

Water supply planning projects

CMAP Environment and Natural Resources
Working Committee

January 4, 2018

Agenda

1. Past water supply planning
2. Overview of four new projects

Past water supply planning

- Water 2050: Northeastern Illinois Regional Water Supply / Demand Plan
- Water loss assessment of Lake Michigan permittees with CNT
- Northwest Water Planning Alliance support and strategic plan
- Full cost water pricing manual with IISG
- Municipal assistance and water efficiency plans (Model Water Conservation Ordinance, Oak Park, Evanston, Orland Park)

More details at: www.cmap.illinois.gov/programs/water/supply-planning

Overview of four new projects

1. Update Lake Michigan Water Loss Tool
2. Strategic planning with the Public Water Commission (Joliet Area)
3. Governance options for shared water supply in Oswego, Montgomery, & Yorkville
4. Update Regional Water Demand Forecast

Overview of four new projects

1. Update Lake Michigan Water Loss Tool

Created in 2013, this tool helps CMAP planners quickly assess water loss within LTA plans.

This project will update the tool to reflect the nonrevenue water loss standards now being used by IDNR and utilize all existing data.

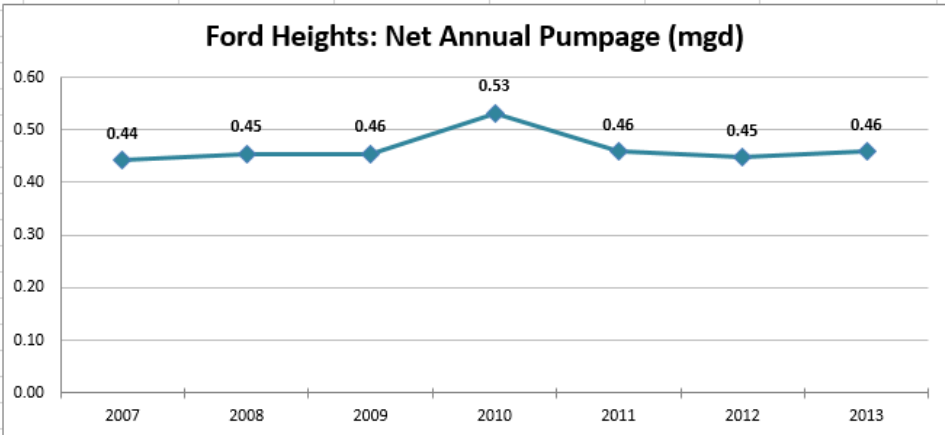
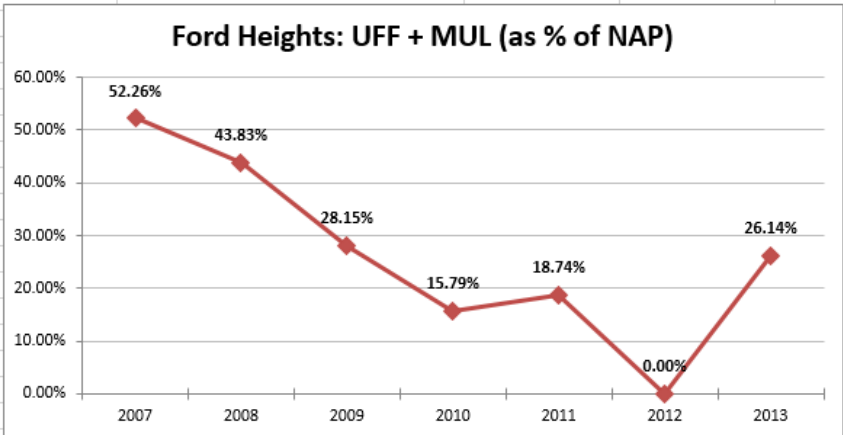
Overview of four new projects

