#090764
DISTRICT ALL

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: April 28, 2010 (COW) (B of T) **Date:** May 6, 2010

TITLE: Sustainability Framework

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 Sustainability Framework and declare environmental sustainability as a policy directive for municipal facilities and operations.

FISCAL IMPACT/FUNDING SOURCE:

$0.00

Review (as necessary):
Village Attorney X_____Date_____
Finance Director X_____Date_____
Village Manager X_____Date_____

NOTE: All materials must be submitted to and approved by the Village Manager's Office by 12:00 noon, Wednesday, prior to the Agenda Distribution.

MEMORANDUM

TO: David A. Hulseberg, Village Manager

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

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

SUBJECT: **Sustainability Framework**

DATE: April 28, 2010

The Environmental Concerns Committee recommends the attached Sustainability Framework for approval by the Board of Trustees. The purpose of the Framework is to declare that environmental sustainability is a desired objective for the Village and to target and track environmental actions that will enable Lombard to be a sustainable community. The document had been called a "Plan" during its creation but the Committee prefers the final version to be known as a "Framework".

Plan Development:

Although the Village has been active and a recognized leader in various programs as mentioned in the Framework, there has been a lack of a comprehensive view of our efforts. The Framework will be a "living document" that will keep our goals and accomplishments in focus.

The Framework was developed by Staff. Numerous plans from other communities were reviewed for content and format. Staff intends to update the Framework annually with the Committee. Any new programs or actions involving changes in policy or funding will continue to go to the Board of Trustees for approval. The Framework, as drafted, contains only programs previously approved by the Board.

The Framework includes the following components:

- Air (ground-level ozone, a.k.a. "smog")
- Greenhouse Gasses (global warming, including the "Energy and Emissions Profile")
- Water (stormwater water quality and potable water conservation)
- Transportation (Metra facilities, bike & pedestrian facilities, bus routes and traffic movement)
- Land-Use Policies (building & zoning codes, open spaces maintenance and tree planting)
- Waste Diversion (recycling, composting and waste reduction)
- Energy Use (conservation for buildings and operations, including the "Energy Sustainability Plan")

Upon approval by the Village Board, the Committee will engage with other organizations. In particular, the schools and the Park District are identified as primary stakeholders and the library, utility companies, civic groups and major businesses are identified as secondary stakeholders.

Recommendation:

The Environmental Concerns Committee and Staff recommend that the Board of Trustees approve the Sustainability Framework with the understanding that it will be a policy directive to all departments to pursue sustainable facilities and operations.

attachment: Sustainability Framework

CG/DG:dg H:\PW\Environmental\Sustainability Plan\BOT Memo.doc

April 2010

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."

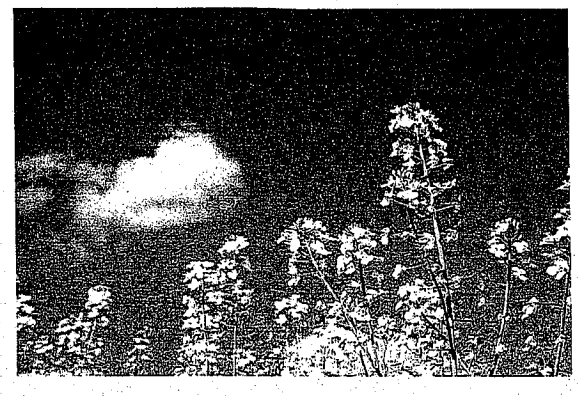
The purpose of this Sustainability Framework is to declare policy of environmental sustainability and to comprehensively view the environmental goals and programs of the Village of Lombard. This framework was originally adopted by the Board of Trustees on _____, 2010.

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.

