ALTERNATIVE WATER SOURCE STUDY (AWSS) SUMMARY

United City of Yorkville

City Council Meeting September 28, 2021



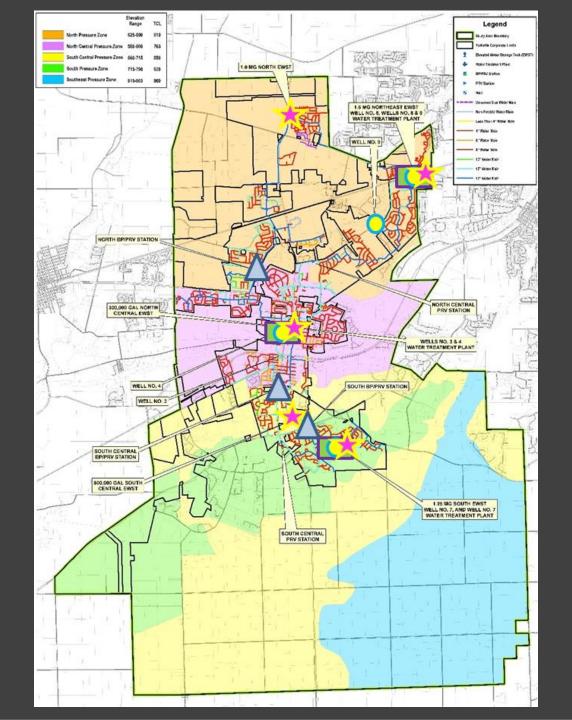
Presenter: Jeffrey W. Freeman, PE, CFM, LEED AP





- 1. Existing Water Works System Overview
- 2. Water Source Sustainability and Alternatives
- 3. Summary of Previous Studies
- 4. Yorkville and Waterlink Background Information
- 5. Key Considerations Introduction
- 6. Supply Alternatives Overview
- 7. Cost Estimates Summary & Financial Analysis
- 8. Alternatives Implementation Schedule
- 9. Key Considerations Summary
- 10. Next Steps
- 11. Q&A

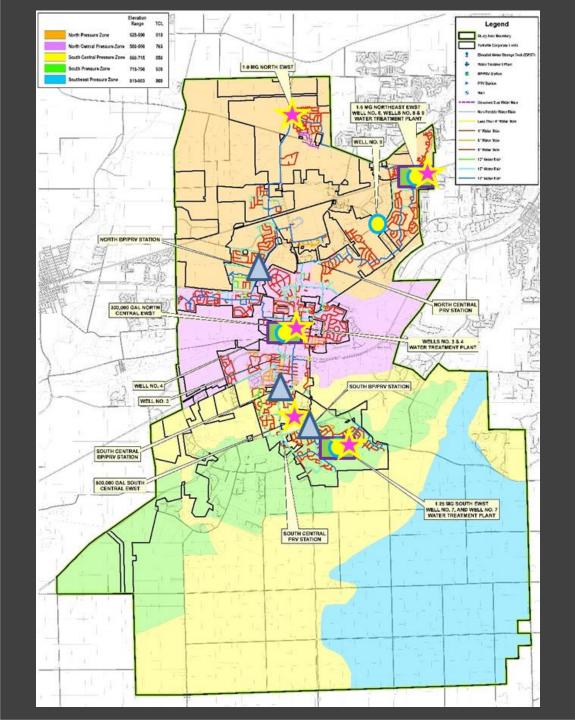




Existing Water Works System

- ◆ **Supply:** Four (4) Active Deep Sandstone Water Wells [Nos. 4, 7, 8 & 9]
 - Three (3) Ironton Galesville & One (1) St.
 Peter (Ancell) & Ironton
 Galesville
 - Flow Rate: 1,000-1,200 gpm
 - Exceed Radium Standard
- **Treatment:** Three (3) WTPs
 - All Plants Institute Cation Exchange Treatment





Existing Water Works System

◆ **Storage:** Five (5) Elevated Water Storage Tanks (EWST) [300,000-1,500,000 gallons]



Distribution:

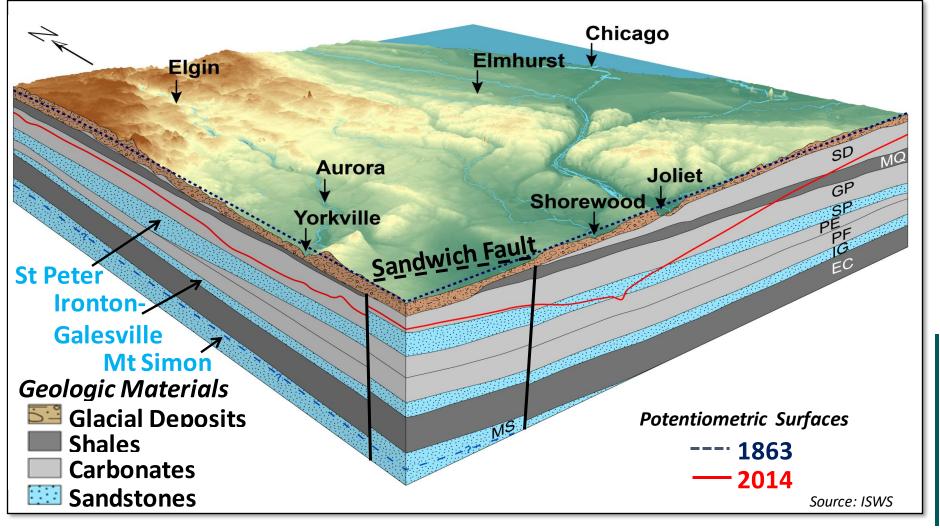
- ➤ 4" 16" Water Main
- Four (4) Pressure Zones
- Three (3) DistributionSystem Booster PumpStations
- Two (2) Pressure Reducing Valve Vaults
- ♦ Controls: SCADA System





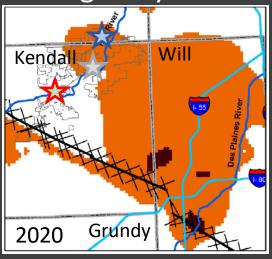
- Naturally Occurring Radium 226 & 228
- Illinois State Water
 Survey (ISWS)
 projects the Aquifer is
 pumped beyond its
 sustainable yield and
 water levels are
 declining
- A number of communities within the region are planning to move to an alternative water source

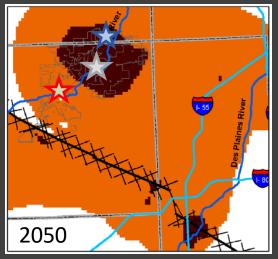
Deep Aquifer System Overview in Northeastern IL

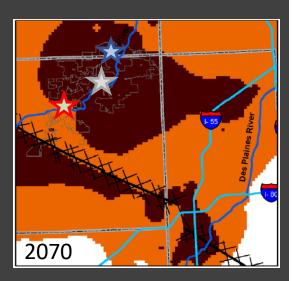




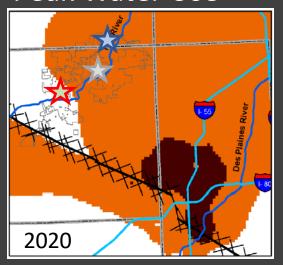
Average Day Water Use

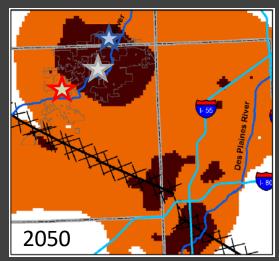


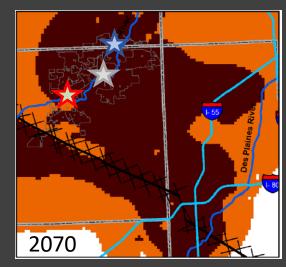




Peak Water Use









Interstates

Municipal Boundaries

Source: ISWS

EXISTING DEEP WELLS GROUNDWATER MODELING

Illinois State Water Survey projects that Yorkville, Montgomery, and Oswego will be at "severe risk" of being able to meet demands and of well inoperability by 2050.

