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9/29/09

MEMORANDUM

TO: Environmental Concerns Committee

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

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

SUBJECT: **DWC Water Conservation Campaign**

DATE: September 18, 2009

The DuPage Water Commission (DWC) is asking all of its member communities to adopt the attached pledge and participate in a campaign to conserve water. The campaign's actions are voluntary and based on education.

The DWC has promoted Lombard in its recent newsletter as a good example with our rain barrel program and attached informational flyer, which has been included with a recent water bill mailing. We intend to use the Village website, TV-6 and Pride newsletter for this education effort. The DWC has also donated a rain barrel that will be part of a traveling display (including a faux house wall, gutter and downspout) for display at community events. Staff intends to request approximately \$2,000 for FY2010 to purchase rain gauges, toilet dye tablets and pamphlets.

Staff requests that ECC provide a recommendation regarding the pledge to the Board of Trustees.

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cc: Angela Podesta, Utilities Superintendent

attachments: utility pledge, resident pledge, flyer and brochure



UTILITY PLEDGE

DuPage water Commission Water Conservation and Protection Program

Utility Contact Information

Utility:	Village of Lombard
Address:	255 E. Wilson Avenue
	Lombard, IL 60148
Conservation Contact:	Angela Podesta
Title:	Utilities Superintendent
Phone Number:	630-620-5740
E-mail:	podestaa@villageoflombard.org

A. Water Loss Reduction

The following section should be used to indicate the Best Management Practices (BMPs) that your utility pledges to implement as part of its program to control water loss. A full list of BMP's is provided in Attachment A. Please check the BMP's that your utility currently has in place and any additional BMP's that will be incorporated as part of this pledge. BMP's not listed in Attachment A can be listed below.

Additional BMP's:



B. Water Conservation Education Programs

The following education programs have been developed as part of the WCAPP. Conservation kits and resources will be provided to member utilities for each program. Please indicate which actions you can commit to in support of the DWC education programs.

- Distribute *Toilet Leak Detection and Repair* kits and promote program.
- Distribute *Rain Gauge and Landscape Irrigation* kits and promote program.
- Distribute *Residential Water Pledge* and promote program.
- Coordinate placement of *Rain Barrels* in community buildings and promote availability of rain barrel purchase program.
 - Coordinate a community wide rain barrel purchase program

Please describe how you plan to distribute the conservation kits and how the program will be promoted.

The Village Water Billing currently offers toilet leak detection kits to residents with high water bills and will now add them to the new resident packets and make them available at the Water Billing Counter.

The Village will purchase and distribute rain gauges as the budget allows.

The Village will promote the Residential Water Pledge on its website and make the informational brochures available in Village buildings and on the website.

The Village will continue it's Rain Barrel Grant program.

C. DWC recognizes that many utilities are already implementing water conservation practices into their current utility management efforts. Please list any additional water conservation activities or programs that are already being practiced in your community.

Rain Barrel Grant Program – residents are reimbursed up to \$80 per barrel for two barrels

Water Billing included a flyer on water conservation with Summer, 2009 water bill. Flyer is available on the Village's website. Hands out toilet leak kits.

Public Works includes water conservation information in the annual Consumer Confidence Report and on the Village's website.



ATTACHMENT A – BMPs

BMP's to Reduce Water Loss

Methods for controlling real losses

Active Leakage Control

- Conduct Leakage surveys - regular inspection and sounding of water main fittings and connections
- Meter of individual pressure zones
- Meter with District Metered Areas (DMA's) – measuring total inflow per day, week or month
- Perform continuous or intermittent night-flow measurements
- Perform short-period measurements at any time of day
- Place temporary or permanent leak noise detectors and loggers
- Apply innovative leakage modeling methods – the bursts and background estimates (BABE) model (Lambert & Morrison, 1996)

Pressure Management

- Control pressure close to but greater than the minimum standard of service
- Operate discrete pressure zones configured based on topography
- Limit maximum pressure levels or surges in pressure
- Reduce nighttime pressure where feasible to minimize losses from small background leaks
- Perform pressure modeling using internationally applicable concepts such as the fixed and variable area discharge (FAVAD) paths model (Lambert, 2001b; May, 1994)

Distribution Materials Management

- Perform appropriate selection, installation, maintenance, rehabilitation, and replacement of distribution mains
- Repair leaks in distribution main
- Tighten valves
- Repair leaks at pump station facilities



Utility Management Practices

- Limit water waste during tank cleaning and repair
- Limit water waste in the water quality laboratory
- Capture/reuse water from hydrant flushing
- Control water loss through prompt repair of main breaks

Methods for controlling apparent losses

Policy and Enforcement

- Police unauthorized usage and impose penalties

Customer Meter Management

- Provide reliable selection, installation, testing, and rotation of customer meters
- Establish procedures for annual testing and calibration of meters for large users

Water Accounting Controls

- Work with customer service and financial/billing department to verify accuracy of billing system and accounting
- Ensure that all users are monitored and billed
- Add per capita calculator on water bills and track past and average usage
- Set system billing to look for spikes or non-typical usage
- Meet with top users a few times per year to evaluate/identify areas for improvement in conservation



Water Conservation Pledge

Did you know there is as much water in the world today as there was thousands of years ago?

Actually it is the same water. Only 3% of the earth's water is fresh and less than one third of 1% of this fresh water is available for human use. The remainder of the world's fresh water is frozen in glaciers or polar ice caps or deep within the earth.