<u>Components:</u>

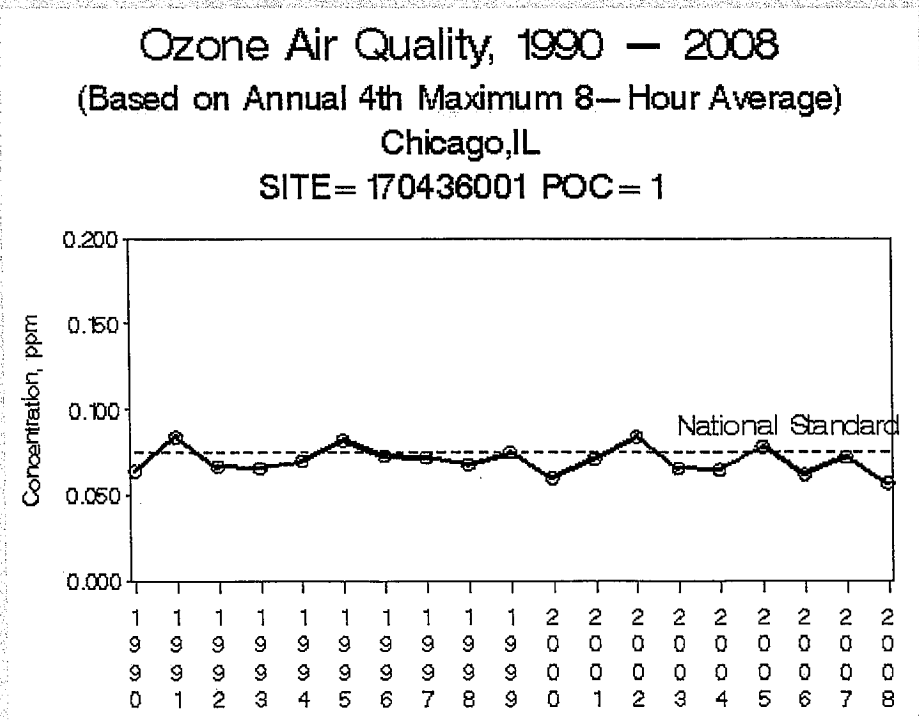
Air, Greenhouse Gasses, Water, Transportation, Land Use, Waste Diversion, & Energy Use

Air

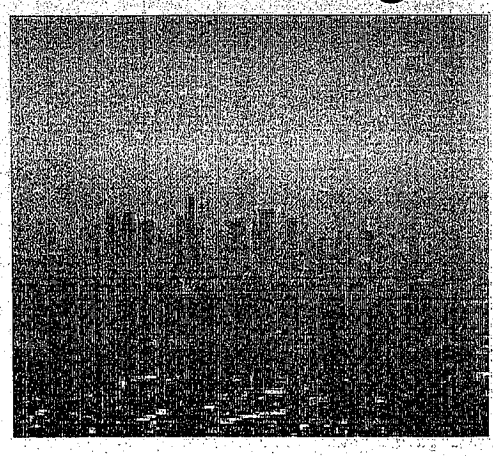


***Issue**: The Chicago metro region suffers from ground-level ozone, also known as smog.*

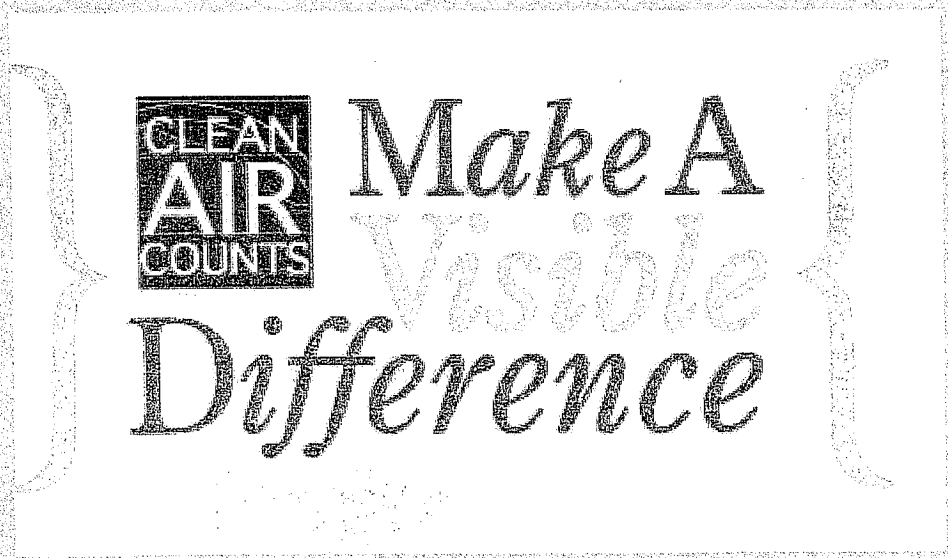
***Goal**: To prevent ozone-action days by reducing nitrogen oxides (NOx), volatile organic compounds (VOC) and particulate matter.*



