

VILLAGE OF LOMBARD
REQUEST FOR BOARD OF TRUSTEES ACTION
For Inclusion on Board Agenda

Resolution or Ordinance (Blue) _____ Waiver of First Requested
 X Recommendations of Boards, Commissions & Committees (Green)
Other Business (Pink)

TO: PRESIDENT AND BOARD OF TRUSTEES

FROM: David A. Hulseberg, Village Manager

DATE: July 22, 2011 (COW) (B of T) **Date:** August 18, 2011

TITLE: Sustainability Framework – 2011 Update

SUBMITTED BY: David P. Gorman, PE, Assistant Director of Public Works *DPG*

BACKGROUND/POLICY IMPLICATIONS:

A recommendation from the Environmental Concerns Committee to approve the 2011 Update of the Sustainability Framework and declare environmental sustainability as a policy directive for municipal programs, facilities and operations.

FISCAL IMPACT/FUNDING SOURCE:

\$0.00

Review (as necessary):
Village Attorney X _____ Date _____
Finance Director X _____ Date _____
Village Manager X _____ Date _____



MEMORANDUM

TO: David A. Hulseberg, Village Manager

THROUGH: Carl S. Goldsmith, Director of Public Works *CG*

FROM: David P. Gorman, Asst. Director of Public Works *DPG*

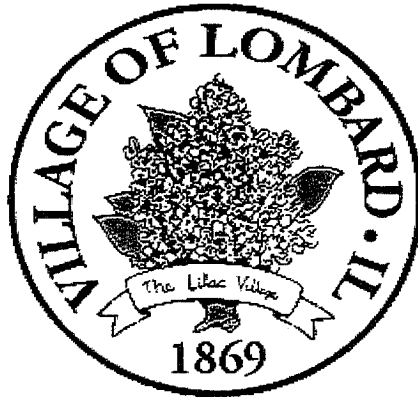
SUBJECT: Sustainability Framework – 2011 Update

DATE: July 22, 2011

The Sustainability Framework was originally passed by the Village's Board of Trustees in May 2010 with the intent to follow with annual updates. The attached update for 2011 has been drafted by Staff and reviewed by the Environmental Concerns Committee. The Sustainability Framework declares a policy of environmental sustainability for the Village's programs, facilities and operations and it recognizes accomplishments, measures against goals, and plans future actions. A notable revision is the new section regarding food.

Staff and the Environmental Concerns Committee recommend that the Board of Trustees approve the 2011 Update of the Sustainability Framework.

CG/DG:dg H:\PW\Environmental\Sustainability Framework\BOT Memo - 2011 Update.doc
attachment



Sustainability Framework

"Our shared vision for Lombard is a community of excellence exemplified by its government working together with residents and businesses to create a distinctive sense of spirit and an outstanding quality of life."



The purpose of this Sustainability Framework is to declare policy of environmental sustainability and to comprehensively view the environmental goals and programs in the Village of Lombard. This framework was originally adopted by the Board of Trustees on May 6, 2010.

Dividing the environment into components provides a framework for viewing existing programs and the opportunities for future actions. The components necessarily overlap - actions undertaken in one also affects others.

Components:

Air, Greenhouse Gasses, Water, Transportation, Land Use, Waste Diversion, Food & Energy Use

Timeline of Major Sustainable Actions/Programs:

Longstanding

Recycling Extravaganza

Lombard Pride Day and Trails Cleanup

Recycling Education Grant Program

2007

Numerous clean air actions started (no/low VOC materials, anti-idling policy, fleet changes, public education campaign)

2008

Rain Barrel Reimbursement Grant Program

River Sweep

Earth Hour observed

2009

US Mayors Climate Protection Agreement

Compost Bin Reimbursement Grant Program

Sustainable Energy Plan created

De-icing practices for low salt use

Added 36 bike parking spaces downtown

2010

Village Board passes Sustainability Framework

Green Building Handbook

Streetlight Policy changed to include LEDs

Stormwater filters installed

Walk to School Day

CUB Energy Saver Program

2011

Churchill Woods Dam removed

Refuse contract changed to allow smaller totes

Major New Action Items for 2011-2012:

