

# Current Source vs. Alternative Sources Treatments / Regulations

## THE PROBLEM

- Excessive de-icing and salt usage in urban Chicagoland is causing chlorides in shallow aquifers to rise.
- Modeling of the deep aquifer done by the Illinois State Water Survey, the leading authority on water sources in Illinois, indicates that our current water source will not meet our needs in the coming decades.
- The quality of the water supply must be maintained into the future.
- Additional regulations are highly probable from agencies like the IEPA and USEPA.
- The costs to treat water continue to rise.



## LAKE MICHIGAN AS A WATER SOURCE

- Proven record of continuous, high-quality water source for millions of customers.
- Ensures long term water source for the Village.
- Costs for water treatment and meeting regulations are shared by a larger group of consumers.



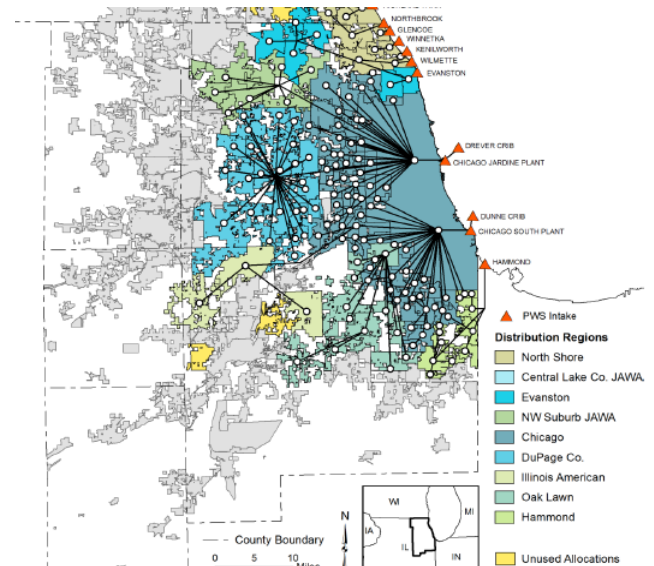
# What's Involved with Switching Water Sources

## Regional Water Commission (RWC)

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As a possible regional solution to the water supply issue, the Village and other surrounding communities evaluated several different source water options. One such option is to form a Regional Water Commission for Lake Michigan Water.

Forming the RWC adds efficiencies for the communities involved. All of the RWC communities would help contribute to future costs to supply, treat and maintain Lake Michigan water. Joining the RWC now allows the commission and communities to take advantage of additional financial assistance currently available for infrastructure from the State of Illinois.

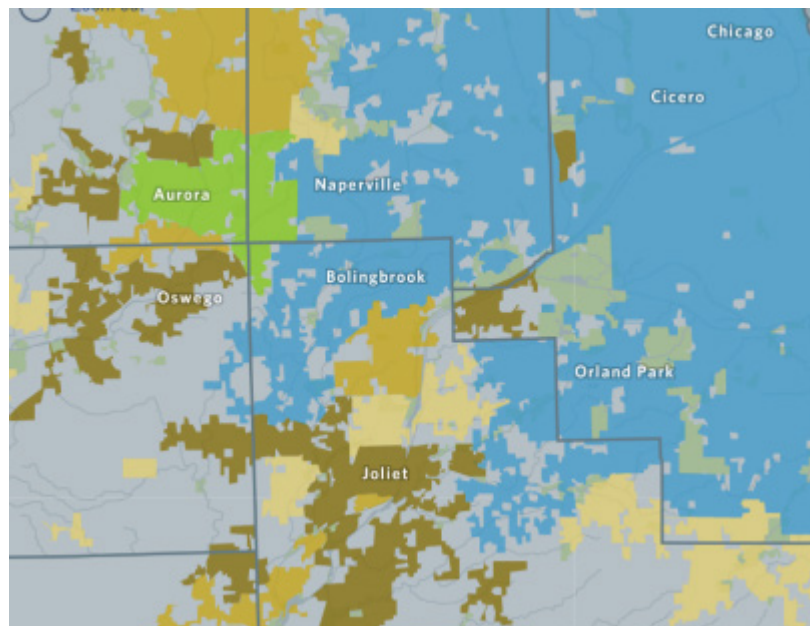


### Other Area Communities Evaluating New Water Sources

Lake Michigan has been a safe, reliable and renewable source of water for many communities in northwest Illinois.