Risk Zones

Risk of declining well performance

Risk of well inoperability

Village of Montgomery

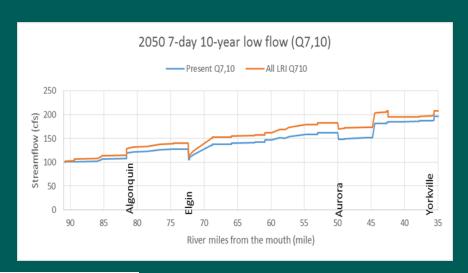
★ Village of Oswego

United City of Yorkville



FOX RIVER

- Water Source for Cities of Elgin and Aurora
- Modeling Conducted by the ISWS: River Baseflow Projected To Increase In the Future
- Most Sustainable Supply Source Currently Within Sub-Region
- Water Withdrawal May be Restricted by IDNR Due to Low Flows – Communities Required to Maintain Some Back-Up Wells
- Withdrawal Permitting Sooner Rather Than Later Likely Better



Projected Change In Monthly Risk Of River Flow Being Below Current Q7,10 Flow

	Current	2050 Projected
Month	Conditions (%)	Conditions (%)
May	0.4	<0.1
June	0.3	<0.1
July	1.7	<0.1
August	3.6	0.5
September	4.7	0.9
October	2.4	0.7
November	0.4	0.2

Historical & Projected Q7,10 Deficit Days In Four Worst Drought Years

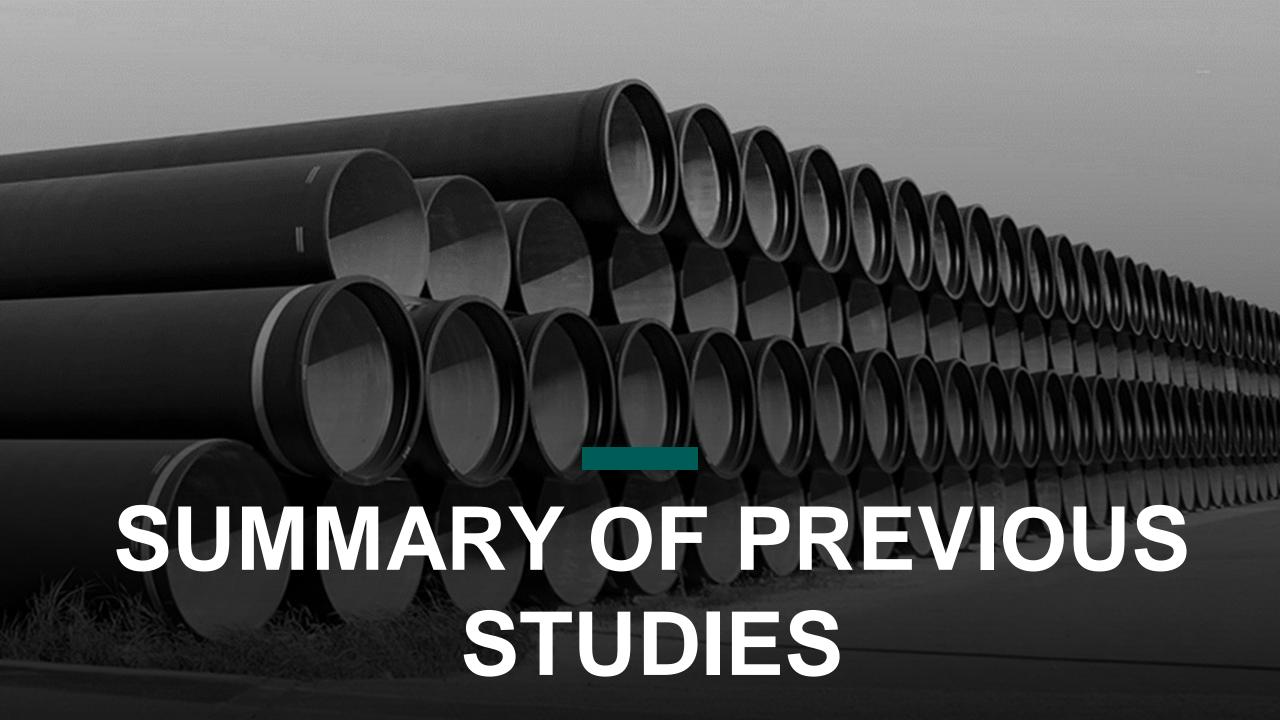
	Total # Of Actual	2050 Projected #
Year	Deficit Days	Of Deficit Days
1934	98	1
2005	50	22
1956	43	24
1946	38	15



Village of Montgomery Village of Oswego United City of Yorkville

LAKE MICHIGAN

- Total Illinois Diversion Limit Set at 3,200 cfs (2,068 MGD) by Supreme Court Decree
- Illinois Department of Natural Resources (IDNR) Manages Lake Michigan Allocation Process
- IDNR Has Recently Stated They Believe There is Sufficient Allocation to Serve Joliet and the Communities Currently Considering Connection
- Not required to maintain backup wells but can keep for emergency









Wells

Regulatory Review



Fox River Alone

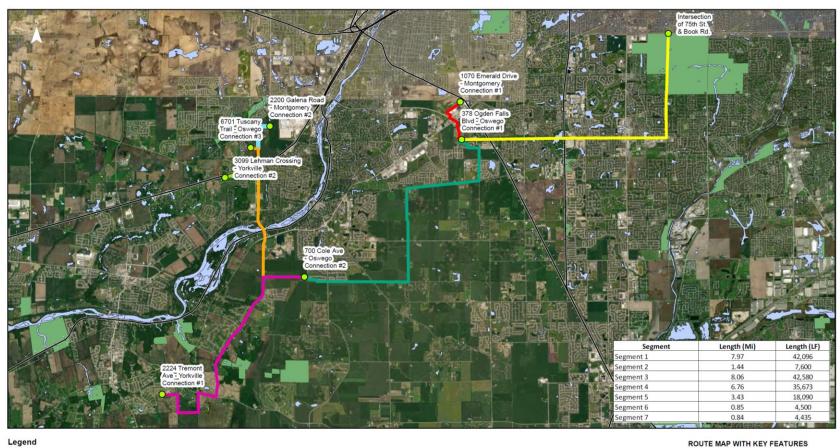
Sustainable Source Water Assessment



Fox River With Oswego & Yorkville

2016 United City of Yorkville Water Works System Master Plan

In 2016, the City analyzed the sustainability of the City's wells, continued use of the wells, and utilizing the Fox River either as an independent supply source or with the Village of Oswego and Village of Montgomery.