Electric vehicle charging station

Create a Climate Action Plan

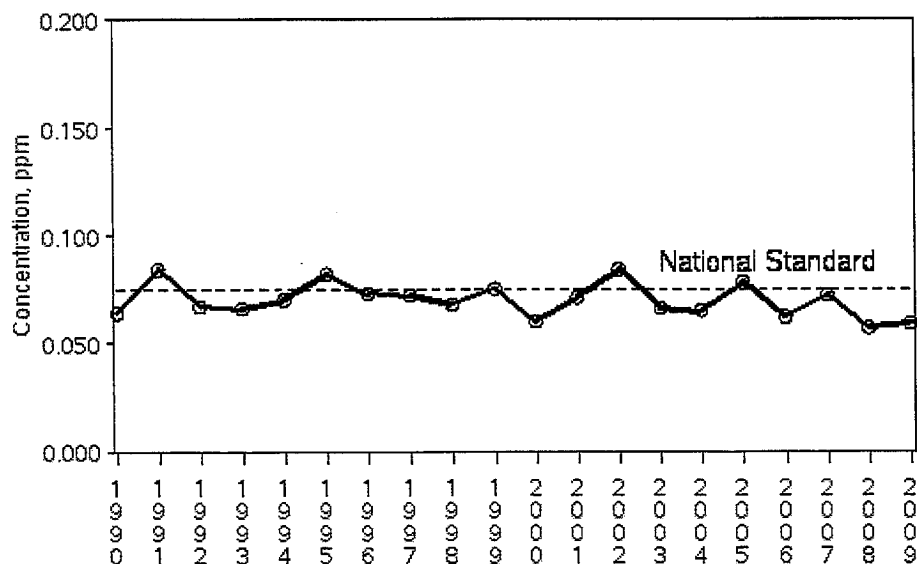
Air



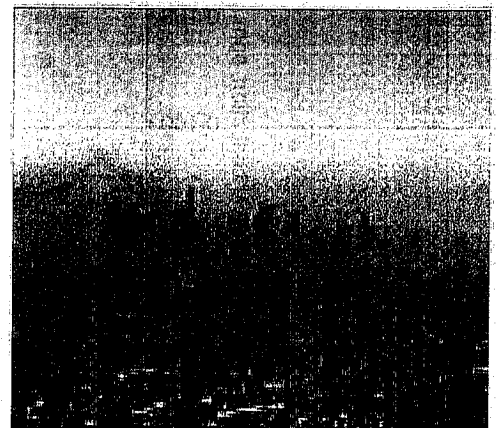
Issue: The Chicago metro region suffers from ground-level ozone, also known as smog.

Goal: To prevent ozone-action days by reducing nitrogen oxides (NO_x), volatile organic compounds (VOC) and particulate matter.

Ozone Air Quality, 1990 - 2009
(Based on Annual 4th Maximum 8-Hour Average)
Chicago, IL
SITE=170436001 POC=1



Actions Accomplished and Continuing: The Village is active in Clean Air Counts, a program through the Chicagoland Metropolitan Mayors Caucus. The Village obtained the bronze level in 2007 based on monthly clean air information on TV-6 and in the Pride resident newsletter, a gas can replacement program in 2007, using no- or low-VOC paints and an anti-idling policy for Village vehicles. The Village currently has 3 hybrid cars and has downsized vehicles as possible. This has increased the overall mpg by 15% since 2007. In addition, the Village installed anti-idling signs at all schools, railroad crossings and the Metra station as part of an anti-idling campaign with School District 44, and switched to green cleaning products at the Village Hall and Public Works facilities.