Water Source, Use, and Loss: Ford Heights, 2007-2013

		2007	2008	2009	2010	2011	2012	2013
	Municipal Population	2,905	2,850	2,801	2,763	2,772	2,777	2,782
	Population served	2,930	2,930	3,456	3,456	2,763	2,763	2,763
	Households served	810	825	548	548	548	548	548
Source (mgd)	Lake Michigan	0.44	0.45	0.46	0.53	0.46	0.45	0.46
	Shallow Aquifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Deep Aquifer	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Water Treatment Use	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Gross Annual Pumpage	0.44	0.45	0.46	0.53	0.46	0.45	0.46
	Total Sold	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Net Annual Pumpage (NAP)	0.44	0.45	0.46	0.53	0.46	0.45	0.46
	Lake Michigan Allocation	-	-	0.378	0.385	0.392	0.399	0.405
	% NAP to Allocation	-	-	120.4%	138.2%	117.1%	112.0%	113.3%
Use (mgd)	Total Residential Use	0.08	0.08	0.10	0.16	0.17	0.16	0.18
	Total Commercial/Manufacturing Use	0.03	0.05	0.11	0.11	0.10	0.12	0.14
	Total Municipal Use	0.09	0.02	0.03	0.05	0.05	0.04	0.00
	Total Construction Use	0.00	0.00	0.01	0.02	0.01	0.01	0.00
Loss (% of Annual Pumpage)	Unaccounted For Flow (UFF)	45.59%	37.33%	21.67%	10.24%	12.31%	14.20%	19.72%
	Maximum Unavoidable Leakage (MUL)	6.67%	6.50%	6.48%	5.55%	6.43%	6.60%	6.43%
	UFF + MUL	52.26%	43.83%	28.15%	15.79%	18.74%	0.00%	26.14%
Residential Water Rate (\$ per 1,000 Gallons)		2005	2010	Percent Change	% Change 05-10 (Inflation Adj.)	Annual % Change (Inflation Adj.)		
		\$4.10	\$4.50	9.8%	-3.0%	0.04%		

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Source: Illinois Department of Natural Resources; US Census Bureau; Bureau of Labor Statistics



Overview of four new projects

2. Strategic planning with the Public Water Commission (Joliet Area)

Formed in the 1970s, the Public Water Commission, composed of Joliet, Lockport, Romeoville, Rockdale, New Lenox, and Frankfort, was formed to provide alternative water in the face of growing concerns of groundwater depletion. The PWC has been reinvigorated in recent years as the situation with the St. Peter Sandstone Aquifer becomes more dire.

CMAP has contracted this project out to the **Metropolitan Planning Council** and Tom Wiesner, former Mayor of Aurora, who will lead the Public Water Commission in a strategic planning process.

Overview of four new projects

3. Governance options for shared water supply in Oswego, Montgomery, & Yorkville

Oswego, Montgomery, and Yorkville have been pursuing shared services in recent years, including an LTA Shared Service Plan in 2015 and recent engineering work looking into joint options for alternative water supply sources.

CMAP is contracting with **MPC** to provide a summary of the potential governance options the three communities could use in structuring shared water supply.

Overview of four new projects

4. Update Regional Water Demand Forecast

CMAP is partnering with Margaret Schneemann at IISG to provide an updated baseline water demand forecast for the 7-county region to the year 2050.

Key differences from the past forecast:

- Synchronized with the CMAP Socioeconomic forecast.
- Provide projections by **municipality**, county, and region.
- Baseline forecast, no scenario development at this time.
- Provide data to assist with more refined local demand forecasts.

Overview of four new projects

4. Update Regional Water Demand Forecast

Timeline: November 1, 2017 – June 30, 2018

Scope:

- Convene technical advisory group (January – June)
- Data collection and processing (November – May)
- Review Water 2050 regional water demand forecast (November - December)
- Review best practices (November - January)
- Develop forecast methodology and draft results (January – April)
- Finalize regional forecast (May – June)