

## WHY SWITCH WATER SOURCES?

### The Purpose of Our Alternative Water Supply Investigation —

The decision to transition from our present well system is extremely complex. Over the past decades various focused studies have looked at the ground water supply, alternate water sources and associated costs for each.

The Illinois State Water Survey (ISWS) studies showed that a new water supply is required to replace Romeoville's existing groundwater supply. Recent analysis performed by the ISWS indicates that the water levels in the deep aquifer used by Romeoville and other communities in the region will decline to a point where local wells will no longer be able to meet the region's water needs. ISWS estimates that Romeoville's wells will not be able to reliably meet the community's maximum day water demands as soon as 2040-2070.

The findings of those studies led the Village to conduct a comprehensive study that explores the long-term viability of the well system currently in place and identifies potential partners along with alternative sources of water supply.

## Dewatering of the Deep Sandstone is Imminent According to ISWS Findings

- Computerized ground water aquifer modeling included all current deep wells and projected additional deep wells in all neighboring communities and industries.
- Modeling was performed with the assumption that Joliet will find an alternative source and cease withdrawals from the deep aquifer.

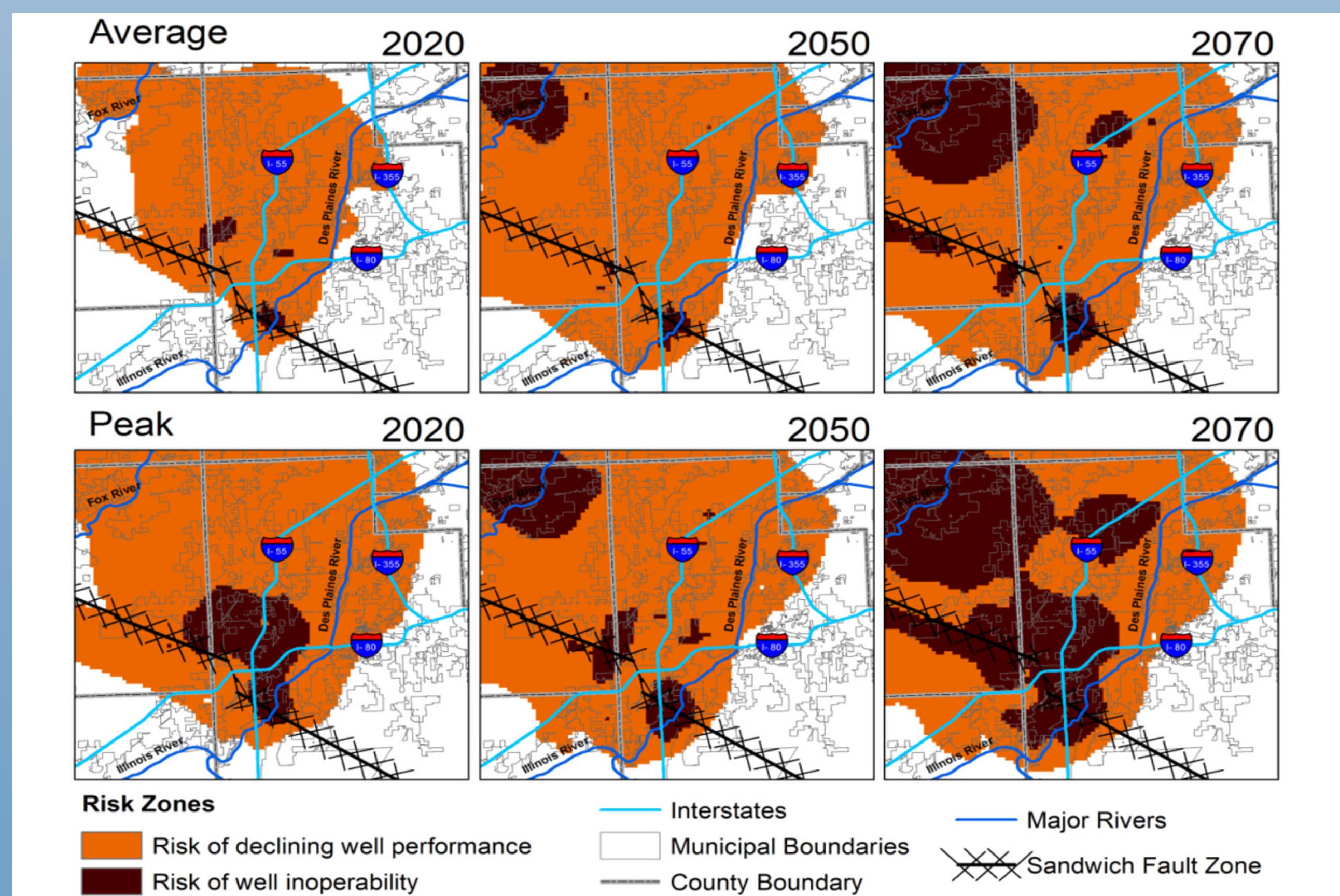


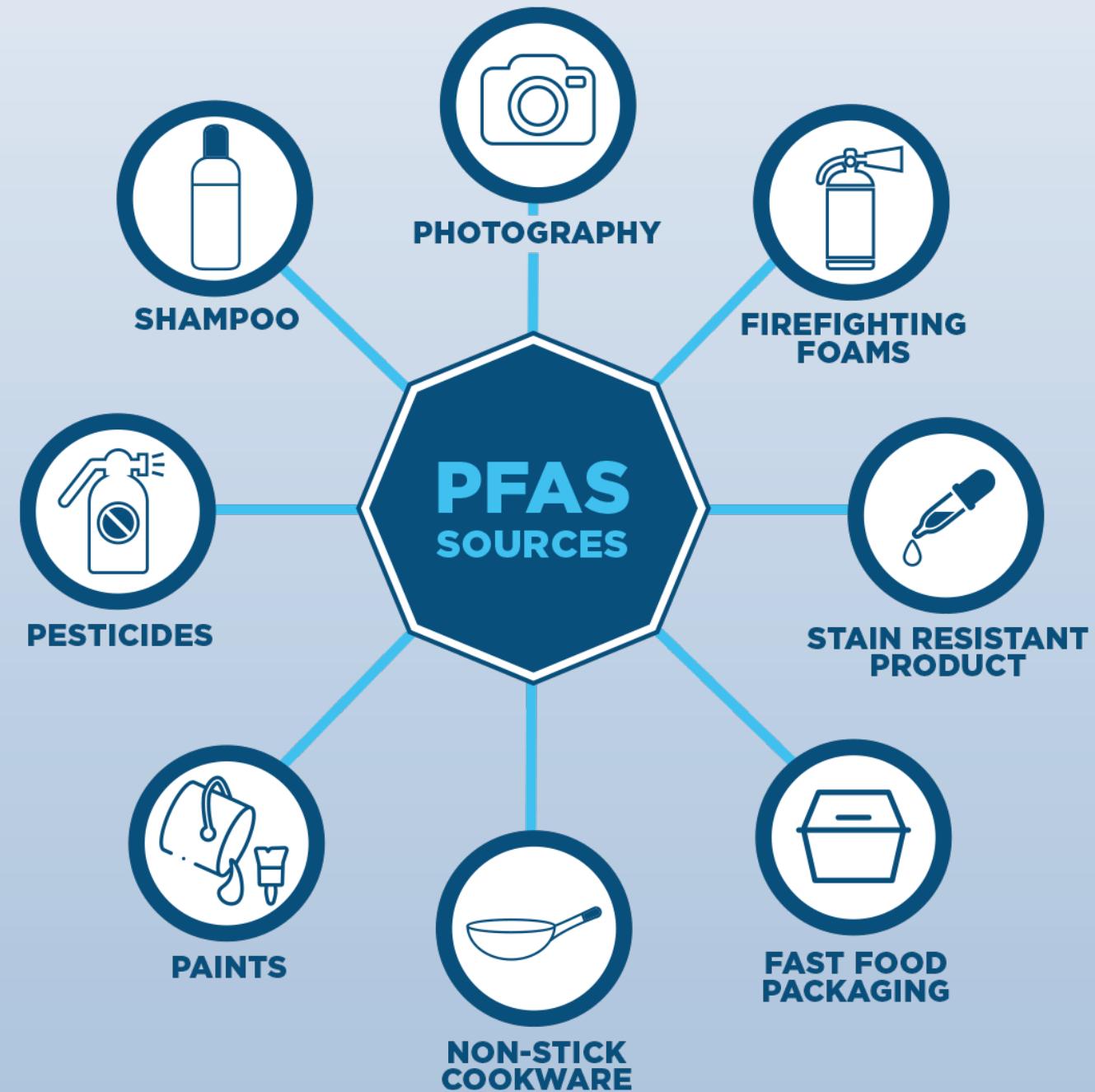
Figure 1. Risk associated with declining water levels in the deep sandstone aquifer in the Southwestern

- Withdrawals from neighboring communities still resulted in issues as early as 2050. Joliet is pursuing a change by 2030.
- Joliet's need for a new water source and exploration of regional options provides an opportunity for another water source for Romeoville.