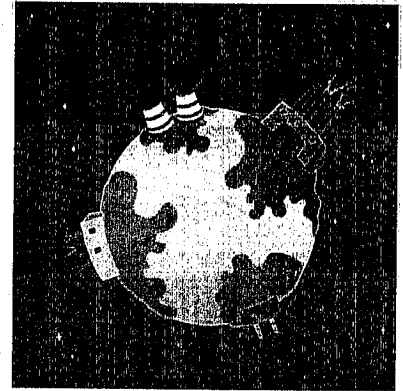
Lombard's Environmental Concerns Committee (ECC) had set a goal of obtaining the silver or gold award level by the end of 2010. The Village surpassed the silver requirements and is only one action (passing a regulation) short of gold. Therefore, application has been made to Clean Air Counts for a silver award. In addition, the Partners for Clean Air awarded one of three awards to Lombard to recognize our actions.

Actions to Pursue:* *The ECC is investigating ways to increase energy efficiency and reduce urban heat island effects.



***Make A
Difference***

Greenhouse Gases



Issue: Greenhouse gas emissions are causing a trend of global warming and resulting environmental consequences.

Goal: To reduce greenhouse gases, measured as the carbon footprint of the entire Village of Lombard (not just municipal facilities and operations), by 7% below 1990 levels by 2012.

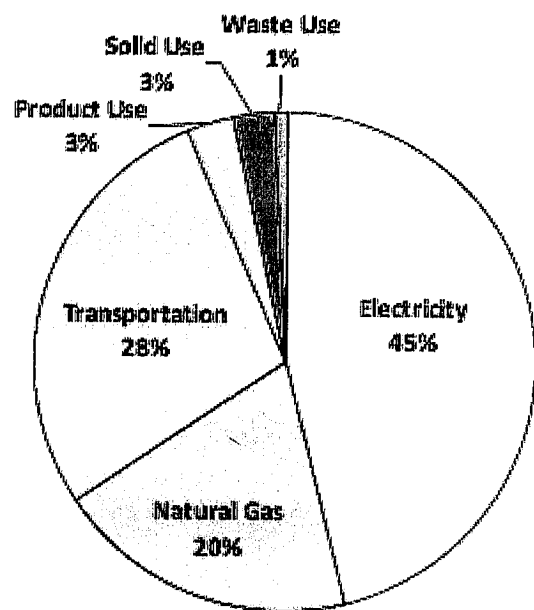
Greenhouse Gases: Carbon Dioxide occurs from burning and other chemical reactions and it is removed by plants. Methane occurs from the production and transport of fossil fuels and the decay of organic waste. Nitrous Oxide occurs from agricultural and industrial activities and burning. Fluorinated gases are from industrial processes.

An Energy and Emission Profile was completed for the Village by the Center for Neighborhood Technology (CNT) in 2009. The Profile quantifies the energy demands and emission sources by sector, which will be used to create targeted programs for reductions. As the carbon footprint was not indexed in 1990, 2005 values will be used instead as a benchmark. Values are expressed in MMT, million metric tons, of CO2e (carbon dioxide emissions):

