

CHANNAHON | CREST HILL | JOLIET | MINOOKA | ROMEOVILLE | SHOREWOOD



GRAND PRAIRIE
WATER COMMISSION

2022 CONTRACTOR OUTREACH EVENT
November 30, 2022



GRAND PRAIRIE
WATER COMMISSION

Alternative Water Source Program Contractor Outreach Event

- 8:30 AM - Welcome and Introductions
- 8:35 AM – Opening Remarks
- 8:45 AM – Contracting Opportunity Overview
 - Grand Prairie Water Commission
 - GPWC Member Communities
- 9:45 AM – Break
- 10:00 AM – Program Schedule and Contracting Plan
- 10:30 AM – Questions and Answers











SAFETY MOMENT – EMERGENCY EVACUATION PLAN



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WATER COMMISSION



-  EXIT ACCESS
-  FIRST AID STATION
-  SEVERE WEATHER SHELTER
-  FIRE EXTINGUISHER
-  PULL BOX
-  AED
-  EVACUATION STAIR CHAIR
-  AREA OF RESCUE

IN CASE OF FIRE DO NOT USE
ELEVATORS

IN CASE OF TORNADO WARNING
SEEK SEVERE WEATHER SHELTER OR
INTERIOR AREA AWAY FROM GLASS



2022 Contractor Outreach Presenters



Allison Swisher
City of Joliet



Brian Kazyak
Stantec



Chris Ulm
Strand



Joe Johnson
Stantec



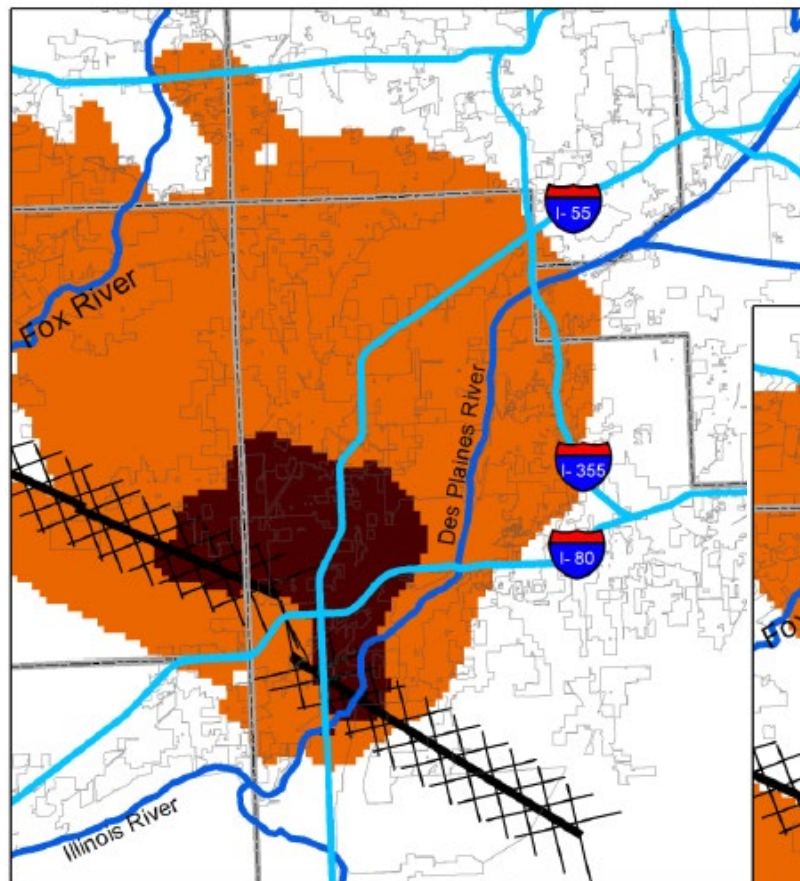
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Opening Remarks

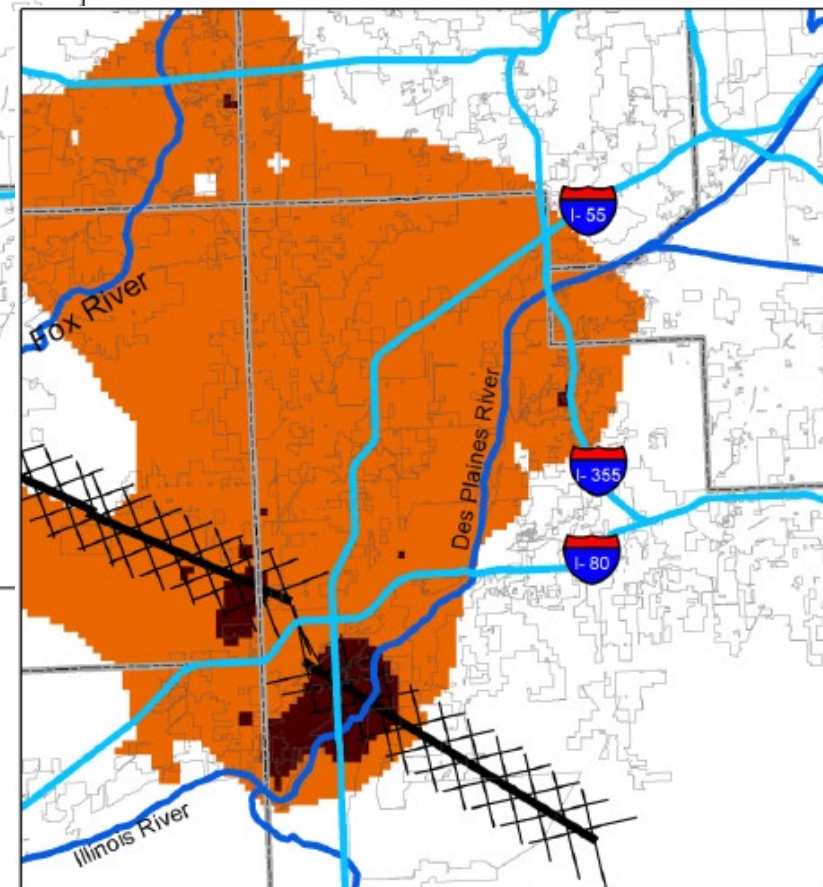
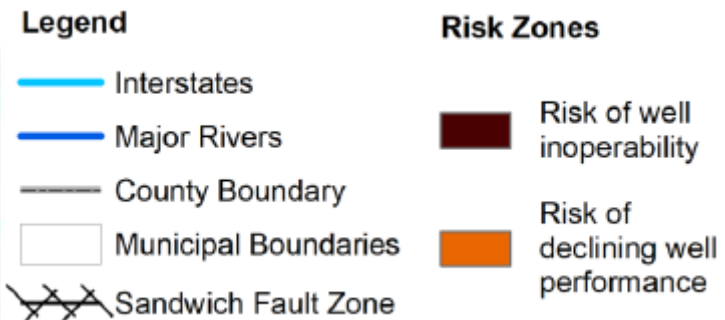


REGIONAL PROBLEM

- Groundwater sources in the region are in jeopardy
- Deep sandstone aquifer is being depleted to the point of inoperability
- Joliet switching off the deep sandstone aquifer does not solve the problem.



2029 – Before Joliet switches off the aquifer (From ISWS)

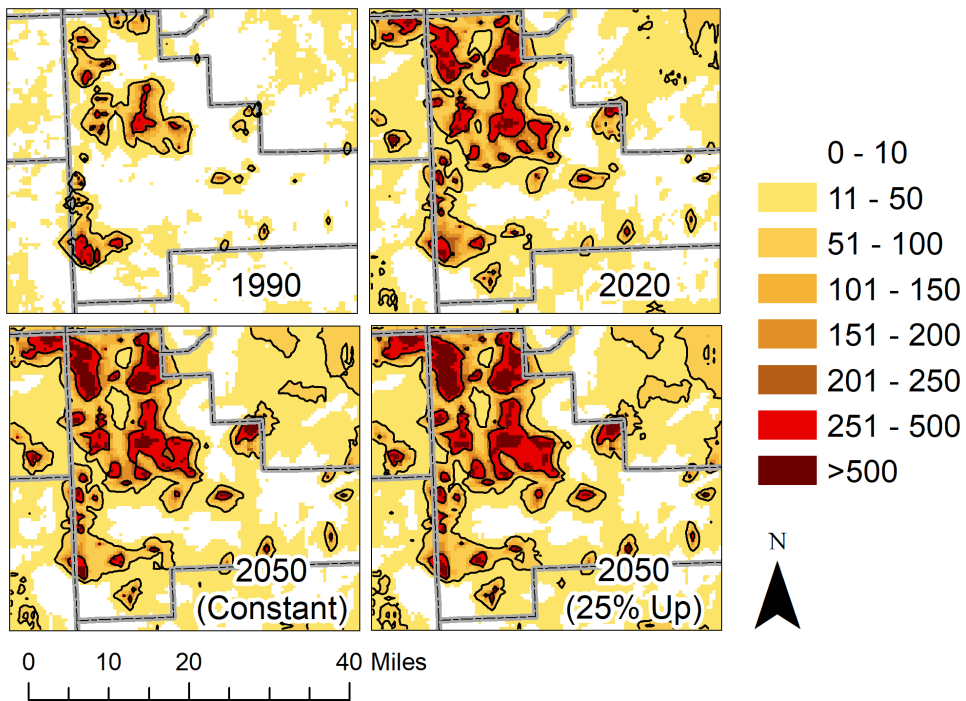


2050 – Peak Pumping (Joliet off aquifer) (From ISWS)

The Illinois State Water Survey has concluded that most sandstone wells in the Will County region are at risk of not meeting supply in the future, and as water levels continue to decline, they will become increasingly vulnerable to new demands in the region.