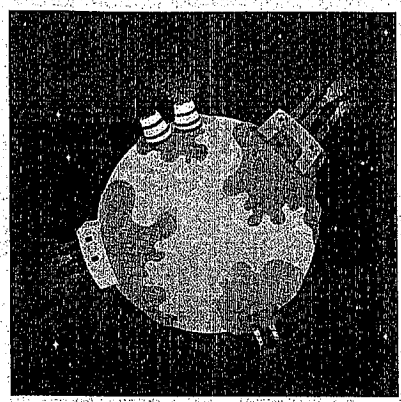
Actions Accomplished and Continuing: *The Village has joined Clean Air Counts, a program through the Chicagoland Metropolitan Mayors Caucus. The Village obtained the bronze level award in 2007 based on monthly clean air information on TV-6 and in the Pride resident newsletter, a gas can replacement program at the 2007 Recycling Extravaganza, using no– or low-VOC paints and implementing an anti-idling policy for Village vehicles that has saved an average of 9% regular fuel and 14% diesel. In addition, the Village installed anti-idling signs at all schools and railroad crossings as well as at the rail commuting station, held an anti-idling public campaign with School District 44, and switched to green cleaning products at the Village Hall and Public Works facilities.*



<u>Actions to Pursue</u>: The Village's Environmental Concerns Committee has set a goal of obtaining the silver or gold award level by the end of 2010. This entails maintaining current actions as well as instituting regulatory requirements for energy efficiency or urban heat island reduction.



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.*

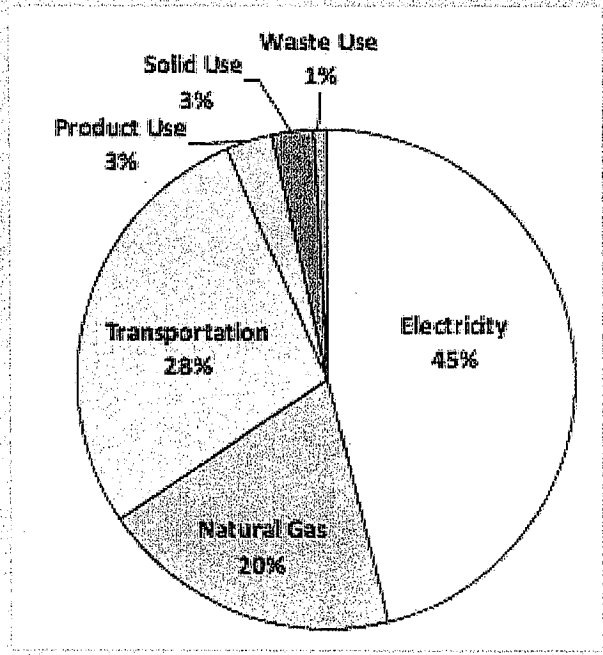
Greenhouse Gases: *Carbon Dioxide occurs from burning and other chemical reactions and it is removed by plants. Methane occurs from the production and transport of fossil fuels and the decay of organic waste. Nitrous Oxide occurs from agricultural and industrial activities and burning. Fluorinated gases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