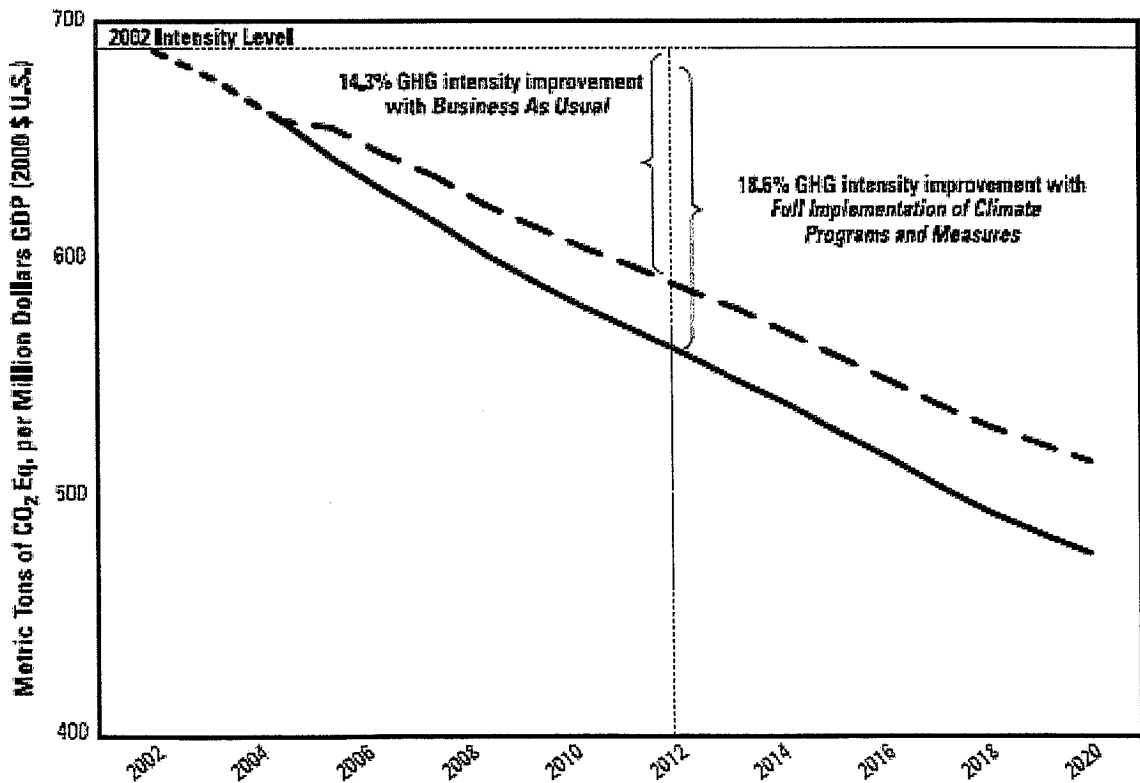
<u>SECTOR</u>	<u>MMT CO2e</u>	<u>% of TOTAL</u>
<i>Electricity</i>	<i>0.336</i>	<i>45</i>
<i>Natural Gas</i>	<i>0.143</i>	<i>20</i>
<i>Transportation</i>	<i>0.204</i>	<i>28</i>
<i>Product Use</i>	<i>0.023</i>	<i>3</i>
<i>Solid Waste</i>	<i>0.019</i>	<i>3</i>
<i>Waste Water</i>	<i>0.005</i>	<i>1</i>
<i>TOTAL</i>	<i>0.729</i>	<i>100</i>

Thus, the 7% reduction in CO₂e to achieve by 2012 is 0.051 MMT, which is almost 4,000 English tons. This is the equivalent to removing 9,750 passenger vehicles from the roads (5.23 MT CO₂e per vehicle), or 17,200 tons of recycling instead of landfilling (2.97 MT/ton recycled), or 7,100 kWh of electrical use (7.18 x10⁻⁴ MT/kWh).

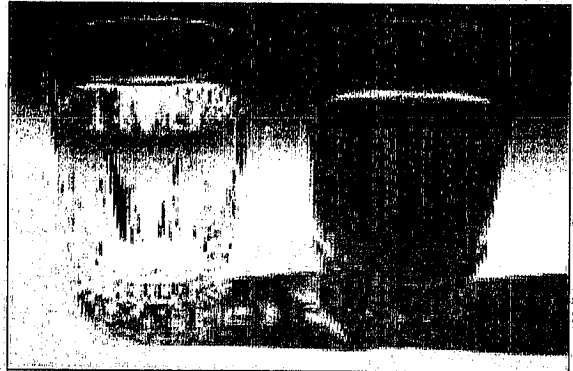
Actions Accomplished: In 2009, the Village Board endorsed and the Village President subsequently signed the US Mayors Climate Protection Agreement. At the same time, the Village joined the Cool Cities Program. Many of the actions in the Air, Waste and Energy Use chapters also pertain to Greenhouse Gases.