Segment 1 Segment 5 + Rail Lines Segment 2 Segment 6 Wetlands Segment 3 Segment 7 Parks, Preserves, Conservation Areas Segment 4

0 0.5 1 2

September 2018 Figure

VILLAGE OF OSWEGO, VILLAGE OF MONTGOMERY, AND UNITED CITY OF YORKVILLE FEASIBILITY STUDY TO RECEIVE LAKE MICHIGAN WATER VIA THE DUPAGE WATER COMMISSION

AECOM

2017 & 2018 DuPage Water Commission Connection Analysis

In 2017 & 2018, AECOM
developed capital cost
estimates for a DuPage
Water Commission
Connection to the Villages
of Oswego and
Montgomery and United
City of Yorkville.

2020/2021 Alternative Water Source Project

The Village of Oswego initiated an Alternative Water Source Project where they are evaluating a number of water source options for the region.

They have asked Montgomery and Yorkville to provide cost-sharing for the elements of the study that apply to the three communities.

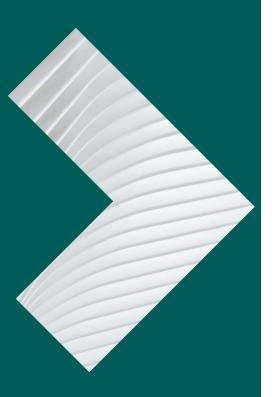
Requested Inputs From VOM & COY





Outputs To Be Utilized In COY AWSS



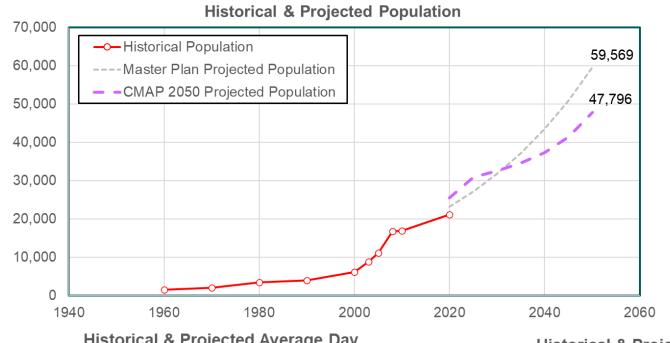


2020-2021 AWSS Update (Current Study)

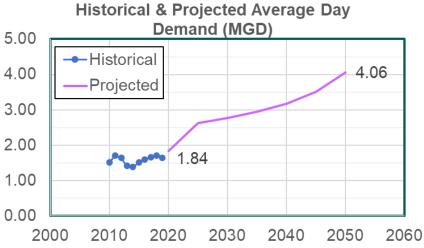
- ♠ Review/Obtain Information from Oswego Water Study
 - ➤ Summarize Cost Analysis for Waterlink Sub-Regional Fox River System and Lake Michigan Alternatives (DWC, Joliet, and Illinois American)
- Water Distribution System Modeling and Analysis
 - Modeling Scenarios Analysis for Each Alternative, Including Review of Pressures, Available Fire Flows, Pipe Velocities, and Distribution System Improvements Necessary for Implementation
- Supply, Treatment, Storage, and Distribution Improvements Updated Cost Estimates and Analysis for Fox River: Yorkville Alone Option and Cost Analysis Summary of All Alternatives

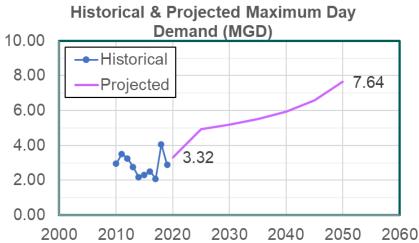


Yorkville Historical and Projected Population and Water Demands

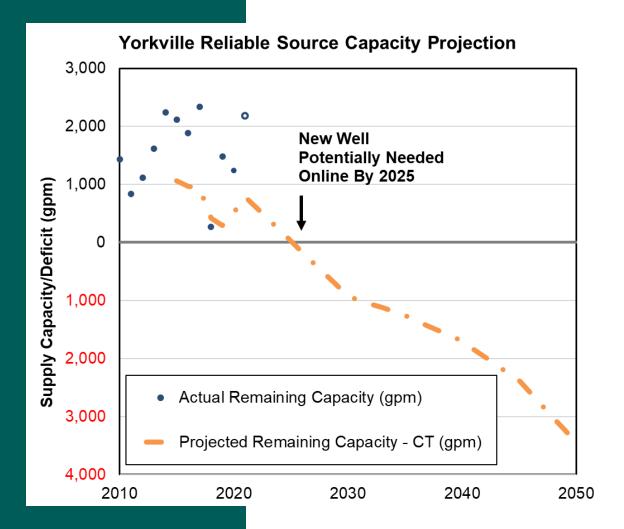


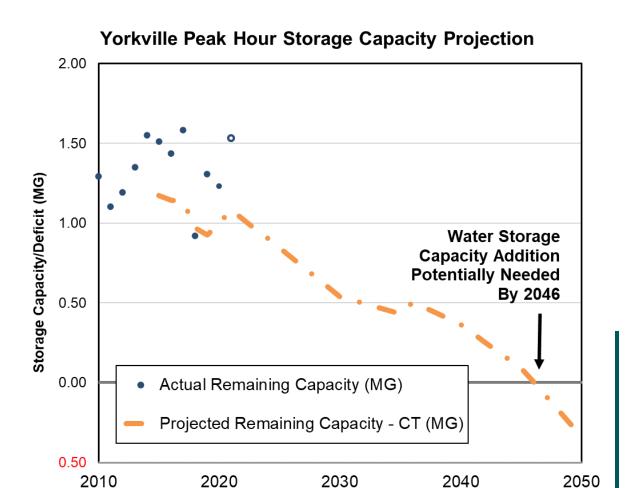
Estimated Future Yorkville Buildout Population (Circa 2100): 95,727





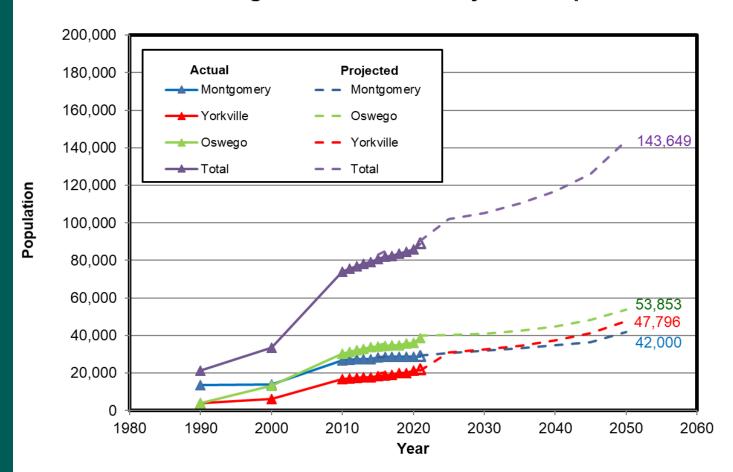
Yorkville Water Supply, Treatment, and Storage Capacity Status