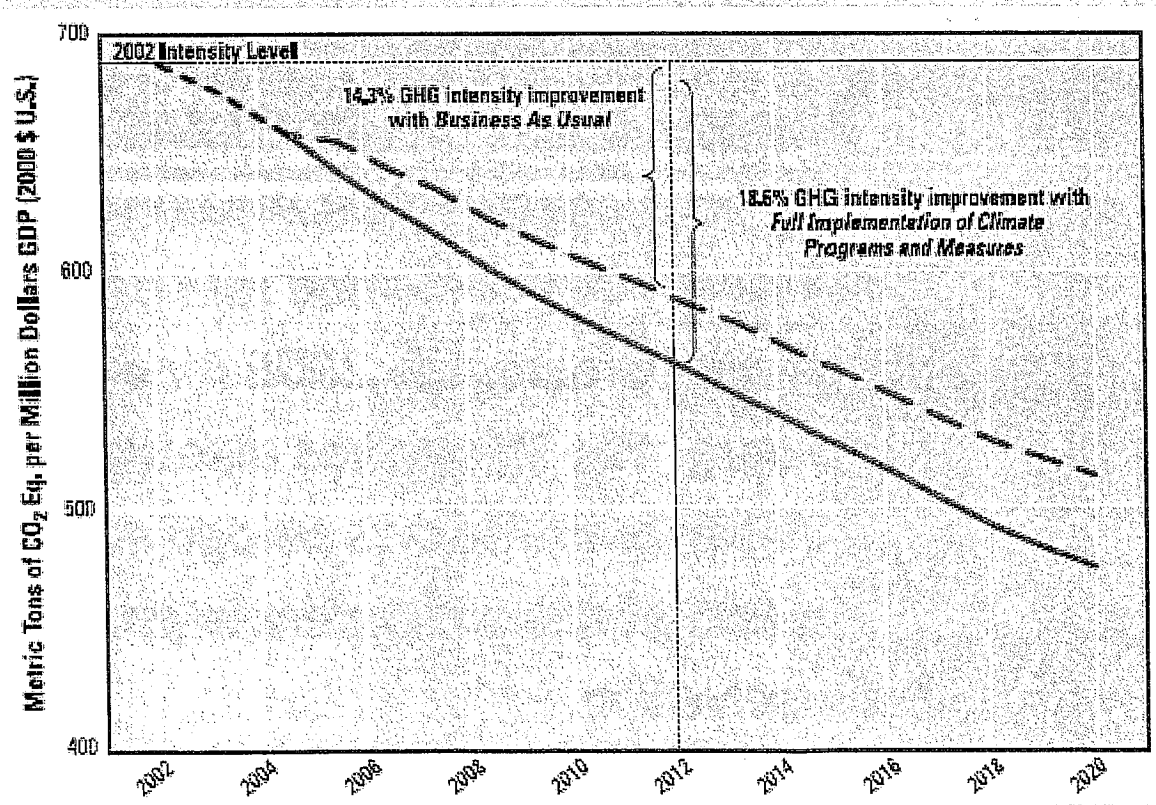
SECTOR	MMT CO2e	% of TOTAL
Electricity	0.336	45
Natural Gas	0.143	20
Transportation	0.204	28
Product Use	0.023	3
Solid Waste	0.019	3
Waste Water	0.005	1
TOTAL	0.729	100

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).