## **WHY SWITCH WATER SOURCES?**

### **Cost of Treatment / Increased Regulation —**

- Anticipated increasing levels of contaminants make shallow well aquifer an unsustainable source.
- All area municipalities are facing issues with the rising costs associated with potential contaminants in the shallow aquifer.
- Minor levels of per- and polyfluoroalkyl substances (PFAS) have been detected in shallow wells in Romeoville and nearby communities.
- PFAS is an increasing issue nationally.
- Additional regulations are highly probable from agencies like the IEPA and USEPA.
- The sustainability and quality of water supply must be maintained into the future.
- Use of road salt is causing increasing levels of chloride in portions of the source water and will potentially require additional treatment.



***Romeoville is not the only community facing these issues***

The following communities are evaluating or have switched to a new water source:

- Bolingbrook (ILAMW)
- Channahon (RWC)
- Crest Hill (RWC)
- Elwood
- Homer Glen (ILAMW)
- Joliet (RWC)
- Lemont
- Lockport
- Manhattan
- Minooka (RWC)
- Montgomery (DWC)
- New Lenox (Lake Michigan)
- Oswego (DWC)
- Rockdale (RWC)
- Romeoville
- Shorewood (RWC)
- Yorkville (DWC)

**PHASE 1 ANALYSIS IDENTIFIED A TOTAL OF 8 ALTERNATIVE WATER SOURCES:**

Three Lake Michigan options:

- Lake Michigan Water – Regional Water Commission (Joliet) – From Chicago
- Lake Michigan Water – DuPage Water Commission
- Lake Michigan – Illinois American Water Company

Two Lake Michigan options that were evaluated and eliminated:

- Lake Michigan Water – Regional Water Commission (Joliet eliminated) – From Indiana
- Lake Michigan Water – Chicago Direct – Eliminated due to cost

Three River options that were evaluated and eliminated due to low quality/high treatment:

- Des Plaines River
- Illinois River – Marseilles Pool
- Kankakee River

Staff has been identifying viable options for a long-term water supply solution for the Village. The following was considered when researching alternative solutions:

- Cost
- Raw water quality
- Sustainability/water quantity
- Implementation risk
- Operation & maintenance
- Control (governance)

**PHASE 2 ANALYSIS IDENTIFIED LAKE MICHIGAN TO BE A SAFE, RELIABLE RENEWABLE SOURCE OF WATER.**

**The Benefits of Lake Michigan Water**

- Proven record of continuous supply, high-quality water, naturally soft
- Ensures long term water source for the Village
- Costs for water treatment and meeting regulations are shared by larger group of consumers

**Three Lake Michigan Sources were identified:**

- Lake Michigan via the Regional Water Commission (RWC)
  - Leading option for the Village of Romeoville
- Lake Michigan via the DuPage Water Commission
  - Present value cost analysis indicates that RWC is a more economical alternative
- Lake Michigan via Illinois American Water
  - Village evaluation of ILAWC data indicated that RWC and DWC were more cost competitive options

