



# Water Conservation Stakeholder Group

2<sup>nd</sup> Meeting 6/8/2022



# Meeting Agenda

- Introductions
- Meeting 1 Recap
- Water Conservation Plan Examples
- Water Conservation Initiatives Ideas
- Evaluation Criteria
- Homework



# Introductions

Allison Swisher – Director of Public Utilities, City of Joliet


Angela Knight – City of Joliet, [aknight@joliet.gov](mailto:aknight@joliet.gov)

Heidi Voirol – V3 Companies, [hvoirol@v3co.com](mailto:hvoirol@v3co.com)

Stuart Dykstra – V3 Companies, [sdykstra@v3co.com](mailto:sdykstra@v3co.com)


A close-up photograph of a hand reaching down towards a body of water. The hand is positioned in the upper right quadrant, with fingers slightly spread. The water surface is dark and reflective, showing concentric ripples emanating from the point where the hand is about to touch. The background is a soft, out-of-focus landscape with a bright light source in the upper left, creating a hazy, atmospheric effect.

# Meeting 1 Recap

- The purpose, schedule and program funding for the Joliet Alternative Water Source Program were detailed
  - The program will replace the declining groundwater source with treated Lake Michigan water by 2030
  - 6 member communities will form a regional water commission: Channahon, Crest Hill, Joliet, Minooka, Romeoville and Shorewood
- 
- A decorative horizontal bar at the bottom of the slide, composed of several colored rectangular segments in a row: orange, teal, yellow, light green, dark blue, and dark navy blue.

A close-up photograph of a hand dripping water into a pool. The water is dark and still, with ripples emanating from the point of contact. The hand is light-skinned and positioned in the upper right quadrant. The background is a soft, out-of-focus grey.


# Meeting 1 Recap

- Water rate increases are an inevitable part of continuing to provide clean water to Joliet. The City of Joliet wants to help its citizens reduce water costs through conservation and education
  - The goal is to present a Water Conservation Plan to the Public Service Committee on 8/1/2022
  - Following that meeting, the goal is to implement the plan
- 
- A horizontal bar at the bottom of the slide, composed of several colored rectangular segments: orange, teal, yellow, light green, blue, and dark blue.



A close-up photograph of a hand dripping water into a pool. The water is dark and still, with concentric ripples emanating from the point of contact. The hand is light-skinned and positioned in the upper right quadrant. The background is a soft, out-of-focus gradient of light and dark tones.

# Meeting 1 Recap

- Water conservation ideas were discussed
  - Homework was assigned – provide water conservation plan examples and suggest additional water conservation ideas
  - A tentative schedule was presented
- 
- A horizontal bar at the bottom of the slide, composed of several colored rectangular segments: orange, teal, yellow, light green, blue, and dark blue.



# Water Conservation Plan

- Presentation to the Public Service Committee
- Actionable Items/Not a Wishlist
- Evaluation of Benefit, Costs and Effort

# Bloomington, IN



rethink  
**water**  
JOLIET

Measure	Estimated Annual Water Savings (gal./year)	Implementation Phase	Goal(s) the Measure Addresses
<b>Water Loss Control</b>			
Annual Utility Water Audit	n/a	1	2
Utility Leak Detection & Repair Program	107.0 million	2	2
Meter Testing & Replacement	n/a	2	2
City Government Water Use Audit	1.7 million	2	1
<b>Public Education</b>			
Public Education Campaign	Unknown	1	4, 6
Water Conservation Information on CBU Website	Unknown	1	4
End-of-season Notices to Turn Off Automatic Irrigation Systems to all Customers	0.9 million	1	1, 4
Water Conservation Billing Information	Unknown	1	1, 4
Primary & Secondary School Programs	Unknown	1	4, 6
Peak Notification to Large Users	n/a	1	3
Peak Notification to all Users	n/a	2	3
Social Media Campaign	Unknown	1	4
Annual Conservation Report	Unknown	1	4
<b>Government Regulations</b>			
The Feasibility of Several Ordinances will be Considered	Unknown	3	1, 3
Review CBU's Drought Contingency Plan	n/a	1	5
<b>Economic Incentives</b>			
Conservation Pricing	30.1 million	3	1, 3
Low-Income Leak Detection & Repair Program	1.0 million	2	1, 3
Rain Sensor Rebate	2.2 million	2	1, 3
Reevaluate Summer Sewage Average	Unknown	2	1, 3
<b>Alternative Water Supply</b>			
Alternative Water Supply	15.0 million	3	1, 3

6/2014, 30 pages



# Elmhurst, IL



## Focus Area 4: Water Resources and Conservation

Goals and strategies in this focus area are intended to provide strategies for water conservation, reduction of water pollution, and stormwater best management practices.

