Alternative Water Source Evaluation

Part 5 – Cost Analysis

Village of Oswego, Illinois

November 2, 2021

Draft Report

BAXTER & WOODMAN Consulting Engineers

Village of Oswego, IL - Draft Report
Alternative Water Source Evaluation – Part 5
TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Figure Page No.

LIST OF APPENDICES

LIST OF ABBREVIATIONS

avg	-	average
CDWM	-	Chicago Department of Water Management
CMAP	-	Chicago Metropolitan Agency for Planning
DWC	-	DuPage Water Commission
EPA	-	Environmental Protection Agency
ft	-	feet
ft2	-	square feet
ft3	-	cubic feet
gpd	-	gallons per day
gpm	-	gallons per minute
gpcpd	-	gallons per capita per day
IAWC	-	Illinois American Water Company
IDNR	-	Illinois Department of Natural Resources
IEPA	-	Illinois Environmental Protection Agency
ISWS	-	Illinois State Water Survey
max	-	maximum
MG	-	million gallons (or mil gal)
MGD	-	million gallons per day
mg/L	-	milligrams per liter (parts per million in dilute solutions)
min	-	minimum
PRV	-	pressure reducing valve
psi	-	pounds per square inch
US EPA	-	United States Environmental Protection Agency

22. PART 5 INTRODUCTION

Part 5 of the Alternative Water Source Evaluation (Study) includes detail on the cost analysis of the water source alternatives and is a companion document to the Part 1 through Part 4 reports. The purpose of the Study is to update and align the previous source water analyses completed for the Fox River Option (Engineering Enterprise, Inc., 2017) and Lake Michigan Water via DuPage Water Commission Option (AECOM, 2018) with two new Lake Michigan Water alternatives: the proposed Joliet Water Commission Option and the Illinois American Water Option. The specific design recommendations from the previous Fox River and DuPage Water Commission (DWC) studies have not been altered as part of this study.

The Village is partnering with the Village of Montgomery and United City of Yorkville to evaluate several alternative water supply sources. The alternatives evaluated in the Study are sized to meet the 2050 demands of Montgomery, Oswego, and Yorkville, with consideration given to the ultimate demand when the three communities are fully developed.

Part 1 of the Study provided the following:

- A summary of the existing water source in Montgomery, Oswego, and Yorkville
- An analysis of population and water demand projections and water conservation efforts
- A summary of Oswego's existing water system
- The results of the Illinois State Water Survey analysis
- An overview of the Fox River and Lake Michigan alternative water sources
- A description of the comprehensive Study approach and next steps

Part 2 of the Study provided the following:

- An overview of the key considerations used for evaluation
- A detailed discussion of the identified water source options
- The internal system improvements necessary when changing water sources

Part 3 of the Study provided the following:

- A discussion of the need and requirements for water conservation
- Examples of conservation measures in other areas
- An overview of current conservation practices in Oswego
- Examples of proposed conservation measures

Part 4 of the Study provided the following:

- An overview of the public information meeting held with Montgomery and Yorkville

Part 5 of the Study provides the following:

- An overview of study assumptions
- A detailed discussion of the cost estimate methodology
- Descriptions of proposed funding alternatives
- Detailed cost estimates for each alternative
- The rate impact for Oswego residents

23. STUDY ASSUMPTIONS

The Alternative Water Source Evaluation Study updates and aligns the previous analyses completed for the Fox River Option and Lake Michigan Water via DuPage Water Commission (DWC) Option with two new Lake Michigan Water alternatives: the Joliet Water Commission Option and the Illinois American Water Option. Part 1 of the Study details the key studies previously performed to assess alternative water supply sources.

The specific design recommendations from the previous Fox River and DWC studies have not been altered as part of this study but some elements have been updated or added to provide a uniform comparison between the alternatives. The alternatives evaluated in the Study are sized to meet the 2050 demands of Montgomery, Oswego, and Yorkville, with consideration given to the ultimate demand when the three communities are fully developed. The alternatives are inclusive of the improvements and facilities required to meet 2050 demands.

It is important to note that the opinions of probable cost developed for the Study represent conceptual estimates. The sites and routes presented in the Study are preliminary recommendations and have not been finalized and field investigations have not been performed. Once an alternative is selected, more detailed analysis can be performed, the sizing of facilities and pipelines will be finalized, and unit prices will be refined.

Cost estimates were developed in three categories:

- Water supply costs are defined as the cost to produce treated water or purchase treated water from a water supplier.
- Capital costs and debt service costs include all costs associated with the design, permitting, and construction of the infrastructure needed to implement the alternative, including contingencies and debt service costs.
- Operations and Maintenance (O&M) costs are an estimated annual allowance for the ongoing operation and maintenance of the infrastructure associated with the implementation of the alternative.

23.1 Capital Cost Estimate Approach

Pipe diameters used in the Study were determined in the 2017 EEI and 2018 AECOM studies. The pipe diameters have not been updated to reflect the reduced demand projections. Further analysis may identify opportunities for changes in pipe size. Connection locations remain as originally proposed and the three Lake Michigan alternatives will use the connection locations originally proposed in the AECOM report. Costs were escalated to 2021 dollars using the Engineering News-Record's Chicago Construction Cost Index.

Transmission mains will likely be constructed in a wide variety of conditions. For the purpose of the Study, a corridor classification methodology was used to evaluate the routes for the water supply alternatives. Design Stage JULIE locates, dedicated easements and established Right of Way, and route types were all evaluated to determine the corridor classifications. Six installation conditions, summarized in Table 1, were used as the basis for creating cost estimates.

TABLE 1

Corridor Classification Summary

Corridor Classification	Corridor Description
Low Density	Rural roadways, outside of pavement. Minimal utility coordination and minimal traffic control needs. Backfill with excavated materials and restoration along roadway ditches.
Medium Density	Suburban arterial roadway. Includes moderate utility coordination/relocation and moderate traffic control. Granular backfill and restoration of HMA pavement.
High Density	Urban residential and major arterials (including county/state routes). Significant utility coordination and traffic control needs. Granular backfill and restoration of HMA/PCC pavement.
Trenchless Crossing	Streams/rivers/wetlands and major roadway crossings. Auger/jack and bore in casing.
Trenchless Crossing (Railroad)	Railroad crossings. Auger/jack and bore in casing.
Utility Corridor	Open cut in utility ROW with minimal utility relocation and traffic protection needs. Backfill with excavated materials and seeding restoration along ROW.

The following assumptions were made for all corridor classifications:

- Minimum 5 feet of cover.
- Open-cut trench depth extends 6 inches below the bottom of the pipe.
- Open-cut trench width is equal to the pipe diameter plus three feet with normal trench support.
- Pipe bedding and covering with imported granular material 12 inches above the crown of the pipe.
- Ductile iron pipe for pipes 30 inches and smaller, prestressed concrete cylinder pipe for pipes 36 inches and larger.
- Butterfly valves spaced every 1 mile on treated water transmission mains.
- Air valves at high points (assumed ½ mile spacing).
- Blow-off valves for low points (assumed ½ mile spacing).

Due to the conceptual nature of the Study, a 30% contingency was added to the capital construction costs to cover uncertainties in the scope of the alternatives and other risk factors. The design and construction engineering and legal costs are estimated at 20% of the capital construction costs. Capital costs are escalated to the mid-point of construction at 3% annually.

Capital cost estimates were categorized into two groups: regional system improvements and internal system improvements. Regional system improvement costs include the costs to design, permit, and construct the infrastructure needed to convey water from the water source or water supplier to the three communities. The basis for allocating regional system improvements is detailed in Section 23.4. Regional system improvements include:

- Fox River Option
  - Sub-regional well
  - Raw water transmission mains
  - Intake pumping station
  - Lime softening water treatment plant
  - Treated water transmission mains
- Lake Michigan Water Options
  - Treated water transmission mains
  - Buy-in costs

Internal system improvement costs include the costs to design, permit, and construct the improvements needed within each community's system to effectively move water within the distribution system. Internal system improvements include:

- Receiving stations
- Intermediate wells and treatment
- Storage tanks and pumping stations
- Water main extensions/replacements

Cost estimates for the Joliet Water Commission Option regional system improvements were provided by the Joliet Alternative Water Source Program engineering team. Cost estimates for the internal system improvements needed within Montgomery and Yorkville systems were developed and provided by EEI.

23.2 Financing Alternatives

Six methods of funding were evaluated to fund the capital costs for the four alternatives. These funding options include the Illinois Environmental Protection Agency (IEPA) State Revolving Fund (SRF) loans, Water Infrastructure Finance and Innovation Act (WIFIA) loans, DuPage Water Commission Financing, Joliet Water Commission Financing, and municipal bonds. Each of the financing options were calculated using the assumptions in Table 2, and the debt service payments were assumed to begin at the year of implementation.

TABLE 2

Financing Alternatives Summary

Funding Option	Interest Rate	Loan Term (years)	Notes
IEPA SRF Loans	2%	20	Up to 25% of total SRF available funding, estimated up to $62,500,000
WIFIA Loans	2%	35	Up to 49% of total project cost
DWC Financing – Buy In	0%	30	Proposed for buy-in costs
DWC Financing - Capital	2%	30	Estimated at $50M of regional improvements
Joliet Water Commission Financing	2.53%*	20-30 years	Proposed for buy-in costs and transmission mains. *Weighted cost of capital
Bonds	3.5%	20	

The IEPA SRF Loans are limited to 25% of the total available funding in the State Revolving Fund. For this assessment, $62,500,000 was assumed to be the maximum amount of funding per project from the IEPA.

The Joliet Water Commission provided an annual debt service table for each of the communities, which was used for the Joliet Water Supply Option. The total debt service is a combination of SRF, WIFIA, and bonds for a weighted interest rate of 2.53% and varying loan terms.

23.3 Oswego Existing O&M Costs

The Village maintains a Water and Sewer Fund which is generally comprised of the administrative expenses, the production of water, and the operation and maintenance of the Village's water system. The Village's water bills are calculated using a straight volumetric rate per 1,000 gallons applied to the metered water usage, as well as a bi-monthly fixed fee for all customers. For this assessment, the existing water rate structure was maintained up to the implementation year for each alternative and increased by 2% annually. The water rate structure was converted to a volumetric water rate only at the implementation year for each alternative based on the volumetric usage and increased by 2% annually. Additionally, the existing well maintenance line item was minimized to cover costs for maintaining and testing emergency backup wells, and the radium removal line item was removed from the existing volumetric rate at the alternative source implementation year.

23.4 Cost Responsibility Ratios

Two demand scenarios were developed to project water demands to 2050. The Current Trends (CT) scenario assumes that per capita water demand trends remain constant through 2050. The Contractual Limit/Less Resource Intensive (CL/LRI) scenario reflects the contractual limitations on

the MDD:ADD ratio, a common requirement of Lake Michigan water suppliers. The Fox River Option was evaluated using the Current Trends demand scenario. The three Lake Michigan alternatives were evaluated using the Contractual Limit/Less Resource Intensive demand scenario.

Capital costs were allocated based on each community's portion of the projected 2050 demands. Table 3 summarizes the cost responsibility percentages for the average day demand, maximum day demand (CT and CL/LRI), and the SR-1 usage ratio for the Fox River Option. Costs for individual components were assigned based on the design parameter for each component; while most infrastructure must be sized to meet the maximum day demand, the raw water transmission mains for the Fox River Option can be sized for the average day demand. The individual cost estimates note the allocation of costs using footnotes.

TABLE 3

Cost Responsibility Percentage Summary

2050 Demand Scenario	Total		Oswego		Montgomery		Yorkville	
	MGD	%	MGD	%	MGD	%	MGD	%
Average Day Demand	11.23	100%	3.77	33.6%	3.40	30.3%	4.06	36.2%
Maximum Day Demand (CT)	21.14	100%	7.99	37.8%	5.53	26.2%	7.62	36.0%
Maximum Day Demand (CL/LRI)	18.85	100%	6.41	34.0%	5.53	29.3%	6.91	36.6%
SR-1 Usage Ratio	-	100%	-	70.5%	-	0.0%	-	29.5%

24. FOX RIVER OPTION

As discussed in the Part 2 report, the Fox River Option would include an intake pumping station on the Fox River, a network of backup wells and raw water transmission mains, a lime-softening water treatment plant, and a network of treated water transmission mains to distribute water to each community. Figure 1 summarizes the infrastructure requirements for the Fox River Option.

FIGURE 1

Fox River Option Infrastructure Requirements

💧	*Included*	**Fox River Option**
—	*Not Included*	
○	*Optional*	
Water Supplier	New raw water intake	💧
	New water treatment plant	💧
	New raw water transmission main	💧
	New treated water transmission main	💧
	New/existing system upgrades	—
	Backup well network	💧
Montgomery, Oswego, Yorkville	New regional well	💧
	New receiving stations	💧
Oswego	Existing system improvements	💧
	New storage/pumping stations	💧
	New intermediate well	💧
	Maintain all existing wells	—

The Fox River Water Plant site is expected to be located on the east side of the Fox River near Orchard Road in Oswego. Exact siting of the proposed facilities will be evaluated and finalized during preliminary design after a water source is selected.

24.1 Water Production Costs

The water production rate for the Fox River Option was developed by EEI and provided in a 2018 memo (Sustainable Water Supply Planning – Water Production Unit Cost Comparison). The 2020 rate of production is estimated to be $3.00 per 1,000 gallons and inflated at 3% throughout the 30 year projection. At the implementation year, the production rate is multiplied by the annual water

usage to determine the annual production costs. Table 4 shows the water production rate over the study period.

TABLE 4

Fox River Option Water Supply Rates

Funding Option	Water Production Rate
2030	$3.59 per 1,000 gal
2040	$4.37 per 1,000 gal
2050	$5.33 per 1,000 gal

24.2 Capital Costs and Debt Service

24.2.1 Regional System Improvements

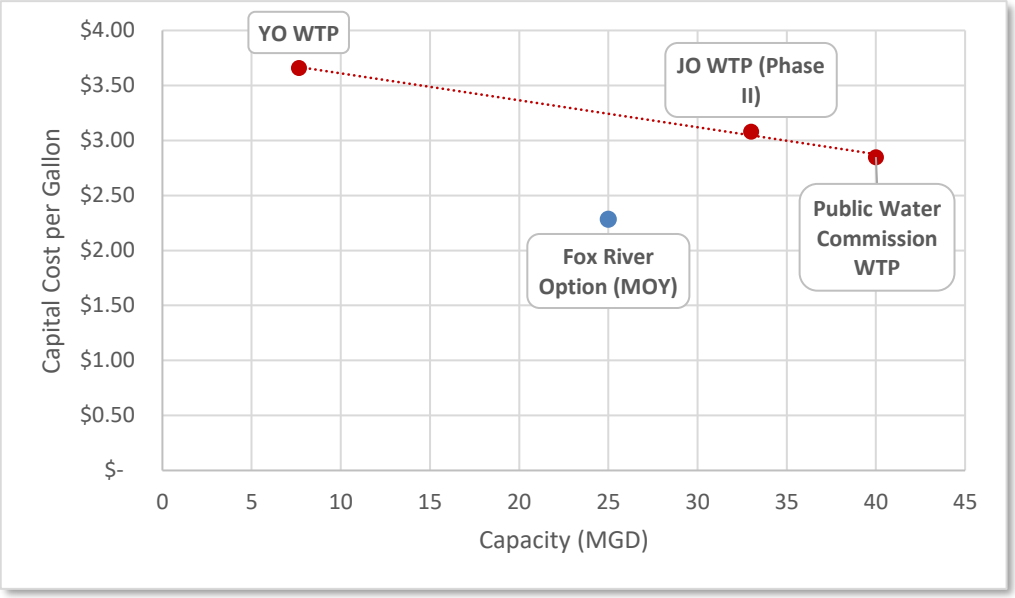
The Part 2 report details the regional system improvements required to implement the Fox River Option, which include an intake pumping station, a network of backup wells and raw water transmission mains, a lime-softening water treatment plant, and a network of treated water transmission mains. A summary of the regional system improvement cost estimates is included later in this section. Detailed cost estimates for the regional system improvements are included in Appendix A.