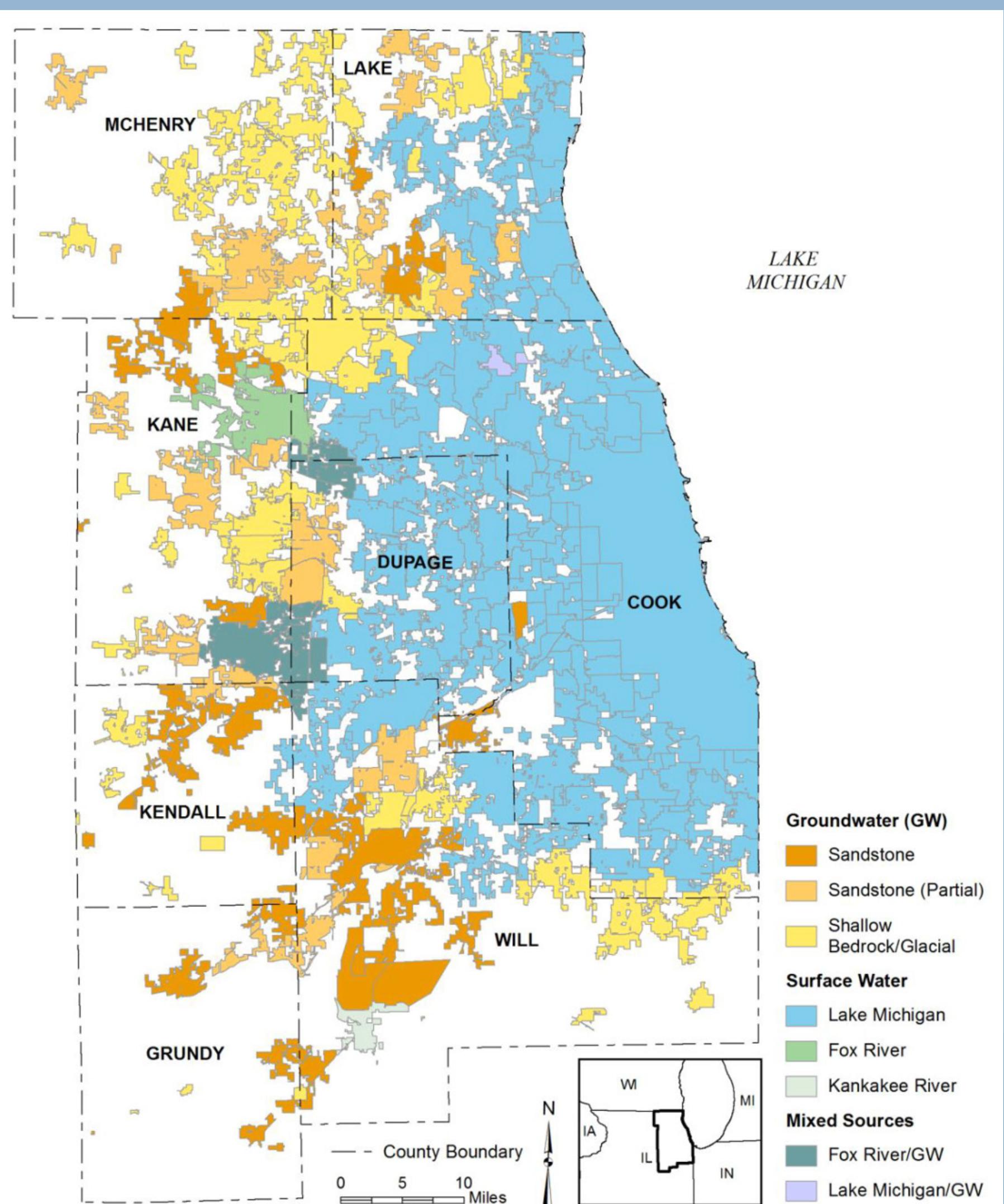


Figure 7: Source of municipal water used by each community in northeastern Illinois as of 2014.