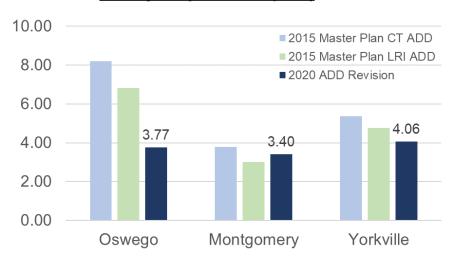


Waterlink Population and Demand Projections

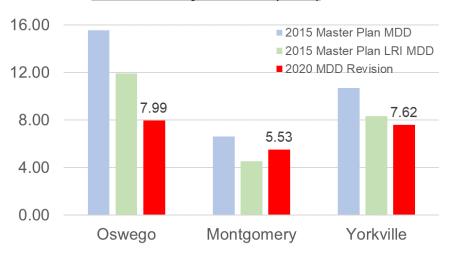
Sub-Region Historical & Projected Population



2050 Average Day Demand (ADD) Evolution



2050 Maximum Day Demand (MDD) Evolution







DECISION CONSIDERATIONS







COST

RISK

WATER QUALITY



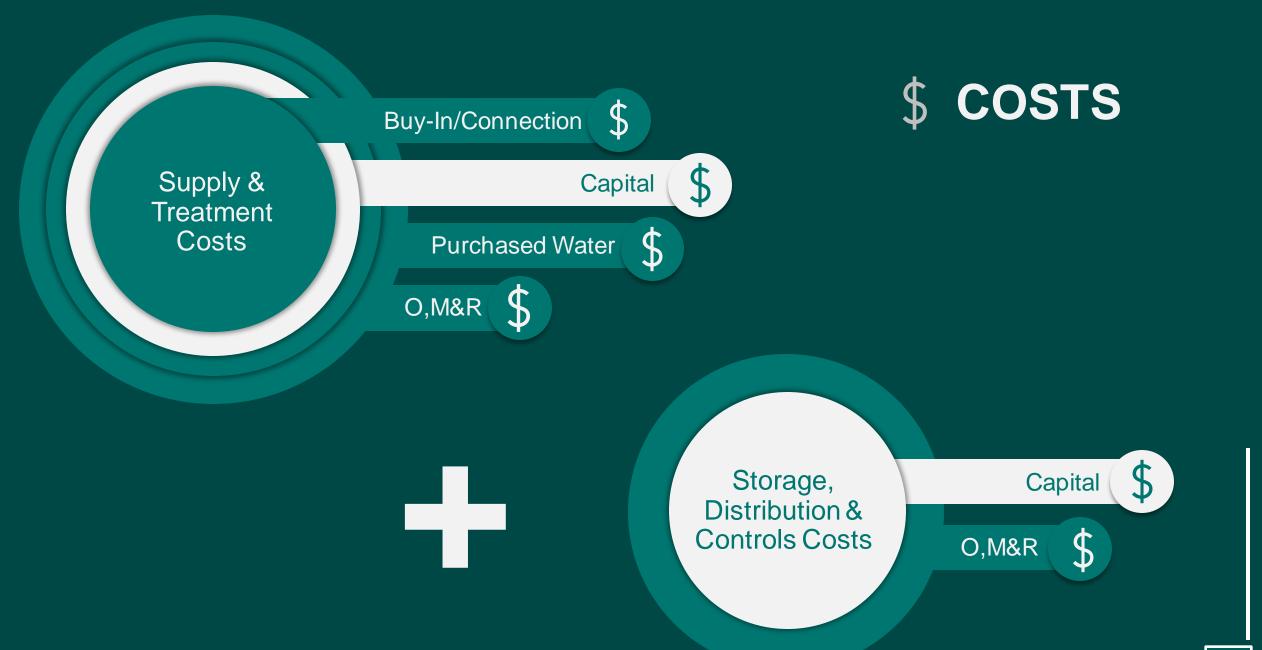
MANAGEMENT/ STAFFING





CONTROL/ GOVERNANCE SUSTAINABILITY/ QUANTITY







DESIGN/ PERMITTING



CONSTRUCTION

CAPACITY EXPANSION





FINANCIAL

TREATMENT SYSTEM

Surface water treatment plant vs. chlorine addition

WATER INTAKE LOCATION

Riverine bank versus offshore Lake Michigan

SEASONAL QUALITY

Seasonal water quality changes in a river versus Great Lake

REGULATORY COMPLIANCE RESPONSIBILITY

Responsibility for regulatory compliance on community or water supplier





MANAGEMENT / STAFFING

- Individual community hires/manages all staff for supply, treatment, transmission, storage and distribution facilities
- Water supplier and water commission hires/manages supply, treatment and transmission staff; Community hires/manages storage and distribution facility staff

CONTROL/ GOVERNANCE







SUSTAINABILITY / QUANTITY







BACK-UP SUPPLY NEEDS



SUPPLY REDUNDANCY





APPLES TO APPLES COST COMPARISON



UNIT PRICES

- Updated All Costs to 2021 \$\$
- Utilized Same Unit Prices Across
 Alternatives



CONTINGENCY

Class 5 CostEstimates = 30%Contingency



 20% Legal & Engineering For All Alternatives





FOX RIVER SUPPLY OPTIONS



UNITED CITY OF YORKVILLE



WATERLINK SUB-REGIONAL SYSTEM WITH OSWEGO & MONTGOMERY



PROPOSED ALTITUDE VALVE/CONTROL STATION FOR EXISTING NORTHEAST EWST Less Than 4" Water Man 10" Water Main 12" Water Male 10" Water Male Existing Rew Hoter M PROPOSED 16" WATER MAIN PROPOSED WATER MAIN 24" PROPOSED LIME OFTENING WTP AND GST PROPOSED BP/PRV STATION United City of Yorkville 900 Game Farm Road Yorkville, E. 60560 OPTION 1 - FOX RIVER YORKVILLE ONLY PROPOSED DISTRIBUTION SYSTEM IMPROVEMENTS

Fox River: Yorkville Alone





Fox River: Yorkville Alone – Summary of Improvements

Supply & Treatment

- ♦ Fox River Intake & Pump Station
- ♦ Fox River Transmission Main
- New Backup Well (Well No. 6)

Iote: No Distribution* A Now Altitud

- New Altitude/Control Valve Station for Northeast EWST
- New Booster Pump/Pressure Reducing Valve Station (for New Water Transmission Main from North Central to South Central Pressure Zone)
- ♦ Water Main Improvements: Hydraulics (5.5 mi)

*Note: No Storage Improvements Required for this Alternative

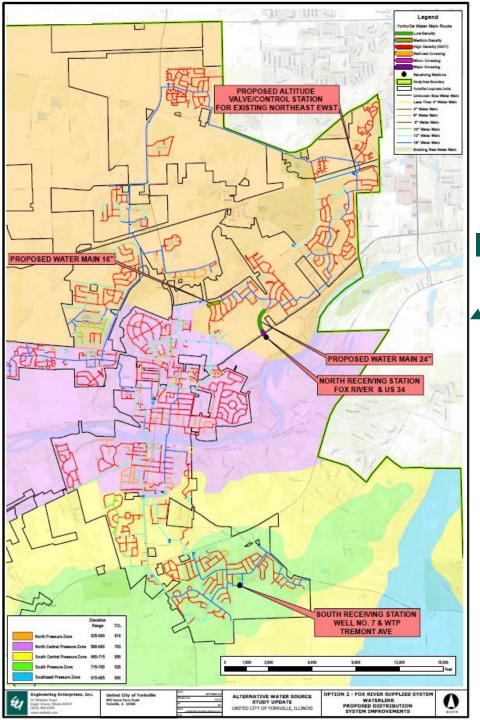
Fox River: Yorkville Alone

Total Capital Cost Estimate:

\$97,240,000

Decision Considerations Summary

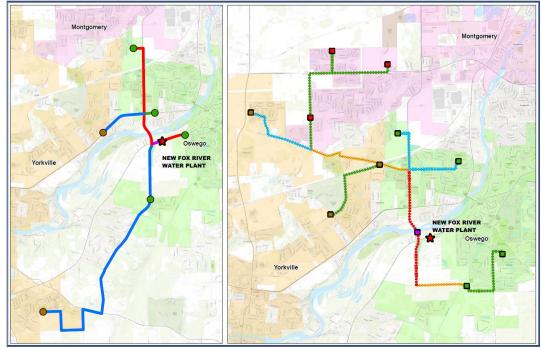
- Sustainability and Water Quality/Permitting of Source:
 - ➤ Low Flow/Seasonal Water Quality Restrictions
 - Several Miles Downstream of Fox Metro Water Reclamation Facility
 - Backup Well Network Required
- ♦ Governance, Management/Operational Responsibility, and Risk:
 - Sole Ownership/Control & Sole Assumption of Risk
- ♦ Internal System Improvements:
 - Significant Internal Improvements Required Due to Single Supply Source
- ♦ Estimated Timeline: 5-7 years



Fox River: Waterlink Sub-Regional System

Internal
Distribution
System
Improvements

Treated Water (left) & Back-Up Well Raw Water (right) Transmission Main Networks



Fox River: Waterlink – Summary of Improvements

Sub-Regional Supply & Treatment

- ♦ Fox River Intake & Pump Station
- Fox River Raw Water Transmission Main
- ◆ Backup Well Raw Water Transmission Main (Total Length = 13.5 mi; Yorkville Share = 36.2%)
- ♦ New Backup Well (Well No. SR-1)
- ◆ Treated Water Transmission Mains (Total Length = 18.0 mi; Yorkville Share = 45.4%)

Internal Distribution System*

- North and South Receiving Stations
- New Altitude/Control Valve Station for Northeast EWST
- Water Main Improvements: Hydraulics

*Note: No Storage Improvements Required for this Alternative

Fox River: Waterlink Sub-Regional System

Total Capital Cost Estimate*:

\$98,520,000

*Includes Yorkville's portion of total shared sub-regional costs

Decision Considerations Summary

- Sustainability and Water Quality/Permitting of Source:
 - ➤ Low Flow/Seasonal Water Quality Restrictions
 - > Several Miles Downstream of Fox Metro Water Reclamation Facility
 - Backup Well Network Required
- ♦ Governance, Management/Operational Responsibility, and Risk:
 - Intergovernmental Agreement/New Governmental Unit Required
 - Shared Ownership/Control & Diversification of Risk, Staffing
- ♦ Internal System Improvements:
 - > Reduction in Internal Improvements Due to Dual Supply Sources
- Estimated Timeline: 9-11 years



LAKE MICHIGAN SUPPLY OPTIONS



11411 411411

JOLIET AREA WATER COMMISSION

DuPAGE WATER COMMISSION



ILLINOIS LAKE
WATER
COMPANY/
PLAINFIELD



Proposed Treated Water Transmission Main Network

DUPAGE WATER COMMISSION (DWC)

- 23 Charter Communities & Six (6) Subsequent Communities
- 40 Year Water Supply Contracts With City of Chicago & All Commission Members Expires In 2024
- New Rate Model Expected in 2024 Contract
- 13 Member (Six Municipalities; Seven – County Board Chair) Water Commission Board

GST, & BPS (WELL NO. 8 LEHMAN CROSSING) OUTH RECEIVING STATION

Lake Michigan: DuPage Water Commission

Internal
Distribution
System
Improvements

Connection Points (Receiving Stations)



DuPage Water Commission – Summary of Improvements

Supply

◆ Treated Water Transmission Mains (Total Length = 29.1 mi; Yorkville Share = 46.0%)

<u>Internal Distribution System & Storage*</u>

- North Receiving Station, Including:
 - ➤ 2.0 MG Ground Storage Tank
 - Booster Pump Station
- South Receiving Station, Including:
 - ➤ 1.6 MG Ground Storage Tank
 - Booster Pump Station
- New Altitude/Control Valve Station for Northeast EWST
- Water Main Improvements: Hydraulics

*Note: Total Storage Required for Lake Michigan Suppliers is two times Average Day Demand

Lake Michigan: DuPage Water Commission

Total Capital Cost Estimate*:

\$94,180,000

*Includes Yorkville's portion of total shared sub-regional costs

Decision Considerations Summary

- Sustainability and Water Quality/Permitting of Source:
 - No Seasonal Restrictions & Seasonally Consistent WQ
 - ➤ Chicago/DWC Responsible for Treatment/Transmission Mains
 - Existing Wells Maintained for Emergency Only
- ♦ Governance, Management/Operational Responsibility, and Risk:
 - ➤ No Direct Ownership/Control of Source Water or Transmission Mains
- Internal System Improvements:
 - New Receiving Stations Required Including Additional Storage/BPS
- Buy-In Costs
- ♦ Estimated Timeline: 4-5 years



Proposed Treated Water Transmission Main Network

JOLIET AREA WATER COMMISSION

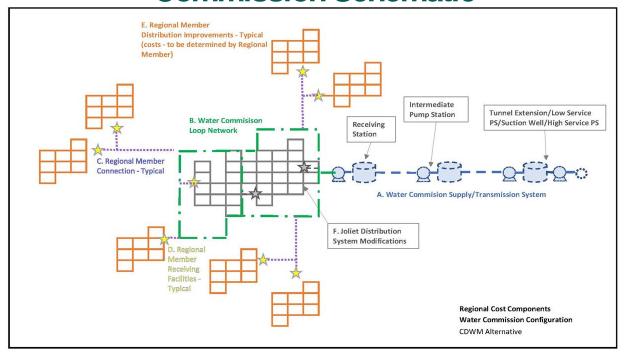
- New System With Twelve (12)
 Communities Currently Considering Joining
- Purchase Water From City of Chicago (100 Year Term With Post 50 Year Opt Out Option) Through New Rate Model
- Opportunity To Be Charter Member

ricytle Water Main Route Less Than 4" Wider N of Michigan Marin - S" Water Main 10" Webs Mais 12" Water Male GST. & BPS (WELL NO. 8 OUTH RECEIVING STATION (WELL NO. 7 & WTP

Lake Michigan: Joliet Water Commission

Internal
Distribution
System
Improvements

Joliet Water Commission Schematic



Joliet Water Commission – Summary of Improvements

Supply

◆ Treated Water Transmission Mains

<u>Internal Distribution System & Storage*</u>

- North Receiving Station, Including:
 - ➤ 2.0 MG Ground Storage Tank
 - Booster Pump Station
- South Receiving Station, Including:
 - ➤ 1.6 MG Ground Storage Tank
 - Booster Pump Station
- New Altitude/Control Valve Station for Northeast EWST
- Water Main Improvements: Hydraulics