The original intent of the Study was to update the costs for the Fox River Option as developed by EEI in 2018. During the course of the Study, EEI compared the original water treatment plant estimate more recent lime softening water treatment plant cost estimates for their work in Montgomery. EEI found the original 2018 Fox River Water Plant cost estimate to be low. In addition, EEI now recommends several updates to the proposed design of the lime softening WTP to have more of a comparable finished water quality between the Fox River Option and the Lake Michigan Options, including granular activated carbon within the Decel Filters and UV-AOP (Advanced Oxidation Process).

The original construction subtotal cost of the lime softening water treatment plant was $49,466,000. Bringing the construction subtotal cost of the lime softening WTP to 2021 dollars equates to $57,080,000, before contingency and engineering. The inflated total cost estimate was $85,620,000. Figure 2 below shows the capacity, estimated capital costs, and estimated cost per gallon for the comparable lime softening WTPs. EEI's new cost estimate methodology provides a Benchmarking Analysis (Figure 2 below) to determine the current 2021 construction cost estimate.

FIGURE 2

EEI Benchmarking Analysis (September 2021)



The original capital cost estimate equated to approximately $2.28 per gallon. Based on the benchmarking analysis performed by EEI, the estimated capital cost should be approximately $3.25 per gallon. Using this approach, the construction of a new regional Fox River Water Plant subtotal cost equates to $81,250,000. The total estimated capital cost, with engineering and contingency, is $121,880,000. This revised cost estimating approach was reviewed with Montgomery, Oswego, and Yorkville and approved.

24.2.2 Internal System Improvements

Water Supply receiving components would include a metering station to establish the volume of water entering each community's distribution system at each of the community connection points for this alternative. The Part 2 report details the number and proposed location of receiving stations for the Fox River Option.

As discussed in Part 1 and Part 2 of the Study, it is projected that Oswego's demands will exceed its current well supply capacity before the Fox River Option is available.

Water storage facilities provide water to meet peak hourly demands, water for fire protection, and a reserve capacity for emergencies. Currently, the Village of Oswego has five elevated water storage tanks with a combined volume of 5.3 MG. While not contractually required for the Fox River Option, a common design criteria for water storage recommendations is to maintain a storage volume equal to two times the average day use.

For Oswego's current demands, two times average day demands equates to 4.8 MG. Using Oswego's projected 2050 demands, the recommended volume equates to 7.5 MG, meaning that Oswego should plan to construct additional storage before 2050. For the purpose of this Study, it is assumed that Oswego will construct an additional volume of 3.0 MG. Cost estimates were developed for a 1.0 MG Ground Storage Tank with pumping station and a 2.0 MG Ground Storage Tank with pumping station.

As described in the Part 2 report, the Village of Oswego requires 11,000 feet of internal system improvements in order to implement the Fox River Option. Of the 11,000 feet of required improvements, approximately 6,700 feet of upsized piping downstream of the Hunt Club Tank would be required immediately. The remaining 4,300 feet of upsized piping near the Ogden Falls tank would be required sometime before 2050, depending on future Oswego demands. For the purpose of this Study, the proposed future water main upsizing is included in the alternative evaluation and cost estimates.

A summary of the internal system improvements cost estimates is included in the following section. Detailed cost estimates for Oswego's internal system improvements are included in Appendix A. Cost estimates for the internal system improvements in Montgomery and Yorkville were provided by EEI.

24.2.3 Capital Cost Estimate

Capital cost estimates for the implementation of the Fox River Option are estimated to total approximately $314,340,000. Oswego's share of the estimated capital costs is $113,610,000. Table 5 summarizes the capital cost estimates for the Fox River Option. Detailed opinions of probable construction cost for individual components are provided in Appendix A.

TABLE 5

Fox River Option Capital Cost Summary

Description	Total	Oswego	Montgomery	Yorkville
Sub-Regional Well SR-1 [SR1]	$3,110,000	$2,190,000		$920,000
Raw Water Transmission Mains [a, 1]	$54,920,000	$18,430,000	$16,630,000	$19,860,000
25 MGD Intake Pump Station [m-CT]	$8,570,000	$3,240,000	$2,240,000	$3,090,000
25 MGD Lime Softening WTP [m-CT]	$121,880,000	$46,070,000	$31,880,000	$43,930,000
Treated Water Transmission Mains [m-CT, 1]	$72,710,000	$12,720,000	$19,030,000	$40,960,000
Regional Improvements Subtotal	**$261,190,000**	**$82,650,000**	**$69,780,000**	**$108,760,000**
Receiving Stations	$6,660,000	$3,330,000	$1,110,000	$2,220,000

Description	Total	Oswego	Montgomery	Yorkville
Intermediate Oswego Well & Treatment	$6,410,000	$6,410,000	-	-
Internal Storage & Pumping	$12,620,000	$12,620,000	-	-
Internal Distribution Improvements	$27,452,123	$8,600,000	$16,560,423	$2,291,700
Internal System Improvements Subtotal	**$53,142,123**	**$30,960,000**	**$17,670,423**	**$4,520,000**
Total [2]	**$314,340,000**	**$113,610,000**	**$87,460,000**	**$113,280,000**

Notes:

SR1: Cost responsibility is calculated as percentage of usage for SR-1, as provided in EEI 2016 report.

a: Cost responsibility is calculated as percentage of 2050 Average Day Demand.

m-CT: Cost responsibility is calculated as percentage of 2050 Maximum Day Demand (Current Trends).

1: Cost responsibility is calculated as percentage of 2050 demand for shared pipelines. Costs for branches to connection points are responsibility of individual community.

2: Cost estimates include construction costs, legal, design, and construction engineering, land acquisition, and contingency. Detailed cost estimates for each component are provided separately.

24.2.4 Financing Alternatives

The estimated capital cost for the Fox River Alternative was inflated at an interest rate of 3% annually until the estimated mid-point of construction for a total of $135,656,281 for the Village of Oswego's portion of the project. The alternative maximizes the funding of the IEPA SRF Loans, and the remainder of the capital cost is assumed to be funded by WIFIA. The total capital cost that is covered under each loan and the annual debt service cost is shown in Table 6 below.

TABLE 6

Fox River Option Oswego Financing Alternatives

Funding Option	Total Capital	Annual Debt Service
IEPA SRF Loans	$62,500,000	$3,806,950
WIFIA Loans	$73,156,281	$2,916,422

24.3 Operations and Maintenance Costs

Annual operations and maintenance costs were estimated for each of the infrastructure components. For the raw and treated water transmission mains and internal distribution improvements, O&M was estimated at 0.5% of the initial construction cost. For the receiving stations and storage/pumping stations, annual O&M was estimated at 1% and 2% of the initial construction cost, respectively. For the intermediate well and treatment facility in Oswego, annual O&M was estimated at 1.5%.

24.4 Oswego Total Cost of Water

An analysis of the total cost of the Fox River Option for Oswego was performed using the water supply costs, capital and debt service costs, and O&M costs described above. The total cost of water analysis calculates the present value of costs realized through 2050, assuming a 3% rate. Oswego's total cost of water for the Fox River Option is $157,230,000.

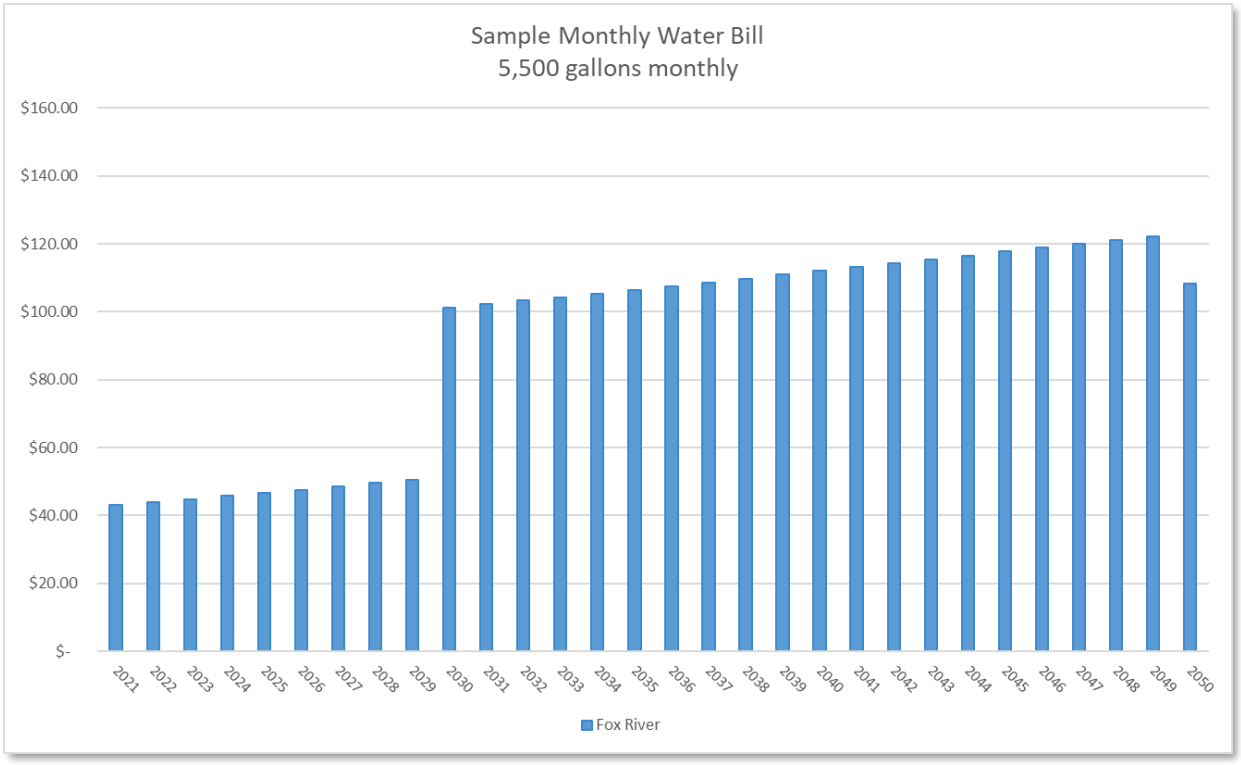
24.5 Oswego Rate Impact

The Fox River Option includes costs for water production, capital cost and debt service, and O&M. The total cost was divided for each year's Annual Water Usage and converted to a volumetric water rate per 1,000 gallons. This rate was added to Oswego's calculated Existing O&M Water Rate at the implementation year to determine the annual cost of water.

The Village identified the average residential user consumed approximately 5,500 gallons of water per month. A sample bill was calculated with the current 2021 Water Rates and with the updated water rates throughout the 30 year projection and is shown in Figure 3 below.

FIGURE 3

Fox River Option Oswego Sample Monthly Water Bill



The monthly cost of water is projected to increase in 2030 in order to fund the debt service, additional operation and maintenance of the water system, and production costs. The total bill is

projected to lower in 2050 due to the expiration of the 20-year debt service. The Village is planning to perform a comprehensive water rate study to determine the appropriate rate structures, rate schedules, and rate increases to fund the upcoming projects which may alter the projected sample water bills.

25. DUPAGE WATER COMMISSION OPTION

The Part 2 report details the infrastructure necessary to implement the DWC Option, which includes a new transmission main and receiving stations at each of the three communities' connection points. The three communities would pay for the construction of required facilities and DWC would own, operate, and maintain the facilities outside of the receiving stations. Figure 4 summarizes the infrastructure requirements for the DWC Option.

FIGURE 4

DuPage Water Commission Option Infrastructure Requirements

💧	*Included*	**DuPage Water Commission Option**
–	*Not Included*	
○	*Optional*	
Water Supplier	New raw water intake	–
	New water treatment plant	–
	New raw water transmission main	–
	New treated water transmission main	💧
	New/existing system upgrades	💧
	Backup well network	–
Montgomery, Oswego, Yorkville	New regional well	–
	New receiving stations	💧
Oswego	Existing system improvements	💧
	New storage/pumping stations	💧
	New intermediate well	–
	Maintain all existing wells	○

Siting of the proposed facilities will be evaluated and finalized during preliminary design after a water source is selected.

25.1 Water Supply Costs

DWC purchases water from the Chicago Department of Water Management (CDWM) and sells to wholesale customers at a rate of $4.97 per 1,000 gallons of metered water usage. DWC is currently negotiating its contract with the CDWM and is anticipating to reduce water rates to DWC customers to $3.65 per 1,000 gallons in 2030. Based on historical precedence, an annual rate increase of 1% was applied throughout the 30 year projection. These water rates are multiplied by the annual water

usage to determine the annual water supply costs. Table 7 shows the water supply rate over the study period.

TABLE 7

DuPage Water Commission Option Water Supply Rates

Year	Water Supply Rate
2030	$3.65 per 1,000 gal
2040	$4.03 per 1,000 gal
2050	$4.45 per 1,000 gal

25.2 Capital Costs and Debt Service

25.2.1 Regional System Improvements

As described in the Part 2 report, the regional system improvements required to implement the DWC Option include a treated water transmission main to convey water from the existing DWC system in Naperville to each of the communities' connection points. A summary of the regional system improvement cost estimates is included later in this section. Detailed cost estimates for the regional system improvements are included in Appendix B.

25.2.2 Internal System Improvements

The Part 2 report details the number and proposed location of receiving stations for the DWC Option. With the exception of Oswego's High Pressure Zone connection, it is assumed that each connection point would require a metering station. Due to the higher hydraulic grade line of Oswego's High Pressure Zone, booster pumps will be required within the receiving station; it is assumed that the receiving station would include storage and a pumping station.

Water storage facilities provide water to meet peak hourly demands, water for fire protection, and a reserve capacity for emergencies. Under this alternative, the communities would be required to maintain a storage volume equal to two times the average day use.

Currently, the Village of Oswego has five elevated water storage tanks with a combined volume of 5.3 MG. For Oswego's current demands, two times the average day demand equates to 4.8 MG. Using Oswego's projected 2050 demands, the recommended volume equates to 7.5 MG, meaning that Oswego should plan to construct additional storage before 2050. For the purpose of this Study, it is assumed that Oswego will construct an additional volume of 3.0 MG. Cost estimates were developed for a 1.0 MG Ground Storage Tank with pumping station and a 2.0 MG Ground Storage Tank with pumping station.

As described in the Part 2 report, the Village of Oswego requires approximately 4,300 feet of upsized piping downstream of the Hunt Club Tank prior to the implementation of the DWC option. An additional 3,600 feet of upsized piping near the Ogden Falls tank would be required sometime before

2050, depending on future Oswego demands. For the purpose of this Study, the proposed future water main upsizing is included in the alternative evaluation and cost estimates.

A summary of the cost estimates for internal system improvements is included in the following section. Detailed cost estimates for Oswego's internal system improvements are included in Appendix B. Cost estimates for the internal system improvements in Montgomery and Yorkville were provided by EEI.

25.2.3 Capital Cost Estimate

Capital cost estimates for the implementation of the DWC Option are estimated to total approximately $272,050,000. Oswego's share of the estimated capital costs is $73,100,000. Table 8 summarizes the capital cost estimates for the DWC Option. Detailed opinions of probable construction cost for individual components are provided in Appendix B.