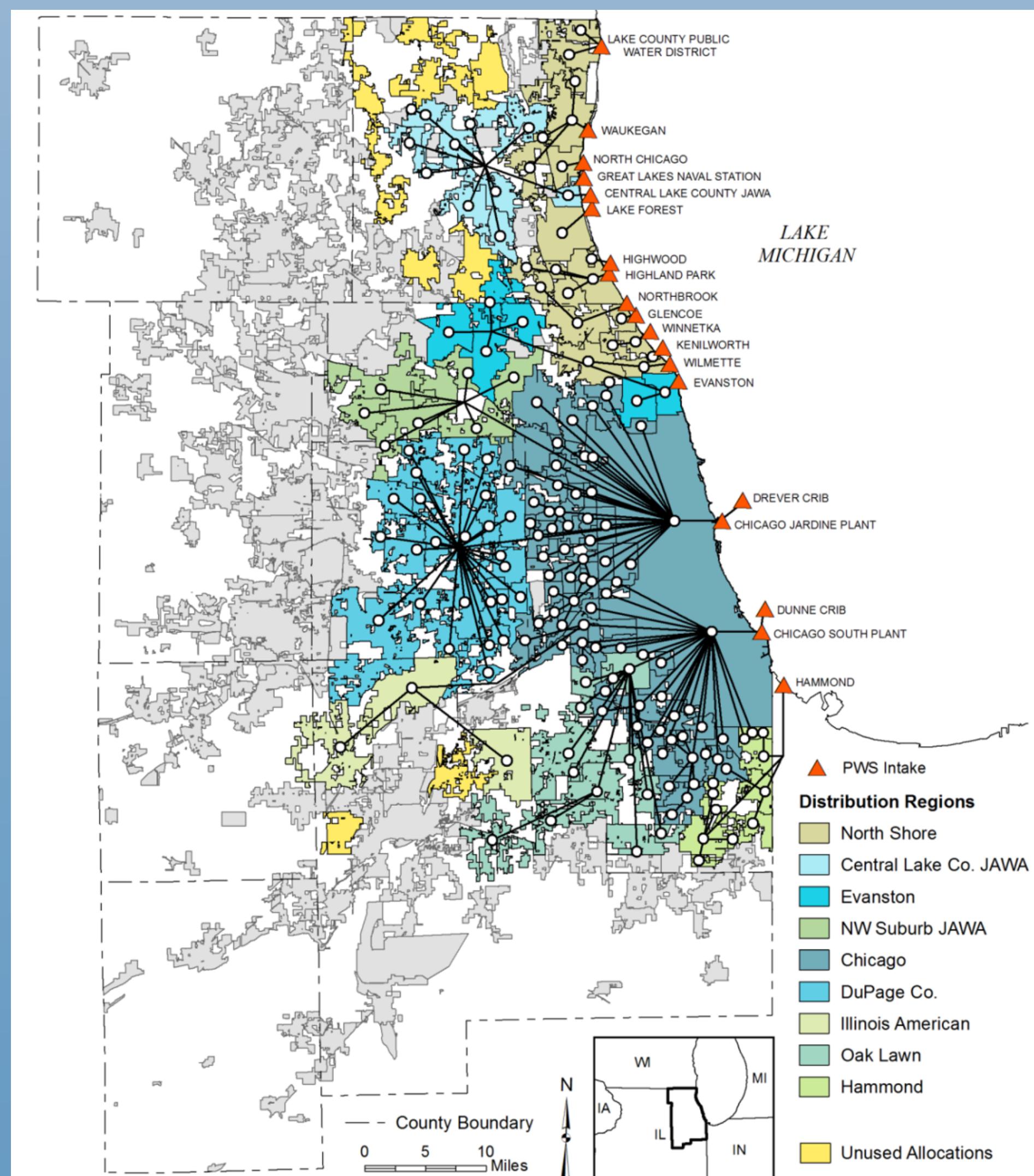


Figure 58: Lake Michigan water distribution network in northeastern Illinois for 2012. Connecting lines are illustrative and do not represent the physical pipelines.

Lake Michigan has been a safe, reliable, and renewable source of water for many communities in Northwest Illinois. Romeoville is joining several new municipalities across southwest the Chicagoland area considering the switch to Lake Michigan water supply. After extensive evaluation, the Regional Water Commission (RWC) is the leading option for the Village of Romeoville, based on the current data available.