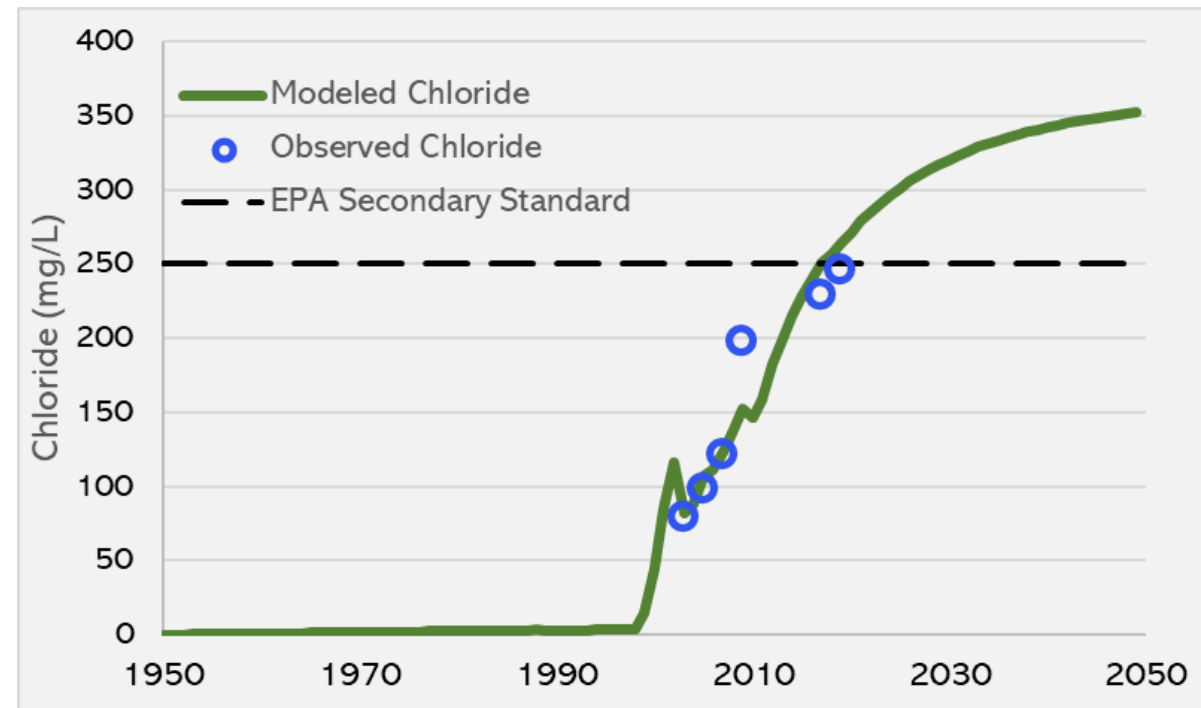
REGIONAL PROBLEM

- Groundwater sources in the region are in jeopardy
- shallow aquifer water quality is deteriorating due to **increased chloride levels and presence of PFAS**



Red areas depict areas that could have groundwater concentrations approach or exceed the secondary standard (From ISWS)

- **The Illinois State Water Survey has concluded that chloride has been increasing in the aquifer for decades due to road salt applications, approaching or exceeding the secondary water quality standard in many portions of northern Will County. Some communities may see drinking water quality deteriorate; water would taste salty and possibly be corrosive.**
- **Recent shallow well testing by IEPA showed presence of PFAS in some wells at levels which may require treatment**



There are observed and modeled increases in chloride levels in regional shallow wells (From ISWS)

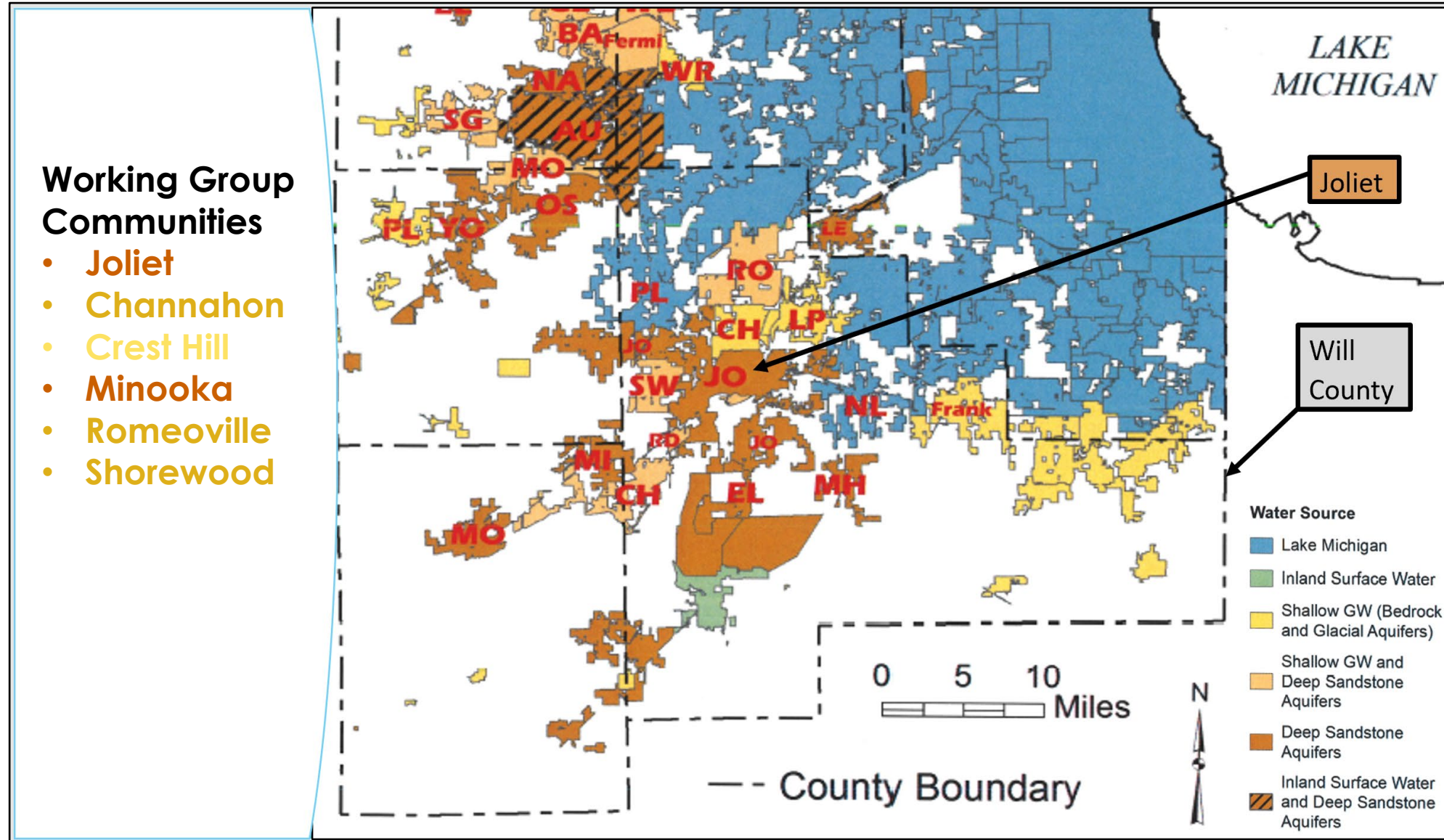
REGIONAL SOLUTION

From ISWS Fact Sheet 3 from Contract Report 2015-02 –
“Sources of Water for Communities in Northeastern Illinois”

