

# DuPage Water Commission



## Environmental Accomplishments

1/17/2019



DuPage Water Commission is *Preserving Every Drop*



# Information & Outreach

- ◆ Created Water Conservation and Protection Program (WCAPP) in 2008 to show DWC's commitment to stewardship and long-term planning and passed these initiatives on to our Utility Customers through information and resources
- ◆ Applied triple bottom line in the decision making process:
  - ◆ People
  - ◆ Planet
  - ◆ Profit

◆ 85% of DWC staff attended SCARCE Conservation Employee training



# Information & Outreach- Website

💧 Created [preservingeverydrop.org](http://preservingeverydrop.org) website that has resources and information on conserving water

💧 Made these information resources (pamphlets and activities) available to anyone through [preservingeverydrop.org](http://preservingeverydrop.org)



The screenshot shows the DuPage Water Commission website. The header includes the logo and the text "DUPAGE WATER COMMISSION". Below the header is a navigation menu with links for HOME, ABOUT US, MEETING INFORMATION, COMMISSION INFORMATION, WATER QUALITY, and CONSERVATION. The main content area features a banner for "WCAPP Conservation Programs" with a "learn more" button. Below the banner is a section titled "CONSERVATION TIPS AROUND THE HOME" with a list of water-saving tips. To the right of the tips is a sidebar with "LEARN MORE ABOUT WATER" and "QUICK LINKS" sections.

**DUPAGE WATER COMMISSION**

HOME ABOUT US MEETING INFORMATION COMMISSION INFORMATION WATER QUALITY CONSERVATION

**WCAPP Conservation Programs**  
Find out how you can help preserve every drop.  
[learn more](#)

**CONSERVATION**  
*TIPS AROUND THE HOME*

A few simple wise water use tips can make a difference in how much water you use.

- Use a broom instead of a hose to clear debris from driveways, sidewalks, and patios.
- Wash a car with a bucket and sponge. Use a shut-off nozzle on your hose so water doesn't run while you are washing the car. A free-flowing hose uses up to 300 gallons of water each hour.
- Check for leaks. Look at pipes, hoses, faucets and couplings. Leaks waste a lot of water. Even a small leak in a garden hose may waste as much as 700 gallons per day.
- Save 3 gallons of water per minute by turning off the water when brushing your teeth, shaving, etc. National averages indicate that indoors, about 70 percent of our water is used in the bathroom.
- Check your toilet for leaks. Put a few drops of food coloring in your toilet tank. If the coloring appears in the toilet bowl without flushing, you have a wasteful leak that should be repaired at once. Even a small leak can waste thousands of gallons a month.
- Use your automatic washing machine for full loads only. It uses up to 60 gallons per load.
- Consider changing to water saving plumbing. Low flush toilets and low flow showerheads seem to be the biggest water savers.

**LEARN MORE ABOUT WATER**

- Get the Facts on Water
- Water FAQs
- Water Conservation
- Water Conservation Resources
- Water Conservation Events & Reports
- Water Conservation Links

**QUICK LINKS**

- About Us
- Agendas, Meeting Materials & Minutes
- Employment Opportunities
- History



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# Information & Outreach- Events

- 💧 **Attend Water Conservation related events to spread the conserve water initiative by passing out information and resources to the general public**
- 💧 **Over the past 10 years, a representative from the Commission attends the following events to pass out water conservation information and resources:**
  - 💧 **Earth Day at Argonne National Laboratory**
  - 💧 **Cosley Zoo's Party for the Planet**
  - 💧 **ISAWWA Seminars/Workshops**
  - 💧 **Various Green Conferences**



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# Information & Outreach- Tours

- 💧 Tours are conducted for DuPage County teachers set up by SCARCE as well as some high school and college classes where water conservation promotional materials are handed out



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# Information & Outreach- Conservation in Action