*Note: Total Storage Required for Lake Michigan Suppliers is two times Average Day Demand

Lake Michigan: Joliet Water Commission

Total Capital Cost Estimate*:

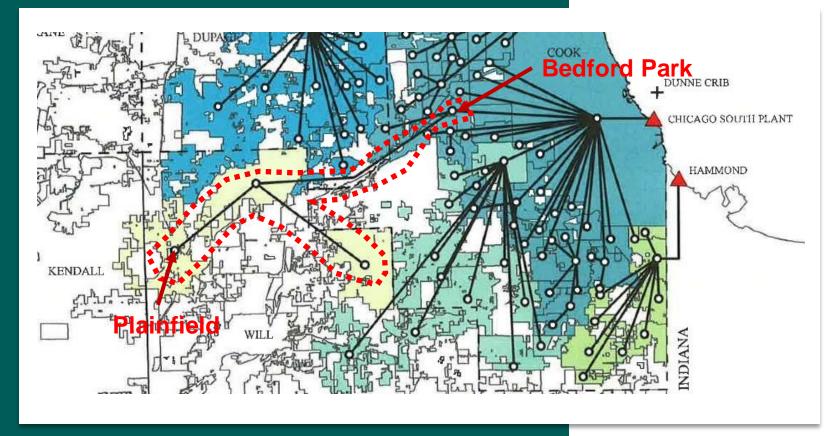
\$106,640,000

*Includes Yorkville's portion of total shared sub-regional costs

Decision Considerations Summary

- ♦ Sustainability and Water Quality/Permitting of Source:
 - No Seasonal Restrictions & Seasonally Consistent WQ
 - Chicago/DWC Responsible for Treatment/Transmission Mains
 - > Existing Wells Maintained for Emergency Only
- ♦ Governance, Management/Operational Responsibility, and Risk:
 - ➤ Joliet Water Commission Still Being Formed
 - ➤ No Direct Ownership/Control of Source Water or Transmission Mains
- ♦ Internal System Improvements:
 - ➤ New Receiving Stations Required Including Additional Storage/BPS
- Estimated Timeline: 9 Years (No Earlier Than 2030)





ILLINOIS LAKE WATER/ PLAINFIELD

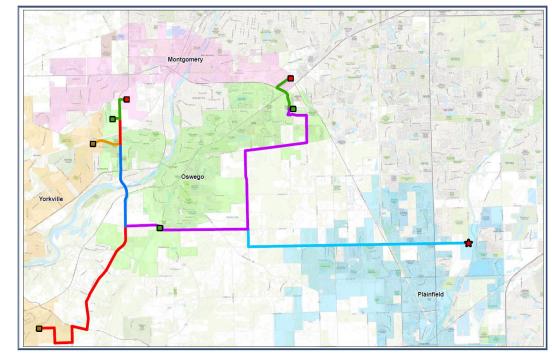
- Private Utility
- Receive Water From Bedford Park Who Receives Water From Chicago
- Currently Serving
 Bolingbrook, Homer
 Glen, Plainfield & Small
 Portions of Romeoville
 and Lemont

12" Well Male

Lake Michigan: Illinois Lake Water Option

Internal
Distribution
System
Improvements

Treated Water Transmission Main Network



Illinois Lake Water – Summary of Improvements

Supply

◆ Treated Water Transmission Mains

<u>Internal Distribution System & Storage*</u>

- North Receiving Station, Including:
 - ➤ 2.0 MG Ground Storage Tank
 - Booster Pump Station
- ♦ South Receiving Station, Including:
 - ➤ 1.6 MG Ground Storage Tank
 - Booster Pump Station
- New Altitude/Control Valve Station for Northeast EWST
- Water Main Improvements: Hydraulics

*Note: Total Storage Required for Lake Michigan Suppliers is two times Average Day Demand

Lake Michigan: Illinois Lake Water

Total Capital Cost Estimate*: TBD

*Includes Yorkville's portion of total shared sub-regional costs

Decision Considerations Summary

- ♦ Sustainability and Water Quality/Permitting of Source:
 - No Seasonal Restrictions & Seasonally Consistent WQ
 - Chicago/DWC Responsible for Treatment/Transmission Mains
 - Existing Wells Maintained for Emergency Only
- ♦ Governance, Management/Operational Responsibility, and Risk:
 - ➤ Illinois American Water is a Private Utility
 - ➤ No Direct Ownership/Control of Source Water or Transmission Mains
- ♦ Internal System Improvements:
 - ➤ New Receiving Stations Required Including Additional Storage/BPS
- Estimated Timeline: 4-5 Years





¹From AWWA Manual M36: Water Audits and Loss Control, 4th Edition (2016)

Non-Revenue Water Reduction Plan

Non-Revenue Water (NRW) is the difference between system input volume (water produced or purchased) and billed authorized consumption¹. NRW includes the following:

Unbilled Authorized Consumption

♠ Examples: Fire hydrant flushing, water treatment plant process water, municipal buildings whose water is not metered, etc.

Apparent Losses

♦ Non-physical losses such as unauthorized consumption (water theft), meter inaccuracies, systematic data handling errors, etc.

Real Losses

 Physical losses from the distribution system and storage tanks up to the point of connection to the customer meter

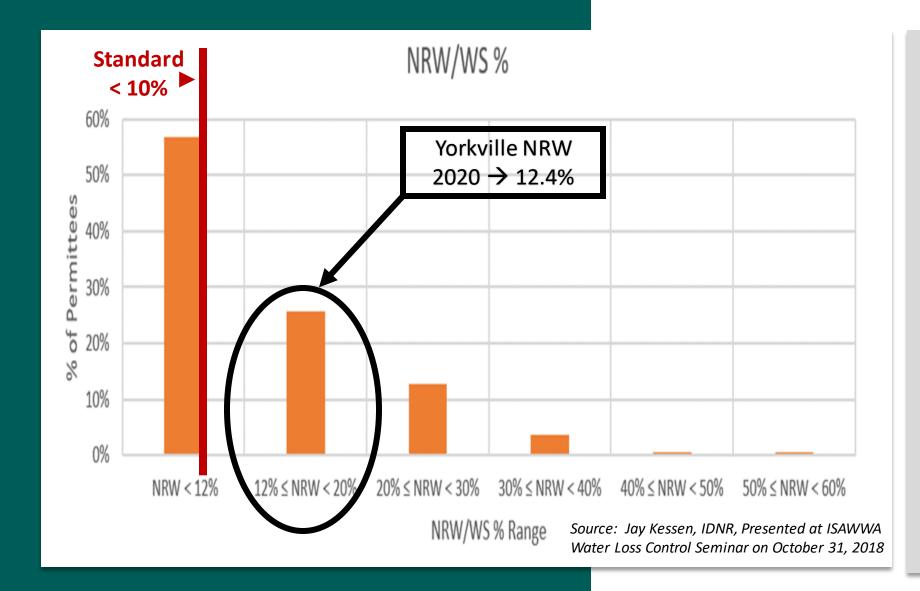


Non-Revenue Water Reduction Plan

- ♦ Water Audits can be used to identify, manage, and minimize sources of water loss. A Water Audit was completed for the 2020 Water Year (October 1, 2019 – September 30, 2020).
- - Current NRW in Yorkville is approximately 12.4%.
- NRW Reduction Plan for Yorkville includes:
 - Completion of Annual Water Loss Audit
 - Leak Detection
 - Water Main Replacement
 - Water Meter Replacement

