



Village of Downers Grove
2010 Sustainability Best Practices
and 2011 Action Plan



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The Village's Strategic Plan for 2008-2013 established being "green" mindful in Village operations as a high priority. In response to this Strategic Plan objective, Village Staff, with input from the Environmental Concerns Commission, developed the Sustainability Best Practices Report for 2009.

The Village of Downers Grove continues to make sustainability a priority with a 2011-2018 goal to be a Steward of Financial and Environmental Sustainability, and therefore has created the 2010 Sustainability Best Practices Report.

The following pages describe the Village's achievements in 2010 in the area of environmental sustainability as well as projects that the Village intends to pursue in 2011. **In 2010**, the Village continued to focus sustainability efforts on the following categories:

- Transportation
- Energy
- Waste Diversion
- Urban Forest
- Land Use and Development
- Water
- Community Outreach

The efforts of Village staff and the Environmental Concerns Commission in the past year have produced significant achievements, including:

- Installing energy efficient lighting in the Village-owned parking deck, resulting in a 30% reduction in electricity costs.

- Planning and execution of an award-winning rain barrel event that sold 544 recycling rain barrels to Downers Grove residents.
- Receipt of a grant that will allow the Village to upgrade its compressed natural gas fueling facility.



The Village's achievements in sustainability were due in part to partnerships with local organizations such as SCARCE and The Conservation Foundation, as well as a result of grants from the Illinois Environmental Protection Agency (IEPA) and the U.S. Department of Energy. The Village will continue to seek partnerships and grant opportunities to help offset the costs of sustainability projects.

For 2011, the Village has identified projects in the categories of:

- Transportation
- Energy
- Waste Diversion
- Water
- Community Outreach

The projects were identified by Village staff and with the assistance of the Environmental Concerns Commission. The projects within each category are described in greater detail within this report.



TRANSPORTATION

In 2010, the Village's sustainability efforts in the area of transportation resulted in significant improvements in the Village's fleet budget and a reduction in the amount of diesel fuel consumed for the provision of village services.

Achievements

- The Village implemented an anti-idling policy to eliminate unnecessary idling of all vehicles in the village fleet.
- In March of 2010, the Village installed interior warming devices in 14 front-line snow removal vehicles, thanks to a grant from the Illinois EPA. The devices operate off the vehicle's battery to circulate warm air in the cab without idling, therefore saving fuel and emissions.
- During the 2009-2010 winter season, the Village reduced its salt usage by 20% over the previous year by pre-treating streets with an organic anti-icing compound.
- The Village began inflating all vehicle tires with nitrogen, which increased fuel efficiency and extended police vehicle tire life from 10,000 miles to 21,000 miles.
- The Village increased the percentage of alternative fuel vehicles in its fleet from 62% in 2009 to 76%. The Village fleet includes:
 - 30 vehicles that use E-85
 - 78 that use biodiesel
 - 2 hybrid vehicles
 - 16 compressed natural gas vehicles

Thanks to a combination of the projects listed above, the Village decreased its diesel consumption by 33,000 gallons as compared to 2007, which is equivalent to a savings of \$85,000.



2011 projects

- As vehicles are replaced according to maintenance schedules and budget, the Village will continue to acquire alternative fuel vehicles.
- The Village will work with DuPage County in the design phase of a bike path that will extend along 31st Street from Highland Avenue to Meyers Road, projected to be constructed in 2014. Each project in the Village's bikeway plan is partially funded by a grant from the State's Congestion Mitigation and Air Quality Program.
- The Village entered into a grant agreement with the Gas Technology Institute to upgrade its compressed natural gas fueling facility. Fuel storage capacity will double, supporting a greater number of natural gas powered vehicles, as well as larger vehicles such as snow plow trucks. A new high capacity dispenser is also part of the project and will double the number of vehicles that can be fueled at any given time.



ENERGY

In 2010, the Village was able to leverage federal funds from the American Recovery and Reinvestment Act (ARRA, commonly known as the Stimulus Plan) to upgrade conventional lighting fixtures to energy efficient fixtures in Village facilities and to retrofit Village facilities with solar furnaces and insulation.

Achievements

- Using in-house manpower, the Village replaced existing fluorescent lighting (T-12 to T-8) and 65w flood lights to compact 13w fluorescent lighting in the Village Hall, Fire Station #3 and the Main Street Station. This project provides more effective, efficient and greener lighting. Staff anticipates an approximately 100,000 kilowatt hour reduction per year.
- Staff replaced nine 150 watt incandescent bulbs in the Village Council Chambers with 14 watt LED lamps. The LED lights last longer than conventional lighting, reduce energy consumption by up to 75% and are fully recyclable.
- The Village replaced metal halide lighting in the parking deck with induction lighting, achieving actual energy savings of 30% in the first year.
- The Village replaced 50% of holiday lighting in the Downtown Business District with LED lights.