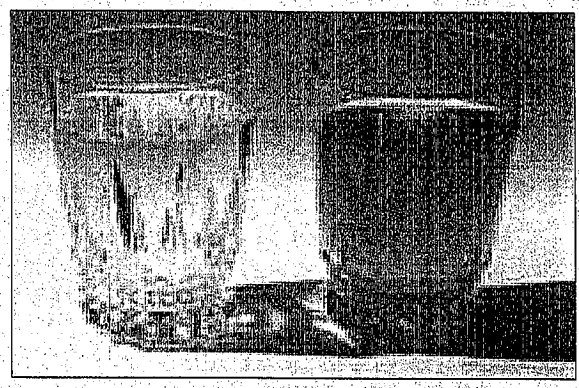
***Actions Accomplished**: In 2009, the Village Board endorsed and the Village President subsequently signed the US Mayors Climate Protection Agreement. At the same time, the Village joined the Cool Cities Program. The Village now has 3 hybrid cars and is enforcing a no-idling policy.*



<u>Actions to Pursue</u>: 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.*

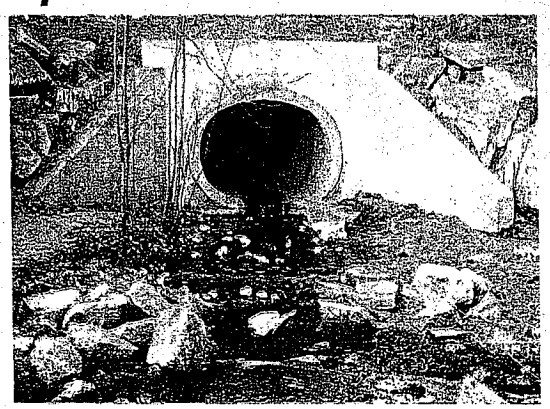
***Goal**: To use our available Lake Michigan water volume wisely and to prevent pollution in our stormwater runoff, groundwater and rivers.*

***Actions Accomplished and Continuing**:*

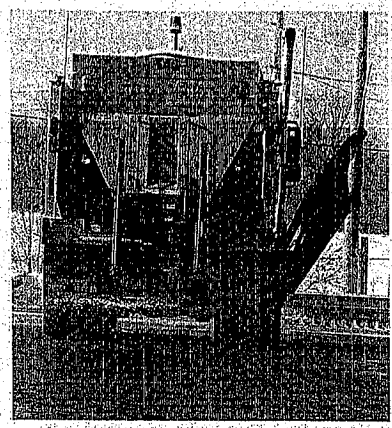
Regarding water conservation measures, the Village started a first-of-its-kind rain barrel reimbursement program in 2008 for over 200 homes to date. The Village has also signed the DuPage Water Commission's pledge and mailed brochures to high-use customers to promote water conservation.

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. A stormwater quality unit (cleansing chamber) will be installed in 2010 to remove suspended particles, oils & grease from the municipal yard.

The Village supports the DuPage River Salt Creek Workgroup to achieve the Total Maximum Daily Loads goals set by the IEPA. Low oxygen levels and high levels of suspended solids and chlorides are targeted. Also, a river sweep each Spring removes debris from the East Branch of the DuPage River.



The Village has begun to "pre-wet" streets in order to provide 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 seek to incorporate BMP's in its storm sewerage as capital projects proceed. A stormwater quality unit is currently being considered for placement on a major storm sewer main. The Village has strongly supported the initiative by the DuPage River Salt Creek Workgroup and DuPage County to remove the dam at the Churchill Woods Forest Preserve.*

Transportation

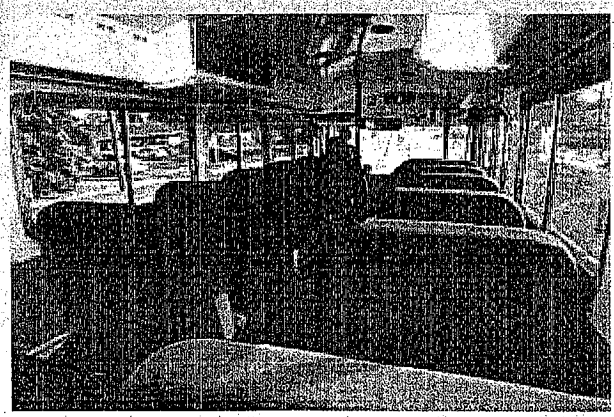
***Issue**: Transportation options are essential to get students to school, workers to jobs, shoppers to stores, and disabled citizens to services. Transportation is a major influence on our land use, air quality, energy consumption and time management .*