Citizens and businesses in DuPage County get their water from either Lake Michigan or from aquifers. The Great Lakes are the largest system of fresh, surface water on earth, containing roughly 18% of the world fresh water supply. Communities not served by Lake Michigan obtain their water from aquifers which are being pumped so quickly that the water is being depleted faster than it can be replenished by rainfall. Both these sources of water are part of a bigger global water cycle and neither are unlimited supplies.

Water is a basic building block of life and as water users it is our responsibility to preserve the supply to meet the needs of both current and future DuPage County citizens. Conserving water is easier than you would think. By making simple changes in your daily life you can help save water, save energy and even save money.

Join DuPage County residents by making a water conservation pledge today.

In DuPage County, the average person uses 106 gallons of water each day¹ as compared with the national average of 100 gallons per person per day. Approximately 69% of this water is used inside the home for daily tasks².

Do you know how much water we use for daily tasks? Complete the Water Quiz to see how much water you use. Identify ways you can reduce your use today. Check out the Indoor and Outdoor Water Use Pamphlets for ideas on how to reduce your use.

¹ Summary of data from DWC and Illinois Department of Natural Resources .Data does not include unaccounted for flow values for Argonne or IAWC.

² Vickers, Amy. "Handbook of Water Use and Conservation" WaterPlow Press, 2001. Data based on average indoor use in a non-conserving home – 69.3 gallons per capita per day.



Taking the pledge is simple:

- 1. Discuss with your family the changes you are willing to make.*
- 2. Check the boxes next to the activities you choose.*
- 3. Submit the form via mail or online with your completed information.*

*For more information visit
www.villageoflombard.org
www.preservingeverydrop.com*

I pledge to Preserve Every Drop!

Water is a precious and valuable resource and is not mine to waste. I pledge to conserve water by:

In the Bathroom

- Decreasing my shower by two minutes.
- Turning off the faucet while washing my hands or face, brushing my teeth, and shaving.
- Repairing leaky toilets.

In the Kitchen

- Not running the tap continuously while washing dishes or produce.
- Running the dishwasher only on a full load and using the shortest cycle.
- Keeping a chilled pitcher of water in the fridge.

In the Laundry Room

- Running the washing machine only on a full load.
- Washing clothing less frequently.

Outside

- Watering the lawn early in the day to minimize evaporation.
- Using a rain gauge to avoid unnecessary watering after precipitation.
- Avoiding overwatering and watering the pavement if using a sprinkler.
- Using a broom instead of a hose to clean my driveway.
- Installing a rain barrel to capture rain water and reusing it for hand watering

Generally

- Turning off taps tightly to avoid drips.
- Installing low-flow aerators on all faucets.

Name: _____

Community: _____

Address: _____

E-mail: _____

Send completed forms to: Village of Lombard Public Works
255 E. Wilson Ave., Lombard, IL 60148
Fax: (630) 620-5982

WAT - ER U DOIN' 2 CONSERVE?

SAVE...

3 Gallons per day

Turn off the water when you brush your teeth.

5 Gallons per day

Shorten your showers by one or two minutes

20 Gallons per day

Fix leaky faucets.

15-50 Gallons per day

Wash only full loads of laundry.



25 Gallons per day

Water your yard only before 8 a.m. to reduce evaporation and interference from wind.

*If everyone does a little, we all benefit a lot!
It's all up to YOU*

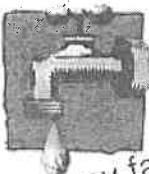
Use your Water Meter to check for hidden water leaks!

Read the inside water meter before and after a two-hour period when NO water is being used. If the meter does not read exactly the same, there is a leak! Finding the culprit is as easy as 1-2-3...



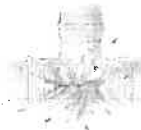
Wally the Water Meter

(1)



Change drippy faucets.

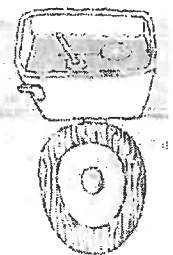
(2)



Check for cracked pipes

(3)

Put a little food coloring in toilet tank. If, without flushing, the color begins to appear in bowl within 30 minutes, you have a leak that should be repaired immediately.






Ways to Save \$\$\$ and Conserve!



Brought to you by:
Village of Lombard Utility Billing

- Lombard's combined water and sewer rate is currently \$8.61 per 1,000 gallons (effective 6/1/09)
- National average indoor residential water usage is 60-70 gallons per day, per person

 Current Way...	Better idea...	Best idea...
 A standard (pre-1980) toilet uses:	4.5-7.0 gallons per flush	
A 1980's Vintage toilets (1980-1992) uses:	3.5 gallons per flush	
A low-consumption toilet uses:		1.6 gallons per flush (or less)
 An average faucet uses:	0.5-5 gallons per minute	
Faucet aerators reduce flow by:		1 gallon per minute
 Standard showerheads use:	4-7 gallons per minute	
Low-flow showerheads use:		2.5 gallons per minutes (or less)
 A standard domestic washing machine uses:	45-55 gallons per load	
Water -efficient washing machines use:		20-25 gallons per load
 Washing dishes by hand uses:	Average of 20 gallons	
An automatic dishwasher uses:		5-15 gallons per load

(Automatic dishwashers and clothes washers should be fully loaded for optimum water conservation.)