### Goal 1: Promote water conservation, efficiency and reuse.

	Strategy	Timeframe
1	Promote third-party water conservation programs as appropriate.	Short-term
2	Promote natural landscaping choices for residential, commercial, industrial.	Short-term
3	Reduce municipal water use.	Short-term
4	Promote the benefits of the new water meters program, including the web portal to track usage, set notifications and identify leaks.	Ongoing

# Fort Collins, CO



Program/Measure	New FTE	Labor Cost	\$/ Customer (i.e. rebate)	# of Customers Impacted (or rebates)	Annual program/ measure cost	Total annual cost (labor & program costs)	Anticipated annual water savings in gallons	Annual Savings (AF)	Cost of Saved Water (\$/AF)	Implementation Difficulty (1 = easy, 5 = difficult)
<b>Education and Public Information</b>										
Public information campaign expansion	0.1	\$10,000	N/A	N/A	\$10,000	\$20,000	750,000	2.3	\$8,689	2
Water conservation recognition awards	0.05	\$5,000	N/A	N/A	\$1,000	\$6,000	Unknown			2
<b>Water Rates and Usage Information</b>										
Online access to water history	0	0	N/A	N/A	N/A	N/A	Unknown			2
Online water use calculator	0	0	N/A	N/A	N/A	N/A	Unknown			1
<b>Indoor Fixtures and Appliances - Residential</b>										
High efficiency toilet rebates	0.1	\$10,000	\$50	1,000	\$50,000	\$60,000	9,000,000	27.6	\$1,991	2
Low income retrofit program	0.05	\$5,000	\$400	25	\$10,000	\$15,000	1,250,000	3.8	\$3,910	3
Zero-interest loan program expansion	0	0	N/A	N/A	N/A	N/A	500,000	1.5	\$0	2
Research: Water end use study for homes	0.05	\$5,000	N/A	N/A	\$50,000	\$55,000	0	0	0	3
<b>Outdoor Efficiency – Landscapes &amp; Irrigation</b>										
Xeriscape design clinics	0.05	\$5,000	\$50	75	\$3,750	\$8,750	750,000	2.3	\$3,801	2
Irrigation technology rebates	0.1	\$10,000	\$85	175	\$14,875	\$24,875	3,500,000	10.7	\$2,316	3
Large HOA irrigation efficiency grants	0.05	\$5,000	\$1,300	5	\$6,500	\$11,500	1,250,000	3.8	\$2,998	2
Research: Determine irrigated area for lots	0.05	\$5,000			\$50,000	\$55,000	0	0		3
<b>Indoor Fixtures &amp; Appliances – CII</b>										
CII facility audit program expansion	0.4	\$40,000	N/A	40	\$10,000	\$50,000	1,000,000	3.1	\$4,887	3
Commercial clothes washer rebates	0	0	\$100	10	\$1,000	\$1,000	90,000	0.3	\$3,620	3
Commercial toilet and urinal rebates	0.1	\$10,000	\$50	1,000	\$50,000	\$60,000	1,800,000	5.5	\$2,715	2
Financial incentives for commercial water-saving upgrades (\$ based on savings)	0.15	\$15,000	\$1,000	25	\$25,000	\$40,000	2,500,000	7.7	\$5,213	3

# Fort Collins, CO

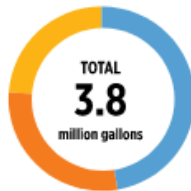


## PROGRAMS AND SERVICES

### RESIDENTIAL

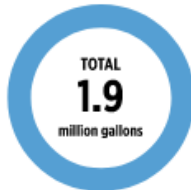
#### Outdoor Water Use

Education Campaigns: 1.8 MG  
(e.g., irrigation turn off campaign)  
Landscape Conversions: 1.1 MG  
Sprinkler Checkups: 0.9 MG



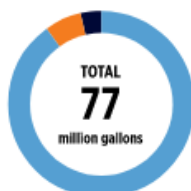
#### Indoor Water Use

Direct Install Partnerships  
(Larimer County): 1.9 MG



#### Combined Water Use

Home Water Reports: 69.4 MG  
Continuous Consumption  
(Leak) Notifications: 5 MG  
Efficiency Rebates: 2.6 MG



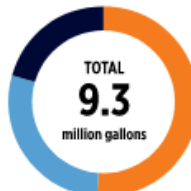
### RESIDENTIAL TOTAL

82.7

### COMMERCIAL

#### Outdoor Water Use

Landscape Conversions: 4.7 MG  
Irrigation Rebates: 2.6 MG  
Landscape Water Budget  
Program: 1.9 MG