***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.*

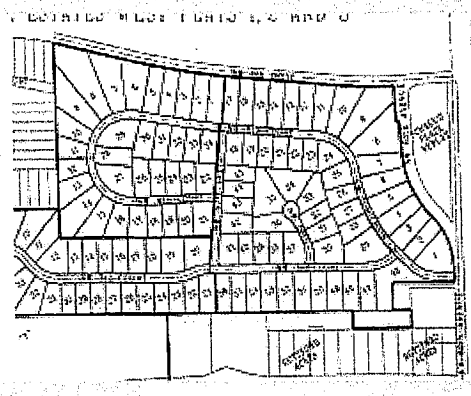
***Actions Accomplished and Continuing**: The Village maintains an aggressive Capital Improvement Plan for safe roadways, sidewalks and bike paths.*

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 is also planned for 2010.

The Village is working to implement a circulator bus system serving the train station and major employment places. The bus will accommodate commuters that are short of parking spaces, residents that are unable to drive, and tourists staying in the Village's many hotels.



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 proud member of Tree City USA with nearly 18,000 parkway trees. 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 adopted the 2009 International Energy Code in February 2010.

The Village Code allows native landscaping, which reduces stormwater, pesticide and fertilizer runoff as well as emissions from lawn mowing.

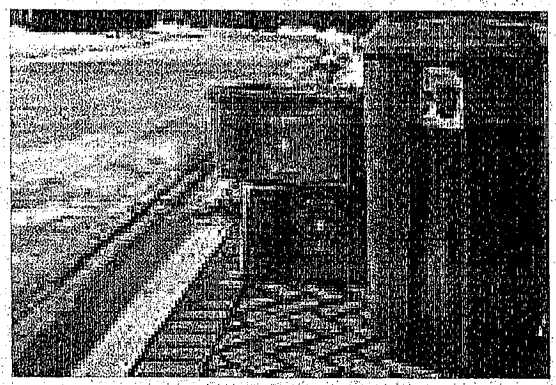
TREE CITY USA®
National Arbor Day Foundation

Actions to Pursue: *Village staff and the Board of Building Appeals are reviewing energy and "green" building codes for possible adoption in order to allow new and proven materials, technologies and methods.*

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.

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

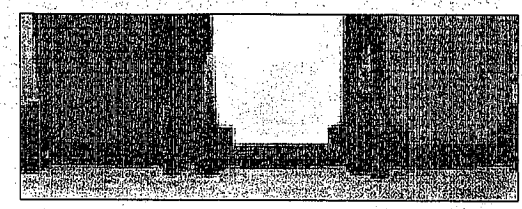
Waste Diversion



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.*

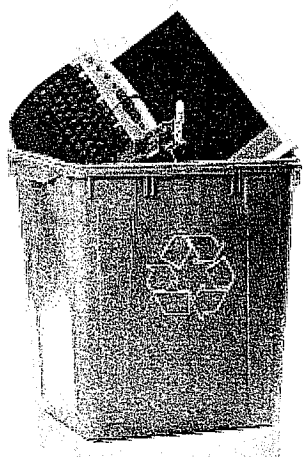
Actions Accomplished and Continuing: *The Village's recycling rate has been 30% of the curbside weight for the past five years. This ranks well with other municipalities due in large part to the structure of the refuse & recycling contract. The contract allows comingling of an unlimited quantity and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



The contract currently provides a uniform rate for collection of one 64-gal toter of refuse and one 64-gal toter of recyclables from residences.

The Village implemented a unique compost bin reimbursement program for biodegradable food scraps in 2009. The program will fund approximately 65 compost bins annually.

