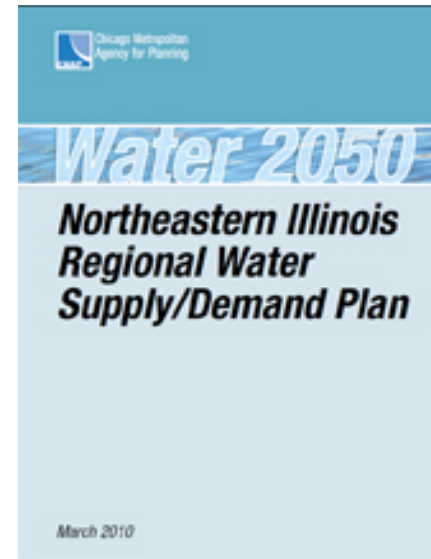


# **Informational Inserts, WaterSense, and the Water-Energy Nexus Survey**

Presentation to the  
Northwest Water Planning Alliance (NWPA)  
September 27, 2011

# Water 2050

- 11 County Study
- Supply and Demand
- Facilitated by CMAP
- RWSPG
- Completed in 2010
- Over 200 recommendations
- Technical Assistance Program for communities and utilities



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# Informational Inserts

- Unified Public Information Messaging
- Efficiency, Conservation, Policy
  - Tagline, message, action, follow-up for more info
- Paper Bill Inserts
- Electronic Distribution
  - Municipal newsletters
  - Websites
  - Email blasts
- Low Cost
- Broad Distribution



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# Out of sight shouldn't mean out of mind.



**Groundwater is not an endless supply. Help use our resource efficiently.**

**Did you know...** it can take centuries for rain to replenish a groundwater aquifer so that we may use it again? That's why we must conserve our current groundwater supply.

**You can help by... using a WaterSense-labeled showerhead or toilet.**

Thank you for doing your part to help ensure that our community and neighboring communities have a clean and reliable water source now and for future generations!

For more information, visit [www.epa.gov/WaterSense](http://www.epa.gov/WaterSense).





# That drip is money down the drain

We depend on our water infrastructure of pipes, pumps, and meters to deliver clean, high-quality, and reliable water to our homes.

## Did you know...

the average household wastes 10,000 gallons per year on leaks, enough to fill a swimming pool?

## You can help by...

checking your toilet, faucets, showerheads, and appliances for leaks.

Water infrastructure needs to be maintained by both your utility and you. Utilities can check for leaks in pipes on the way to your home, and you can check for leaks in your home. Both actions can prevent water waste and improve the reliability of your water supply.

Thank you for doing your part to help ensure that our community and neighboring communities have a clean and reliable water source now and for future generations!

For more information, visit [www.epa.gov/WaterSense](http://www.epa.gov/WaterSense).



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W A T E R  
2050



N O R T H W E S T  
W A T E R P L A N N I N G  
A L L I A N C E



# Is your lawn a water guzzler?

## Every drop counts!

### Did you know...

more than 50% of commercial and residential irrigation water use goes to waste due to overwatering, evaporation, or runoff?

### You can help by...

Following your local water usage and restriction ordinance. If your community does not have one, please consider watering your lawn no more than twice a week before 10 a.m. or after 6 p.m.

Thank you for doing your part to help ensure that our community and neighboring communities have a clean and reliable water source now and for future generations!

For more information, visit [www.epa.gov/WaterSense](http://www.epa.gov/WaterSense).



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W A T E R  
2050



N O R T H W E S T  
W A T E R P L A N N I N G  
A L L I A N C E





# Water mains cost much more to fix *after* they break.



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W A T E R  
2050



NORTHWEST  
WATER PLANNING  
ALLIANCE



We depend on our water infrastructure of pipes, pumps, and meters to deliver clean, high-quality, and reliable water to our homes.

## Did you know...

most water infrastructure systems are decades old, and some are even **100 years old**? Our water bills provide for necessary repairs and upgrades.

## You can help by...

supporting necessary investments in your water infrastructure.

Water rates reflecting the full cost of service fund proper maintenance needed to supply safe and reliable water for households, businesses, public health, fire departments, and other essential uses.

Thank you for doing your part to help ensure that our community and neighboring communities have a clean and reliable water source now and for future generations!

For more information, visit  
[www.cmap.illinois.gov/water](http://www.cmap.illinois.gov/water).

# Sample Distribution Schedule

Quarterly:

- Groundwater-November 2011
- Leaking Household Pipes-March 2012
- Lawn Watering-July 2012
- Infrastructure-November 2012



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# More topics to come...

- Stormwater/flooding
- Car washing
- Fertilizers and Pesticides
- Average household water use statistics
- ????

For more information:

[www.cmap.illinois.gov/water-2050/bill-inserts](http://www.cmap.illinois.gov/water-2050/bill-inserts)



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# Outreach Tracking

- Who?
- What?
- When?
- Where?
- How many people are we reaching?



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EPA  
**WaterSense**



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# What is WaterSense?

- Voluntary, nationally recognized program sponsored by the USEPA to promote water conservation and efficiency
- Like ENERGYSTAR
- Fixtures
  - Toilets, showerheads, faucets, etc.
  - 20% less water
- Partnerships
  - Promotional Partnership
    - Utilities, municipalities, and other local units of government
    - Promote water efficiency and conservation



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# What are the benefits of becoming a WS partner?