2011 Projects

- In accordance with the Environmental Concerns Commissions recommendation, Village staff will research the US Environmental Protection Agency's Green Power Communities program in order to provide a comprehensive report to the Village Council.

- Village staff will insulate ten Village-owned well houses and install solar air heating panels in six of those well houses. The project will improve energy efficiency by reducing the amount of gas and electricity used in heating the buildings.
- Village staff will investigate other grant opportunities that would allow the Village to purchase solar thermal panels to provide hot water at municipal buildings.
- The Village will implement a program to acquire motor oil for its existing clean burning waste oil furnace, which will reduce heating costs for the Fleet Services building by reusing oil for heat.
- Reduce street light electricity as possible.
- Install energy efficient LED street lighting Concord Square subdivision.
- Replace Fire Station 5 parking lot lighting with energy efficient LED lighting.
- Replace parking deck alley lighting and marking sign with LED efficient fixtures.
- Investigate other opportunities for wind, solar and geo-thermal energy use.

WASTE DIVERSION

In 2010, the Village's waste diversion efforts strengthened existing partnerships with SCARCE and DuPage County, and provided new opportunities for partnerships with Creative Recycling, Inc. and Elgin Recycling.

Achievements

- In 2010, the Village held its third annual Recycling Extravaganza. Among the items collected were 20,000 pounds of paper, 600 pairs of eye glasses, 109,000 pounds of electronics, 159 American flags and 128 fire extinguishers.
- Improved recycling practices within village facilities were initiated by providing recycling containers in offices and cubicles, and by providing co-mingled recycling containers for products other than paper. Staff also partnered with Batteries Plus to provide a container for battery recycling for employees.
- The Village signed a new five-year contract with Republic Services for residential solid waste removal and recycling. The new contract continues to provide unlimited curbside recycling for residents and also provides a recycling cart for residents who participate in the garbage cart program. The contract also reduces the number of garbage Amnesty Days from one per year to one over the term of the contract.
- The Village partnered with Elgin Recycling, Inc. to provide holiday light recycling for residents and businesses. The program, which will continue through the first 45 days of 2011, collected 875 pounds of holiday lights in 2010.



2011 Projects

- In 2011, the Village intends to host the Recycling Extravaganza.
- The Village will collaborate with the DuPage County Office of Planning and Economic Development to explore ways to encourage businesses within the Village to increase recycling, with the goal of reducing commercial waste by 10%.
- In 2011, the Village will continue to provide the opportunity for residents and businesses to recycle used holiday lights.



WATER

In 2010, the Village's rain barrel event provided an opportunity for residents to participate in water conservation efforts in their own homes and business.

Achievements

- The Village partnered with The Conservation Foundation to provide a bulk rate discount to residents for the purchase of recycled rain barrels. As a result of the promotion, the Village sold 544 rain barrels, which were distributed to residents on May 8, 2010.

2011 Projects

- The Village will create a pilot project for its Green Streets/Sustainable Stormwater Program, which is intended to reduce localized residential stormwater nuisances by promoting and partially funding rain gardens on private properties through a cost-share program.
- The Village has budgeted for an improved Leak Detection Program which involves employing a technical service company to provide highly accurate, state-of-the-art acoustic equipment to find sub-surface water system leaks. Using this equipment and personnel trained in this field, the smallest of leaks and other sources of water loss are detected, located and repaired. Historically, one-half of the water system is surveyed under this program each year. Beginning in 2011, the Village's entire water system will be surveyed annually.
- The Village will assist the Chamber of Commerce, the Downers Grove Economic Development Corporation and the Downtown Management Association to plan the 2011 rain barrel event, which will benefit local businesses and not-for-profit organizations.



COMMUNITY OUTREACH

In 2010, the Village used existing resources to reach out to community members with information regarding opportunities to be more 'green.'

Achievements

- The 2010 holiday lights recycling program, Recycling Extravaganza and the Rain Barrel event were all examples of successful community outreach.
- The Village published an article in the February Hometown Times newsletter describing its efforts at sustainability for 2010.

2011 Projects

- The Village will seek to leverage community resources, such as corporations, not-for-profits or universities, as partners in environmental stewardship.
- The Village will promote the recycling cart program, which is a new component of the residential solid waste hauler contract, to encourage recycling.
- The Village will increase sustainability-related content on the Village website and in publications such as E-News, Village Corner and Hometown Times.



URBAN FOREST AND LAND USE AND DEVELOPMENT

In 2010, In 2010, the Village combined community beautification projects and infrastructure improvements while creating a sustainable stormwater system.

Achievements

- The Village planted approximately 400 parkway trees.
- Through a partnership with the Downers Grove Park District, the Village preserved open space at Washington Park while improving stormwater capacity.
- The Comprehensive Plan Ad Hoc Committee completed the draft Comprehensive Plan, which, pending approval by the Plan Commission and Village Council, will include plans for urban forests.

2011 Projects

- The adoption of the Comprehensive Plan is listed on the Village's 2011 High Priority Action Items.