TABLE 8

DuPage Water Commission Option Capital Cost Summary

Description	Total	Oswego	Montgomery	Yorkville
Treated Water Transmission Mains m-CL/LRI, 1	$161,780,000	$43,040,000	$44,330,000	$74,410,000
Buy-in Costs	$27,720,000	$10,373,000	$10,285,000	$7,062,000
Regional Improvements Subtotal	**$189,500,000**	**$53,413,000**	**$54,615,000**	**$81,472,000**
Receiving Stations	$12,600,000	$6,840,000	$2,880,000	$2,880,000
Internal Storage & Pumping	$22,658,675	$6,700,000	$6,903,375	$9,055,300
Internal Distribution Improvements	$47,282,330	$6,140,000	$36,324,390	$4,817,940
Internal System Improvements Subtotal	**$39,313,240**	**$19,680,000**	**$46,107,765**	**$16,753,240**
Total [2]	**$272,050,000**	**$73,100,000**	**$100,730,000**	**$98,230,000**

Notes:

m-CL/LRI: Cost responsibility is calculated as percentage of 2050 Maximum Day Demand (Contractual Limit/LRI).

1: Cost responsibility is calculated as percentage of 2050 demand for shared pipelines. Costs for branches to connection points are responsibility of individual community.

2: Cost estimates include construction costs, legal, design, and construction engineering, land acquisition, and contingency. Detailed cost estimates for each component are provided separately.

25.2.4 Financing Alternatives

Oswego's portion of the estimated capital costs of the regional system improvements and internal improvements were inflated at an interest rate of 3% annually until the estimated mid-point of construction for a total of $68,535,837. Oswego's estimated buy in cost is $10,373,000. The approach maximizes the DWC financing alternatives, with the internal system improvements

funded by the IEPA SRF Loans. The DWC financing alternative is limited to $50,000,000 for the regional improvements, and the Village of Oswego's estimated allotted portion is $17,000,000 based on a flow percentage. The remaining portion of the DWC improvements and internal system improvements are estimated to be paid for through the IEPA SRF loans. However, the loan applicant must be the entity that owns and operates the facilities, therefore negotiations with DWC may need to occur in order to utilize funding for the remaining DWC capital improvements. The total capital cost that is covered under each loan and the annual debt service cost is shown in Table 9 below.

TABLE 9

DuPage Water Commission Option Oswego Financing Alternatives

Funding Option	Total Capital	Annual Debt Service
DWC Financing - Buy In	$10,373,000	$345,767
DWC Financing - Capital	$17,000,000	$756,311
IEPA SRF Loans	$51,535,837	$3,139,109

25.3 Operations and Maintenance Costs

Annual operations and maintenance costs were estimated for each of the infrastructure components. For the internal distribution improvements, O&M was estimated at 0.5% of the initial construction cost. For the receiving stations and storage/pumping stations, annual O&M was estimated at 1% and 2% of the initial construction cost, respectively.

25.4 Oswego Total Cost of Water

An analysis of the total cost of the DWC Option for Oswego was performed using the water supply costs, capital and debt service costs, and O&M costs described above. The total cost of water analysis calculates the present value of costs realized through 2050, assuming a 3% rate. Oswego's total cost of water for the DWC Option is $136,230,000.

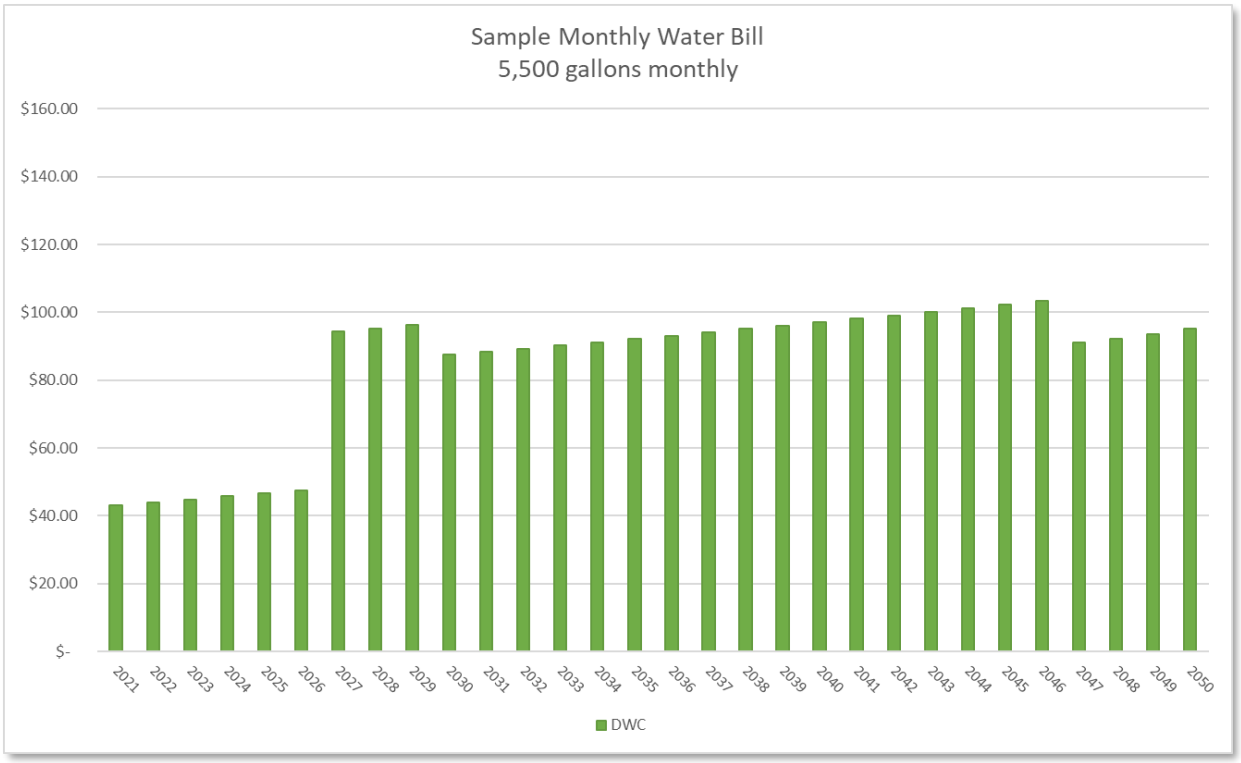
25.5 Oswego Rate Impact

The DWC Option includes costs for water purchase, capital cost and debt service, and O&M. The total cost was divided for each year's Annual Water Usage and converted to a volumetric water rate per 1,000 gallons. This rate was added to Oswego's calculated Existing O&M Water Rate at the implementation year to determine the annual cost of water.

The Village identified the average residential user consumed approximately 5,500 gallons of water per month. A sample bill was calculated with the current 2021 Water Rates and with the updated water rates throughout the 30 year projection and is shown in Figure 5 below.

FIGURE 5

DuPage Water Commission Option Oswego Sample Monthly Water Bill



The monthly cost of water is projected to increase with the implementation of the new supply in 2027 to fund the debt service, additional operation and maintenance of the new internal system infrastructure, and purchasing costs. The cost is expected to drop in 2030 due to the proposed reduced rates from DWC and reduces again in 2047 as the Village's debt service is paid off. The Village is planning to perform a comprehensive water rate study to determine the appropriate rate structures, rate schedules, and rate increases to fund the upcoming projects which may alter the projected sample water bills.

26. JOLIET WATER COMMISSION OPTION

The Part 2 report details the infrastructure necessary to implement the Joliet Water Commission Option, which includes a new larger regional water system and receiving stations at each of the three communities' connection points. The three communities would pay for the construction of required facilities and the Joliet Water Commission proposes to own, operate, and maintain the facilities outside of the receiving stations. Figure 6 summarizes the infrastructure requirements for the Joliet Water Commission Option.

FIGURE 6

Joliet Water Commission Option Infrastructure Requirements

💧	*Included*	**Joliet Water Commission Option**
—	*Not Included*	
○	*Optional*	
Water Supplier	New raw water intake	—
	New water treatment plant	—
	New raw water transmission main	—
	New treated water transmission main	💧
	New/existing system upgrades	💧
	Backup well network	—
Montgomery, Oswego, Yorkville	New regional well	—
	New receiving stations	💧
Oswego	Existing system improvements	💧
	New storage/pumping stations	💧
	New intermediate well	💧
	Maintain all existing wells	○

Siting of the proposed facilities will be evaluated and finalized during preliminary design after a water source is selected.

26.1 Water Supply Costs

The Joliet Water Commission will purchase water from the CDWM. The Joliet Water Commission's 2030 water rate is currently proposed at $2.74 per 1,000 gallons of water usage and estimated to increase approximately 1% annually. In addition to the base water rate, the Joliet Water Commission proposes to charge $0.39 per 1,000 gallons in 2030 which is expected to increase at a rate of 1.5% annually for operation and maintenance of the Commission's system. These water rates are multiplied by the annual water usage to determine the annual purchasing costs from the Joliet Water Commission. Table 10 shows the water supply rate over the study period.

TABLE 10

Joliet Water Commission Option Water Supply Rates

Year	Water Supply Rate
2030	$2.74 per 1,000 gal
2040	$3.00 per 1,000 gal
2050	$3.29 per 1,000 gal

26.2 Capital Costs and Debt Service

26.2.1 Regional System Improvements

As described in the Part 2 report, the regional system improvements required to implement the Joliet Water Commission Option include the construction of a larger regional commission system to convey water from the City of Chicago to each of the communities' connection points. The regional system improvement costs for this alternative include transmission main costs, for the transmission mains to the secondary/tertiary connection points and buy-in costs, which cover the portion of the larger regional commission system based on demand allocation. The costs for the regional system improvements were provided by the Joliet Alternative Water Source Program engineering team. A summary of the regional system improvement cost estimates is included later in this section. Detailed cost estimates for the regional system improvements were not provided.

26.2.2 Internal System Improvements

The Part 2 report details the number and proposed location of receiving stations for the Joliet Water Commission Option. The Joliet Alternative Water Source Program engineering team stated that for the purpose of the Study, water delivery pressures should be assumed at 25 psi. For this reason, all receiving stations are assumed to be pumping stations with 1MG storage for the Joliet Water Commission Option.

As discussed in Part 1 and Part 2 of the Study, it is projected that Oswego's demands will exceed its current well supply capacity before the Joliet Water Commission Option is available.

As described in the Part 2 report, the Village of Oswego requires approximately 4,300 feet of upsized piping downstream of the Hunt Club Tank prior to the implementation of the Joliet Water Commission Option. An additional 3,600 feet of upsized piping near the Ogden Falls tank would be required sometime before 2050, depending on future Oswego demands. For the purpose of this Study, the proposed future water main upsizing is included in the alternative evaluation and cost estimates.

A summary of the cost estimates for internal system improvements is included in the following section. Detailed cost estimates for Oswego's internal system improvements are included in Appendix C. Cost estimates for the internal system improvements in Montgomery and Yorkville were provided by EEI.

26.2.3 Capital Cost Estimate

Capital cost estimates for the implementation of the Joliet Water Commission Option are estimated to total approximately $343,960,000. Oswego's share of the estimated capital costs is $114,010,000. Table 11 summarizes the capital cost estimates for the Joliet Water Commission Option.

TABLE 11

Joliet Water Commission Option Capital Cost Summary

Description	Total	Oswego	Montgomery	Yorkville
Treated Water Transmission Mains m-CL/LRI, 1	**$8,910,000**	$947,000	$2,809,000	$5,154,000
Buy-in Costs	**$243,130,000**	$82,690,000	$71,340,000	$89,100,000
Regional Improvements Subtotal	**$252,040,000**	**$83,637,000**	**$74,149,000**	**$94,254,000**
Receiving Stations	$22,260,000	$17,820,000	$2,220,000	$2,220,000
Intermediate Oswego Well & Treatment	$6,410,000	$6,410,000		
Internal Storage & Pumping	$15,958,675		$6,903,375	$9,055,300
Internal Distribution Improvements	$47,282,330	$6,140,000	$35,325,390	$4,817,940
Internal System Improvements Subtotal	**$91,911,005**	**$30,370,000**	**$45,477,765**	**$16,093,240**
Total 2	**$343,960,000**	**$114,010,000**	**$119,600,000**	**$110,350,000**

Notes:

m-CL/LRI: Cost responsibility is calculated as percentage of 2050 Maximum Day Demand (Contractual Limit/LRI).

1: Cost responsibility is calculated as percentage of 2050 demand for shared pipelines. Costs for branches to connection points are responsibility of individual community.

2: Cost estimates include construction costs, legal, design, and construction engineering, land acquisition, and contingency. Detailed cost estimates for each component are provided separately.

26.2.4 Financing Alternatives

The Joliet Water Commission is proposing financing for communities that join the Commission to cover the buy-in and capital costs, which were calculated by the Commission using a separate debt service calculator. The calculator utilizes IEPA SRF Loans, WIFIA Loans, and private bonds, and a weighted interest rate of 2.35% was calculated for the total debt service based on the principal balance for each loan/bond. The debt service provided by Joliet Alternative Water Source Program engineering team is scheduled to begin in 2026.

The internal system improvements are proposed to be funded through IEPA SRF loans. The capital costs for the internal improvement needed for the Joliet Water Commission Option were inflated at an interest rate of 3% annually until the mid-point of construction for a total of $36,263,368 for the Village of Oswego's internal system improvements. The total capital cost that is covered by the IEPA SRF Loan and the annual debt service cost is shown in Table 12.

TABLE 12

Joliet Water Commission Option Oswego Financing Alternatives

Funding Option	Total Capital	Annual Debt Service
IEPA SRF Loans	$36,263,368	$2,208,845

26.3 Operations and Maintenance Costs

Annual operations and maintenance costs were estimated for each of the infrastructure components. For the internal distribution improvements, O&M was estimated at 0.5% of the initial construction cost. For the storage/pumping stations at the connection points, annual O&M was estimated at 2% of the initial construction cost. For the intermediate well and treatment facility in Oswego, annual O&M was estimated at 1.5%.

The Joliet Alternative Water Source Program engineering team has additionally provided a five-year Operation and Maintenance Reserve cost schedule to contribute towards operating and future rehabilitation or replacement reserve at a rate of $35,000 per MGD (2020 dollars). The Village of Oswego's annual O&M Reserve Costs provided by the Joliet Alternative Water Source Program engineering team are shown in Table 13 below.

TABLE 13

Village of Oswego O&M Reserve Cost

Year	O&M Reserve Cost
2025	$247,701
2026	$252,655
2027	$257,708
2028	$262,862
2029	$268,119

The Joliet Alternative Water Source Program engineering team included costs for Commission Administration to cover management support, legal and finance services, and miscellaneous administrative costs to run the commission and are split evenly between all commission members. The average administration cost begins in 2022 and is inflated annually by 2%.

26.4 Oswego Total Cost of Water

An analysis of the total cost of the Joliet Water Commission Option for Oswego was performed using the water supply costs, capital and debt service costs, and O&M costs described above. The total cost of water analysis calculates the present value of costs realized through 2050, assuming a 3% rate. Oswego's total cost of water for the Joliet Water Commission Option is $153,490,000.