Actions to Pursue: The Environmental Concerns Committee will oversee the creation of a climate action plan that will include annual reports to track progress on meeting the goals of that plan.



Water



Issue: Clean and abundant water preserves the health and economic vitality of our community.

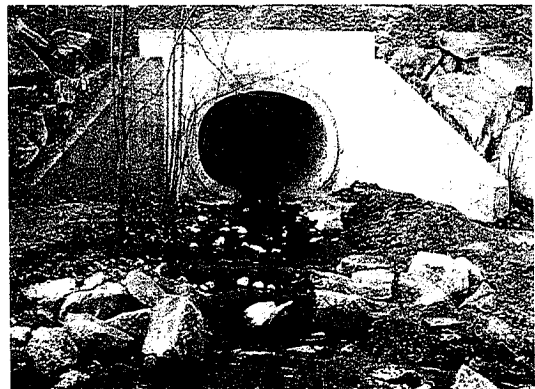
Goal: To use our available Lake Michigan water volume wisely and to prevent pollution in our stormwater runoff, groundwater and rivers.

Actions Accomplished and Continuing:

Regarding water conservation measures, the Village started a first-of-its-kind rain barrel reimbursement program in 2008 for over 200 homes to date. The Village has also signed the DuPage Water Commission's pledge and mailed brochures to high-use customers to promote water conservation and residential education.

Regarding stormwater runoff, the Village administers the stringent requirements of the DuPage Countywide Stormwater and Floodplain Ordinance and incorporates Best Management Practices in its operations and the permitting of private projects. Two stormwater filters were installed in 2010 to remove suspended particles, oils & grease from the municipal yard.

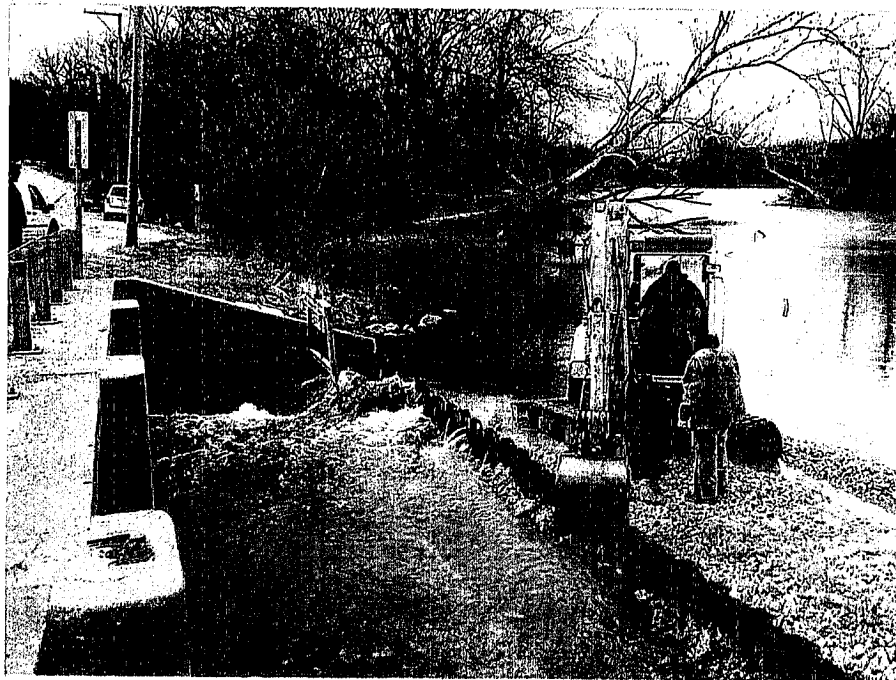
The Village supports the DuPage River Salt Creek Workgroup to achieve Total Maximum Daily Loads goals set by the IEPA. Low oxygen levels, suspended solids and chlorides are targeted. The Workgroup successfully facilitated the removal of the Churchill Woods dam in 2011 to eliminate the single worst water quality impairment on the river.