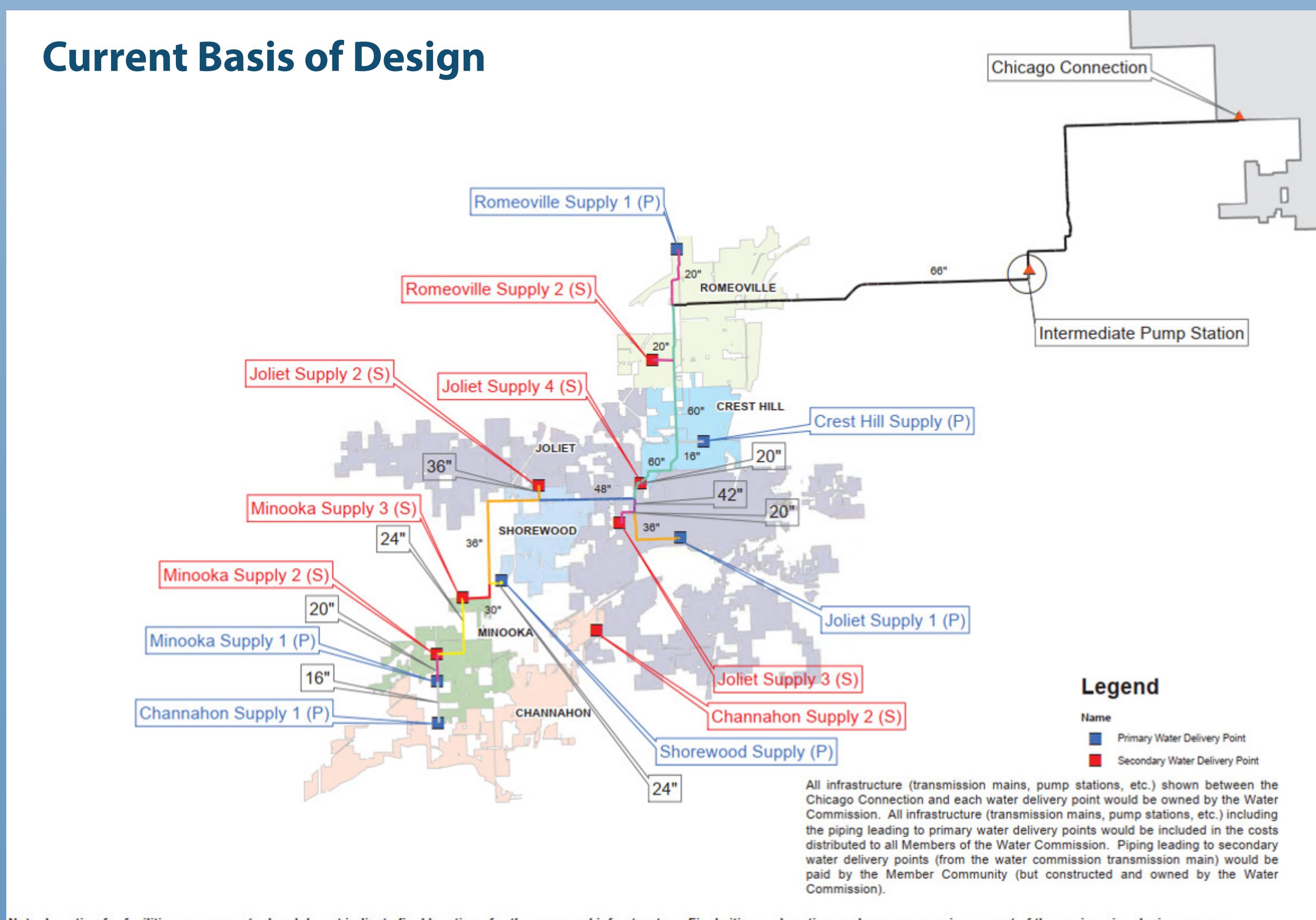
## The Benefits of RWC

- Supply transmission main runs through Village and minimizes internal system improvements
- Wholesale purchase rate is transparent and very cost advantageous
- Village participation in forming of commission and terms and conditions
- Shared costs for transmission main from Windham facility to Airport road facility significantly reduces internal costs
- Higher voting authority than other commissions
- Beginning of supply rather than end of the line
- Construction managed by others
- Potential for advantageous funding opportunities

## Current Regional Partners

• Channahon	• Minooka	• Romeoville
• Crest Hill	• Rockdale (via Joliet)	• Shorewood
• Joliet		

## Current Basis of Design



**2015  
ISWS Report Issued**

Previous water studies predicted longer term availability

**2019**  
Joined SW Planning Group.  
Requested additional modeling from Illinois State Water Survey

**2020**  
Initial draft report received (September) from Illinois State Water Survey

**2020-21**  
• Received report from IL State Water Survey  
• Started research on alternate water sources  
• Retained Strand Eng. to begin detailed study

**January 2021**  
Joliet decides Lake Michigan water via Regional Water Commission (RWC)

**2022**  
• Decision for regional partnership  
• Lake Michigan allocation  
• Continue evaluation of other alternatives

**2023 – 2024**  
Final design of internal facilities and improvements, conduct financing and funding analysis, finalize corrosion control analysis