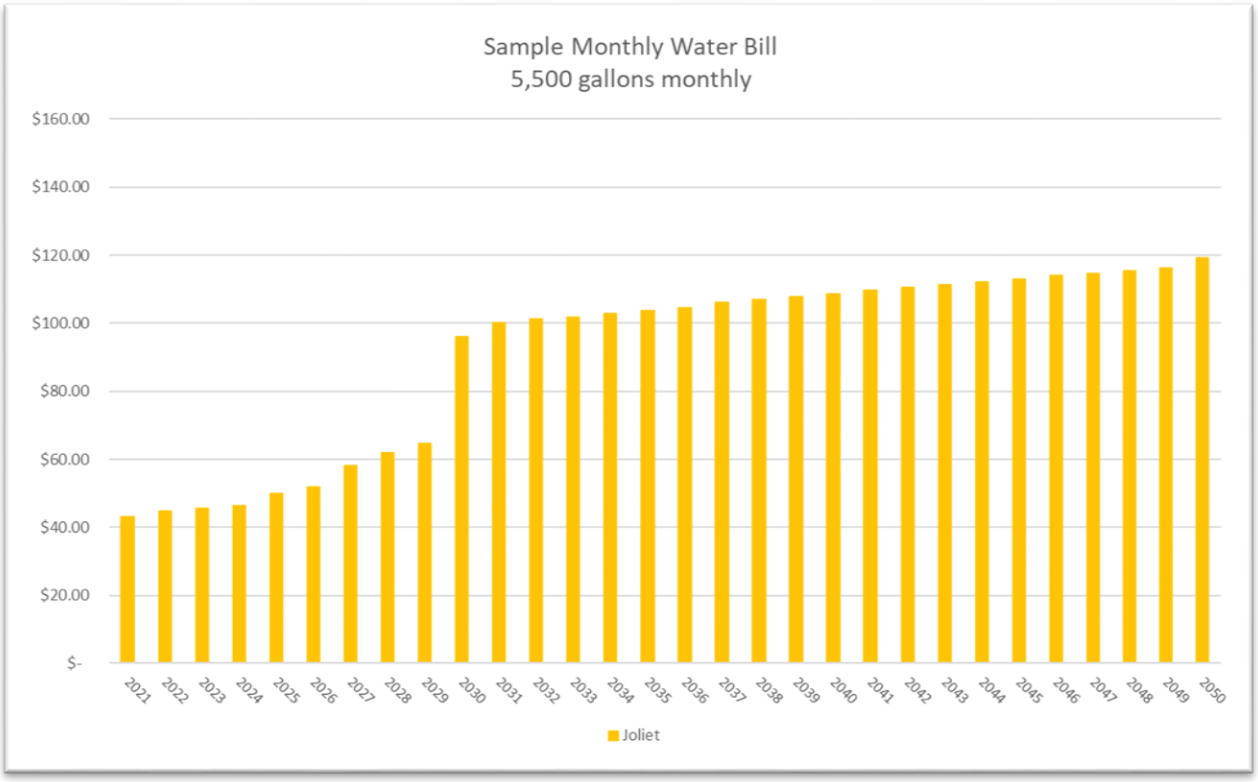
26.5 Oswego Rate Impact

The Joliet Water Commission Option includes costs for water purchase, capital cost and debt service, and O&M. The total cost was divided for each year's Annual Water Usage and converted to a volumetric water rate per 1,000 gallons. This rate was added to Oswego's calculated Existing O&M Water Rate at the implementation year to determine the annual cost of water.

The Village identified the average residential user consumed approximately 5,500 gallons of water per month. A sample bill was calculated with the current 2021 Water Rates and with the updated water rates throughout the 30 year projection and is shown in Figure 7 below.

FIGURE 7

Joliet Water Commission Option Oswego Sample Monthly Water Bill



The monthly cost of water increases in 2025 due to the five year Operation and Maintenance Reserve costs from the Joliet Water Commission, Commission Administration Costs, and the debt service from the Commission. The cost further increases in 2030 due to debt service incurred from internal improvements, additional operation and maintenance costs, and purchasing costs. The Village is planning to perform a comprehensive water rate study to determine the appropriate rate structures, rate schedules, and rate increases to fund the upcoming projects which may alter the projected sample water bills.

27. ILLINOIS AMERICAN WATER OPTION

The Part 2 report introduces the infrastructure necessary to implement the Illinois American Water Option. At the time of the Part 2 report, Illinois American Water was evaluating the system capacity and determining the improvements required to meet the present and future demands of Montgomery, Oswego, and Yorkville as well as evaluating possible governance alternatives.

For this alternative, the Illinois American Water and American Lake Water companies would need to make improvements to their systems including new parallel transmission mains, upsized transmission mains, booster station upgrades, and a new booster station with storage. The three communities would pay for a portion of the improvements made to the Illinois American Water and American Lake Water systems.

In addition to the improvements to the existing Illinois American Water and American Lake Water systems, a new booster station with storage would be constructed near 127th Street and Book Road in Plainfield and 28 miles of new transmission main would be constructed to bring water to the Montgomery, Oswego, and Yorkville receiving stations. The three communities would pay for the construction of the new booster station with storage and new transmission main.

Illinois American Water currently proposes to own, operate, and maintain the facilities outside of the receiving stations. Figure 8 summarizes the infrastructure requirements for the Illinois American Water Option.

FIGURE 8

Illinois American Water Option Infrastructure Requirements

		Illinois American Water Option
💧	*Included*	
—	*Not Included*	
○	*Optional*	
Water Supplier	New raw water intake	—
	New water treatment plant	—
	New raw water transmission main	—
	New treated water transmission main	💧
	New/existing system upgrades	💧
	Backup well network	—
Montgomery, Oswego, Yorkville	New regional well	—
	New receiving stations	💧
Oswego	Existing system improvements	💧
	New storage/pumping stations	💧
	New intermediate well	—
	Maintain all existing wells	○

Siting of the proposed facilities will be evaluated and finalized during preliminary design after a water source is selected.

27.1 Water Supply Costs

The Illinois American Water Company purchases water from the Chicago Department of Water Management via the Village of Bedford Park and sells to wholesale customers at a rate of $7.28 per 1,000 gallons of metered water usage. The total rate is inclusive of the $1.76 per 1,000 gallons rate from the American Lake Water Company, $5.79 per 1,000 gallons rate from the Village of Bedford Park, and a $0.27 per 1,000 gallons rate from Illinois American Water. Based on historical precedence, an annual rate increase of 2% was applied to the total rate throughout the 30 year projection. These water rates are multiplied by the annual water usage to determine the annual water supply costs. Table 14 shows the water supply rate over the study period.

Although the DuPage Water Commission and Joliet Water Commission have negotiated reduced water rates from the Chicago Department of Water Management beginning in 2030, the Illinois American Water Company and Village of Bedford Park have not yet indicated that a rate reduction will occur for the Illinois American Water Option as of the writing of this report. The water rates

throughout the 30 year projection are shown with a uniform 2% increase without any rate reductions.

TABLE 14

Illinois American Water Option Water Supply Rates

Year	Water Supply Rate
2030	$9.35 per 1,000 gal
2040	$11.39 per 1,000 gal
2050	$13.89 per 1,000 gal

27.2 Capital Costs and Debt Service

27.2.1 Regional System Improvements

As detailed in at the beginning of the Section, the regional system improvements required to implement the Illinois American Water Option include upgrades to the Illinois American Water and American Lake Water systems. The costs for the improvements to these existing systems were provided by Illinois American Water and are summarized in the Buy-In Costs line item. The construction of a new pumping station with storage and transmission main is also needed to convey water from Illinois American Water's existing system to each of the communities' receiving stations. A summary of the regional system improvement cost estimates is included later in this section. Detailed cost estimates for the regional system improvements are included in Appendix D.

27.2.2 Internal System Improvements

The Part 2 report details the number and proposed location of receiving stations for the Illinois American Water Option. For the purpose of the Study, water delivery pressures were assumed at 25 psi and all receiving stations are assumed to be pumping stations with 1MG storage for the Illinois American Water Option.

As described in the Part 2 report, the Village of Oswego requires approximately 4,300 feet of upsized piping downstream of the Hunt Club Tank prior to the implementation of the Illinois American Water Option. An additional 3,600 feet of upsized piping near the Ogden Falls tank would be required sometime before 2050, depending on future Oswego demands. For the purpose of this Study, the proposed future water main upsizing is included in the alternative evaluation and cost estimates.

A summary of the cost estimates for internal system improvements is included in the following section. Detailed cost estimates for Oswego's internal system improvements are included in Appendix D. Cost estimates for the internal system improvements in Montgomery and Yorkville were provided by EEI.

27.2.3 Capital Cost Estimate

Capital cost estimates for the implementation of the Illinois American Water Option are estimated to total approximately $313,620,000. Oswego's share of the estimated capital costs is $89,810,000. Table 15 summarizes the capital cost estimates for the Illinois American Water Option. Detailed opinions of probable construction cost for individual components are provided in Appendix D.

TABLE 15

Illinois American Water Option Capital Cost Summary

Description	Total	Oswego	Montgomery	Yorkville
Treated Water Transmission Mains m-CL/LRI, 1	$148,920,000	$38,910,000	$40,590,000	$69,420,000
25 MGD Pumping Station m-CL/LRI	$11,870,000	$4,040,000	$3,480,000	$4,350,000
Buy-in Costs	$67,320,000	$22,893,000	$19,755,000	$24,672,000
Regional Improvements Subtotal	**$228,110,000**	**$65,843,000**	**$63,825,000**	**$98,442,000**
Receiving Stations	$22,260,000	$17,820,000	$2,220,000	$2,220,000
Internal Storage & Pumping	$15,958,675	-	$6,903,375	$9,055,300
Internal Distribution Improvements	$47,282,330	$6,140,000	$36,324,390	$4,817,940
Internal System Improvements Subtotal	**$85,501,005**	**$23,960,000**	**$45,447,765**	**$16,093,240**
Total 2	**$313,620,000**	**$89,810,000**	**$109,280,000**	**$114,540,000**

Notes:

m-CL/LRI: Cost responsibility is calculated as percentage of 2050 Maximum Day Demand (Contractual Limit/LRI).

1: Cost responsibility is calculated as percentage of 2050 demand for shared pipelines. Costs for branches to connection points are responsibility of individual community.

2: Cost estimates include construction costs, legal, design, and construction engineering, land acquisition, and contingency. Detailed cost estimates for each component are provided separately.

27.2.4 Financing Alternatives

Oswego's portion of the estimated capital costs of the regional system improvements, internal improvements, and buy-in costs were inflated at an interest rate of 3% annually until the mid-point of construction for a total of $98,760,666. The approach maximizes the IEPA SRF loans, with the remaining debt utilizing WIFIA Loans. However, the loan applicant must be the entity that owns and operates the facilities, therefore negotiations with Illinois American Water may need to occur in order to utilize funding for the regional improvements. The total capital cost that is covered under each loan and the annual debt service cost is shown in Table 16 below.

TABLE 16

Illinois American Water Option Oswego Financing Alternatives

Funding Option	Total Capital	Annual Debt Service
IEPA SRF Loans	$62,500,000	$3,806,950
WIFIA Loans	$36,260,666	$1,445,555

27.3 Operations and Maintenance Costs

Annual operations and maintenance costs were estimated for each of the infrastructure components. For the internal distribution system improvements, O&M was estimated at 0.5% of the initial construction cost. For the receiving stations and storage/pumping stations, annual O&M was estimated at 1% and 2% of the initial construction cost, respectively.

27.4 Oswego Total Cost of Water

An analysis of the total cost of the Illinois American Water Option for Oswego was performed using the water supply costs, capital and debt service costs, and O&M costs described above. The total cost of water analysis calculates the present value of costs realized through 2050, assuming a 3% rate. Oswego's total cost of water for the Illinois American Water Option is $257,980,000.

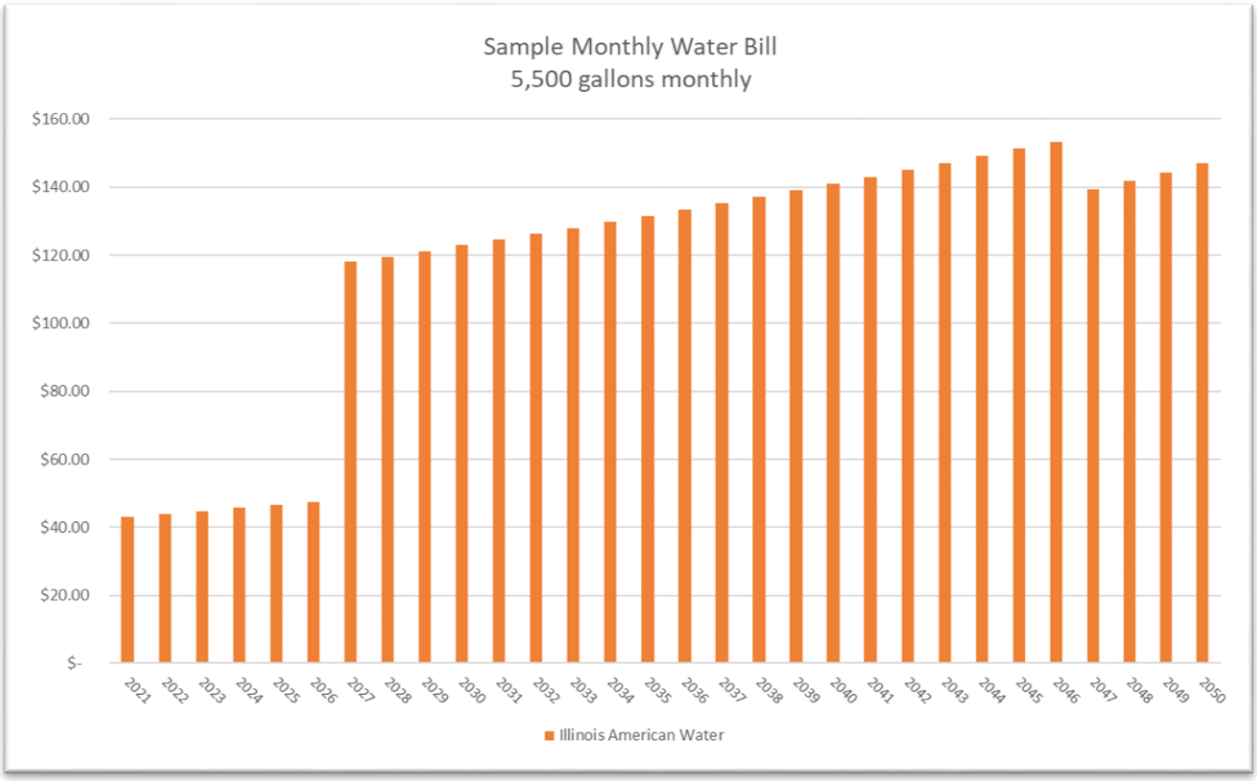
27.5 Oswego Rate Impact

The Illinois American Water Option includes costs for water purchased, capital cost and debt service, and O&M. The total cost was divided for each year's Annual Water Usage and converted to a volumetric water rate per 1,000 gallons. This rate was added to Oswego's calculated Existing O&M Water Rate at the implementation year to determine the annual cost of water.

The Village identified the average residential user consumed approximately 5,500 gallons of water per month. A sample bill was calculated with the current 2021 Water Rates and with the updated water rates throughout the 30 year projection and is shown in Figure 9 below.

FIGURE 9

Illinois American Water Option Oswego Sample Monthly Water Bill



The monthly cost of water is projected to increase with the implementation of the new supply in 2027 to fund the debt service, additional operation and maintenance of the new internal system infrastructure, and purchasing costs. The cost is expected to drop in 2047 as the Village's IEPA SRF loans are paid off. The Village is planning to perform a comprehensive water rate study to determine the appropriate rate structures, rate schedules, and rate increases to fund the upcoming projects which may alter the projected sample water bills.

28. COST SUMMARY

28.1 Water Supply Cost Summary

Water supply costs are defined as the cost to produce treated water or purchase treated water from a water supplier. Table 17 summarizes the water supply costs in 2030, 2040, and 2050 for each of the alternatives.