Also, a river sweep each Spring removes debris from the East Branch of the DuPage River. The Village has “pre-wet” streets since 2009 as a preventative measure against icing and to reduce salt use and runoff into waterways.



Actions to Pursue:* *The Village will continue the existing activities and will incorporate BMP's in future private development and capital projects.



Transportation



Issue: Transportation options are essential to get students to school, workers to jobs, shoppers to stores, and disabled citizens to services. Transportation is a major influence on our land use, air quality, energy consumption and time management.

Goal: To provide a variety of transportation options for the people and businesses to balance needs and costs in an effective and efficient manner while limiting environmental impacts.

Actions Accomplished and Continuing: The Village maintains an aggressive Capital Improvement Plan for safe roadways, sidewalks and bike paths.

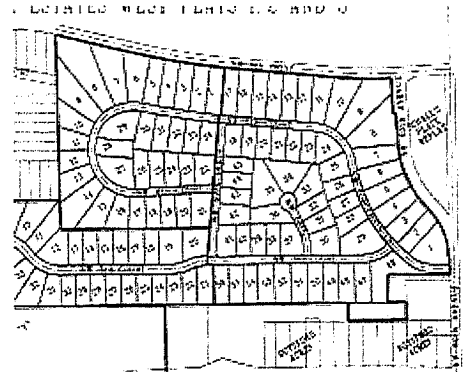
The Village Board has approved the creation of a bicycle route that will connect schools, parks and commercial areas. The signs for the route will be placed after certain improvements for bicycles have been completed. Additional bicycle parking at the train station was installed in 2009.



New sidewalks were installed in 2010 on the 1300 S. Block of Finley Road and the 1100 S. Block of Westmore-Meyers Road. In addition, the Village partners with School Districts 44 and 45 for the annual Walk to School Day. The Village is also part of a new coalition known as Healthy Lombard, which aims to increase physical activities.



Land Use



Issue: *Wise and intentional land use planning facilitates society's needs while preserving and even enhancing the environment.*

Goal: *Facilitate good environmental stewardship through the Village's Comprehensive Plan and building, planning and zoning codes.*

Actions Accomplished and Continuing: *The Village staff, Plan Commission and Zoning Board of Appeals work to achieve the Board of Trustees' policies that are encapsulated in the zoning map and Code Book of Ordinances. These documents are periodically reviewed and updated to account for new technologies and policies.*

The Village is a recipient of the Growth Award from Tree City USA with nearly 18,000 parkway trees worth \$40M. A challenge facing the Village is the Emerald Ash Borer. The Village developed a no-fee permit program that the State of Illinois forestry office has promoted as a model ordinance to monitor for this pest in private trees and to manage the proper removal and disposal of infested trees.

The Village created a Green Building Handbook in 2010 to explain the 2009 International Energy Conservation Code and the economic benefits of sustainable building materials, technologies and practices.

The Village Code allows native landscaping, which reduces stormwater, emissions, and pesticide/fertilizer runoff.



TREE CITY USA[®]
National
Arbor Day
Foundation

Actions to Pursue: Pesticide and fertilizer-free techniques for maintaining open spaces should be explored and used where feasible.

Will pursue a buckthorn removal project, pending County permission, on the Illinois Prairie Path and Great Western Trail as part of the 2012 Pride Day cleanup.

The Environmental Concerns Committee is considering ways to increase the use of light colored or reflective roofing materials to decrease roofs' effect on our urban heat island, which will result in greater comfort, longer-lasting roofs and less energy use.



