center, Fleet Services Building and Village Hall	Light fixtures were retrofit for efficiency at Village Hall, Public Works Center, and Fleet Services.	Public Works	\$23,606.00	\$24,280.00
2	LED Lighting Conversion Village Hall Canopy Sconces	Village Hall	Light fixtures were retrofit with LED bulbs to significantly reduce energy consumption and maintenance costs.	Public Works	\$1,017.00	\$1,017.00
3	Hybrid Vehicle Replacement	Public Works	Vehicle purchased to replace retired truck in Village fleet.	Public Works	\$11,514.00	\$11,514.00
4	LED Parking Lot Lighting Retrofit	Public Works Center and Village Hall	Light fixtures were retrofit at Village Hall (45) and Public Works (9) with LED fixtures.	Public Works	\$53,014.00	\$53,574.00
5	Village Hall Roof Reconstruction	Village Hall	Replaced insulation and applied Energy Star Roof membrane for building energy savings and reduced heat-island effect.	Public Works	\$165,000.00	\$165,000.00
6	Residential Energy Audit Program	Community Residences	Residential Energy Assessment program initiated. Performed 90 audits since program began in June 2010. Program continuing beyond grant period as long as funding permits.	Development Services - Code Enforcement	\$52,250.00	\$54,335.00
7	Building Codes & Inspections Green Residential Building Code	Internal	Provided funding for research, training, certifications, code revisions, and purchase of reference materials. A regional workshop on energy code compliance was held. Videos for Hoffman Estates cable channel about proper installation of windows and other information were produced.	Development Services	\$37,334.00	\$37,063.00
8	LED Lighting Wall Packs Village Hall	Village Hall	External wall pack light fixtures were retrofit at Village Hall with LED fixtures to significantly reduce energy consumption and maintenance costs.	Public Works	\$6,593.00	\$7,623.00
9	Install Building Automation System at Vehicle Maintenance Building	Fleet Services	Installed a direct digital control (DDC) device for HVAC and building controls. Energy savings potential of approximately 10-20%.	Public Works	\$80,057.00	\$80,057.00
10	Village Building Recycling Program	Village Hall, Public Works buildings, Fire Stations, Police Department	Purchased intuitive recycling containers for all major Village facilities and added containers for general public areas. Initiated an internal recycling education program.	General Government	\$19,696.00	\$19,150.00
11	Lighting Retrofit for Public Works Center Garage	Public Works Center	Light fixtures were retrofit with LED bulbs to significantly reduce energy consumption and improve work conditions.	Public Works	\$44,265.00	\$47,180.00
12	Energy Efficiency and Conservation Strategy	Internal	Plan developed by Village staff. Will complete public review of final draft and present to Village Board in late 2012.	General Government	\$20,754.00	\$14,685.00
	Collected Program Income (PI)	<i>Program income from the Energy Audit program.</i>	<i>Program income was required to be spent within the grant period on approved EECBG projects. The collected PI covered expenses for the energy audit program, as well as infrastructure improvements that had cost estimates equal less than actual costs.</i>		\$5,150.00	\$4,773.00
	TOTAL				\$520,250.00	\$520,250.00