TABLE 17

Water Supply Cost Summary

Year	Fox River Option Supply Rate	DWC Option Supply Rate	Joliet Water Commission Option Supply Rate	Illinois American Water Option Supply Rate
2030	$3.59 per 1,000 gal	$3.65 per 1,000 gal	$2.47 per 1,000 gal	$3.77 per 1,000 gal
2040	$4.37 per 1,000 gal	$4.03 per 1,000 gal	$3.00 per 1,000 gal	$4.21 per 1,000 gal
2050	$5.33 per 1,000 gal	$4.45 per 1,000 gal	$3.29 per 1,000 gal	$4.70 per 1,000 gal

28.2 Capital Cost Summary

Capital cost estimates include all costs associated with the design, permitting, and construction of the infrastructure needed to implement the alternative, including contingencies. As described in Section 23.1, capital cost estimates were categorized into two groups: regional system improvements and internal system improvements. Regional system improvement costs include the costs to design, permit, and construct the infrastructure needed to convey water from the water source or water supplier to the three communities.

Table 18 summarizes the total capital cost estimate for regional system improvements for each of the alternatives. Appendix E summarizes the allocation of costs for each component of the alternatives.

TABLE 18

Total Capital Cost Summary

	Total	Oswego	Montgomery	Yorkville
Fox River Option	**$314,340,000**	$113,610,000	$87,460,000	$113,280,000
DWC Option	**$272,050,000**	$73,100,000	$100,730,000	$98,230,000
Joliet Water Commission Option	**$343,960,000**	$114,010,000	$119,600,000	$110,350,000
Illinois American Water Option	**$313,620,000**	$89,810,000	$109,280,000	$114,540,000

Internal system improvement costs include the costs to design, permit, and construct the improvements needed within each community's system effectively. Oswego's internal system improvements include receiving stations, intermediate well and treatment, storage tanks and pumping stations, and water main extensions/replacements. Table 19 and Figure 10 show Oswego's regional system and internal system capital costs for each of the alternatives.

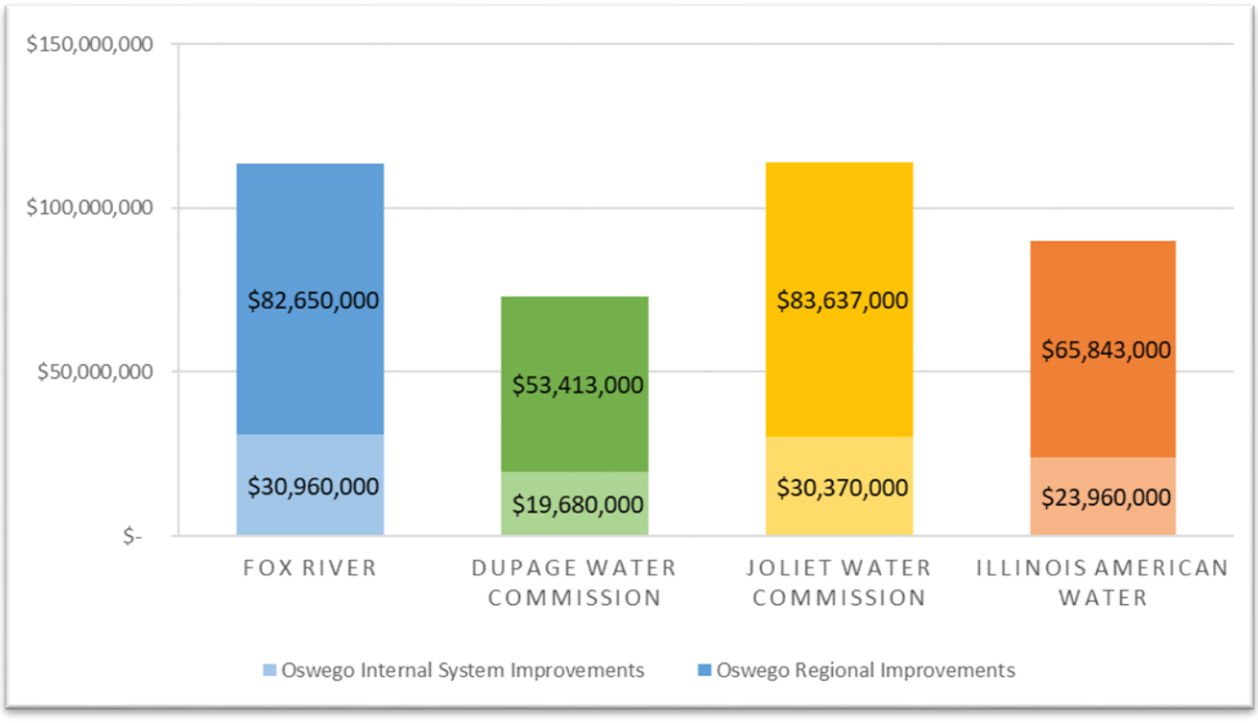
TABLE 19

Oswego Capital Costs Summary

	Fox River Option	DWC Option	Joliet Water Commission Option	Illinois American Water Option
Regional System Improvements	$82,650,000	$53,413,000	$83,637,000	$65,843,000
Internal System Improvements	$30,960,000	$19,680,000	$30,370,000	$23,960,000
Total	**$113,610,000**	**$73,100,000**	**$114,010,000**	**$89,810,000**

FIGURE 10

Oswego Capital Costs Summary

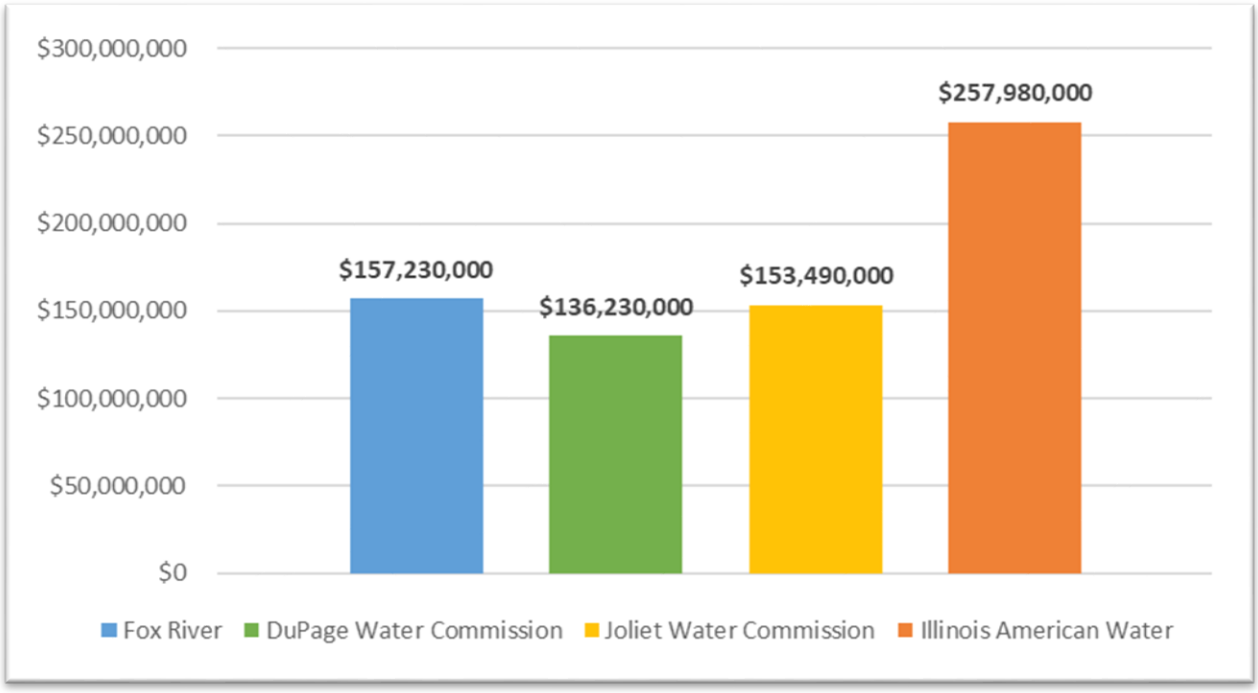


28.3 Oswego Total Cost of Water Summary

As detailed in previous sections, the total cost of water analysis calculates the present value of water supply, capital and debt service, and O&M costs realized through 2050. Figure 11 shows the total cost of water for each of the alternatives.

FIGURE 11

Oswego Total Cost of Water Summary

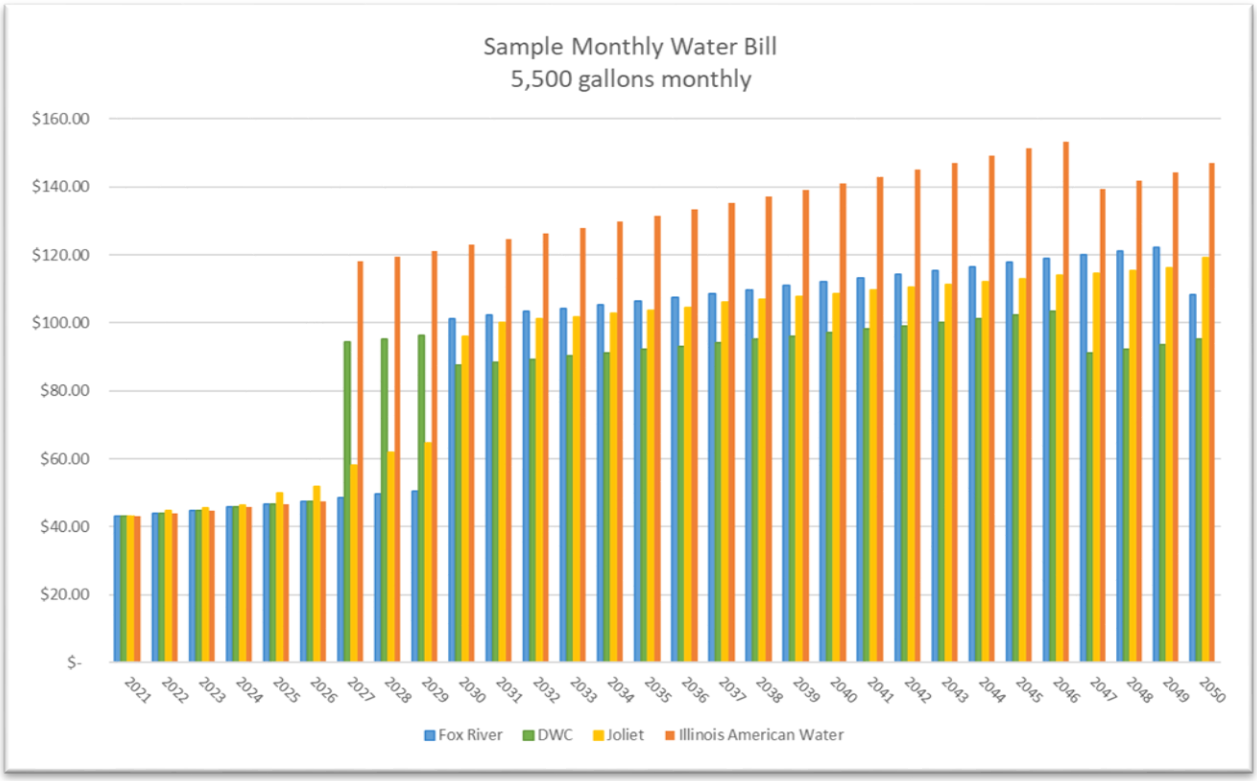


28.4 Oswego Rate Impact Summary

Figure 12 below shows the Sample Monthly Water Bills of each of the alternatives. Due to the anticipated implementation date of the DWC and IAW Options, the cost of water increases sooner than with the Fox River and Joliet alternatives. However, due to the reduced water rate in 2030 for DWC, the estimated bill is projected to fall slightly below the projections for the Fox River, Joliet, and IAW alternatives. As the debt service is paid off for each alternative, the cost of water will be reduced.

FIGURE 12

Sample Monthly Water Bill for Each Alternative



29. CONCLUSION

29.1 Oswego Next Steps

The Joliet Water Commission regional group is working to define critical elements of the commission and is targeting to have regional governmental agreements approved by the end of 2021. A decision to join the Joliet Water Commission must be made by January 2022.

The Village is planning to perform a comprehensive water rate study to determine the appropriate rate structures, rate schedules, and rate increases to fund the upcoming projects which may alter the projected sample water bills.

29.2 Part 5 Conclusion

Part 1 of the Study established the existing regional water source limitations and risk of well depletion. Part 2 of the Study described the four water source alternatives available to Montgomery, Oswego, and Yorkville. Part 3 of the Study detailed the importance of water conservation and provided examples of conservation measures that could be implemented to reduce water demands. Part 4 of the Study described the Public Information Meeting held with Montgomery and Yorkville. Part 5 of the Study provided detailed cost estimates for the water source alternatives.

Montgomery, Oswego, and Yorkville have partnered to develop a regional solution for long term water supply. Now is the time to evaluate and select a long term water source alternative to provide reliable, safe drinking water for the future of Montgomery, Oswego, and Yorkville.

APPENDICES

BAXTER & WOODMAN
Consulting Engineers

Description	Fox River Option							
	Total	Oswego		Montgomery		Yorkville	
		%	$	%	$	%	$
Sub-Regional Well SR-1 [SR-1]	$ 3,110,000	70.5%	$ 2,190,000	0.0%	$ -	29.5%	$ 920,000
Raw Water Transmission Mains [a]	$ 54,920,000	33.6%	$ 18,430,000	30.3%	$ 16,630,000	36.2%	$ 19,860,000
25 MGD Intake Pump Station [m-CT]	$ 8,570,000	37.8%	$ 3,240,000	26.2%	$ 2,240,000	36.0%	$ 3,090,000
25 MGD Lime Softening WTP [m-CT]	$ 121,880,000	37.8%	$ 46,070,000	26.2%	$ 31,880,000	36.0%	$ 43,930,000
Treated Water Transmission Mains [m-CT, 1]	$ 72,710,000	-	$ 12,720,000	-	$ 19,030,000	-	$ 40,960,000
Regional Improvements Subtotal	**$ 261,190,000**	-	**$ 82,650,000**	-	**$ 69,780,000**	-	**$ 108,760,000**
Receiving Stations	$ 6,660,000	-	$ 3,330,000	-	$ 1,110,000	-	$ 2,220,000
Intermediate Oswego Well & Treatment [2]	$ 6,410,000	100.0%	$ 6,410,000				
Internal Storage & Pumping	$ 12,620,000	100.0%	$ 12,620,000	-	$ -	-	$ -
Internal Distribution Improvements	$ 27,452,123	100.0%	$ 8,600,000	-	$ 16,560,423		$ 2,291,700
Internal System Improvements Subtotal	**$ 53,142,123**	-	**$ 30,960,000**	-	**$ 17,670,423**	-	**$ 4,511,700**
Total [3]	**$ 314,332,123**		**$ 113,610,000**		**$ 87,460,000**		**$ 113,280,000**

Notes

m-CT Cost share percentage is calculated as percentage of 2050 Maximum Day Demand (Current Trends).

a Cost share percentage is calculated as percentage of 2050 Average Day Demand.

SR-1 Cost share percentage is calculated as percentage of usage for SR-1, as provided in EEI 2016 report.

1 Cost responsibility percentage is calculated as percentage of 2050 Maximum Day Demand (Current Trends) for pipeline shared by all three communities. Costs for branches to connection points are responsibility of that community.

2 Assumes that if the Fox River Option is selected, Oswego will require a new well prior to the completion of the Fox River water treatment plant.

3 Cost estimates include construction costs, legal, design & construction engineering, land acquisition, and contingency. Detailed cost estimates for each item are provided separately.