Total NRW Reduction Plan Cost Estimate*:

\$4,050,000



Lake Michigan
Supplied System
2017 NonRevenue Water
Percentiles



AWSS Alternatives Capital Cost Summary



Fox River: YO Alone	\$97,240,000
Fox River: Waterlink Sub-Regional System	\$98,520,000
Lake Michigan: DuPage Water Commission	\$98,230,000*
Lake Michigan: Joliet Area Water Commission	\$111,010,000*
Lake Michigan: Illinois American Water	TBD*

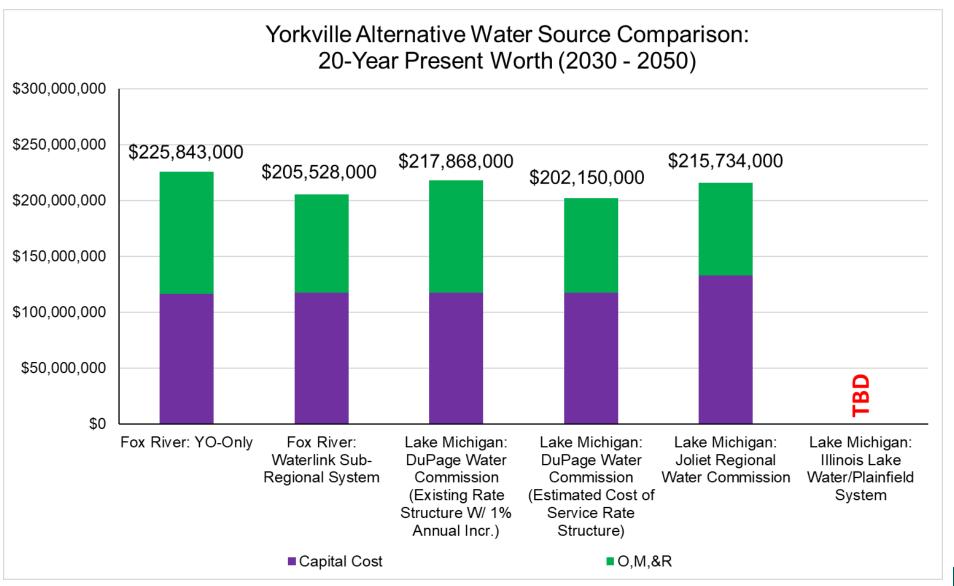
^{*}Includes NRW Reduction Capital Costs Over Next 10 Years

Funding Summary for Each Alternative

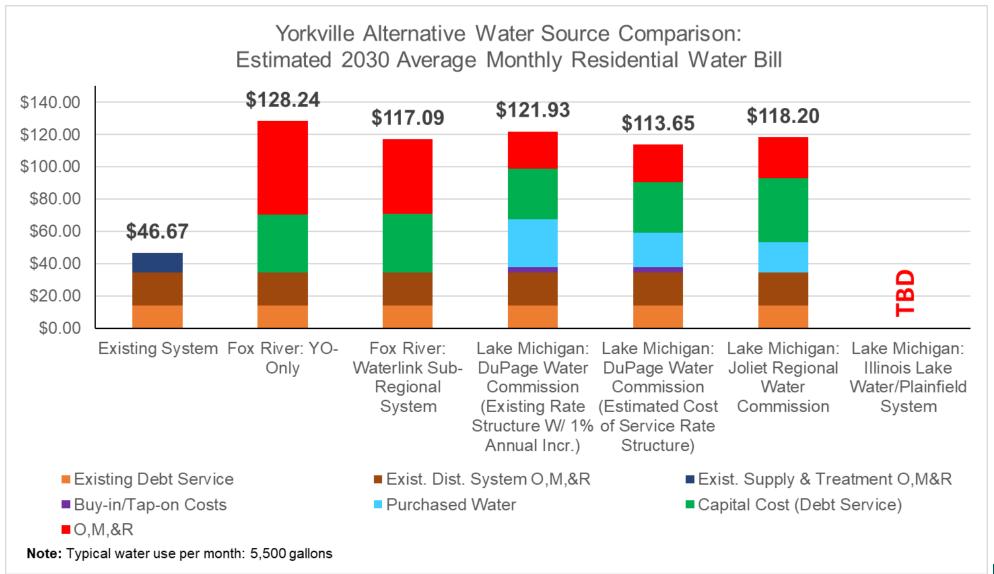
			Total Costs				
Alternative(s)	Estimated Construction Year	IEPA SRF	EPA WIFIA	Bonds/Other	DWC - Buy In	Inflated To Construction Year	
Loan Period (Years):		20	35	20	20		
Annual Interest Rate:		2.0%	2.0%	3.5%	0.0%		
Fox River: YO-Only	2027	\$62,500,000	\$53,602,698	\$0	\$0	\$116,102,698	
Fox River: Waterlink Sub- Regional System	2027	\$62,500,000	\$55,130,176	\$0	\$0	\$117,630,176	
Lake Michigan: DuPage Water Commission	2024	\$62,500,000	\$34,460,372	\$0	\$10,373,000	\$107,333,372	
Lake Michigan: Joliet Regional Water Commission	2027	\$62,500,000	\$70,048,450	\$0	\$0	\$132,548,450	
Lake Michigan: Illinois Lake Water/Plainfield System	2024			TBD			



AWSS Alternatives Net Present Value Summary



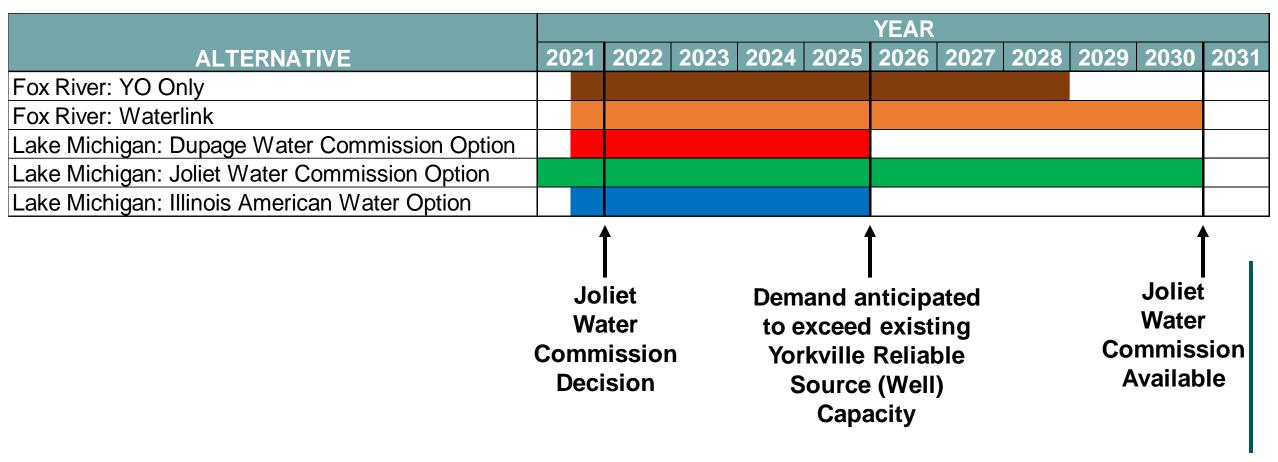
Estimated 2030 Residential Water Bill Comparison