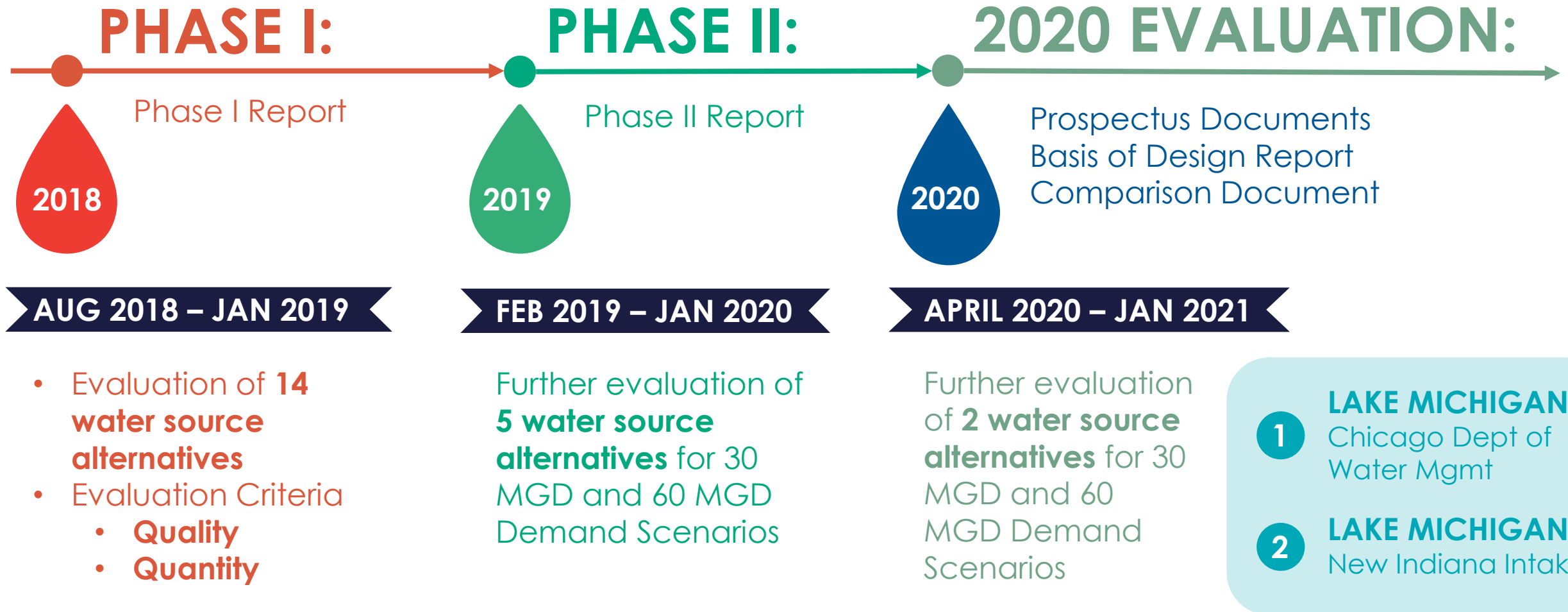
Bottom Line:
Maintaining a reliable water supply is a regional problem – with the opportunity for a regional solution.

Working Group Communities

- Joliet
- Channahon
- Crest Hill
- Minooka
- Romeoville
- Shorewood



STUDY HISTORY



JOLIET CITY COUNCIL **DECISION**



JANUARY 28, 2021

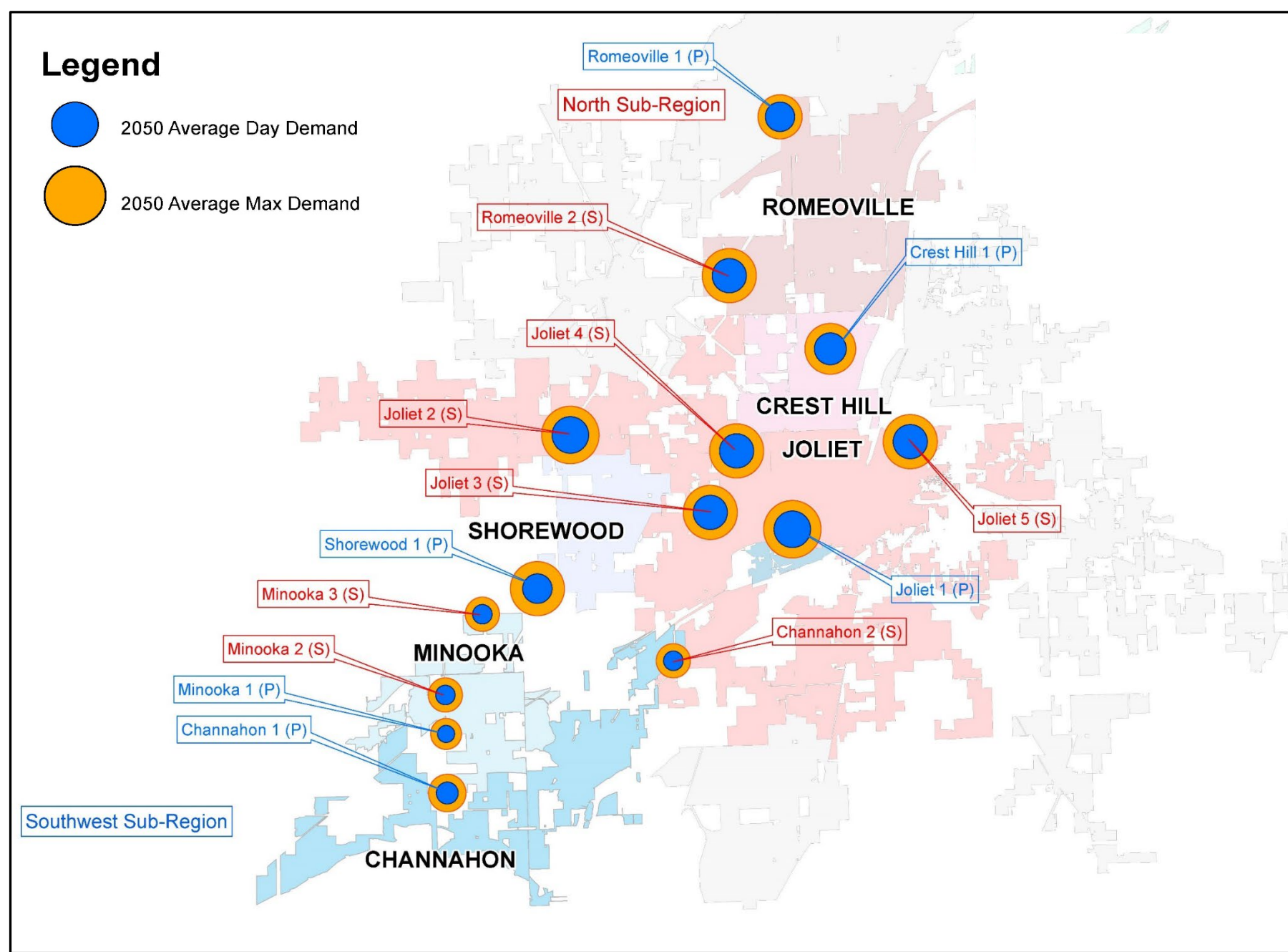


SELECTION OF NEW WATER SOURCE ALTERNATIVE

- ✓ Purchasing treated water from the City of Chicago and pumping ~31 miles to the City of Joliet for distribution

REGIONAL WATER COMMISSION OPPORTUNITY

Outreach resulted in the identification of other communities interested in working with Joliet to develop a regional solution



WATER COMMISSION LEGISLATION

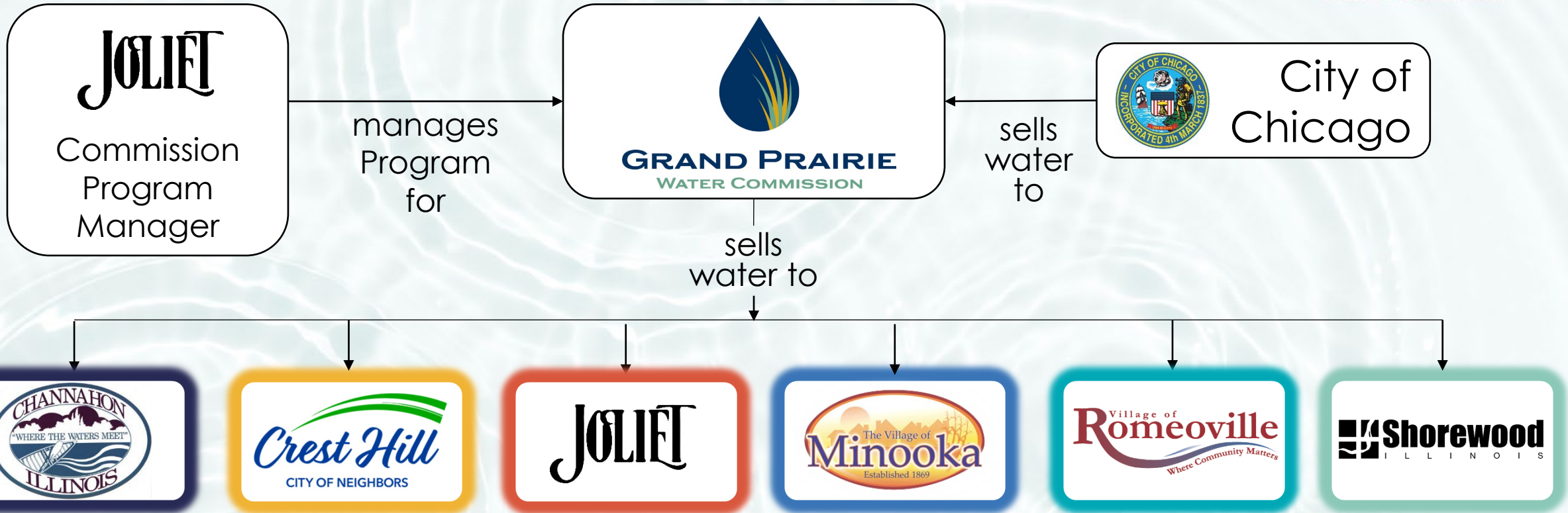


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December 2021 – Governor Pritzker signs SB 280 – Regional Water Commissions Act – that defines the framework to be used to create a new regional water commission



