

DUPAGE WATER COMMISSION

WCAPP

Water Conservation & Protection Program



2013

ANNUAL
REPORT

Chairman: **Jim Zay**
General Manager: **John Spatz, Jr**



Terry McGhee, DuPage Water Commission

Message from the Manager of Water Operations

The Commission is pleased to present this year's WCAPP Annual Report. While the Commission continued its mission of raising awareness to the importance of conserving one of our most precious resources, we enlisted the help of other local government agencies to develop a resource guide that will provide valuable tools to our municipal customers in conveying this message to the residents of DuPage County. Commission staff attended many community events and hosted various workshops for local educators to help bring the message of water conservation into their classrooms. Although the Commission continued its traditional WCAPP programs, this year's main focus was this summer's Water Management Workshop Series. Commission staff worked with both the Chicago Metropolitan Agency for Planning (CMAP), the Metropolitan Planning Council (MPC), and MWH to develop a series of workshops that would identify some of the common barriers to promoting water conservation while creating viable solutions to these barriers. The Commission was also proud to accept the Conservation@Work award from The Conservation Foundation for our new developed environmentally friendly and sustainable landscape and storm water control measures.

All and all, 2013 was a very successful year for the WCAPP and we are looking forward to augmenting our success in 2014. We hope to sustain our current momentum while identifying new opportunities for water conservation in DuPage County. The Commission is looking forward to spreading our message to the next generation of children and young adults in DuPage County while sponsoring water conservation contests and continued attendance at community events. With your continued support we are approaching our goal of reducing per capita water usage by 10% in 10 years.

Thank you for helping make our goals for water conservation a success this year! We look forward to continuing this important work together in 2014.

Sincerely,

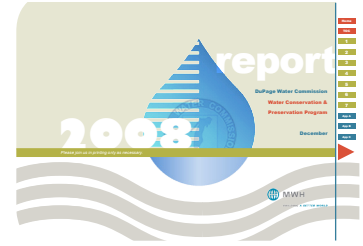
Terry McGhee
Manager of Water Operations



The *PURPOSE* of the DuPage Water Commission's water conservation plan is to provide all water users in DuPage County with a consistent message about water conservation and provide DWC customers with the tools needed to be good stewards of the region's finite water supply.

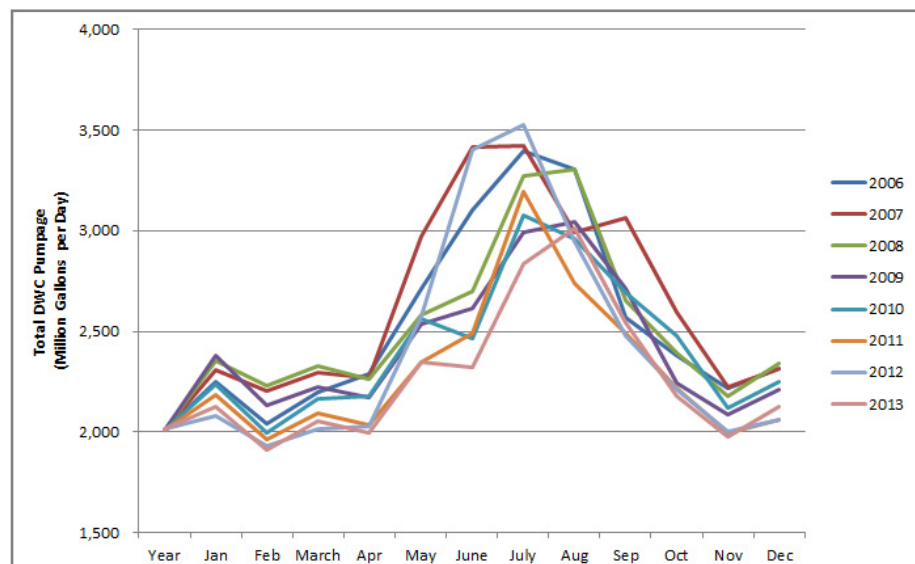
In addition, the DWC has adopted as its *WATER CONSERVATION GOAL* a commitment to be the regional leader in promoting water conservation actions that will reduce per capita water use among DWC member utilities by 10% within the next 10 years.

DuPage Water Commission Water Conservation and Protection Program (WCAPP)



The Water Conservation and Protection Program began in 2008 when the DuPage Water Commission (DWC) committed to being a regional leader for water conservation. DWC developed four programs as part of the WCAPP to provide tools and information to bring conservation to local residents. These four programs include:

- Program 1 – Water Pledge: residents are encouraged to make a pledge to preserve every drop and help reach DWC's goal of reducing water use by 10% over the next 10 years.
- Program 2 – Residential Leak Detection and Repair: residents are recommended to obtain leak detection tablets from their local community to determine if their toilet is leaking, and then to take action to repair leaky toilets. In addition to leak detection tablets, instructions on basic toilet repair are available.
- Program 3 – Rain Gauge and Landscape Irrigation: Rain gauges are provided to residents to measure how much water their lawn receives. This will help indicate how much water is required to water outdoor plants and turf to ensure that too much water is not used. Resources describing native plant species that can be used to landscape and reduce water usage are also available.
- Program 4 – Rain Barrel Usage: Rain barrels collect rain water from your roof, which can then be used for irrigation to save water.