Fox River Option - Sub-Regional Well 1
OPINION OF PROBABLE COST

Item	Description			Construction Cost
1,000 gpm	Ironton Galesville Well (24x18)			
	Construction (Casing, Hole, Grout, Etc.)		$	1,152,000
	Development (Disinfection, Testing, Etc.)		$	259,000
	Equipment (Pump/Motor, Pitless Adapter, Etc.)		$	461,000
	Miscellaneous Piping and Meters		$	58,000
	Controls and Instrumentation		$	17,000
	SCADA Integration		$	23,000
Site Work				
	Electrical		$	35,000
	Paving		$	17,000
	Fencing		$	17,000
	Restoration & Landscaping		$	23,000
		Subtotal	$	2,062,000
		Subtotal Rounded	$	2,070,000
		Contingency 30%	$	621,000
		Legal, Design and Construction Engineering 20%	$	414,000
		Land Acquisition (10,000 SF)[1]	$	85,000
		Soil & Material Testing	$	35,000
		Total	$	3,105,000
		Total Rounded	**$**	**3,110,000**
		Oswego Share[SR-1] 70.5%	$	2,190,000
		Montgomery Share[SR-1] 0.0%	$	-
		Yorkville Share[SR-1] 29.5%	$	920,000

Notes

SR-1 Cost share percentage is calculated as percentage of usage for SR-1, as provided in EEI 2016 report.

1 Land acquisition costs are under Village of Oswego review.

Fox River Option - Raw Water Transmission Main
OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	15,790	$ 310	$ 4,894,900
High Density	12"	4,150	$ 450	$ 1,867,500
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	110	$ 1,250	$ 137,500
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	16,180	$ 390	$ 6,310,200
High Density	16"	2,540	$ 510	$ 1,295,400
Trenchless Crossing	16"	40	$ 2,590	$ 103,600
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	5,410	$ 370	$ 2,001,700
Medium Density	20"	7,690	$ 470	$ 3,614,300
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	720	$ 2,800	$ 2,016,000
Trenchless Crossing (Railroad)	20"	190	$ 1,770	$ 336,300
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	5,160	$ 450	$ 2,322,000
Medium Density	24"	4,230	$ 570	$ 2,411,100
High Density	24"	8,430	$ 710	$ 5,985,300
Trenchless Crossing	24"	370	$ 3,110	$ 1,150,700
Trenchless Crossing (Railroad)	24"	80	$ 2,080	$ 166,400
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 3,320	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

Fox River Option - Raw Water Transmission Main
OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 3,630	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 4,150	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 710	$ -
Appurtenances				$ 1,990,000
			Subtotal	$ 36,602,900
			Subtotal Rounded	$ 36,610,000
		Contingency	30%	$ 10,983,000
		Legal, Design and Construction Engineering	20%	$ 7,322,000
			Total	$ 54,915,000
			Total Rounded	**$ 54,920,000**
		Oswego Share [a]	33.6%	$ 18,430,000
		Montgomery Share [a]	30.3%	$ 16,630,000
		Yorkville Share [a]	36.2%	$ 19,860,000

Notes

a Cost share percentage is calculated as percentage of 2050 Average Day Demand.

Fox River Option - 25 MGD Intake Pump Station
OPINION OF PROBABLE COST

Item	Description	Quantity	Unit Cost		Construction Cost
Fox River Intake Pump Station					
	Structures (6,200 SF)			$	4,031,000
	Equipment (Screen, Pumps/Motors, Etc.)			$	777,000
	Power Distribution (including new Electrical Gear & VFDs)			$	576,000
	Emergency Generator			$	230,000
Site Work					
	Electrical			$	40,000
	Paving			$	23,000
	Fencing			$	17,000
	Restoration & Landscaping			$	12,000
			Subtotal	$	5,706,000
			Subtotal Rounded	$	5,710,000
		Contingency	30%	$	1,713,000
		Legal, Design and Construction Engineering	20%	$	1,142,000
		Land Aquisition (Assumed to be part of Village's property)		$	-
		Soil & Material Testing		$	6,000
			Total	$	8,565,000
			Total Rounded	**$**	**8,570,000**
		Oswego Share [m-CT]	37.8%	$	3,240,000
		Montgomery Share [m-CT]	26.2%	$	2,240,000
		Yorkville Share [m-CT]	36.0%	$	3,090,000

Notes

m-CT Cost share percentage is calculated as percentage of 2050 Maximum Day Demand (Current Trends).

Village of Oswego, Illinois
Fox River Option - 25 MGD Lime Softening WTP
OPINION OF PROBABLE COST

Item	Description			Construction Cost
25 MGD Lime Softening Water Treatment Plant [1]				
			$	81,250,000.00
		Subtotal	$	81,250,000
		Subtotal Rounded	$	81,250,000
		Contingency 30%	$	24,375,000
		Legal, Design and Construction Engineering 20%	$	16,250,000
		Land Acquisition (20 Acres @ $40,000 / Acre) [2]	$	921,000
		Soil & Material Testing	$	35,000
		Total	$	121,875,000
		Total Rounded	**$**	**121,880,000**
		Oswego Share [m-CT] 37.8%	$	46,070,000
		Montgomery Share [m-CT] 26.2%	$	31,880,000
		Yorkville Share [m-CT] 36.0%	$	43,930,000

Notes

1 Cost estimates based on capital cost per gallon data provided by EEI, dated September 9, 2021. Original estimate equated to $2.28/gal. Updated estimate uses $3.25/gal, in line with recent cost estimates developed by EEI.

2 Land acquisition costs are under Village of Oswego review.

m-CT Cost share percentage is calculated as percentage of 2050 Maximum Day Demand (Current Trends).

Fox River Option - Treated Water Transmission Main

Total Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	1,510	$ 510	$ 770,100
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	0	$ 470	$ -
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	0	$ 570	$ -
High Density	24"	16,090	$ 710	$ 11,423,900
Trenchless Crossing	24"	590	$ 3,110	$ 1,834,900
Trenchless Crossing (Railroad)	24"	110	$ 2,080	$ 228,800
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	18,870	$ 460	$ 8,680,200
Medium Density	30"	13,250	$ 580	$ 7,685,000
High Density	30"	9,120	$ 730	$ 6,657,600
Trenchless Crossing	30"	100	$ 3,320	$ 332,000
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

Fox River Option - Treated Water Transmission Main

Total Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	6,610	$ 800	$ 5,288,000
Trenchless Crossing	36"	590	$ 3,630	$ 2,141,700
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 4,150	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 710	$ -
Appurtenances				$ 3,400,000
			Subtotal	$ 48,442,200
			Subtotal Rounded	$ 48,470,000
		Contingency	30%	$ 14,541,000
		Legal, Design and Construction Engineering	20%	$ 9,694,000
			Total	$ 72,705,000
			Total Rounded	$ 72,710,000
		Oswego Share	17.5%	$ 12,720,000
		Montgomery Share	26.2%	$ 19,030,000
		Yorkville Share	56.3%	$ 40,960,000

Notes

Fox River Option - Treated Water Transmission Main

Oswego, Montgomery, and Yorkville Shared Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	0	$ 470	$ -
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	0	$ 570	$ -
High Density	24"	2,760	$ 710	$ 1,959,600
Trenchless Crossing	24"	590	$ 3,110	$ 1,834,900
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	6,920	$ 460	$ 3,183,200
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 3,320	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

Fox River Option - Treated Water Transmission Main

Oswego, Montgomery, and Yorkville Shared Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	6,610	$ 800	$ 5,288,000
Trenchless Crossing	36"	590	$ 3,630	$ 2,141,700
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 4,150	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 710	$ -
Appurtenances				$ 980,000
			Subtotal	$ 15,387,400
			Subtotal Rounded	$ 15,390,000
		Contingency	30%	$ 4,617,000
		Legal, Design and Construction Engineering	20%	$ 3,078,000
			Total	$ 23,085,000
			Total Rounded	**$ 23,090,000**
		Oswego Share [m-CT]	37.8%	$ 8,730,000
		Montgomery Share [m-CT]	26.2%	$ 6,040,000
		Yorkville Share [m-CT]	36.0%	$ 8,320,000

Notes

m-CT Cost share percentage is calculated as percentage of 2050 Maximum Day Demand (Current Trends).

Fox River Option - Treated Water Transmission Main

Oswego Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	1,510	$ 510	$ 770,100
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	0	$ 470	$ -
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	0	$ 570	$ -
High Density	24"	2,300	$ 710	$ 1,633,000
Trenchless Crossing	24"	0	$ 3,110	$ -
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 3,320	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

Fox River Option - Treated Water Transmission Main

Oswego Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 3,630	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 4,150	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 710	$ -
Appurtenances				$ 250,000
			Subtotal	$ 2,653,100
			Subtotal Rounded	$ 2,660,000
		Contingency	30%	$ 798,000
		Legal, Design and Construction Engineering	20%	$ 532,000
			Total	$ 3,990,000
			Total Rounded	**$ 3,990,000**
		Oswego Share	100.0%	$ 3,990,000
		Montgomery Share	0.0%	$ -
		Yorkville Share	0.0%	$ -

Notes

Fox River Option - Treated Water Transmission Main

Montgomery Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	0	$ 470	$ -
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	0	$ 570	$ -
High Density	24"	11,030	$ 710	$ 7,831,300
Trenchless Crossing	24"	0	$ 3,110	$ -
Trenchless Crossing (Railroad)	24"	110	$ 2,080	$ 228,800
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 3,320	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

Fox River Option - Treated Water Transmission Main

Montgomery Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 3,630	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 4,150	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 710	$ -
Appurtenances				$ 590,000
			Subtotal	$ 8,650,100
			Subtotal Rounded	$ 8,660,000
		Contingency	30%	$ 2,598,000
		Legal, Design and Construction Engineering	20%	$ 1,732,000
			Total	$ 12,990,000
			Total Rounded	**$ 12,990,000**
		Oswego Share	0.0%	$ -
		Montgomery Share	100.0%	$ 12,990,000
		Yorkville Share	0.0%	$ -

Notes

Fox River Option - Treated Water Transmission Main

Yorkville Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	0	$ 470	$ -
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	0	$ 570	$ -
High Density	24"	0	$ 710	$ -
Trenchless Crossing	24"	0	$ 3,110	$ -
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	11,950	$ 460	$ 5,497,000
Medium Density	30"	13,250	$ 580	$ 7,685,000
High Density	30"	9,120	$ 730	$ 6,657,600
Trenchless Crossing	30"	100	$ 3,320	$ 332,000
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

Fox River Option - Treated Water Transmission Main

Yorkville Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 3,630	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 4,150	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 710	$ -
Appurtenances				$ 1,580,000
			Subtotal	$ 21,751,600
			Subtotal Rounded	$ 21,760,000
		Contingency	30%	$ 6,528,000
		Legal, Design and Construction Engineering	20%	$ 4,352,000
			Total	$ 32,640,000
			Total Rounded	**$ 32,640,000**
		Oswego Share	0.0%	$ -
		Montgomery Share	0.0%	$ -
		Yorkville Share	100.0%	$ 32,640,000

Notes

Oswego, Montgomery, and Yorkville
Alternative Water Source Evaluation

Fox River Option - Receiving Stations
OPINION OF PROBABLE COST

Item		Quantity	Unit Cost		Construction Cost
Oswego					
	Metering Station	3	$ 740,000	$	2,220,000
Montogmery					
	Metering Station	1	$ 740,000	$	740,000
Yorkville					
	Metering Station	2	$ 740,000	$	1,480,000
			Subtotal	$	4,440,000
			Subtotal Rounded	$	4,440,000
		Contingency	30%	$	1,332,000
		Legal, Design and Construction Engineering	20%	$	888,000
			Total [1]	$	6,660,000
			Total Rounded	**$**	**6,660,000**
		Oswego Share [2]	50.0%	$	3,330,000
		Montgomery Share [2]	16.7%	$	1,110,000
		Yorkville Share [2]	33.3%	$	2,220,000

Notes

1 Assumes connections are on Village/City property and do not require land acquisition.

2 Cost estimate is based on Oswego having 3 Receiving Stations, Montgomery having 1 Receiving Station, and Yorkville having 2 Receiving Stations.

Fox River Option - Oswego Internal Storage & Pumping
OPINION OF PROBABLE COST

Item	Description	Quantity	Unit Cost		Construction Cost
Internal Storage Tanks [1]					
	1.0 MG Storage Tank & Pumping			$	3,860,000
	2.0 MG Storage Tank & Pumping			$	4,360,000
Site Work					
	Electrical			$	50,000
	Paving			$	50,000
	Fencing			$	50,000
	Restoration & Landscaping			$	36,000
			Subtotal	$	8,406,000
			Subtotal Rounded	$	8,410,000
		Contingency	30%	$	2,523,000
		Legal, Design and Construction Engineering	20%	$	1,682,000
			Land Acquisition [2]	$	-
			Soil & Material Testing	$	10,000
			Total	$	12,615,000
			Total Rounded	**$**	**12,620,000**
		Oswego Share	100.0%	$	12,620,000
		Montgomery Share	0.0%	$	-
		Yorkville Share	0.0%	$	-

Notes

1 Additional future storage recommended to meet future average day storage recommendation.

2 Assumes storage locations are on Village property and do not require land acquisition.

Fox River Option - Oswego Internal Improvements
OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	6,700	$ 470	$ 3,149,000
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	4,300	$ 570	$ 2,451,000
High Density	24"	0	$ 710	$ -
Trenchless Crossing	24"	0	$ 3,110	$ -
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 3,320	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

Water Main, 36"					
Low Density	36"	0	$ 480	$	-
Medium Density	36"	0	$ 640	$	-
High Density	36"	0	$ 800	$	-
Trenchless Crossing	36"	0	$ 3,630	$	-
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$	-
Utility Corridor	36"	0	$ 480	$	-
Water Main, 42"					
Low Density	42"	0	$ 650	$	-
Medium Density	42"	0	$ 730	$	-
High Density	42"	0	$ 900	$	-
Trenchless Crossing	42"	0	$ 3,840	$	-
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$	-
Utility Corridor	42"	0	$ 540	$	-
Water Main, 48"					
Low Density	48"	0	$ 740	$	-
Medium Density	48"	0	$ 940	$	-
High Density	48"	0	$ 1,120	$	-
Trenchless Crossing	48"	0	$ 4,150	$	-
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$	-
Utility Corridor	48"	0	$ 710	$	-
Appurtenances				$	130,000
			Subtotal	$	5,730,000
			Subtotal Rounded	$	5,730,000
		Contingency	30%	$	1,719,000
		Legal, Design and Construction Engineering	20%	$	1,146,000
			Total	$	8,595,000
			Total Rounded	**$**	**8,600,000**
		Oswego Share	100.0%	$	8,600,000
		Montgomery Share	0.0%	$	-
		Yorkville Share	0.0%	$	-

Fox River Option - Intermediate Well and Treatment
OPINION OF PROBABLE COST

Item	Description			Construction Cost
1,000 gpm	Ironton Galesville Well (24x18) [1]			
	Construction (Casing, Hole, Grout, Etc.)		$	1,116,000
	Development (Disinfection, Testing, Etc.)		$	251,000
	Equipment (Pump/Motor, Pitless Adapter, Etc.)		$	446,000
	Miscellaneous Piping and Meters		$	56,000
	Controls and Instrumentation		$	17,000
	SCADA Integration		$	75,000
	Treatment Plant Building		$	1,500,000
	WRT		$	600,000
Site Work				
	Electrical		$	33,000
	Paving		$	17,000
	Fencing		$	17,000
	Restoration & Landscaping		$	22,000
		Subtotal	$	4,150,000
		Subtotal Rounded	$	4,150,000
		Contingency 30%	$	1,245,000
		Legal, Design and Construction Engineering 20%	$	830,000
		Land Acquisition (10,000 SF)	$	150,000
		Soil & Material Testing	$	30,000
		Total	$	6,405,000
		Total Rounded	**$**	**6,410,000**
		Oswego Share 100.0%	$	6,410,000
		Montgomery Share 0.0%	$	-
		Yorkville Share 0.0%	$	-

Notes

1 Assumes that if the Fox River Option is selected, Oswego will require a new well prior to the completion of the Fox River water treatment plant.