AWSS Alternatives Estimated Implementation Schedule Comparison



Cost Savings for Delay

Projected 2030 Cost To Run Existing System \$5,167,000

♦ Projected 2030 Cost For Least Cost Alt. Water Source System \$12,570,000

Savings Per Year: \$7,403,000

Estimated Cost For a New Well & Cation Exchange WTP

\$8M - \$9M

Therefore, the cost of a new well and WTP is saved in a little over one year in delay in implementation of the Alternative Water Source Program



Alternatives Summary

Fox River

- United City of Yorkville
- Waterlink Sub-Regional System with Oswego & Montgomery

Lake Michigan

- ◆ DuPage Water Commission
- Joliet Area Water Commission

DECISION CONSIDERATIONS REVIEW







COST

WATER QUALITY

RISK



CONTROL/ GOVERNANCE





SUSTAINABILITY/ QUANTITY MANAGEMENT/ STAFFING



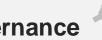


Highest cost alternative, although comparable to the other alternatives



Fox River – Yorkville Alone





The City will maintain 100% control of the system



Water Quality

Potential seasonal raw water quality considerations, although advanced water treatment process assumed for the alternative





Sustainability/Quantity

The Fox River is a sustainable source of supply, although backup wells will be needed for water quantity and quality purposes at times



Risk

The City will be 100% responsible for the implementation of all of the improvements and long-term operation of the system



Management/Staffing

City Staff will own, operate and maintain the entire system







Lower cost than Fox River – Yorkville Alone alternative, although comparable to the other alternatives



Fox River – Waterlink Sub-Regional System





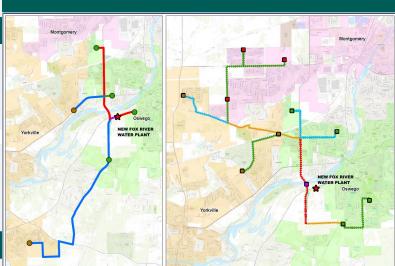
The system will be governed through an IGA or a new unit of local government (Commission or JAWA)



Water Quality

Potential seasonal raw water quality considerations, although advanced water treatment process assumed for the alternative





Sustainability/Quantity

The Fox River is a sustainable source of supply, although backup wells will be needed for water quantity and quality purposes at times



Risk

The City, along with the Villages of Oswego and Montgomery, will be responsible for the implementation of all of the improvements and long-term operation of the system



Management/Staffing

The Waterlink communities, or the new unit of local government will own, operate and maintain the entire system







Costs will be dependent on the DWC rate, although costs likely comparable to the other alternatives





The City of Yorkville would become a member of the DWC; Potentially a new District for the Waterlink Communities could be formed

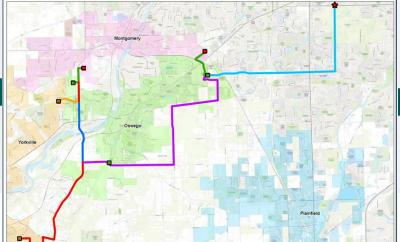


Water Quality

City of Chicago treated water that is consistently of high quality









An allocation for Lake Michigan water would be needed; The City's existing wells will be kept on-line for emergencies



Risk

DWC to construct the transmission main to the City; The City would construct the internal distribution system improvements



Staffing

Management/Staffing

The DWC would own, operate and maintain the transmission main through the delivery structure; The City would own, operate and maintain the distribution system





Costs comparable to the other alternatives



Lake Michigan – Joliet Regional Water Commission



Control/Governance

The City of Yorkville would become a voting member of the new Commission



Water Quality

City of Chicago treated water that is consistently of high quality



Sustainability/Quantity

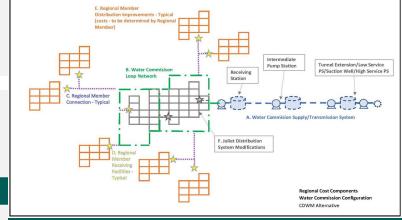
An allocation for Lake Michigan water would be needed; The City's existing wells will be kept on-line for emergencies



Risk

Commission to construct the transmission main to the City; The City would construct the internal distribution system improvements







Management/Staffing

The Commission would own, operate and maintain the transmission main through the delivery structure; The City would own, operate and maintain the distribution system





Costs are undetermined at this time



Lake Michigan – Illinois Lake Water System





The City of Yorkville would purchase water from the Illinois Lake Water System, which is operated by a private water utility



Water Quality

City of Chicago treated water that is consistently of high quality



/

Sustainability/Quantity

An allocation for Lake Michigan water would be needed; The City's existing wells will be kept on-line for emergencies



Risk

Illinois Lake Water to construct the transmission main to the City; The City would construct the internal distribution system improvements



Management/Staffing

Illinois Lake Water would own, operate and maintain the transmission main through the delivery structure; The City would own, operate and maintain the distribution system





Weighted Decision Matrix

	Co	ost	Water Quality Risk		sk	Control / Governance		Sustainability/Quantity		Management/Staffing			
Ranking Criteria		lementation) sts?	What is quality and variability of the finished water for this alternative?		Does the alternative provide for the most reliable, long term solution.		For this alternative, does the Village maintain complete control of their water source?		Does the alternative provide a long-term sustainable solution?		Will the City, or another entity, be responsible for managing and staffing the system?		
Highest	1 - High	est Cost	Finished water quality is variable and/or reduced from present standard.		This alternative is only a short term solution with potential long term risk and consequences.		The City does not retain significant control of the water supply system.		This alternative has long term sustainability concerns.		1 - The City will need to manage and staff the entire system.		
Lowest	5 - Low	est Cost	more consist	vater quality is ent and/higher nt standard.	5 - This alternative provides for a long term (exceeding 50 year) solution with manageable long term risks. 5 - The City main complete control water supply systems.		ontrol of the	ne for a long term (exceeding		5 - Another entity is contractually responsible to manage and staff the water supply system.			
	Weight	0%	Weight	0%	Weight	0%	Weight	0%	Weight	0%	Weight	0%	
Alternative	Value	Weighted Value	Value	Weighted Value	Value	Weighted Value	Value	Weighted Value	Value	Weighted Value	Value	Weighted Value	Weighted Total Value
Fox River - Yorkville Alone	0	0	0	0	0		0	mn	S 0	0	0	0	#REF!
Fox River - Waterlink Sub-Regional System	0	0	0	B	ue		0	0	B	0	0	0	#REF!
Lake Michigan - DuPage Water Commission	0	0	0	0	Re	C	m)Ie.	0	0	0	0	#REF!
Lake Michigan - Joliet Regional Water Commission	0	0	0		0		ct	Te	am	0	0	0	#REF!
Lake Michigan - Illinois Lake Water System	0	0	0	By			0	0	0	0	0	0	#REF!





NEXT STEPS

◆ Public Meeting / Open House on Tuesday, October 19th

Further Council Discussion and Joliet Decision in November / December





Jeffrey W. Freeman, PE, CFM, LEED AP Chief Executive Officer jfreeman@eeiweb.com (630) 466-6718