#### Indoor Water Use

Efficiency Rebates: 15.3 MG  
Direct Install: 0.7 MG



#### Combined Water Use

Continuous Consumption  
(Leak) Notifications: 52.3 MG



### COMMERCIAL TOTAL

77.6

TOTAL ANNUAL  
SAVINGS:  
**160.4**  
million gallons

**SHIFT**  
YOUR WATER

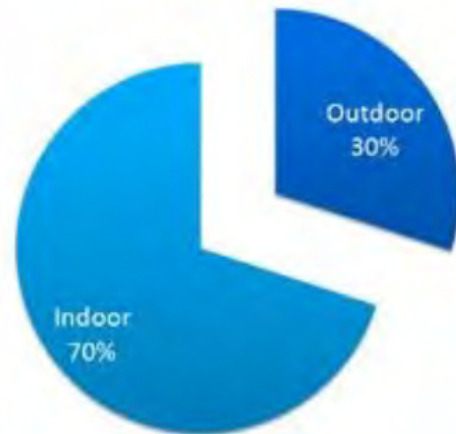
Shift Your Water

2015 & 2021, 3 documents 70+ pages

# McHenry County



Outdoor vs Indoor Water Use



Source: City of Madison Wisconsin from EPA data

**Figure 7-5 A:** Breakdown of average indoor and outdoor water usage for single-family residences.

Indoor Water Use



Source: Water Research Foundation, Residential End Uses of Water, Version 2, 2016

**Figure 7-5 B:** Breakdown of average water usage for single-family residences.



# Naperville, IL



	PLAN CATEGORY	WORK PLAN RECOMMENDATION	STATUS	RANGE <sup>1</sup>	CITY FUNDING SOURCE	LINKED TO EXTERNAL FUNDING <sup>2</sup>	SUPPORTING CATEGORIES <sup>3</sup>	SUPPORTS GHGI REC's <sup>4</sup>
31	Waste Management & Recycling	Identify opportunities to increase residential recycling participation.	Existing	On-Going	Staff		1	
32	Waste Management & Recycling	Continue to promote household hazardous waste program.	Existing	On-Going	Staff	X	1, 5	
33	Waste Management & Recycling	Educate consumers on how to make better purchases in order to reduce waste.	New	Medium	Staff		1, 2	
34	Waste Management & Recycling	Support commercial consolidated waste partnerships, where feasible.	New	Medium	Staff		1, 2	8B
35	Waste Management & Recycling	Work with other agencies to develop cost effective options for waste hauling and recycling.	New	Medium	Staff		1	10A, 3B, 8B
36	Waste Management & Recycling	Develop a policy for recycling at special events.	New	Medium	Staff		1	3B
37	Waste Management & Recycling	Investigate the feasibility of developing a composting program.	New	Long	Staff		1	
38	Waste Management & Recycling	Determine the feasibility of developing a commercial recycling program.	New	Long	Staff		1	3B
39	Waste Management & Recycling	Develop a construction waste program or guidelines.	New	Long	Staff		1	10A
40	Sustainable Development & Infrastructure	Explore opportunities to encourage site and subdivision design that retains or restores key natural features.	Existing	On-Going	Staff		1, 2	
41	Sustainable Development & Infrastructure	Support residential tree planting, maintenance and preservation strategies.	Existing	On-Going	Staff		1, 2	
42	Sustainable Development & Infrastructure	Identify existing Code impediments to implementation of best practices for building, energy or site improvements.	New	Medium	Staff		1, 2	7B

2009, 41 pages



# Oak Park, IL



## Implementer: Residents

RECOMMENDATIONS	STRATEGIES	SUPPORTING GOALS
7. Reduce outdoor water consumption.	<ul style="list-style-type: none"> <li>Modify lawn watering behaviors with a goal of only watering an inch a week.</li> <li>Utilize native and low water use plants in landscaping.</li> <li>Utilize alternative watering sources such as rainwater through the use of rain barrels.</li> </ul>	<ol style="list-style-type: none"> <li>Increase stakeholder's awareness about the importance of water conservation and efficiency through both outreach and active participation.</li> <li>Decrease daily potable water consumption by 3.5 percent by 2020.</li> </ol>
8. Replace older fixtures with high efficiency models.	<ul style="list-style-type: none"> <li>Replace toilets, faucets (or faucet aerator) and showerheads purchased before 1994 with WaterSense high-efficiency models.</li> </ul>	<ol style="list-style-type: none"> <li>Increase stakeholders' awareness about the importance of water conservation and efficiency through both outreach and active participation.</li> <li>Decrease daily potable water consumption by 3.5 percent by 2020.</li> </ol>
9. Check for leaks.	<ul style="list-style-type: none"> <li>Check for household leaks from toilets, faucets and other leaking valves.</li> <li>Utilize established leak detection techniques such as found on the WaterSense website.</li> </ul>	<ol style="list-style-type: none"> <li>Increase stakeholder's awareness about the importance of water conservation and efficiency through both outreach and active participation.</li> <li>Decrease daily potable water consumption by 3.5 percent by 2020.</li> </ol>