Description	DuPage Water Commission Option							
	Total	Oswego		Montgomery		Yorkville	
		%	$	%	$	%	$
Treated Water Transmission Mains [m-CL/LRI]	$ 161,780,000	-	$ 43,040,000	-	$ 44,330,000	-	$ 74,410,000
Buy-in Costs [1]	$ 27,720,000	37.4%	$ 10,373,000	37.1%	$ 10,285,000	25.5%	$ 7,062,000
Regional Improvements Subtotal	**$ 189,500,000**		**$ 53,413,000**		**$ 54,615,000**		**$ 81,472,000**
Receiving Stations	$ 12,600,000	-	$ 6,840,000	-	$ 2,880,000	-	$ 2,880,000
Intermediate Oswego Well & Treatment [2]							
Internal Storage & Pumping	$ 22,658,675	-	$ 6,700,000	-	$ 6,903,375	-	$ 9,055,300
Internal Distribution Improvements	$ 47,282,330	-	$ 6,140,000	-	$ 36,324,390	-	$ 4,817,940
Internal System Improvements Subtotal	**$ 82,541,005**	**-**	**$ 19,680,000**	**-**	**$ 46,107,765**	**-**	**$ 16,753,240**
Total [3]	**$ 272,060,000**	**-**	**$ 73,100,000**	**-**	**$ 100,730,000**	-	**$ 98,230,000**

Notes

m-CL/LRI	Cost responsibility percentage is calculated as percentage of 2050 Maximum Day Demand (Contractual Limit/LRI) for pipeline shared by all three communities. Costs for branches to connection points are responsibility of that community.
1	Buy-in costs (Capital Cost Recovery Charge) provided by DWC on 8/26/21. Cost is based on present day average day demand.
2	Assumes that if DuPage Water Commission Option is selected, Oswego will not require a new well prior to the completion of the DWC connection.
3	Cost estimates include construction costs, legal, design & construction engineering, land acquisition, and contingency. Detailed cost estimates for each item are provided separately.

DuPage Water Commission Option - Treated Water Transmission Main

Total Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	1,650	$ 290	$ 478,500
Medium Density	16"	7,230	$ 390	$ 2,819,700
High Density	16"	3,840	$ 510	$ 1,958,400
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	960	$ 370	$ 355,200
Medium Density	20"	3,470	$ 470	$ 1,630,900
High Density	20"	100	$ 610	$ 61,000
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	13,400	$ 450	$ 6,030,000
Medium Density	24"	13,290	$ 570	$ 7,575,300
High Density	24"	6,540	$ 710	$ 4,643,400
Trenchless Crossing	24"	80	$ 3,110	$ 248,800
Trenchless Crossing (Railroad)	24"	90	$ 2,080	$ 187,200
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	5,160	$ 460	$ 2,373,600
Medium Density	30"	0	$ 580	$ -
High Density	30"	7,590	$ 730	$ 5,540,700
Trenchless Crossing	30"	350	$ 3,320	$ 1,162,000
Trenchless Crossing (Railroad)	30"	80	$ 2,280	$ 182,400
Utility Corridor	30"	0	$ 450	$ -

DuPage Water Commission Option - Treated Water Transmission Main

Total Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	24,630	$ 480	$ 11,822,400
Medium Density	36"	24,280	$ 640	$ 15,539,200
High Density	36"	200	$ 800	$ 160,000
Trenchless Crossing	36"	270	$ 3,630	$ 980,100
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	28,090	$ 940	$ 26,404,600
High Density	48"	280	$ 1,120	$ 313,600
Trenchless Crossing	48"	400	$ 4,150	$ 1,660,000
Trenchless Crossing (Railroad)	48"	100	$ 3,110	$ 311,000
Utility Corridor	48"	11,430	$ 710	$ 8,115,300
Appurtenances				$ 7,270,000
			Subtotal	$ 107,823,300
			Subtotal Rounded	$ 107,840,000
		Contingency	30%	$ 32,352,000
		Legal, Design and Construction Engineering	20%	$ 21,568,000
			Total	$ 161,760,000
			Total Rounded	$ 161,770,000
		Oswego Share		$ 43,040,000
		Montgomery Share		$ 44,330,000
		Yorkville Share		$ 74,410,000

Notes

DuPage Water Commission Option - Treated Water Transmission Main

Oswego, Montgomery, and Yorkville Shared Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	0	$ 470	$ -
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	50	$ 450	$ 22,500
Medium Density	24"	0	$ 570	$ -
High Density	24"	3,920	$ 710	$ 2,783,200
Trenchless Crossing	24"	0	$ 3,110	$ -
Trenchless Crossing (Railroad)	24"	90	$ 2,080	$ 187,200
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	5,160	$ 460	$ 2,373,600
Medium Density	30"	0	$ 580	$ -
High Density	30"	7,590	$ 730	$ 5,540,700
Trenchless Crossing	30"	350	$ 3,320	$ 1,162,000
Trenchless Crossing (Railroad)	30"	80	$ 2,280	$ 182,400
Utility Corridor	30"	0	$ 450	$ -

DuPage Water Commission Option - Treated Water Transmission Main

Oswego, Montgomery, and Yorkville Shared Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	24,630	$ 480	$ 11,822,400
Medium Density	36"	24,280	$ 640	$ 15,539,200
High Density	36"	200	$ 800	$ 160,000
Trenchless Crossing	36"	270	$ 3,630	$ 980,100
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	28,090	$ 940	$ 26,404,600
High Density	48"	280	$ 1,120	$ 313,600
Trenchless Crossing	48"	400	$ 4,150	$ 1,660,000
Trenchless Crossing (Railroad)	48"	100	$ 3,110	$ 311,000
Utility Corridor	48"	11,430	$ 710	$ 8,115,300
Appurtenances				$ 5,180,000
			Subtotal	$ 82,737,800
			Subtotal Rounded	$ 82,740,000
		Contingency	30%	$ 24,822,000
		Legal, Design and Construction Engineering	20%	$ 16,548,000
			Total	$ 124,110,000
			Total Rounded	**$ 124,110,000**
		Oswego Share [m-CL/LRI]	34.0%	$ 42,210,000
		Montgomery Share [m-CL/LRI]	29.3%	$ 36,420,000
		Yorkville Share [m-CL/LRI]	36.6%	$ 45,490,000

Notes

m-CL/LRI Cost share percentage is calculated as percentage of 2050 Maximum Day Demand (Contractual Limit/LRI).

DuPage Water Commission Option - Treated Water Transmission Main

Oswego Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	1,140	$ 390	$ 444,600
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	0	$ 470	$ -
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	0	$ 570	$ -
High Density	24"	0	$ 710	$ -
Trenchless Crossing	24"	0	$ 3,110	$ -
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 3,320	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

DuPage Water Commission Option - Treated Water Transmission Main

Oswego Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 3,630	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 4,150	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 710	$ -
Appurtenances				$ 100,000
			Subtotal	$ 544,600
			Subtotal Rounded	$ 550,000
		Contingency	30%	$ 165,000
		Legal, Design and Construction Engineering	20%	$ 110,000
			Total	$ 825,000
			Total Rounded	**$ 830,000**
		Oswego Share	100.0%	$ 830,000
		Montgomery Share	0.0%	$ -
		Yorkville Share	0.0%	$ -

Notes

DuPage Water Commission Option - Treated Water Transmission Main

Montgomery Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	1,650	$ 290	$ 478,500
Medium Density	16"	6,090	$ 390	$ 2,375,100
High Density	16"	3,840	$ 510	$ 1,958,400
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	0	$ 470	$ -
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	0	$ 570	$ -
High Density	24"	0	$ 710	$ -
Trenchless Crossing	24"	0	$ 3,110	$ -
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 3,320	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

DuPage Water Commission Option - Treated Water Transmission Main

Montgomery Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 3,630	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 4,150	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 710	$ -
Appurtenances				$ 450,000
			Subtotal	$ 5,262,000
			Subtotal Rounded	$ 5,270,000
		Contingency	30%	$ 1,581,000
		Legal, Design and Construction Engineering	20%	$ 1,054,000
			Total	$ 7,905,000
			Total Rounded	**$ 7,910,000**
		Oswego Share	0.0%	$ -
		Montgomery Share	100.0%	$ 7,910,000
		Yorkville Share	0.0%	$ -

Notes

DuPage Water Commission Option - Treated Water Transmission Main

Yorkville Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	960	$ 370	$ 355,200
Medium Density	20"	3,470	$ 470	$ 1,630,900
High Density	20"	100	$ 610	$ 61,000
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	13,350	$ 450	$ 6,007,500
Medium Density	24"	13,290	$ 570	$ 7,575,300
High Density	24"	2,620	$ 710	$ 1,860,200
Trenchless Crossing	24"	80	$ 3,110	$ 248,800
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 3,320	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

DuPage Water Commission Option - Treated Water Transmission Main

Yorkville Only Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 3,630	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 4,150	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 710	$ -
Appurtenances				$ 1,540,000
			Subtotal	$ 19,278,900
			Subtotal Rounded	$ 19,280,000
		Contingency	30%	$ 5,784,000
		Legal, Design and Construction Engineering	20%	$ 3,856,000
			Total	$ 28,920,000
			Total Rounded	**$ 28,920,000**
		Oswego Share	0.0%	$ -
		Montgomery Share	0.0%	$ -
		Yorkville Share	100.0%	$ 28,920,000

Notes

DuPage Water Commission Option - Receiving Stations
OPINION OF PROBABLE COST

Item		Quantity		Unit Cost		Construction Cost
Oswego						
	Metering Station	2	$	740,000	$	1,480,000
	Storage/Pumping Station[1]	1	$	3,960,000	$	3,960,000
Montogmery						
	Metering Station	2	$	740,000	$	1,480,000
Yorkville						
	Metering Station	2	$	740,000	$	1,480,000
				Subtotal	$	8,400,000
				Subtotal Rounded	$	8,400,000
		Contingency		30%	$	2,520,000
		Legal, Design and Construction Engineering		20%	$	1,680,000
				Total [2]	$	12,600,000
				Total Rounded	**$**	**12,600,000**
		Oswego Share		54.3%	$	6,840,000
		Montgomery Share		22.9%	$	2,880,000
		Yorkville Share		22.9%	$	2,880,000

Notes

1 All Receiving Stations are assumed to be metering stations with the exception of Oswego High Zone location, which requires storage/pumping due to higher HGL.

2 Assumes connections are on Village/City property and do not require land acquisition.

DuPage Water Commission Option - Oswego Internal Storage & Pumping
OPINION OF PROBABLE COST

Item			Construction Cost
Internal Storage Tanks [1]			
2.0 MG Storage Tank & Pumping		$	4,360,000
Site Work			
Electrical		$	25,000
Paving		$	25,000
Fencing		$	25,000
Restoration & Landscaping		$	18,000
	Subtotal	$	4,453,000
	Subtotal Rounded	$	4,460,000
	Contingency 30%	$	1,338,000
	Legal, Design and Construction Engineering 20%	$	892,000
	Land Aquisition (Assumed to be part of Village's property)	$	-
	Soil & Material Testing	$	5,000
	Total	$	6,695,000
	Total Rounded	**$**	**6,700,000**
	Oswego Share 100.0%	$	6,700,000
	Montgomery Share 0.0%	$	-
	Yorkville Share 0.0%	$	-

Notes

1 Additional future storage recommended for the Middle Zone to meet future average day storage recommendation.

DuPage Water Commission Option - Oswego Internal Improvements
OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	5,100	$ 470	$ 2,397,000
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	2,800	$ 570	$ 1,596,000
High Density	24"	0	$ 710	$ -
Trenchless Crossing	24"	0	$ 3,110	$ -
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 3,320	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

DuPage Water Commission Option - Oswego Internal Improvements
OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 3,630	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 4,150	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 710	$ -
Appurtenances				$ 90,000
			Subtotal	$ 4,083,000
			Subtotal Rounded	$ 4,090,000
			Contingency 30%	$ 1,227,000
			Legal, Design and Construction Engineering 20%	$ 818,000
			Total	$ 6,135,000
			Total Rounded	**$ 6,140,000**
			Oswego Share 100.0%	$ 6,140,000
			Montgomery Share 0.0%	$ -
			Yorkville Share 0.0%	$ -

DuPage Water Commission Option - Buy-In Costs
OPINION OF PROBABLE COST

Item			Cost
DWC Estimated Buy-In Costs [1]			
Oswego		$	10,370,949
Montgomery		$	10,283,402
Yorkville		$	7,061,000
	Total	$	27,715,351
	Total Rounded	**$**	**27,720,000**
	Oswego Share 37.4%	$	10,373,000
	Montgomery Share 37.1%	$	10,285,000
	Yorkville Share 25.5%	$	7,062,000

Notes

1 Buy-in costs (Capital Cost Recovery Charge) provided by DWC on 8/26/21, based on present day average day demand.

Description	Joliet Water Commission Option							
	Total	Oswego		Montgomery		Yorkville	
		%	$	%	$	%	$
Treated Water Transmission Mains [1]	$ 8,910,000	-	$ 947,000	-	$ 2,809,000	-	$ 5,154,000
Buy-in Costs [1]	$ 243,130,000	34.0%	$ 82,690,000	29.3%	$ 71,340,000	36.6%	$ 89,100,000
Regional Improvements Subtotal	**$252,040,000**	**-**	**$ 83,637,000**	**-**	**$ 74,149,000**	**-**	**$ 94,254,000**
Receiving Stations [2]	$ 22,260,000	-	$ 17,820,000	-	$ 2,220,000	-	$ 2,220,000
Intermediate Oswego Well & Treatment [3]	$ 6,410,000	100%	$ 6,410,000				
Internal Storage & Pumping [4]	$ 15,958,675			-	$ 6,903,375	-	$ 9,055,300
Internal Distribution Improvements	$ 47,282,330	-	$ 6,140,000	-	$ 36,324,390	-	$ 4,817,940
Internal System Improvements Subtotal	**$ 91,911,005**	**-**	**$ 30,370,000**	**-**	**$ 45,447,765**	**-**	**$ 16,093,240**
Total [5]	**$ 343,960,000**	**-**	**$114,010,000**	**-**	**$119,600,000**	-	**$110,350,000**

Notes

1 Cost provided by Joliet Water Commission team, dated 8/13/21. This cost is for the transmission mains required for the secondary/tertiary connection points.

2 Assumes pumping and storage required at all receiving stations with 25 psi delivery pressure, as directed by Joliet Water Commission team 8/13/21.

3 Assumes that if the Joliet Water Commission Option is selected, Oswego would require a new well prior to the Joliet Water Commission water supply.

4 Assumes Oswego's future storage needs are met by storage at receiving stations.

5 Cost estimates include construction costs, legal, design & construction engineering, land acquisition, and contingency. Detailed cost estimates for each item are provided separately.

Joliet Water Commission Option - Receiving Stations
OPINION OF PROBABLE COST

Item	Quantity	Unit Cost	Construction Cost
Oswego			
Storage/Pumping Station [1]	3	$ 3,960,000	$ 11,880,000
Montogmery			
Receiving Station	2	$ 740,000	$ 1,480,000
Yorkville			
Receiving Station	2	$ 740,000	$ 1,480,000
		Subtotal	$ 14,840,000
		Subtotal Rounded	$ 14,840,000
	Contingency	30%	$ 4,452,000
	Legal, Design and Construction Engineering	20%	$ 2,968,000
		Total [2]	$ 22,260,000
		Total Rounded	**$ 22,260,000**
	Oswego Share	80.05%	$ 17,820,000
	Montgomery Share	9.97%	$ 2,220,000
	Yorkville Share	9.97%	$ 2,220,000

Notes

1 Assumes pumping and storage required at all receiving stations with 25 psi delivery pressure, as directed by Joliet Water Commission team 8/13/21.