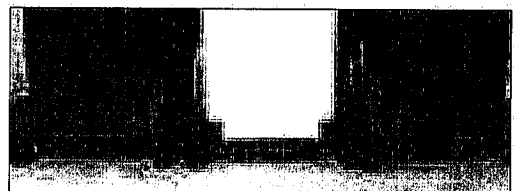
Waste Diversion



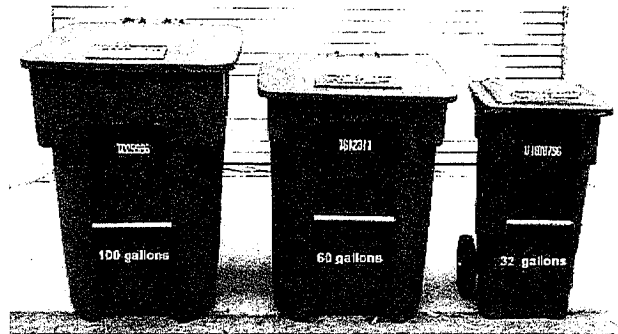
Issue: Waste hauling requires labor and fuel intensive trucking as well as increasingly more distant and expensive landfill space.

Goal: Decrease the volume of refuse and yard waste removed from properties.

Actions Accomplished and Continuing: The Village's recycling rate has been 30% of the curbside weight for the past five years. This ranks well with other municipalities due in large part to the structure of the refuse & recycling contract. The contract allows comingling of an unlimited quantity and wide variety of recyclables.

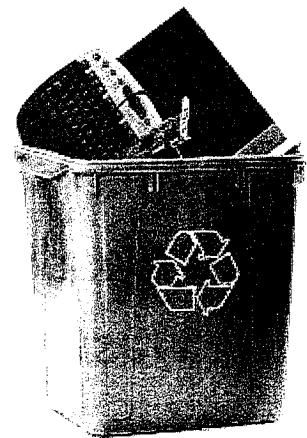


***Yorktown Mall
increased its recycling
in 2010 after meeting
with the Village and
Waste Management.***

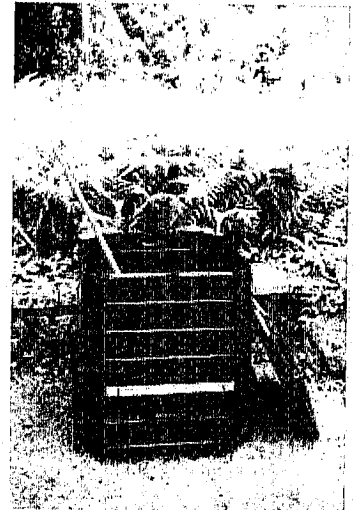


A new program began in 2011 to provide free weekly recycling service for a 96-gal toter for every business. Also, a new contract provision now allows all residents to obtain a 35-gal toter in lieu of the standard 64-gal toter.

The Village's annual Recycling Extravaganza collects 60 tons of electronics, 3.5 tons of metal, 100 bicycles, 500 pairs of shoes, 170 car batteries and flags, hearing aids, glasses, garden pots, crutches and wheelchairs.



The Village implemented a unique compost bin reimbursement program for biodegradable food scraps in 2009. The program has funded over 60 compost bins since 2009.



Approximately \$13,000 in recycling education grants are issued each year by the Village to local schools to raise an environmentally aware and involved next generation.

Actions to Pursue: *An application was filed in 2010 for the State of Illinois to host and fund a Household Hazardous Waste event in Lombard.*



Food



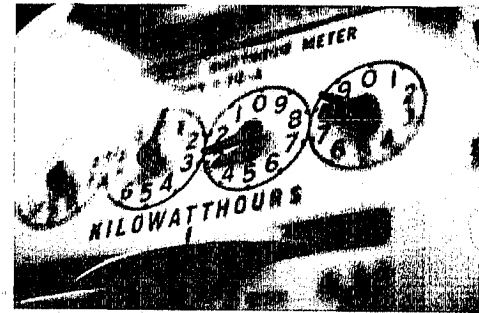
Issue: *Locally grown and distributed food can be more nutritious and requires less energy to transport and store than long-distance sources.*