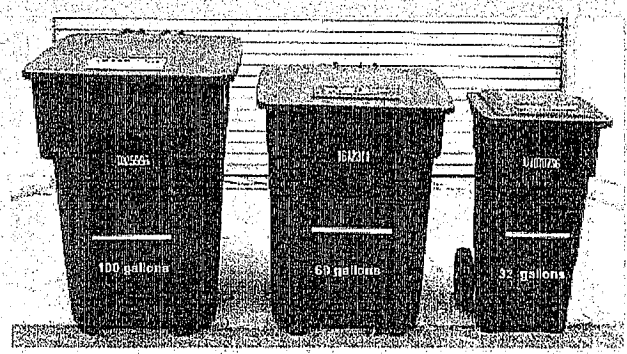
The Village's annual Recycling Extravaganza collects 60 tons of electronics, 3.5 tons of metal, 100 bicycles, 500 pairs of shoes, 170 car batteries and flags, hearing aids, glasses, garden pots, crutches and wheelchairs.



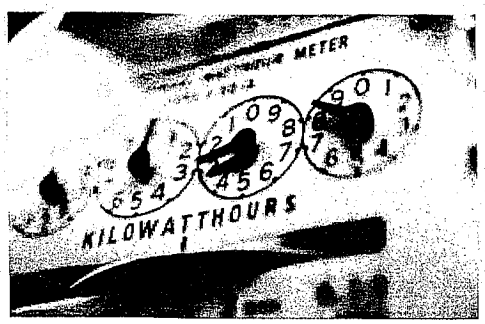
Approximately $12,000 in recycling education grants are issued each year by the Village to local schools to raise an environmentally aware and involved next generation.

<u>Actions to Pursue</u>: *The Environmental Concerns Committee is considering revisions for the next contract period that would provide a financial incentive for residents to reduce refuse volume, more toward a "pay-as-you-throw" system.*

An application has been filed through the County to the State of Illinois to host and fund a Household Hazardous Waste event in Lombard.



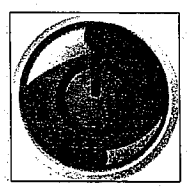
Energy Use



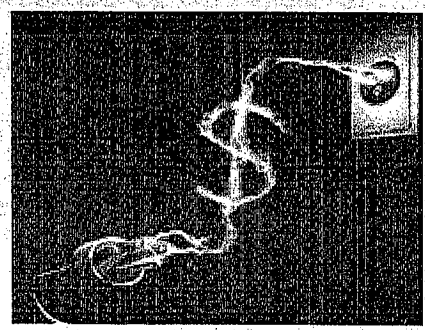
***Issue**: Reducing the Village's energy use would lower costs for all of the Village's residents and businesses as well the Village's carbon footprint for greenhouse gas emissions.*

***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 in this Sustainability Framework so obtain a copy from the 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.

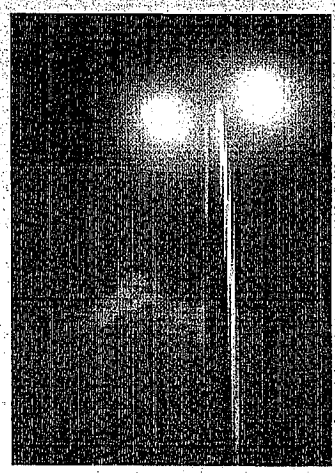


These actions for the Village Hall would cost approximately $95,000, have an average payback period of 0.7 years, and would reduce the carbon footprint by 679 metric tons, or 55% of the baseline tonnage for the Village Hall.

The Village will install its first LED streetlights in 2010. Besides using only 10% of the electricity needed for high pressure sodium bulbs, LED traffic lights can also be operated by battery backup for approximately 24 hours. 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.

Actions to Pursue: *Besides switching Village lights to LED, there is great opportunity for energy reductions on commercial properties. The Village's Zoning Code allows businesses to lower parking lot lighting levels at their discretion when closed to general use. Based on observed late night lighting levels, it is anticipated that 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

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Website: www.villageoflombard.org