## RICHMOND EDUCATION GARDENS & APIARY

VILLAGE OF CLARENDON HILLS

VILLAGE OF WESTMONT

- 💧 **The Villages of Clarendon Hills and Westmont are working together to build the Richmond Education Gardens and Apiary. Located between the Village of Clarendon Hills Public Works facility and the Downers Grove Township Highway Garage. Once completed, the Gardens will provide a new place in our communities to promote educational programs about natural and organic gardening methods and our environment.**
- 💧 **DWC sponsored an underground water cistern for the gardens to water all of these structures.**



[www.richmondgardens.org](http://www.richmondgardens.org)



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# 2010 Generator Building and Pumping Station Construction

- ♣ Recycled the existing 4,500 square foot vehicle maintenance/storage facility into the generator facility
- ♣ Completed by local contractors
- ♣ Approx. 100% or 11,300 tons of construction debris was recycled and thereby diverted from landfills
- ♣ Projected to use 40% less water than baseline requirements with ultra low flow bathroom and plumbing fixtures
- ♣ 6,200 square foot green roof to reduce building runoff
- ♣ Rainwater cistern system to reuse water on site as well as a bioswale and detention pond



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# Buildings

- 💧 Generator building green roof reduces stormwater runoff by approx. 30% of pre-construction conditions
- 💧 Reflective roofing system reduces urban heat island effect on Pumping Station and Generator Buildings
- 💧 Covered parking garage:
  - 💧 Allows for natural landscape
  - 💧 Reduces parking footprint and heat island effect
  - 💧 Utilized reclaimed brick from demolition activities to reduce landfill waste





# Buildings- Solar Wall

- ❖ **Solar Wall installed on the south elevation of the vehicle storage building in order to maximize solar radiation. Outside air is heated by the dark colored metal panels by absorbing solar energy. Ventilation fans draw in the pre-heated air and reduce the amount of energy required to heat the space.**



# Outside

- 💧 Increased use of native landscaping to reduce 50% of water use
- 💧 Timed sprinklers controlled with water sensors
- 💧 13,000 Gallon Rainwater Collection System- reduces flow into storm sewers, keeps rainwater on-site for irrigation
- 💧 Bioswale and detention pond naturally filter stormwater and reduce runoff
- 💧 Reflective parking lot reduces heat island effect



# Outside- Storm Water Retention Pond



# Outside- Reservoir

- 💧 Reservoir converted to savanna
- 💧 5 acres converted to natural prairie behind reservoir



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# Storm Drain Medallions

🔹 Installed SCARCE's No Dumping Medallions in and around facility



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# Inside

- 💧 **Faucet aerators and low-flow plumbing fixtures added throughout facility saves more than 40% of water use**
- 💧 **Water Bottle Filling Stations- Green Ticker shows bottles saved**



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# Cleaning/Green Products

- Use Clorox Green Works products wherever possible
- Janitors and window washers use Green Seal Certified cleaning supplies
- Replaced many liquid soap with foam that use less product
- Switched from timed aerosol sprays to solid Fresh Wave air fresheners in bathrooms
- Konica Minolta Printers use:
  - Eco friendly plastics
  - Plant-based toner
  - Shorter warm-up times which contribute to energy savings
  - Energy star compliant
  - Blue Angel Mark- certifies products and services have a small environmental impact



# Recycling Efforts

- Battery recycle collection stations located throughout the facility
- Generator building has 29% recycled content (post-consumer + pre-consumer)
- Recycle approved for destruction documents via RockTenn which turns paper into pulp
- Recycling cans added next to every garbage can with informative signs on/near recycling cans so employees can determine what can be recycled
- Toner recycling next to every Konica Minolta printer