**2025-2026**  
Permitting and bidding of internal improvement projects

**2025-2028**  
Construction of internal improvements  
  
Construction of RWC transmission main

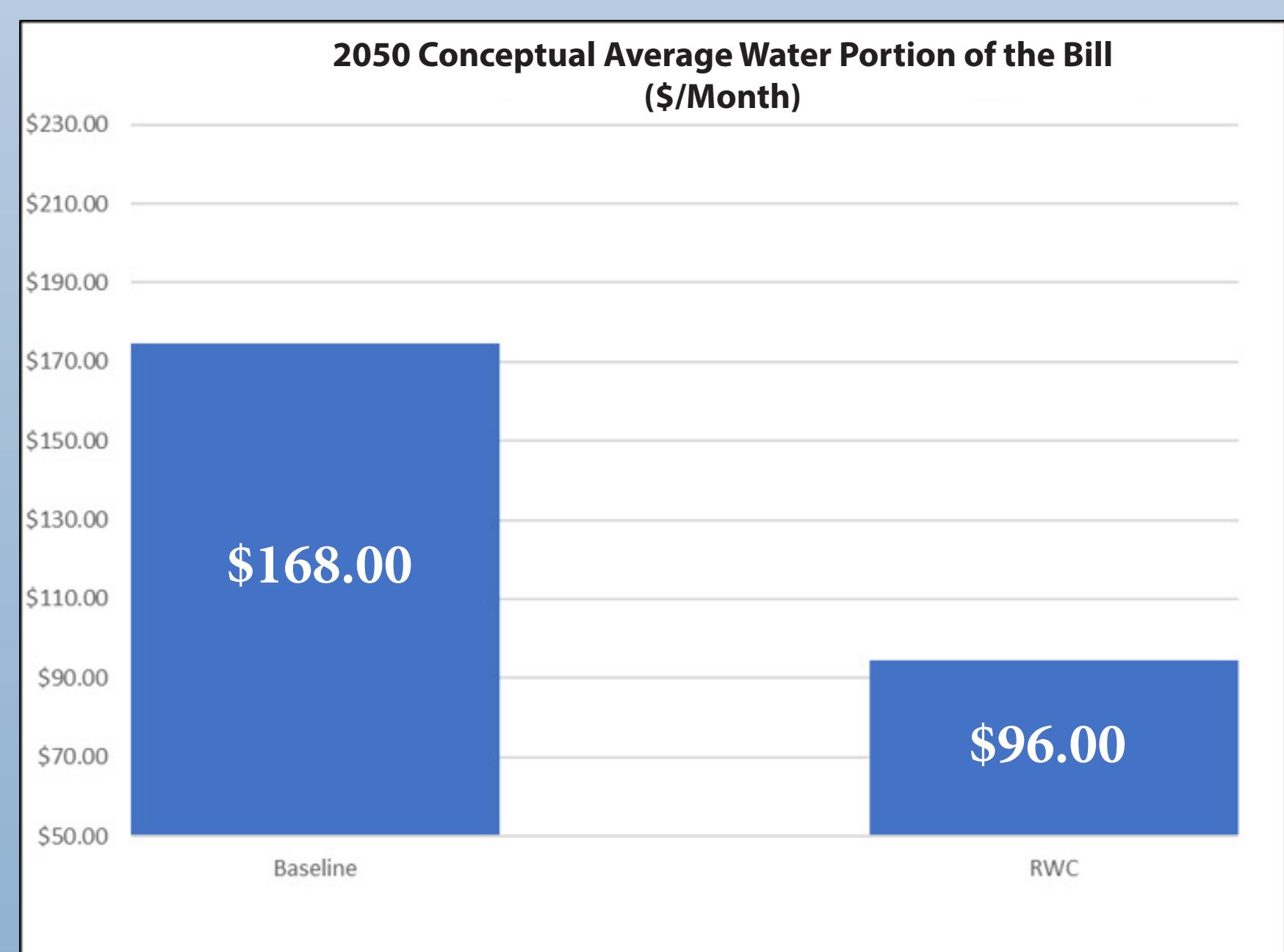
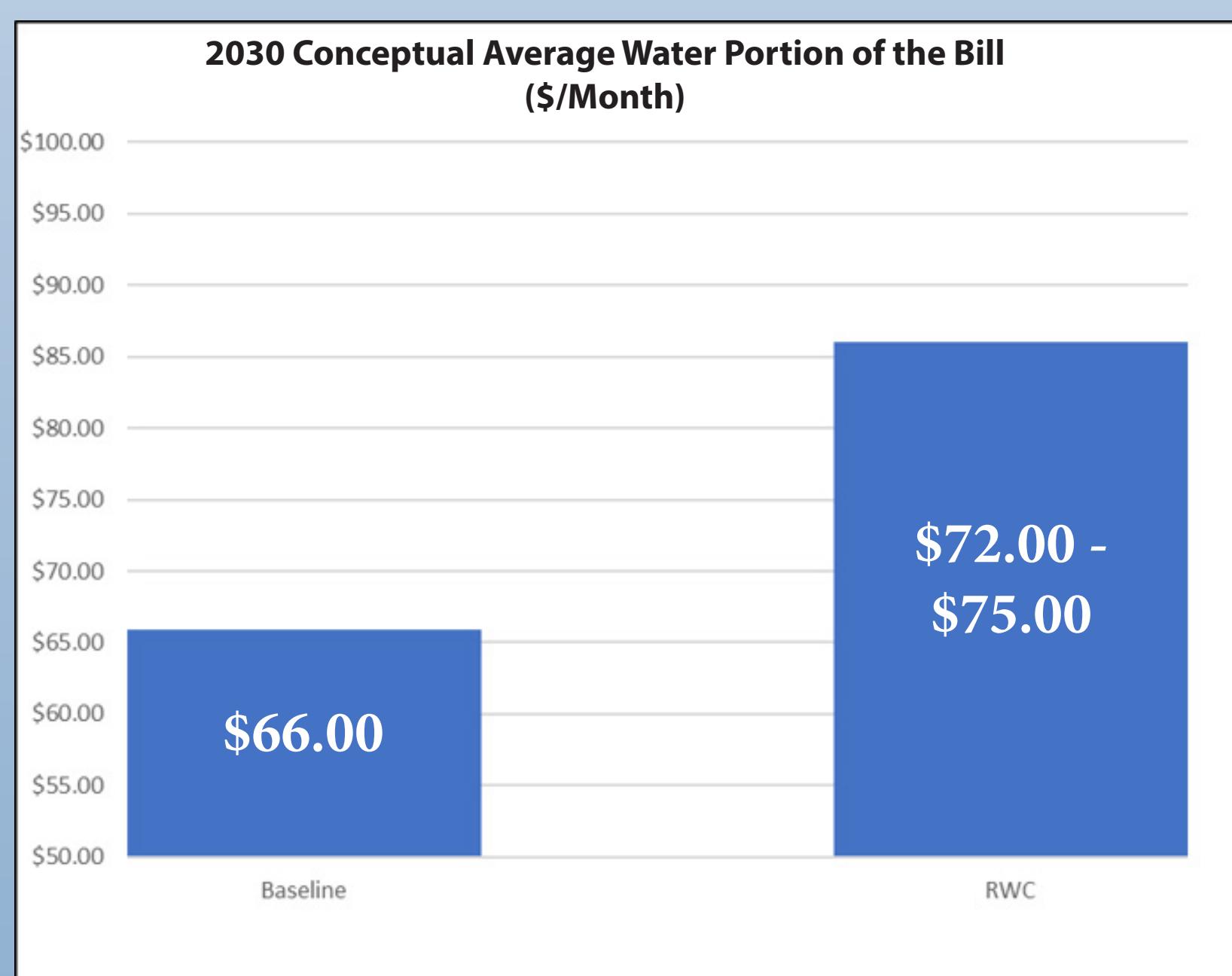
**2029**  
Commission System  
Obtain operating permits