WATER COMMISSION STRUCTURE



Water Commission will be governed by a Board of Commissioners. Each Member will appoint an elected official as its representative.

STRATEGIC PLAN

(RWC Version 1.0 – April 2022)



- The **Vision Statement** for the Alternative Water Source Program is:

To be recognized as a leader in providing sustainable, reliable and high-quality water in an innovative, collaborative, fiscally responsible and efficient manner for our communities

- The **Mission Statement** for the Alternative Water Source Program is:

*To provide a **sustainable, reliable** and **high-quality** water supply for our communities **by 2030** in order to support the public health, safety and economic interests of the community.*



ALTERNATIVE WATER SOURCE PROGRAM SCHEDULE



- ❖ Lake Michigan Allocations
- ❖ Chicago Coordination
- ❖ Water Commission Formation
- ❖ Funding Initiatives
- ❖ Engineering Design - Commission
- ❖ Engineering Design – GPWC Members

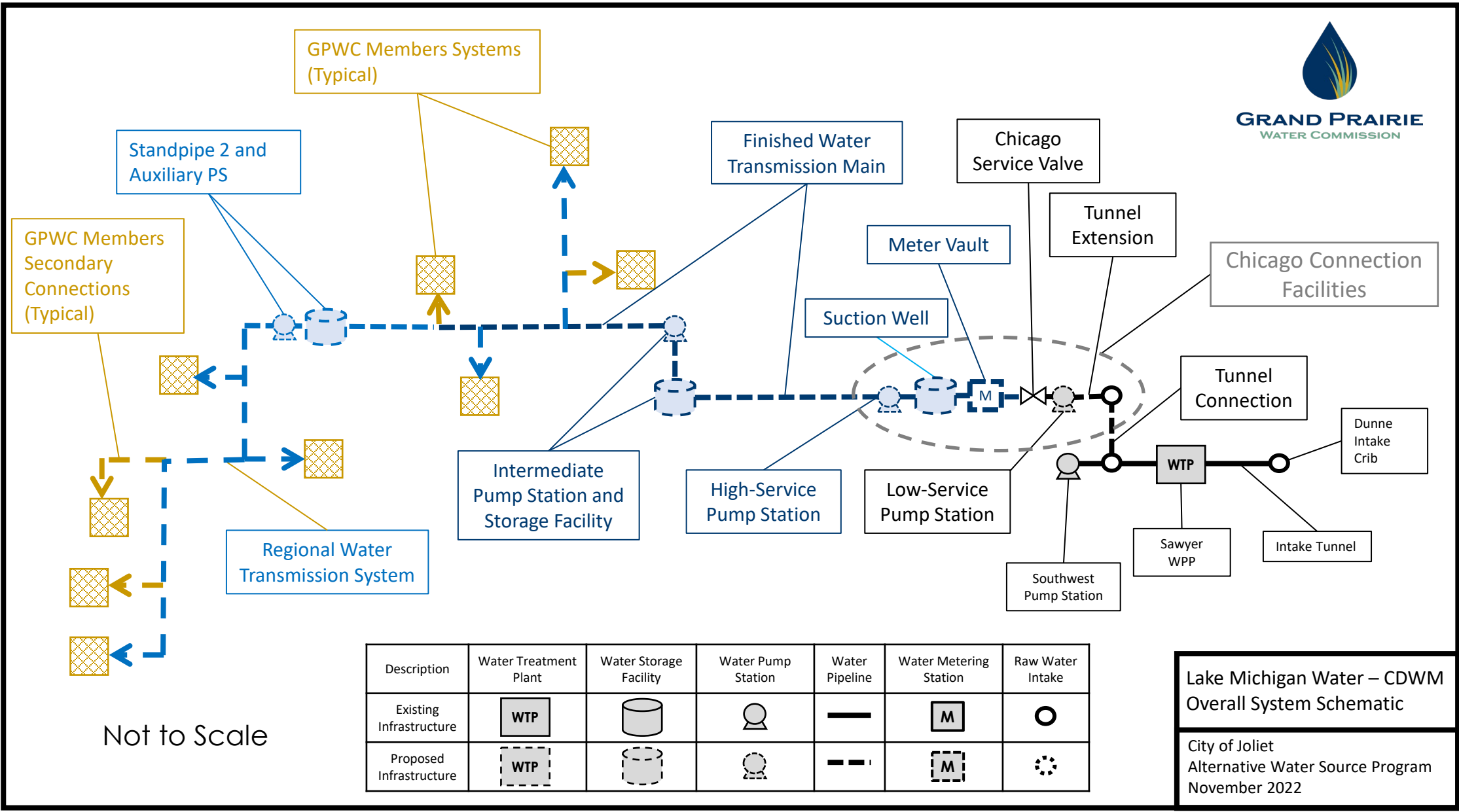
**2030 - Delivering
Lake Michigan Water
to a Growing Region**















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REGIONAL WATER TRANSMISSION SYSTEM IMPROVEMENTS





Not to Scale

Description	Water Treatment Plant	Water Storage Facility	Water Pump Station	Water Pipeline	Water Metering Station	Raw Water Intake
Existing Infrastructure						
Proposed Infrastructure						

Lake Michigan Water – CDWM
Overall System Schematic

City of Joliet
Alternative Water Source Program
November 2022

AWSP Infrastructure Work Breakdown



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Capital Improvement Projects (CIPs)

- Main division of infrastructure by type/location
- Total of 7 CIPs

Work Packages

- Construction contracts
- Total of 27 work packages

CIP#1 – Chicago Connection Facilities



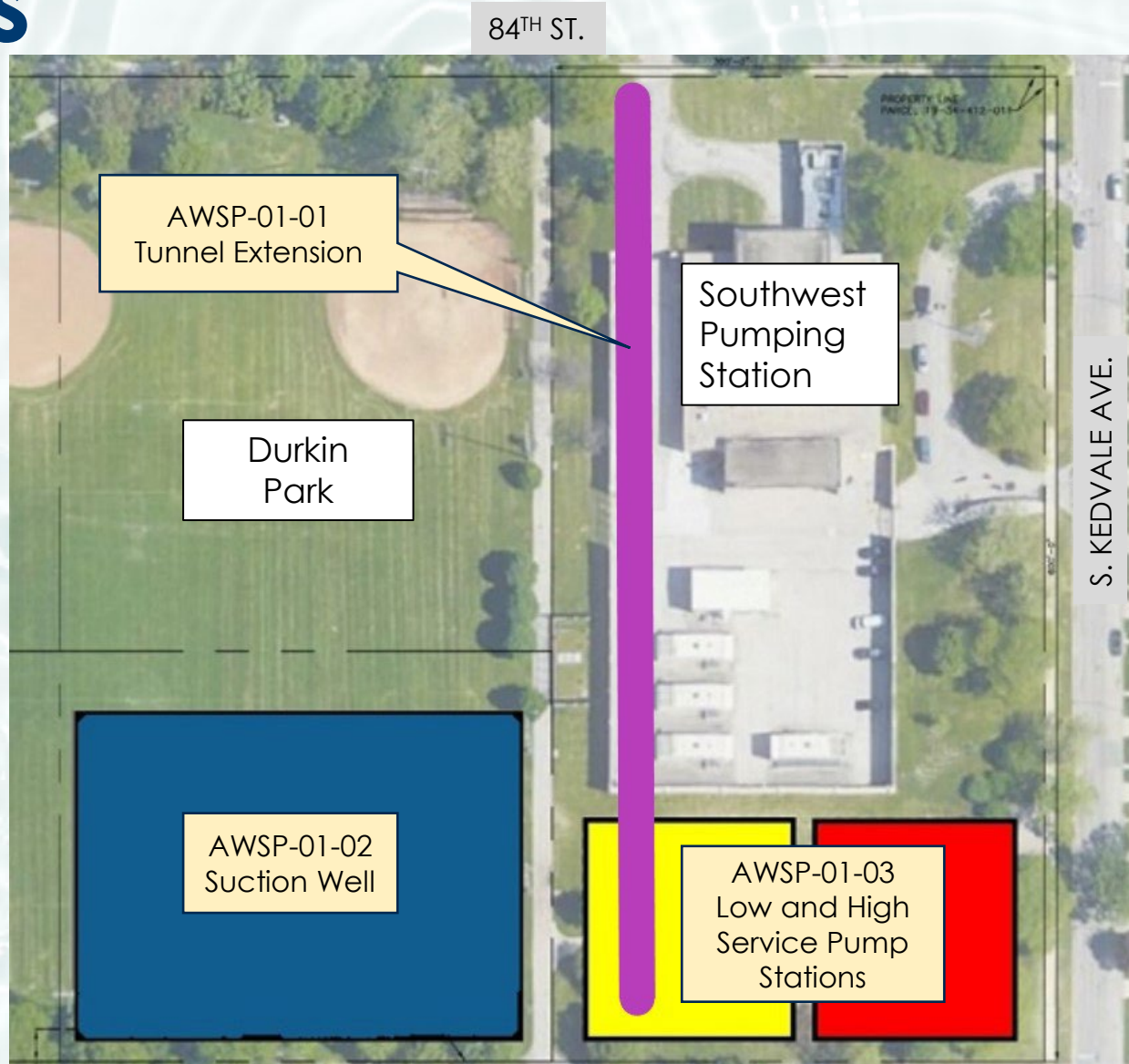
Function: Provide connection to Chicago South Tunnel Zone System and pump water toward Commission service area