Goal: *To increase the production and availability of locally grown food.*

Actions Accomplished and Continuing: *The Lombard Park District has a community garden and the French Markets in the downtown and at Yorktown Mall enables residents to obtain and support locally grown food.*

Actions to Pursue: *Additional efforts to promote home gardening could be pursued, possibly with the Park District, U of I Extension and the Lombard Gardening Club.*

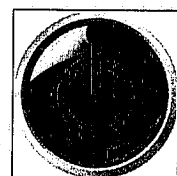
Energy Use



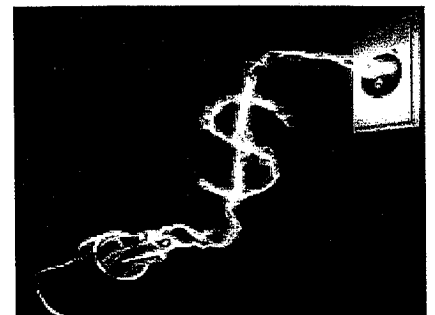
Issue: Reducing the Village's energy use would lower costs for all of the Village's residents and businesses as well the Village's carbon footprint for greenhouse gas emissions.

Goal: To reduce electricity and natural gas consumption for all Village facilities and operations to the maximum extent practicable and evaluate the improvements.

Actions Accomplished and Continuing: The Village contracted for a Sustainable Energy Plan in 2009. That Plan is only summarized here but it is available from the Village's Public Works Department.



The Energy Sustainability Plan focused on the Village Hall but the following recommendations were also extrapolated to include the other facilities: establish an energy mandate, benchmark against comparable communities, conduct energy audits of all facilities, identify one Energy Coordinator & an Energy Implementation Team, create energy conservation reward/recognition programs, include energy use in operating procedures, reduce facility energy use during off hours, fully implement preventative/predictive maintenance, install motion sensors, replace remaining metal halide and halogen bulbs, reduce hallway & wall lighting, replace the HVAC automation and evaluate progress & update goals annually.



These actions for the Village Hall would cost approximately \$95,000, have an average payback period of 0.7 years, and would reduce the carbon footprint by 679 metric tons, or 55% of the baseline tonnage for the Village Hall.

The Village revised its Street Lighting Policy in 2010 to include LED streetlights. LED lights were then used to replace 119 high pressure sodium lights as well as on 42 new light poles on Main Street. LED lights use only 10% of the electricity needed for high pressure sodium bulbs. The Village also installs LED traffic signals as those units are replaced.

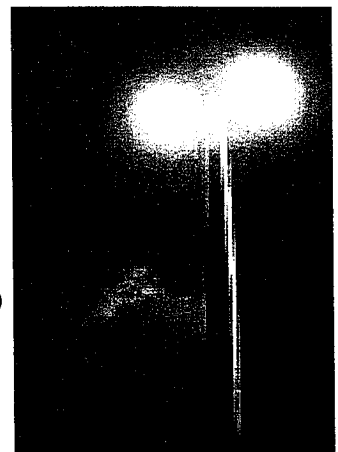
The Village provides monthly energy tips for homeowners through TV-6 and a column in the resident newsletter.



The Village partnered with the Citizen's Utility Board in 2010 to promote their Energy Saver Plan. The program has 156 Lombard members.

The Village began a LED and luminescent "Exit" sign replacement program in 2010 that saves participating businesses money in 11 months.

Actions to Pursue: Besides switching Village lights to LED, there is opportunity for energy reductions on commercial properties. The Village's Zoning Code allows businesses to lower parking lot lighting levels when closed to general use. An education campaign could reduce energy use as well as light pollution by making business managers realize that they will save money by timing their lights to coincide with their business hours.



For more information, contact:

***Village of Lombard
Department of Public Works
255 E. Wilson Avenue
Lombard, IL 60148***

Phone: (630) 620-5740

E-Mail: publicworks@villageoflombard.org

Website: www.villageoflombard.org

