

Water Supply Project

Final Engineering Progress Update

March 26, 2019

The Village's Water Supply Must Be



Sustainable

The Village's current water source is no longer sustainable, according to ISWS. ISWS reports the capacity of the deep well aquifer is limited and unknown after 2030.

Current Village population is 17,500.

Projected Village 2040 population is 49,013 (40,266 in Will and 8,747 in Kendall).

Existing Water System

Supply and Treatment

- 4 shallow wells
- 2 deep wells with a shared radium removal WTP No. 1

Storage

- Black Road (0.5 MG)
- Walnut Trails (1.0 MG)
- Mound Road (1.5 MG)

Distribution

- 93 miles of pipe



Project History

2006: Water supply study and receipt of Lake Water allocation

2014: ISWS presented declining deep water aquifer data to staff and Mayor

2015: Lake Water feasibility study

2015: Home Rule status approved by residents

2018: Village contracted with CBBEL for Final Engineering services

Anticipated July 2019: Issue preliminary plans and construction cost estimate

Anticipated 2019: Secure easements for transmission main and receiving station

Anticipated 2019: Advance negotiations with ILAWC for Lake Water delivery

Anticipated 2020: Complete Final Engineering, Commence Bidding

Project Scope Overview

Project Limits:

Bolingbrook (I-55/Schmidt Road) to Shorewood

Project Route:

ComEd High-Tension Right-of-Way Corridor

Primary Project Objectives:

Provide long-term water source reliability and sustainability
Accommodate Year 2040 water demands

Proposed Transmission Main:

88,000 feet (16.7 miles) of 30-inch diameter water transmission main

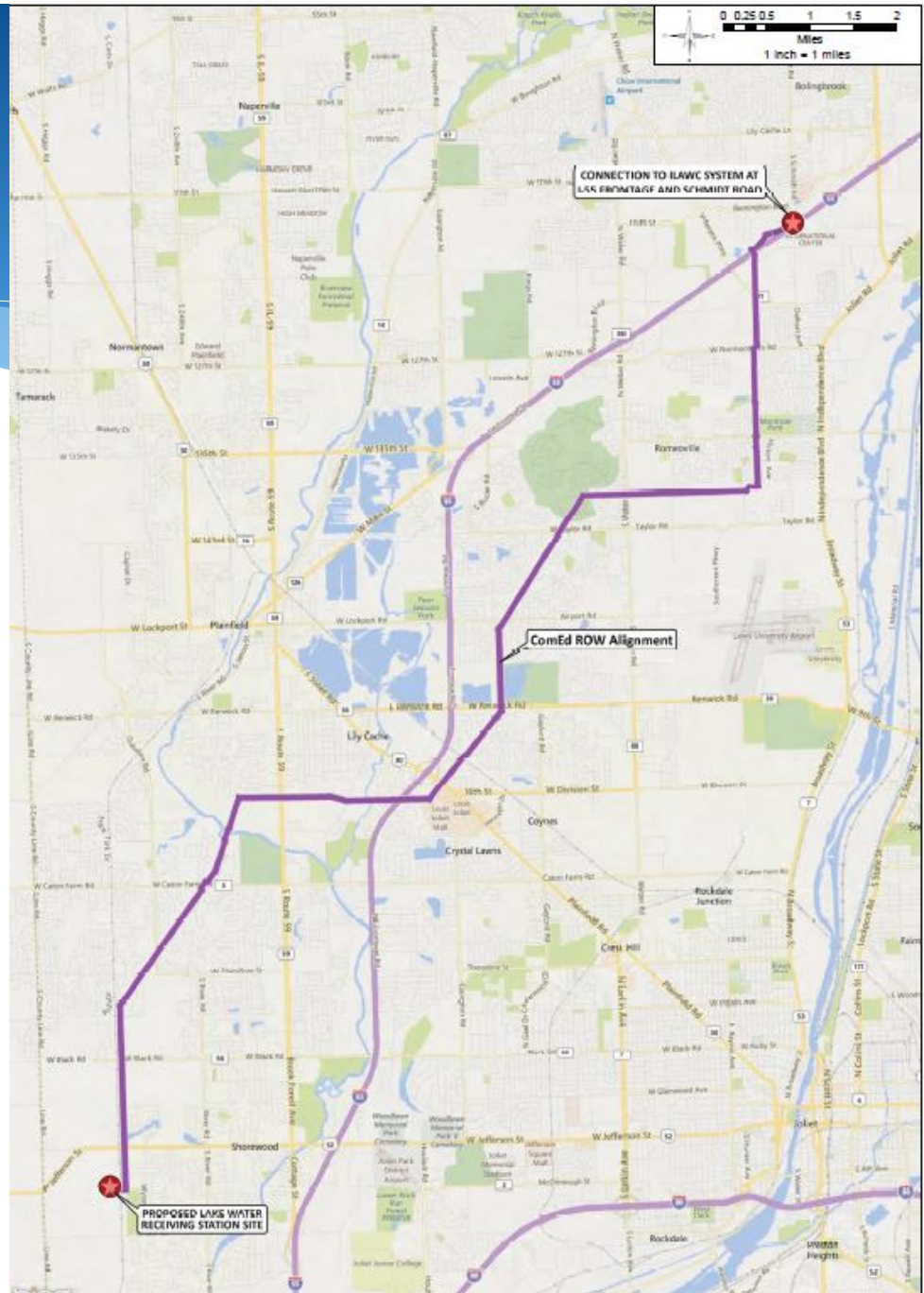
Proposed Receiving Station:

Metering Station

Pressure- and flow-regulating pumps and piping

Two 1.5 MG ground storage tanks, potential future elevated tank

Project Route



Final Engineering – Completed

Site Investigation (Completed):

- Corridor survey control establishment

- Existing conditions documentation

- Wetland delineation

 - 42 wetlands, 3 river/stream crossings

- Geotechnical and environmental soil borings and analyses

 - 127 borings drilled up to 52 feet deep

 - Soil profile identification

 - Bedrock depth

 - Soil contamination testing

 - Soil corrosivity testing

Final Engineering – In Progress

Site Investigation (April 2019 Completion):

Environmental database review

Topographic survey

Boundary survey

Mapping of existing utilities

Drain tile survey

IHPA Phase I archaeological survey

Threatened and endangered species coordination

Corrosion control and protection design study

Utility coordination (ongoing)

Final Engineering – Planned

Transmission Main Design:

- Design criteria

- Water main alignment

- Utility coordination

- Major crossings analyses

- Soil mitigation

- Excess dirt disposal/grading plan

- Corrosion control and protection

Final Engineering – Planned

Receiving Station Design:

- Site selection

- Design criteria (including delivered water, future expansion, etc.)

- Site layout

- Receiving station electrical, mechanical/pumping, HVAC, SCADA

- Receiving station building construction and aesthetics

- Ground storage design (immediate and future needs)

- Corrosion control and protection

60% Design Plans and Construction Cost Estimate Deliverable:

- Submittal to Village and permitting agencies in July 2019

- Dependent on Receiving Station site selection

Final Engineering – Planned

Permitting:

USACE

IDNR-OWR

IDOT District 1

Canadian National Railroad

Will County Stormwater

Will County DOT

IEPA NPDES

IEPA Water Main Construction

Bolingbrook

Romeoville

Plainfield

Joliet

Plainfield Township

Lockport Township

Final Engineering – Planned

Land Acquisition:

- Permanent easements
- Temporary construction easements
- Receiving Station site
- License agreements (railroads)

Public Meeting:

Fall 2019

Bid Package Breakout:

- Project size affects number of contracts
- Simultaneous or staggered bidding of contracts

Final Engineering – Planned

Bidding anticipated in Fall 2020, dependent on:

- Land Acquisition

- Permitting

- IEPA Loan processing and approval

- Water transportation and delivery agreements

Construction

- Construction start in Spring 2021, depending on bidding schedule

- Construction duration 2-3 years, depending on bid approach

Area Water Agency Activity

Public Water Commission (Joliet):

Exploring five alternative sources

City of Chicago, DuPage Water Commission, Hammond Water, Kankakee River, Illinois River

Preferred alternative selection anticipated by end of 2019

Will County Governmental League:

Southwest Water Planning Group

Technical advisory group recently established

Includes area public works directors and water operators, along with industrial users

WCGL also working to establish water group comprised of mayors and managers

Questions?