WCAPP goal is to reduce per capita water consumption by 10% in 10 years



2013 Water Management Workshop Series

DuPage Water Commission received a grant from Chicago Metropolitan Agency for Planning (CMAP) as part of their Local Technical Assistance Program to conduct a Water Management Workshop Series. This four-part workshop series was put together by DWC with help from CMAP, the Metropolitan Planning Commission (MPC), and MWH.

The workshops gave conservation coordinators the tools to educate and encourage customers to conserve water by emphasizing the importance of conservation and the role it plays in utility management, regulations and ordinances, water use by end users, and revenues. Prior to the workshops, the coordinators were surveyed to what issues are most important to them, and the workshops were developed accordingly.

Workshop 1 – Utility Planning and Asset Management

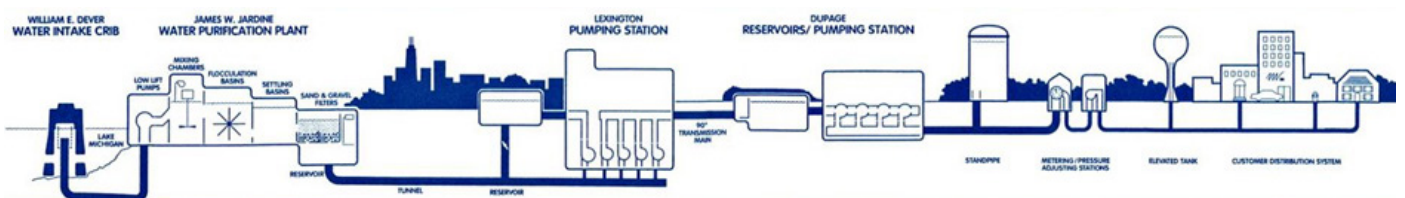
The focus of the first workshop was to provide an overview of utility planning and asset management and focus on the context of water management operations within the wider supply and demand issues in the region, as well as within other water resource and energy contexts.

Despite having water supply from Lake Michigan, which seems abundant, Illinois is legally limited in how much it can extract annually at 2,068 million gallons per day (MGD). This allocation is currently sufficient, but additional Illinois communities could request lake water in the future. According to CMAP's Water 2050 regional water supply plan, the demand for water may increase by as much as 64% by 2050. Topics discussed included the under-value

of water due to its "invisibility," a description of the water-energy nexus, and the benefits of integrated water planning is meeting communities' long term water needs.

The key takeaways of this workshop were:

1. Understand the region's water supply and demand issues and how they relate to local water supply management.
2. Recognize the importance of asset management for making informed decisions, improving efficiency of operations and maximizing limited financial resources.
3. Become familiar with water supply operations as integrated with other water resource planning and energy use.



The DuPage Water Commission purchases Lake Michigan water from the City of Chicago and distributes it to just under 30 customers.



Abby Crisostomo from MPC

Workshop 2 – Regulations and Ordinances

This workshop highlighted how existing regulations and ordinances hinder or help water management operations and water conservation. The purpose of regulations and ordinances is assist in conserving water, a common example of an ordinance includes the limitations of residents to only water their lawns on certain days of the week. A common pitfall of ordinances is that water utilities don't always have the time or money to enforce them.

There is currently a major piece of legislation under debate in Illinois in regards to updating the water loss permit system. The AWWA suggests that M36 might be a more effective way to track “unavoidable loss” and help encourage utilities to make improvements by showing them the economic benefits. Other effective water conservation measures can be limited by regulations, such as rainwater harvesting which is currently limited by the Illinois Plumbing Code to special variance.

The key takeaways of this workshop were:

1. Understand the role of regulations and ordinances on effective water supply management.
2. Recognize the barriers to successful implementation of water conservation ordinances and identify strategies to reduce them.
3. Become familiar with upcoming regulatory changes and how they will affect local water supply operations, including encouraging water conservation.

Item	Quantity Purchased by DWC	Quantity Purchased by Others	Total Purchased
Lead Detection Tablets	1,000	250	1,250
Recycled rain Gauges	0	100	100
Recycled 5-Minute Shower Timer	0	20	20

Workshop 3 – Indoor and Outdoor Water Use

This workshop focused on how water managers can work directly with end users to use water more efficiently. The Great Lakes basin states including Illinois are lagging behind western states in water conservation efforts. Significant water savings could be achieved in the residential sector by mandating efficiency appliances, reducing lawn watering and improving infrastructure.

Another untapped source of water conservation is for water utilities to target non-residential water customers. Typically 30% of a utility's water demands are from non-residential customers, but these are only 10% of the total number of customers, this is a huge potential savings for both the utility and the customer.

Another feature of this workshop included working with the water utilities at the workshop on how to conduct a home water audit and how to improve customer water awareness through more legible billing. An example of this would be to change the units listed to terms the residents would understand such as gallons instead of cubic feet or providing a graph showing a customer's past usage or comparing to their neighbors.