Element/Work Package	Description
Tunnel Connection (CDWM-01-01)	10 ft Rock Tunnel, 60 ft length, by CDWM
Tunnel Extension (AWSP-01-01)	10 ft dia Rock Tunnel, 575 ft length, 4 pump riser shafts
Low Service Pump Station (AWSP-01-03)	55 MGD PS, expandable to 104 MGD
Suction Well (AWSP-01-02)	4 MG Buried Concrete Reservoir
High Service Pump Station (AWSP-01-03)	55 MGD PS, expandable to 104 MGD

CIP#1 – Chicago Connection Facilities



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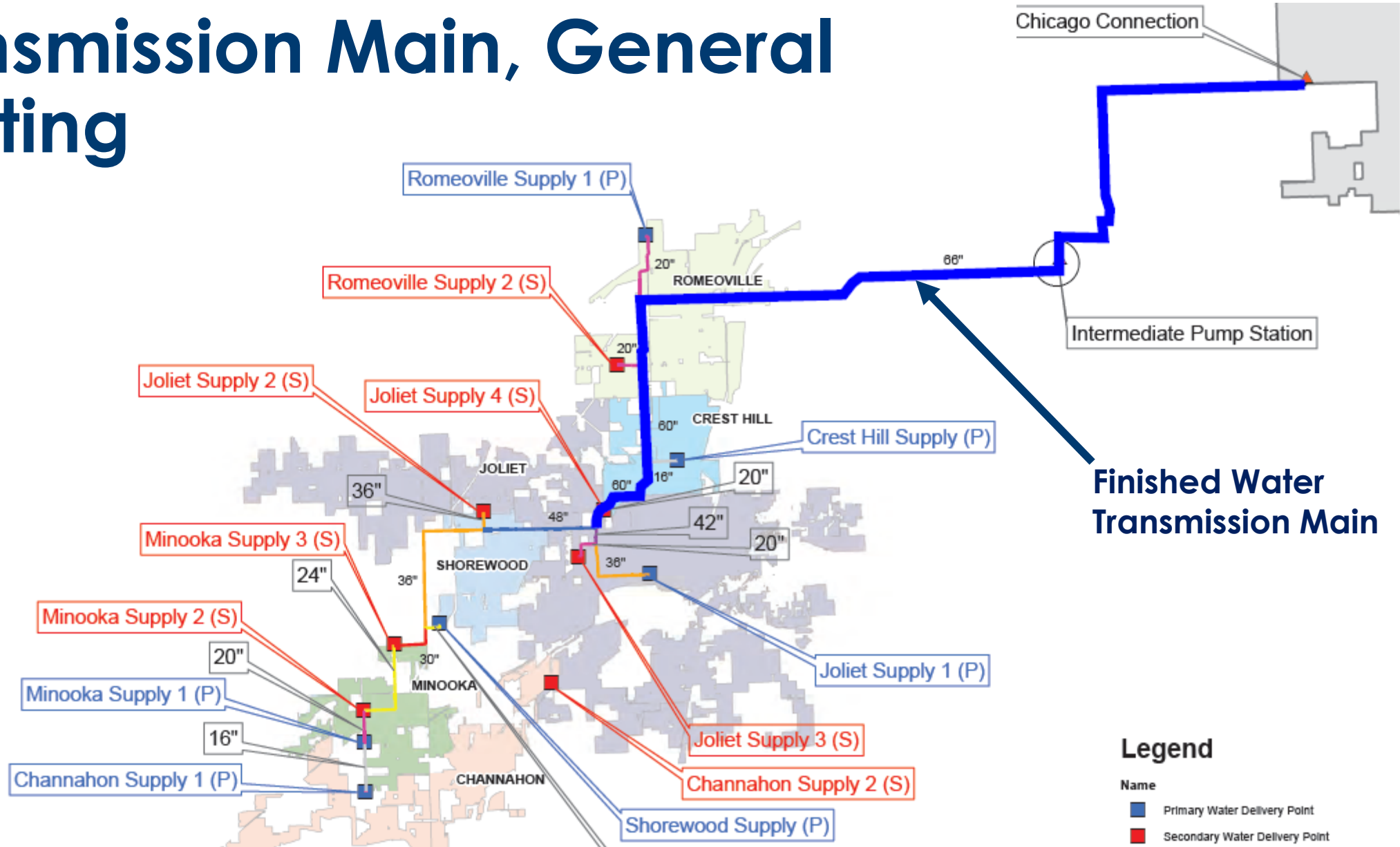


CIP#2 – Finished Water Transmission Main



- Function: Convey water from Chicago Connection Facilities to Commission service area
- 35 miles of 66" and 60" diameter Transmission main
 - Majority open cut, some trenchless
 - CIP#7 → Major Trenchless Crossings
 - Ancillary items: isolation valves, air/vacuum valves, blowoffs
- Total of 6 work packages ranging from 4.5 to 6.5 miles each