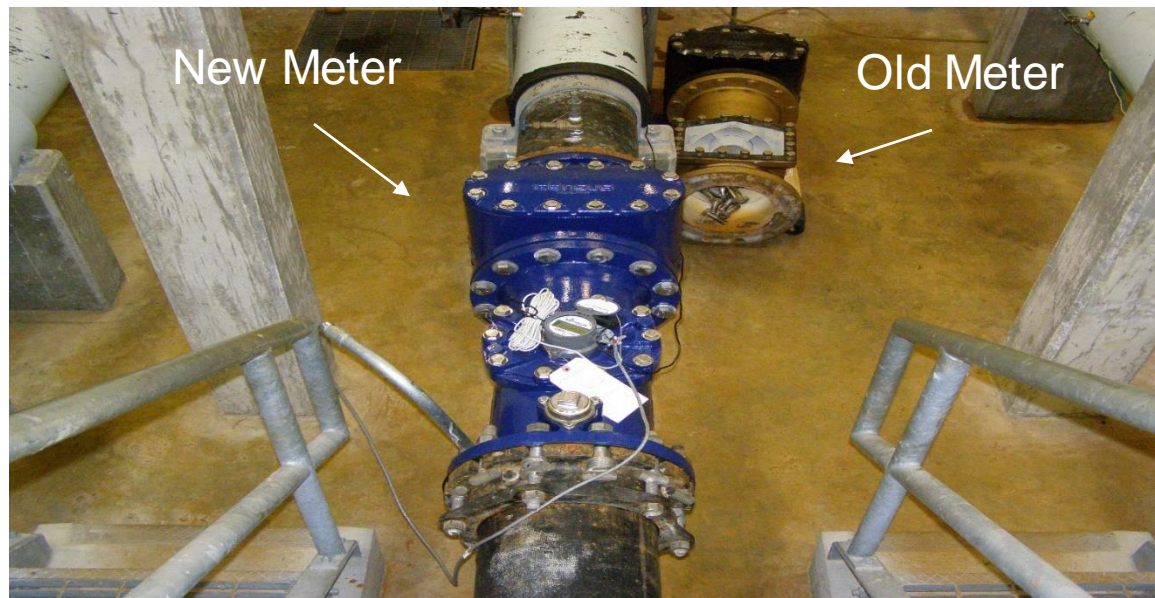




# Meter Replacement

With the meter replacement, the Commission was able to:

- 💧 Provide accurate flow measurement
- 💧 Eliminate the need to annually calibrate each meter, which will use less water
- 💧 Recycle old meters



# Waste Reduction

- Eliminated all Styrofoam products
- Replaced Styrofoam cups with compostable cups and recycled sleeves
- Recycle engine oil responsibly



# Energy Reduction

- High Efficiency water heater
- Lexington Pumping Station added 724 kw of photovoltaic cells to the top of the reservoir
- Fleet management software added to all Commission vehicles improves fuel efficiency



# Air Quality

- Generator building interior materials and finishes such as paint, carpet, faucets, and furniture were selected for low VOC and recycled material
- Ventilation system in occupied zones has been designed with a 30% increase over the minimum amounts of fresh air as recommended by ASHRAE 62.1-2004



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# 2018 Lighting Replacement

- Wholesale replacement of existing lighting fixtures with energy efficient LED Lighting Fixtures
- Recycled old lights and fixtures
- Over 1400 fixtures changed from sodium vapor, halogen, fluorescent and incandescent to LED
- Occupancy sensors added to non-worker areas
  - Auto dimming 20%-90% with no motion detection
- Environmental Impact
  - 257 tons of Carbon Dioxide saved per year
  - 125 tons Coal Burning Avoided per year
  - 242 acres of Equivalent Forest in 1 year
  - 54 Equivalent Cars driven in 1 year



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# Awards

- LEED Silver for the generator building remodel



- ACEC Illinois Special Achievement Award – Energy Category



# Awards/Certifications- Water Conservation

- Received the American Water Works Association-Illinois Section Water Saver Utility Award for Water Conservation Program



- Received Conservation@Work certification from The Conservation Foundation



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# Thank you, SCARCE!

For working with us to earn both the Earth Flag and Water Quality Flag!



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