The key takeaways of this workshop were:

1. Understand the role of indoor and outdoor water use in water conservation and sustainable water management.
2. Design customer water conservation programs to be cost-effective and targeted for the most impact.
3. Learn how to track the performance of water conservation ordinances and initiatives.
4. Become familiar with existing resources to help water utilities encourage water conservation by their customers.



Hillary Holmes from MWH

Workshop 4 – Water Rates and Revenue

This workshop provided an intense look into utility revenue options and rate-setting. A significant hindrance on water utilities is that full cost pricing needs to be implemented in every community. Water utilities could adjust their rates to charge a fixed fee to cover the utility's fixed costs and a variable fee based on how much water the customer uses to pay the short-run costs. This will allow the utility to have their fixed costs covered, even if a customer is carrying out water conservation measures.

Options were also discussed for how water utilities can apply for funding for capital infrastructure improvements such as the Drinking Water State Revolving Fund (SRF) and the Clean Water Initiative. There are non-traditional options for funding available to water utilities as well including looking at the private sector through mechanisms like operation and maintenance contracts or a design, build, finance and operate (DBFO) contract. Another option is performance contracting, which is the use of savings from making a utilities operations more efficient as capital to make needed upgrades financed over a period of time.

The key takeaways of this workshop were:

1. Understand the relationship between water rates and utility revenues, including the effect of water conservation.
2. Design water pricing mechanisms that fit utility goals, customer types and effective management.
3. Learn about opportunities for financing water infrastructure investments from both traditional sources, language about additional training.



Ted Hamer from KPMG talking about non-traditional financing options



DWC Receives Recognition for Conservation Efforts

DuPage Water Commission is working toward being a leader in water conservation in Northern Illinois. Other groups have recognized the initial successes of the WCAPP and are following in DWC's footsteps.

The DuPage Water Commission received acknowledgement for their water conservation efforts from The Conservation Foundation by receiving their Conservation@Work plaque. During construction of their new generator building, which achieved U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®), DWC focused on improving water conservation efforts.

This includes:

- two 7,500 gallon water-storage tanks to catch rainwater,
- a bioswale that naturally filters storm water and reduces runoff,
- a detention pond that provides a settling area for removal of suspended solids,
- conversion of six acres of non-native landscaping to prairie grass,
- addition of a 6,786 square foot green roof,
- various native plantings that reduce water demands for landscaping by 50%, and
- stormwater runoff reduction by 32%.



DWC Event Participation in 2013

Some of the other water conservation and education activities that DWC participated in 2013 include:

- DuPage teachers visit DWC for a presentation and tour
- Earth Day at Argonne National Laboratory
- Cosley Zoo's Party for the Planet
- GreenTown Conference
- ISAWWA In the Plant Training
- Clarendon Hills Public Works Open House
- Hosted technical tour for AWWA Distribution Systems and Emergency Preparedness Conference including highlights of DWC's on-site water conservation measures

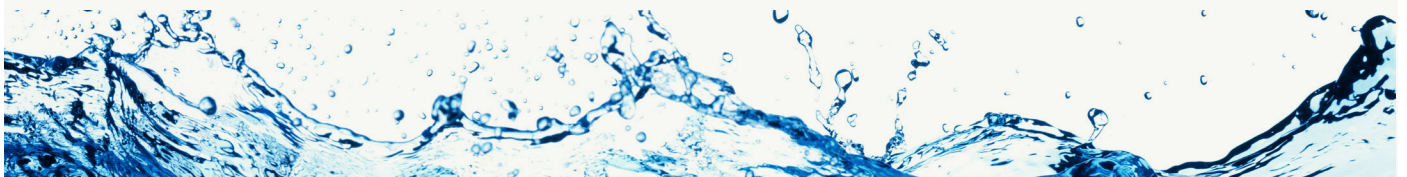
H2O Score

H2O Score is a web based application that helps customer's track and save their water usage. Customers can calculate their home's neighbourhood comparison and rank. There is even potential for customers to receive rewards for being water efficient. Water Utilities must first sign up for the program for their customers to participate in the program. More information can be found at www.h2oscore.com

Did you know?

DWC's Preserving Every Drop web-site (www.preservingeverydrop.org) provides some great resources to conserve water. This includes:

- More information on the four Water Conservation and Protection Programs
- A Water Calculator to find out how much water YOU use every day
- Water conservation tips for both inside and outside of your house
- Links to local community programs, so you know what YOUR local water utility offers
- Recent news and upcoming events
- Pumpage data and Summary of Purchased Items



SUSTAIN- ABILITY

“... the answer lies not in finding a single instant solution but in taking an incremental approach supported by market forces. Setting some objectives, doing what we know we can do, learning from experience, and then doing more.

This isn't an insoluble problem. We can find a solution. And we should start now.”

*Lord Browne
Group Chief Executive, British Petroleum
for the Council on Foreign Relations,
New York, 24 June 2004*

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IN ASSOCIATION WITH



MWH

BUILDING A BETTER WORLD



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