CIP#2 – Finished Water Transmission Main, General Routing



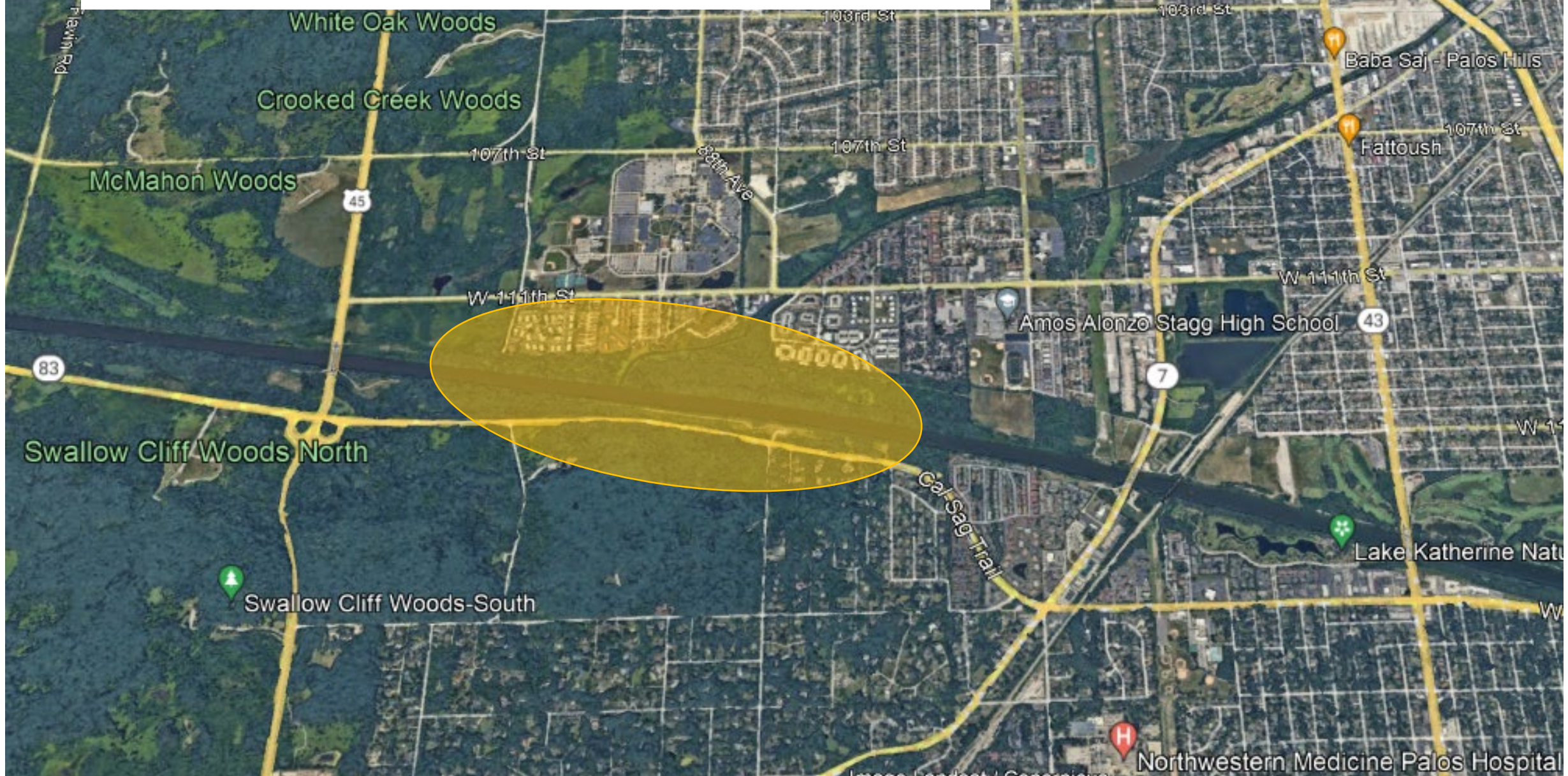
CIP#7 – Mega Crossings



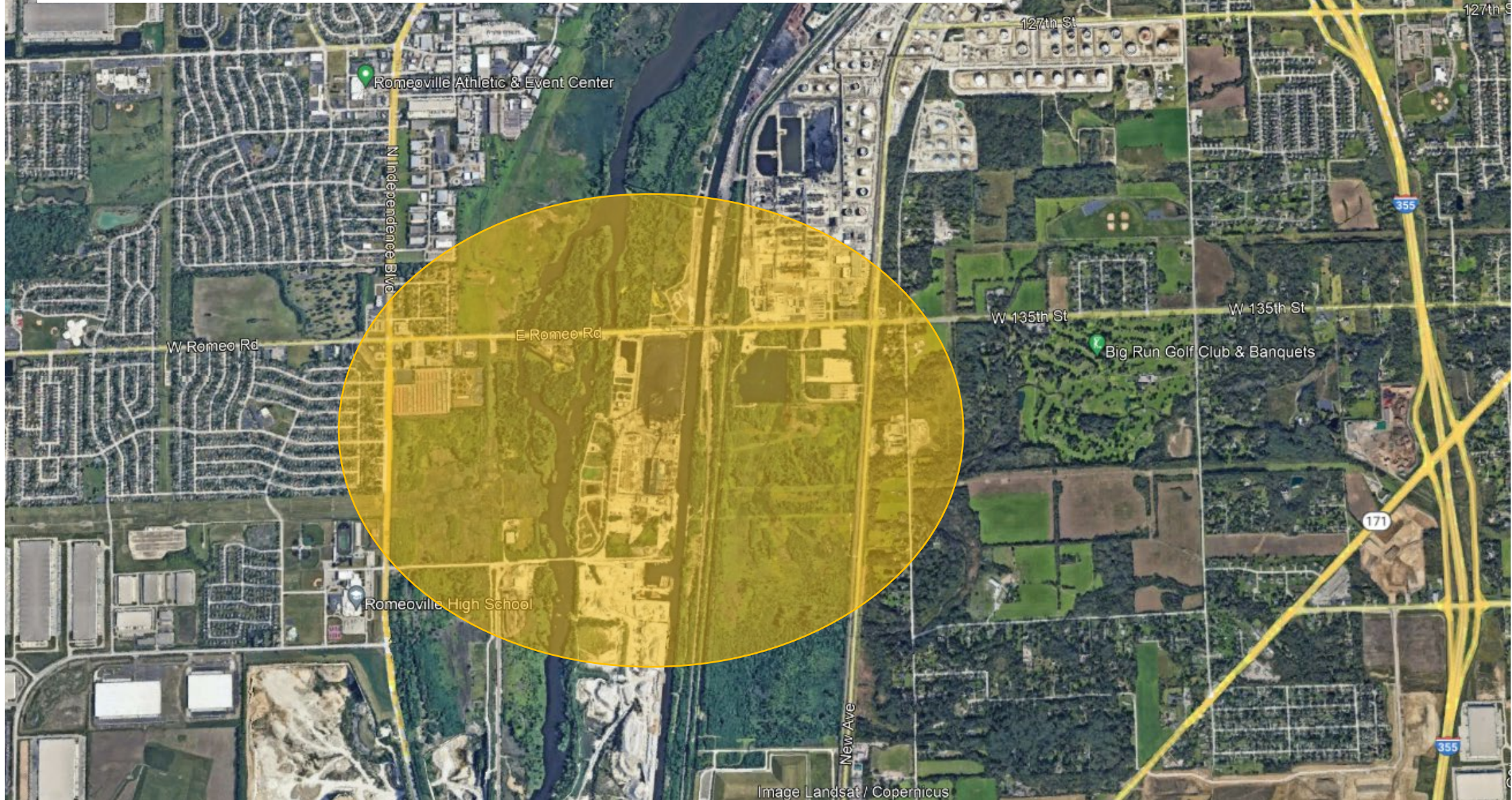
- Function: Provide for major waterway crossings between Chicago Connection Facilities and Commission service area

Element/Work Package	Description
Cal-Sag Crossing (AWSP-07-01)	600 feet, 66" dia pipe installed in rock tunnel beneath Cal-Sag Channel
Des Plaines River Crossing (AWSP-07-02)	5,000 to 6,400 feet, 66" dia pipe installed in rock tunnel beneath Des Plaines River, Sanitary and Ship Canal, and I&M Canal

Cal-Sag Crossing



Des Plaines River Crossing



Romeoville Athletic & Event Center

Independence Blvd

W Romeo Rd

E Romeo Rd

W 135th St

W 135th St

Big Run Golf Club & Banquets

Romeoville High School

New Ave

Image Landsat / Copernicus

171

355

355

127th St

127th St

CIP#3 – Intermediate Pump Station and Storage Facility



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- Function: Provide hydraulic grade control and booster pumping capacity for transmission main operation during peak demand periods
- Located at mid-point of CIP#2 transmission main

Element/Work Package	Description
Intermediate Pump Station and Storage Facility (AWSP-03-01)	<ul style="list-style-type: none">• 1.5 MG Elevated Tank, ~140 ft tall• 55 MGD Pump Station• Chemical Feed (Chlorine/Corrosion)

CIP#4 – Intermediate Standpipe 2 and Auxiliary Pump Station



- Function: Provide hydraulic grade control toward western end of transmission main system
- Located in Joliet area

Element/Work Package	Description
Intermediate Standpipe 2 and Auxiliary Pump Station (AWSP-04-01)	<ul style="list-style-type: none">• 4.0 MG Elevated Tank, ~120-140 ft tall• 4.0 MGD Pump Station

CIP#5 – System-wide SCADA and Communications



- Function: Provide communication for monitoring and control across all commission infrastructure

Element/Work Package	Description
Fiber and Network Installation (AWSP-05-01)	Installation of fiber optic/cellular communications backbone for GPWC work packages
SCADA Programming Integration (AWSP-05-02)	Programming of control, monitoring, reporting modules
Video Surveillance (AWSP-05-03)	Installation of video surveillance equipment at facilities
Security Systems (AWSP-05-04)	Installation of access control systems at facilities