- Provides outreach and education
  - Ready to Print materials: press releases, button, PSAs, additional bill inserts
  - Everyday tips for residents
- Provides recognition
  - Municipal website and nationally
- Provides unified message
- Partner decides on appropriate activities
- It's FREE
- And...EASY to join and participate



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# Great idea...What if all the NWPA communities joined WaterSense?

- Everyone can participate
- Free and Easy
- Public outreach
- Never been done in the Midwest...and maybe the country
- Foster unity within the group



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# Current WaterSense Partners within NWPA

- Batavia
- McHenry County
- Gilberts
- Metro West Council of Government
- Kendall County Health Department



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# Each community would need to:

- Fill out the WaterSense partner application
- Submit to USEPA
- 2-3 weeks later...Congratulations!
- Submit a 1 page annual report to USEPA



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# Water-Energy Nexus Utility Data Project

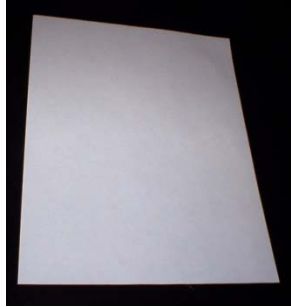
Illinois Section American Water Works Association (ISAWWA)  
Water Efficiency Committee



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# How many gallons of water does it take to make one everyday items?



= 3 gallons



= 37 gallons



= 634 gallons



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# Our Committee

## Amy Talbot – CMAP Chair

- **Mary Ann Dickinson** -Alliance for Water Efficiency
- **Bill Christiansen** - Alliance for Water Efficiency
- **Howard Heil** - Heil2o
- **Cary McElhinney** – USEPA
- **Jenessa Nesbitt** - DuPage Water Commission
- **Mike Sturtevant** - Chicago Dept. of Water Management
- **John Van Arsdel** - M.E. Simpson
- **Catherine Hurley** - City of Evanston
- **Robert Halm**
- **Jeffrey Edstrom** - Environmental Consulting & Technology
- **Edward Glatfelter**
- **Bill Davis** – CDM
- **Pete Wallers** - Engineering Enterprises, Inc.

## Darrell Blenniss - CLCJAWA Co-chair

- **Kyla Jacobson** - Elgin Water Department
- **Terry McGhee** - DuPage Water Commission
- **Regi Paul** - Chicago Department of Water Management
- **Danielle Gallet** - Center for Neighborhood Technology
- **Cassandra McKinney** - McHenry County
- **Margaret Schneemann** - Illinois Indiana Sea Grant (IISG)
- **John Dillon** - City of Batavia
- **Michael Ramsey** - Village of Westmont
- **Paul May** - Village of Burr Ridge
- **Caitlin Feehan**- MWH
- **Dennis Ross** -Otter Lake
- **Ken Molli** -Veolia
- **Michele Piotrowski** -Engineering Enterprises, Inc.



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# Why is efficiency important?

- Cuts down operating and treatment costs
- Saves energy
- Preserves water supply for long term use
  - Increasing pop. and demand with limited supply
- Promotes stewardship for water supply



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# What is the Water Energy Nexus?

- Energy embedded in water
  - conveyance, distribution, treatment, and heating
- Water embedded in energy
  - consumptive and non-consumptive water use for cooling and processing in energy production



# Highlights

- Lowering energy use will reduce the amount of water used in the production of energy
- Increasing the efficiency of water use will result in lower energy consumption and reduce greenhouse gas emissions
- Better data is needed to estimate the embedded energy in water for local and regional areas throughout the United States
  - California
    - **19%** of electric energy load in California
    - **32%** of natural gas energy load in California
    - **95%** of energy efficiency goals can be met by water efficiency programs at **58%** of the cost



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# Water Energy Nexus Survey

- Why: To better understand the relationship between energy and water in Illinois
- Who: Water Utilities in IL
- What: Focuses on supply side



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# Survey Components

- Connections
- Population served
- Water Supply
  - What is your water source?
  - Annual Total Water Production (Gallons)
  - Annual Total Billed/Metered/Accounted for Water (Gallons)



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# Survey Components, cont.

- Energy
  - Annual Energy Consumption (kWh) and Cost
  - Annual Natural Gas Consumption (BTU) and Cost
- Total Annual Operating expenses
- Treatment
  - Filtration, UV Disinfection, Membrane, etc.



# Survey Outputs

- Total energy cost (kWh + therms)
- Energy cost as % of annual operating budget
- Energy production cost (\$/MG produced)
- kWh per MG produced
- Estimated non-revenue water
  - (produced-billed/metered/accounted for)



# Progress so far...

- 40 utilities so far from across the state but... we need more groundwater communities
- Good feedback from participants
- Preliminary findings
  - Similar source and population with sizable differences in energy cost
  - Wide range of energy use throughout the state



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# Why should a NWPA utilities participate?

- FREE basic energy analysis
- Tool for improving efficiency
- All data is keep confidential
  - Public data will be aggregated by water source
- Donation in your name for Water for People



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# Interested?

- Please pass on information about survey to other NWPA member communities
- Copies of the survey
  - Paper
  - Survey Monkey



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