Channahon is joining several new municipalities across the southwest Chicagoland area considering the switch to Lake Michigan water supply.

- Minooka
- Shorewood
- Romeoville
- Lemont
- Joliet
- Crest Hill



- Lake Michigan
- Shallow groundwater aquifers
- Sandstone groundwater aquifers
- Mixed groundwater sources
- Fox and Kankakee Rivers



# What's Involved with Switching Water Sources

## Pros vs. Cons of Joining the RWC for Lake Michigan water

### Pros

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- Lake Michigan has a very high water quality
- Low risk of running out of water/water restrictions
- Water treatment by other entities
- Secure Lake Michigan allocation while available
- Simplified operation and maintenance
- Lower cost than treating Illinois River supply
- Due to significantly larger customer base and other factors, costs increase at slower rate; potentially results in lower long-term rates

### Cons

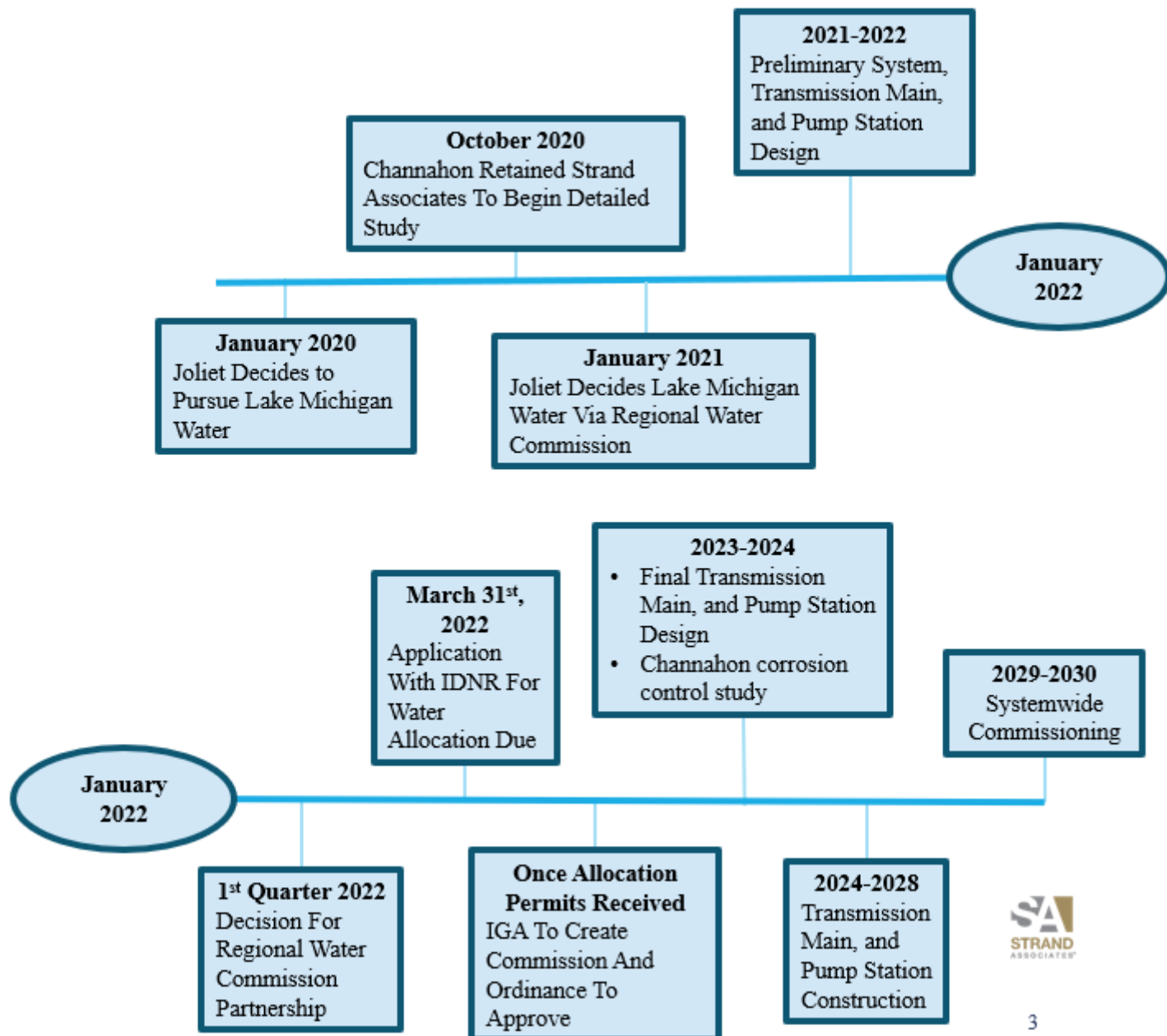
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- Switching slightly earlier than needed
- Commission infrastructure control shared with several partners
- Chicago control of treatment and sale to Commission (under 100-year agreement with transparency)
- Higher near-term rates than remaining on groundwater