CIP#6 – Regional Water Transmission Main



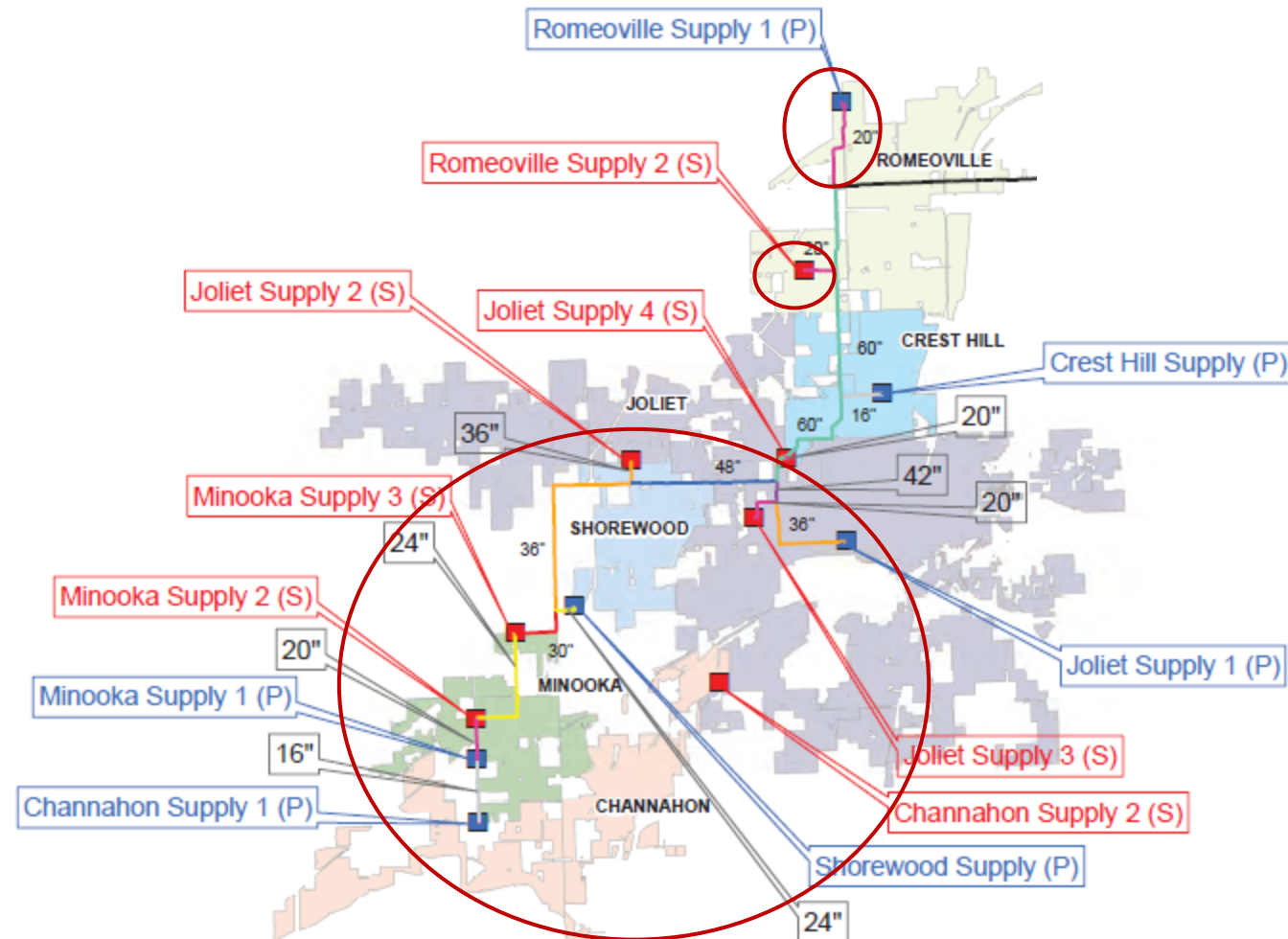
- Function: Convey Chicago water from Transmission Main (CIP#2) to member delivery structures
- Total of 5 work packages

Conveyance Element/Work Package	Description
Regional Segment A (AWSP-06-01)	Member Connections – Romeoville 1, 2; Crest Hill 1
Regional Segment B (AWSP-06-02)	Member Connections – Joliet 1, 3, 4
Regional Segment C (AWSP-06-03)	Joliet, Shorewood Segments
Regional Segment D (AWSP-06-04)	Black Road, County Line Road - Joliet 2, Shorewood 1
Regional Segment E (AWSP-06-05)	Ridge/Minooka/Grainger – Minooka 1, 2, 3; Channahon 1

CIP#6 – Regional Water Transmission Main



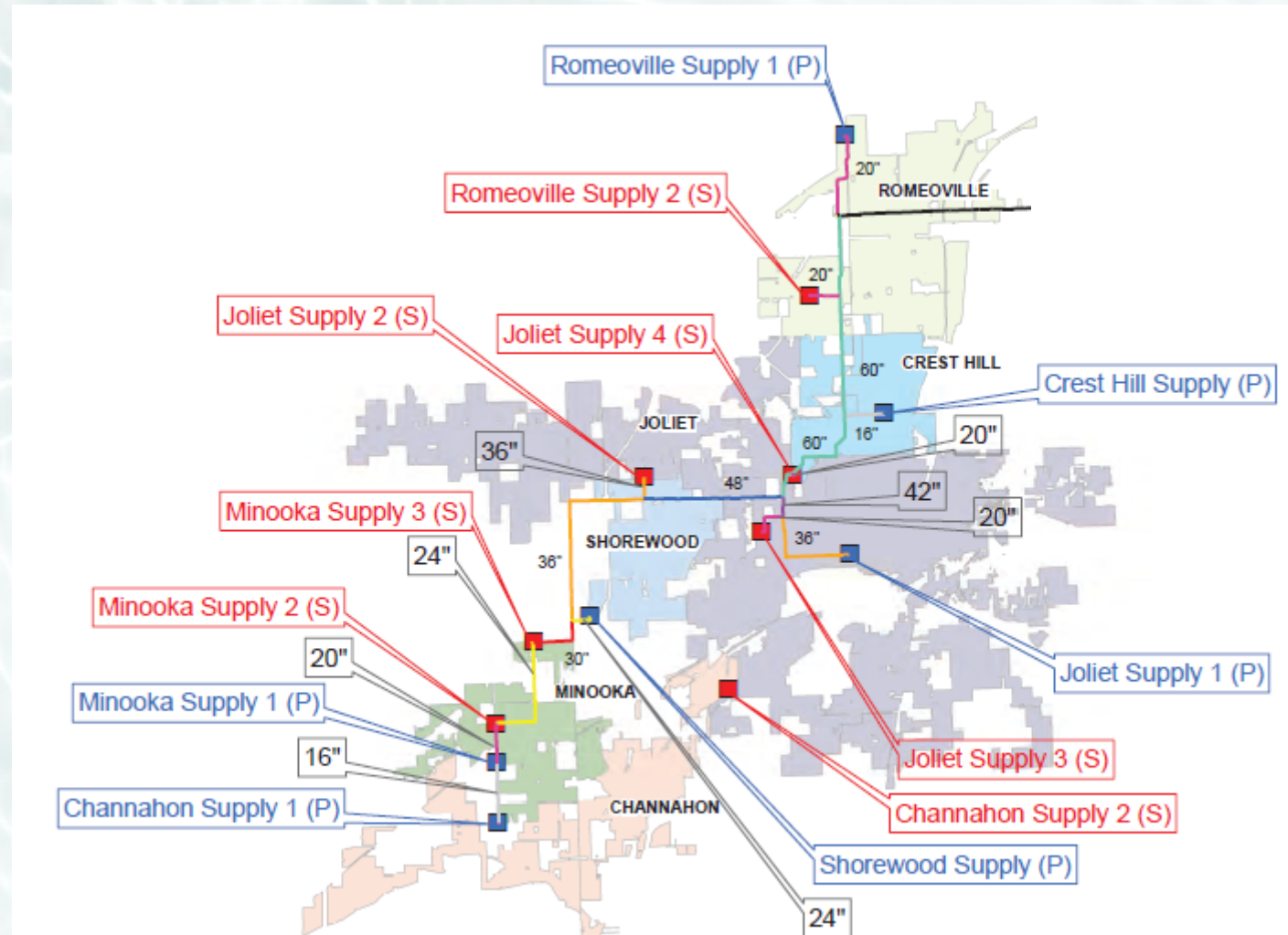
- Approximately 24 miles of regional water transmission main
 - Diameters from 16" to 48"
 - Majority open cut, some trenchless
 - I-55/DuPage River → 600 ft trenchless, likely rock
- Ancillary items: isolation valves, air/vacuum valves, blowoffs



CIP#6 – Regional Water Transmission Main, Delivery Structures



- Function: Control and meter flow into GPWC member distribution systems
- 14 delivery structures
 - 4 work packages
- Located throughout GPWC area
- Buried structures ~20' x 25'; house flow control valve and flow meters





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MEMBER COMMUNITY CAPITAL IMPROVEMENTS

CHANNAHON CAPITAL IMPROVEMENTS: 2023 - 2030



Local Alternative Water Source Program Improvements

- Conveyance Improvements
 - 2.75 miles of water main improvements (12-inch to 24-inch)
- Pumping and Storage Improvements
 - Two –Ground Level Storage Tanks (1.5 MG and 2 MG)
 - Two – Water Pumping Stations (2 MGD and 7 MGD)
 - One Pressure Adjusting Station
- Other Improvements