**2030**  
Enjoy Lake Michigan water!

## HOW DOES THIS AFFECT MY WATER BILL?

- Romeoville's portion of RWC's system includes a new connection to City of Chicago Department of Water Management tunnel system, pumping stations, storage tanks, and transmission main.
- Local improvement to connect to RWC system include:
  - Additional storage tanks
  - Internal water main improvements include replacement of aging water mains

## Conceptual Water Rate Analysis Results – Based on Currently Available Information



- These are estimated rates.
- Residents will still receive bills from the Village of Romeoville.

## HOW DOES THIS AFFECT ME?

### How I Can Help —

#### Why Conserve Water?

- Water costs are on the rise throughout the State of Illinois.
- Conserving water will help you keep your costs down.
- Help to reduce Romeoville's water treatment needs.



#### How do I Conserve Water?

- Install WaterSense and Energy Star fixtures and appliances.
- Use a dishwasher rather than washing dishes by hand.
- Only run the washing machine on a full load.
- Don't defrost food under a faucet, use the refrigerator.
- Take shorter showers. Install water saving shower heads and shower timers.
- Install a dual flush toilet or put a brick or filled water bottle in the tank of your toilet.
- Check faucets and toilets for leaks, have them repaired.
- Use a broom, not a hose, to clean driveways and sidewalks.
- Water during the early parts of the day; Avoid watering when it is windy.
- Water the lawn long enough for the moisture to soak down to the roots where it will do the most good.
- Use rain barrels or a catchment system to harvest valuable rainwater from your roof.
- Add mulch to landscaped areas and garden beds to help increase water absorption and water retention.
- Plant drought-resistant lawns, shrubs and plants that thrive with far less watering.
- Control weeds to reduce competition for water in the garden facilities.