# What's Involved with Switching Water Sources

## Timeline / Milestones



# How Does This Affect Me?

## Anticipated Expenses

### **COST IMPACTS OF LAKE MICHIGAN WATER VIA RWC:**

- Costs to perform Lead and Copper Study and complete the Allocation process to get Lake Michigan water
- The Village of Channahon's portion of RWC's system, including new connection to Chicago's tunnel system, pumping stations, storage tanks and transmission main
- Local improvements to connect to RWC system:
  - Additional storage & pumping facilities
  - Distribution system improvements
  - Metering facility

### **COST IMPACTS OF RIVER SOURCE OPTION**

- Advanced water treatment plant (AWTP)
- Clearwell and high service pumping stations
- Dedicated water transmission main to distribute the treated water supply
- Operation, maintenance and energy costs to run new AWTP

**Regardless of which option the Village moves forward with, even if the Village does not join the RWC, water costs will be rising and will be distributed among water bills in the immediate future due to:**

- Inflation
- Necessary infrastructure improvements
  - New State and Federal regulations
  - Higher water treatment costs



# How Does This Affect Me?

## Long Term Impact

2020 Resident Average Monthly Water Bill

Alternative	Water Rate	Water*	Sewer	Refuse & Other Fees	Total
No Change - with 3% increase per year	\$6.41	\$32.05	\$41.92	\$26.28	<b>\$100.25</b>

2030 Resident Estimated Average Monthly Water Bill

Alternative	Conceptual Water Rate	Water*	Sewer	Refuse & Other Fees	Total
No Change - with 3% increase per year	\$8.61	\$43.07	\$56.34	\$35.32	<b>\$134.73</b>
Lake Michigan water via Regional Water Commission	\$15.50-\$16.00	\$75-\$80	\$55-\$60	\$30-\$35	<b>\$160-\$175</b>
Switch from wells to Illinois River by 2050	\$8.50-\$9.00	\$45-\$50	\$55-\$60	\$30-\$35	<b>\$125-\$140</b>

2050 Resident Estimated Average Monthly Water Bill

Alternative	Conceptual Water Rate	Water*	Sewer	Refuse & Other Fees	Total
No Change - with 3% increase per year	\$15.56	\$77.79	\$101.75	\$63.79	<b>\$243.33</b>
Lake Michigan water via Regional Water Commission	\$16.50-\$17.00	\$80-\$85	\$100-\$105	\$60-\$65	<b>\$240-\$255</b>
Switch from wells to Illinois River by 2050	\$26.00-\$26.50	\$130-\$135	\$100-\$105	\$60-\$65	<b>\$290-\$305</b>

*\*Average monthly bill based on 5,000 gallons of water usage.*