## Implementer: Business

RECOMMENDATIONS	STRATEGIES	SUPPORTING GOALS
10. Replace older pre-rinse spray valves.	<ul style="list-style-type: none"> <li>Replace pre-rinse spray valves that were installed before 1996.</li> </ul>	<ol style="list-style-type: none"> <li>Increase stakeholders' awareness about the importance of water conservation and efficiency through both outreach and active participation.</li> <li>Decrease daily potable water consumption by 3.5 percent by 2020.</li> </ol>
11. Utilize informational cards to promote water conservation practices.	<ul style="list-style-type: none"> <li>For food and beverage related businesses and lodging facilities, provide water conservation messages to customers in coordination with the Village.</li> </ul>	<ol style="list-style-type: none"> <li>Increase stakeholders' awareness about the importance of water conservation and efficiency through both outreach and active participation.</li> </ol>
12. Encourage landscape irrigation professionals to become WaterSense Irrigation Partners.	<ul style="list-style-type: none"> <li>Professionals coordinate with Village to become WaterSense Irrigation Partners.</li> </ul>	<ol style="list-style-type: none"> <li>Increase stakeholders' awareness about the importance of water conservation and efficiency through both outreach and active participation.</li> </ol>

4/2013, 76 pages

# Will County, IL



Target Area	2012 Goals	2021 Updates
Water Systems	<ul style="list-style-type: none"><li>» Reduce water consumption in County facilities</li><li>» Work with municipalities to reduce energy use for water production and distribution</li><li>» Support responsible water use by residents and businesses</li></ul>	<ul style="list-style-type: none"><li>» Continued using water-efficient fixtures in County buildings</li><li>» Became a WaterSense partner</li><li>» Educated through Water Conservation is a Grand Slam event, newsletters, social media</li></ul>

2021, 113 pages



# Draft Plan Outline



# Water Conservation Initiatives to Carry Forward



# Water Conservation Ideas

- Provide water conservation education and homeowner tips— link to the Practical Plumbing Handbook and City-wide rebate programs
- Provide a Joliet website with conservation tips
- Encourage water conservation amongst residents through public relations, events, neighborhood meetings – Joliet Slammers, Kidzfest, Star Wars Fest
- Promote Sensus Portal alerts, provide information on water bills including water usage and conservation tips





# Water Conservation Ideas

- Add subsidies/rebates similar to the rain barrels and low flow toilets
- Look for sources of additional funding for residents and/or the City
- Recommend shower timers
- Find and fix leak tools
- Promote low flow and high efficiency fixtures
- Encourage native plantings that require less watering



# Water Conservation Ideas

- Promote outdoor conservation including sprinklers and rain barrels
- Recognize local businesses for efficiencies
- Encourage water efficiency audits
- Provide an annual report on water usage
- Update ordinances to promote conservation (pools, shut off hoses)
- Promote green building practices
- Research opportunities for gray water use



# Initiative Feasibility

- Estimated Savings – gallons
- Implementation Schedule
- Labor Costs
- Program Costs
- Difficulty of Implementation
- Public Support
- Funding Source



# Tentative Schedule

Schedule		Meeting Goals
5/25/2022	First stakeholder meeting	Establishment of the Subcommittee, discuss the AWSP, the goals/mission, deliverables, schedule
6/8/2022	Second meeting	Presentation of the Plan progress to date, solicit feedback, ask for conservation actions
7/20/2022	Third meeting	Presentation of updated Plan for review prior to the Public Service Commission
8/1/2022	PUBLIC SERVICE COMMITTEE	Present Draft
8/2/2022	CITY COUNCIL	Present Draft
8/5/2022	Fourth meeting	Review of Council presentation - discuss implementing the plan
4th qtrr 2022	Fifth Meeting	Group to develop guidelines moving forward, implementation of the Water Conservation Initiatives



# Homework

- Submit Water Conservation Initiatives According to Evaluation Criteria as Determined by the Group
- Provide Feasibility Feedback

Email them to [hvoirol@v3co.com](mailto:hvoirol@v3co.com)



# Thank you.



## FOLLOW US ON SOCIAL MEDIA!

 [facebook.com/TheCityofJoliet](https://facebook.com/TheCityofJoliet)

 [twitter.com/TheCityofJoliet](https://twitter.com/TheCityofJoliet)

## VISIT US ONLINE & SUBMIT YOUR COMMENTS!

 [RETHINKWATERJOLIET.ORG](http://RETHINKWATERJOLIET.ORG)