CREST HILL CAPITAL IMPROVEMENTS: 2023 - 2030



Local Alternative Water Source Program Improvements

- Conveyance Improvements
 - 2 miles of water main improvements (12-inch)
- Pumping and Storage Improvements
 - Two Metering and Chemical Addition Facilities
 - One – 3.5 MG Water Standpipe
 - One – 4 MGD Water Pump Station
- Other Improvements



JOLIET CAPITAL IMPROVEMENTS: 2023 - 2030



Local Alternative Water Source Program Improvements

- Conveyance Improvements
 - 4 miles of water main improvements (12-inch to 24-inch diameter)
- Pumping and Storage Improvements
 - One – 4.0 MG Ground Level Storage Tank
 - Two – 1.0 MG Elevated Water Tanks
 - Two – 7 MGD Pump Station Upgrades
 - Three – Water Standpipes (3 MG, 2 x 4 MG)
 - Three – Water Pump Stations (4 MGD, 2 x 14 MGD)
- Other Improvements
 - Systemwide SCADA Upgrade

Other Significant Capital Improvements

- Water Main Replacement Program
 - Approximately 20 miles of main per year from 2023 through 2030
- Water and Sewer Administration and Garage Building
- Wastewater Treatment Plant Improvements



MINOOKA CAPITAL IMPROVEMENTS: 2023 - 2030



Local Alternative Water Source Program Improvements

- Conveyance Improvements
 - 1.5 miles of water main improvements (12-inch)
- Pumping and Storage Improvements
 - Two - Metering and Chemical Addition Facilities
 - One – 0.75 MG Ground Level Tank
 - One – 4 MGD Water Pump Station
- Other Improvements



ROMEORVILLE CAPITAL IMPROVEMENTS: 2023 - 2030



Local Alternative Water Source Program Improvements

- Conveyance Improvements
 - 2.5 miles of water main improvements (10-inch to 20-inch)
- Pumping and Storage Improvements
 - Two – 1.5 MG Ground Level Tanks
 - One – 8.6 MGD Water Pump Station
 - One – 8.6 MGD Pump Station Upgrade
- Other Improvements
 - Demolition of Three Existing Water Facilities
 - Demolition of Three Existing Water Storage Tanks

Other Significant Capital Improvements

- 1.5 MG Elevated Tank
- Three New Prepackaged PRV Stations



SHOREWOOD CAPITAL IMPROVEMENTS: 2023 - 2030



Local Alternative Water Source Program Improvements

- Conveyance Improvements
 - ~11,000 LF of new 16" PVC watermain (2024-2025)
- Pumping and Storage Improvements
 - 6 MGD Pumping Station (2024-2025)
 - ~4 MG below ground reservoir (2024-2025)

Other Significant Capital Improvements

- Watermain Replacement Program
 - Almost five (5) miles of PVC watermain replacements between 2023 through 2030 varying 8" to 12" diameter
- Sanitary Sewer I&I Program (~\$0.5 million / year)
- Seil Road and Bridge Replacement Reconstruction Project (~\$12 million)
- Route 52 / Route 59 Corridor Improvement Project (~\$4 million)
- Route 52 / Wynstone Traffic Signal Project (~\$0.5 million)
- NEW Rivers Edge Park Project (~\$6 million)
- Park Replacement Program (~\$0.5 million / year)



CHANNAHON | CREST HILL | JOLIET | MINOOKA | ROMEOVILLE | SHOREWOOD



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BREAK



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PROGRAM SCHEDULE AND CONTRACTING PLAN

ALTERNATIVE WATER SOURCE PROGRAM SCHEDULE

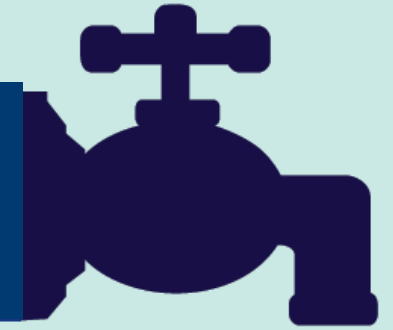


2021 – 2024

Development and Design

2024 – 2030

Construction



- ❖ Lake Michigan Allocations
- ❖ Chicago Coordination
- ❖ Water Commission Formation
- ❖ Funding Initiatives
- ❖ Engineering Design - Commission
- ❖ Engineering Design – GPWC Members

**2030 - Delivering
Lake Michigan Water
to a Growing Region**

AWSP – PROJECTED BID DATES (2 of 2)

(All dates are preliminary and subject to change)



Work Package ID	Project Name	Description	2024				2025				2026				2027				2028							
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
AWSP-05-03	Video Surveillance	Installation of video surveillance systems at major facilities																								
AWSP-05-04	Security System	Installation of security systems at major facilities																								
AWSP-06-01	Regional Transmission Main Segment A	Regional water transmission main - Romeoville, Crest Hill connections					Bid Schedule Being Evaluated																			
AWSP-06-02	Regional Transmission Main Segment B	Regional water transmission main – Joliet connections					Bid Schedule Being Evaluated																			
AWSP-06-03	Regional Transmission Main Segment C	Regional water transmission main – Joliet /Shorewood segments					Bid Schedule Being Evaluated																			
AWSP-06-04	Regional Transmission Main Segment D	Regional water transmission main – Shorewood segment					Bid Schedule Being Evaluated																			
AWSP-06-05	Regional Transmission Main Segment E	Regional water transmission main – Minooka segment					Bid Schedule Being Evaluated																			
AWSP-06-06	Water Delivery Structures - Group 1	Three primary water delivery structures - cast-in-place concrete vault					Bid Schedule Being Evaluated																			
AWSP-06-07	Water Delivery Structures - Group 2	Three primary water delivery structures - cast-in-place concrete vault					Bid Schedule Being Evaluated																			
AWSP-06-08	Water Delivery Structures - Group 3	Four secondary water delivery structures - cast-in-place concrete vault																								
AWSP-06-09	Water Delivery Structures - Group 4	Four secondary water delivery structures - cast-in-place concrete vault					Bid Schedule Being Evaluated																			
AWSP-07-01	Water Transmission Main: Cal-Sag Crossing	66-inch diameter transmission main crossing of Cal-Sag Channel in tunnel																								
AWSP-07-02	Water Transmission Main: Des Plaines Crossing	66-inch diameter transmission main crossing of Des Plaines River in tunnel																								
AWSP-11-01	System-wide Start-up and Commissioning	Coordinated start-up and commissioning of overall water transmission system					Bid Schedule Being Evaluated																			



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AWSP Schedule Drivers

- Coordination with City of Chicago
- Coordination with Chicago Park District
- Funding Strategy
- Land/Right-of-Way Acquisition
- Opportunities for Coordination
- Materials Availability
- Contracting Capacity

PROJECT DELIVERY STRATEGIES



Design-Bid-Build

- CIP #2 Water Transmission Main
- CIP #3 Intermediate PS and Storage Facility
- CIP #4 Intermediate Standpipe and Auxiliary Pump Station
- CIP #5 Regional SCADA and Communications
- CIP #6 Regional Water Transmission Main
- CIP #7 Mega Crossings

Construction Management at Risk (Potential)

- CIP #1 Chicago Connection Facilities (under consideration)



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AWSP Funding Strategy

- Water Infrastructure Finance and Innovation Act (WIFIA)
- State Revolving Loan Fund
- State and Federal Grants
- Revenue Bonds



FUNDING CONSIDERATIONS



WIFIA Loans

- USEPA Administered
- Program-level Support
- Funding Requirements
 - Davis-Bacon Act
 - American Iron and Steel
 - Build America, Buy America
- DBE Participation

SRF Loans

- IEPA Administered
- Project-level Support
- Funding Requirements
 - Davis-Bacon Act
 - American Iron and Steel
 - Build America, Buy America
- DBE Participation



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Contractor Outreach Event on November 30th, 2022

[Click Here for Details](#)

For more information download the Event Fact Sheet [here](#).

“Like roots finding water, we always wind up moving towards what sustains us.”

– Mark Nepo

Six communities in the southwest suburbs of Chicago have agreed to form the Grand Prairie Water Commission to provide a sustainable and reliable water supply to meet water needs and support continued growth and development in the region. They are :

- Village of Channahon
- City of Crest Hill
- City of Joliet
- Village of Minooka
- Village of Romeoville
- Village of Shorewood



For the past several years communities in the southwestern suburban region have been evaluating alternative water

Stay Informed



Grand Prairie Water Commission Website

- www.gpwc-il.org

The Grand Prairie Water Commission website will be the primary location for updates regarding the status of the program, anticipated timing for bidding of future projects, and future outreach events.



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QUESTIONS AND ANSWERS



CHANNAHON | CREST HILL | JOLIET | MINOOKA | ROMEOVILLE | SHOREWOOD



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