2 Assumes connections are on Village/City property and do not require land acquisition.

Joliet Water Commission Option - Oswego Internal Improvements
OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 2,280	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 240	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 2,590	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 310	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	5,100	$ 470	$ 2,397,000
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 2,800	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 370	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	2,800	$ 570	$ 1,596,000
High Density	24"	0	$ 710	$ -
Trenchless Crossing	24"	0	$ 3,110	$ -
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 450	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 3,320	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 450	$ -

Joliet Water Commission Option - Oswego Internal Improvements
OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 3,630	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 480	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 3,840	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 540	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 4,150	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 710	$ -
Appurtenances				$ 90,000
			Subtotal	$ 4,083,000
			Subtotal Rounded	$ 4,090,000
			Contingency 30%	$ 1,227,000
			Legal, Design and Construction Engineering 20%	$ 818,000
			Total	$ 6,135,000
			Total Rounded	**$ 6,140,000**
			Oswego Share 100.0%	$ 6,140,000
			Montgomery Share 0.0%	$ -
			Yorkville Share 0.0%	$ -

Notes

Joliet Water Commission Option - Oswego Intermediate Well and Treatment
OPINION OF PROBABLE COST

Item	Description			Construction Cost
1,000 gpm	Ironton Galesville Well (24x18)			
	Construction (Casing, Hole, Grout, Etc.)		$	1,116,000
	Development (Disinfection, Testing, Etc.)		$	251,000
	Equipment (Pump/Motor, Pitless Adapter, Etc.)		$	446,000
	Miscellaneous Piping and Meters		$	56,000
	Controls and Instrumentation		$	17,000
	SCADA Integration		$	75,000
	Treatment Plant Building		$	1,500,000
	WRT		$	600,000
Site Work				
	Electrical		$	33,000
	Paving		$	17,000
	Fencing		$	17,000
	Restoration & Landscaping		$	22,000
		Subtotal	$	4,150,000
		Subtotal Rounded	$	4,150,000
		Contingency 30%	$	1,245,000
		Legal, Design and Construction Engineering 20%	$	830,000
		Land Acquisition (10,000 SF)	$	150,000
		Soil & Material Testing	$	30,000
		Total	$	6,405,000
		Total Rounded	**$**	**6,410,000**
		Oswego Share 100.0%	$	6,410,000
		Montgomery Share 0.0%	$	-
		Yorkville Share 0.0%	$	-

Notes

1 Assumes that if the Joliet Water Commission Option is selected, Oswego would require a new well prior to the Joliet Water Commission water supply.

Joliet Water Commission Option - Buy-in Costs
OPINION OF PROBABLE COST

Item		Cost
Estimated Conceptual Costs [1]		
	Oswego	$ 82,690,000
	Montgomery	$ 71,340,000
	Yorkville	$ 89,100,000
	Total	$ 243,130,000
	Total Rounded	**$ 243,200,000**

Notes

1 Calculated using Regional Cost Calculator provided by Joliet Water Commission team, dated 8/2/21.

Description	Illinois American Water Option							
	Total	Oswego		Montgomery		Yorkville	
		%	$	%	$	%	$
Treated Water Transmission Mains [m-CL/LRI]	$ 148,920,000	-	$ 38,910,000	-	$ 40,590,000	-	$ 69,420,000
25 MGD Pumping Station [m-CL/LRI]	$ 11,870,000	34.0%	$ 4,040,000	29.3%	$ 3,480,000	36.6%	$ 4,350,000
Buy-in/Tap-on Costs [1 m-CL/Lri]	$ 67,320,000	34.0%	$ 22,893,000	29.3%	$ 19,755,000	36.6%	$ 24,672,000
Regional Improvements Subtotal	$ 228,110,000	-	$ 65,843,000	-	$ 63,825,000	-	$ 98,442,000
Receiving Stations [2]	$ 22,260,000	-	$ 17,820,000	-	$ 2,220,000	-	$ 2,220,000
Intermediate Oswego Well & Treatment							
Internal Storage & Pumping [3]	$ 15,958,675			-	$ 6,903,375	-	$ 9,055,300
Internal Distribution Improvements	$ 47,282,330	-	$ 6,140,000	-	$ 36,324,390	-	$ 4,817,940
Internal System Improvements Subtotal	$ 85,501,005	-	$ 23,960,000	-	$ 45,447,765	-	$ 16,093,240
Total	**$ 313,620,000**	**-**	**$ 89,810,000**	**-**	**$ 109,280,000**	-	**$ 114,540,000**

Notes

m-CL/LRI Cost responsibility percentage is calculated as percentage of 2050 Maximum Day Demand for pipeline shared by all three communities. Costs for branches to connection points are responsibility of that community.

1 Buy-in Costs consist of cost of improvements to existing Illinois American Water and American Lake Water systems, provided by IAW dated 8/30/21.

2 Assumes pumping and storage required at all receiving stations with 25 psi delivery pressure.

3 Assumes Oswego's future storage needs are met by storage at receiving stations.

4 Cost estimates include construction costs, legal, design & construction engineering, land acquisition, and contingency. Detailed cost estimates for each item are provided separately.

Illinois American Water Option - Buy-in Costs
OPINION OF PROBABLE COST

Item			Cost
New Customer Investment [1]		$	67,320,000
	Total	$	67,320,000
	Total Rounded	**$**	**67,320,000**
	Oswego Share [m-CL/LRI] 34.0%	$	22,893,000
	Montgomery Share [m-CL/LRI] 29.3%	$	19,755,000
	Yorkville Share [m-CL/LRI] 36.6%	$	24,672,000

Notes

m-CL/LRI Cost responsibility is calculated as percentage of 2050 Maximum Day Demand (Contractual Limit/LRI).

1 New Customer Investment cost estimates provided by IAW, dated 8/30/21. Cost estimates include pumping station and transmission main upgrades and improvements upstream of existing delivery point in Plainfield.

Illinois American Water Option - 25 MGD Pumping Station
OPINION OF PROBABLE COST

Item			Construction Cost
Pump Station			
	Structure	$	5,030,000
	Equipment (Pumps, Motors, Meters)	$	530,000
	Power Distribution	$	570,000
	Generator	$	250,000
	1.0 MG Storage Tank	$	1,325,000
	SCADA	$	75,000
Site Work			
	Electrical	$	32,000
	Paving	$	32,000
	Fencing	$	32,000
	Restoration and Landscaping	$	21,000
	Subtotal	$	7,897,000
	Subtotal Rounded	$	7,900,000
	Contingency 30%	$	2,370,000
	Legal, Design and Construction Engineering 20%	$	1,580,000
	Land Acquisition (Assume 1 acre) [1]	$	-
	Soil & Material Testing	$	20,000
	Total	$	11,870,000
	Total Rounded	**$**	**11,870,000**
	Oswego Share [m-CL/LRI] 34.0%	$	4,040,000
	Montgomery Share [m-CL/LRI] 29.3%	$	3,480,000
	Yorkville Share [m-CL/LRI] 36.6%	$	4,350,000

Notes

m-CL/LRI Cost responsibility is calculated as percentage of 2050 Maximum Day Demand (Contractual Limit/LRI).

1 Further investigation is needed on land acquisition in Plainfield.

Illinois American Water Option - Treated Water Transmission Main

Total Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 240	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 2,280	$ -
Water Main, 16"				
Low Density	16"	1,650	$ 290	$ 478,500
Medium Density	16"	7,580	$ 390	$ 2,956,200
High Density	16"	3,840	$ 510	$ 1,958,400
Trenchless Crossing	16"	0	$ 310	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 2,590	$ -
Water Main, 20"				
Low Density	20"	960	$ 370	$ 355,200
Medium Density	20"	3,470	$ 470	$ 1,630,900
High Density	20"	100	$ 610	$ 61,000
Trenchless Crossing	20"	0	$ 370	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 2,800	$ -
Water Main, 24"				
Low Density	24"	13,400	$ 450	$ 6,030,000
Medium Density	24"	13,290	$ 570	$ 7,575,300
High Density	24"	6,640	$ 710	$ 4,714,400
Trenchless Crossing	24"	80	$ 450	$ 36,000
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 3,110	$ -
Water Main, 30"				
Low Density	30"	11,780	$ 460	$ 5,418,800
Medium Density	30"	17,510	$ 580	$ 10,155,800
High Density	30"	7,590	$ 730	$ 5,540,700
Trenchless Crossing	30"	350	$ 450	$ 157,500
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 3,320	$ -

Illinois American Water Option - Treated Water Transmission Main

Total Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	18,250	$ 480	$ 8,760,000
Medium Density	36"	6,070	$ 640	$ 3,884,800
High Density	36"	200	$ 800	$ 160,000
Trenchless Crossing	36"	0	$ 480	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 3,630	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 540	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 3,840	$ -
Water Main, 48"				
Low Density	48"	10,430	$ 740	$ 7,718,200
Medium Density	48"	25,760	$ 940	$ 24,214,400
High Density	48"	330	$ 1,120	$ 369,600
Trenchless Crossing	48"	30	$ 710	$ 21,300
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 4,150	$ -
Appurtenances				$ 7,050,000
			Subtotal	$ 99,247,000
			Subtotal Rounded	$ 99,270,000
		Contingency	30%	$ 29,781,000
		Legal, Design and Construction Engineering	20%	$ 19,854,000
			Total	$ 148,905,000
			Total Rounded	$ 148,920,000
		Oswego Share [m-CL]		$ 38,910,000
		Montgomery Share [m-CL]		$ 40,590,000
		Yorkville Share [m-CL]		$ 69,420,000

Notes

Illinois American Water Option - Treated Water Transmission Main

Oswego, Montgomery, and Yorkville Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 240	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 2,280	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 310	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 2,590	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	0	$ 470	$ -
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 370	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 2,800	$ -
Water Main, 24"				
Low Density	24"	50	$ 450	$ 22,500
Medium Density	24"	0	$ 570	$ -
High Density	24"	4,020	$ 710	$ 2,854,200
Trenchless Crossing	24"	0	$ 450	$ -
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 3,110	$ -
Water Main, 30"				
Low Density	30"	11,780	$ 460	$ 5,418,800
Medium Density	30"	17,510	$ 580	$ 10,155,800
High Density	30"	7,590	$ 730	$ 5,540,700
Trenchless Crossing	30"	350	$ 450	$ 157,500
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 3,320	$ -

Illinois American Water Option - Treated Water Transmission Main

Oswego, Montgomery, and Yorkville Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	18,250	$ 480	$ 8,760,000
Medium Density	36"	6,070	$ 640	$ 3,884,800
High Density	36"	200	$ 800	$ 160,000
Trenchless Crossing	36"	0	$ 480	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 3,630	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 540	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 3,840	$ -
Water Main, 48"				
Low Density	48"	10,430	$ 740	$ 7,718,200
Medium Density	48"	25,760	$ 940	$ 24,214,400
High Density	48"	330	$ 1,120	$ 369,600
Trenchless Crossing	48"	30	$ 710	$ 21,300
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 4,150	$ -
Appurtenances				$ 4,960,000
			Subtotal	$ 74,237,800
			Subtotal Rounded	$ 74,240,000
		Contingency	30%	$ 22,272,000
		Legal, Design and Construction Engineering	20%	$ 14,848,000
			Total	$ 111,360,000
			Total Rounded	**$ 111,360,000**
		Oswego Share [m-CL/LRI]	34.0%	$ 37,870,000
		Montgomery Share [m-CL/LRI]	29.3%	$ 32,680,000
		Yorkville Share [m-CL/LRI]	36.6%	$ 40,810,000

Notes

m-CL Cost share percentage is calculated as percentage of 2050 Maximum Day Demand (Contractual Limit).

Illinois American Water Option - Treated Water Transmission Main

Oswego Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 240	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 2,280	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	1,490	$ 390	$ 581,100
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 310	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 2,590	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	0	$ 470	$ -
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 370	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 2,800	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	0	$ 570	$ -
High Density	24"	0	$ 710	$ -
Trenchless Crossing	24"	0	$ 450	$ -
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 3,110	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 450	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 3,320	$ -

Illinois American Water Option - Treated Water Transmission Main

Oswego Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 480	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 3,630	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 540	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 3,840	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 710	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 4,150	$ -
Appurtenances				$ 100,000
			Subtotal	$ 681,100
			Subtotal Rounded	$ 690,000
		Contingency	30%	$ 207,000
		Legal, Design and Construction Engineering	20%	$ 138,000
			Total	$ 1,035,000
			Total Rounded	**$ 1,040,000**
		Oswego Share	100.0%	$ 1,040,000
		Montgomery Share	0.0%	$ -
		Yorkville Share	0.0%	$ -

Notes

Illinois American Water Option - Treated Water Transmission Main

Montgomery Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 240	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 2,280	$ -
Water Main, 16"				
Low Density	16"	1,650	$ 290	$ 478,500
Medium Density	16"	6,090	$ 390	$ 2,375,100
High Density	16"	3,840	$ 510	$ 1,958,400
Trenchless Crossing	16"	0	$ 310	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 2,590	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	0	$ 470	$ -
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 370	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 2,800	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	0	$ 570	$ -
High Density	24"	0	$ 710	$ -
Trenchless Crossing	24"	0	$ 450	$ -
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 3,110	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 450	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 3,320	$ -

Illinois American Water Option - Treated Water Transmission Main

Montgomery Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 480	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 3,630	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 540	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 3,840	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 710	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 4,150	$ -
Appurtenances				$ 450,000
			Subtotal	$ 5,262,000
			Subtotal Rounded	$ 5,270,000
		Contingency	30%	$ 1,581,000
		Legal, Design and Construction Engineering	20%	$ 1,054,000
			Total	$ 7,905,000
			Total Rounded	**$ 7,910,000**
		Oswego Share	0.0%	$ -
		Montgomery Share	100.0%	$ 7,910,000
		Yorkville Share	0.0%	$ -

Notes

Illinois American Water Option - Treated Water Transmission Main

Yorkville Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 240	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 2,280	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 310	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 2,590	$ -
Water Main, 20"				
Low Density	20"	960	$ 370	$ 355,200
Medium Density	20"	3,470	$ 470	$ 1,630,900
High Density	20"	100	$ 610	$ 61,000
Trenchless Crossing	20"	0	$ 370	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 2,800	$ -
Water Main, 24"				
Low Density	24"	13,350	$ 450	$ 6,007,500
Medium Density	24"	13,290	$ 570	$ 7,575,300
High Density	24"	2,620	$ 710	$ 1,860,200
Trenchless Crossing	24"	80	$ 450	$ 36,000
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 3,110	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 450	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 3,320	$ -

Illinois American Water Option - Treated Water Transmission Main

Yorkville Costs

OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 480	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 3,630	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 540	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 3,840	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 710	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 4,150	$ -
Appurtenances				$ 1,540,000
			Subtotal	$ 19,066,100
			Subtotal Rounded	$ 19,070,000
		Contingency	30%	$ 5,721,000
		Legal, Design and Construction Engineering	20%	$ 3,814,000
			Total	$ 28,605,000
			Total Rounded	**$ 28,610,000**
		Oswego Share	0.0%	$ -
		Montgomery Share	0.0%	$ -
		Yorkville Share	100.0%	$ 28,610,000

Notes

Illinois American Water Option - Receiving Stations
OPINION OF PROBABLE COST

Item		Quantity	Unit Cost	Construction Cost
Oswego				
	Storage/Pumping Station	3	$ 3,960,000	$ 11,880,000
Montogmery				
	Metering Station	2	$ 740,000	$ 1,480,000
Yorkville				
	Metering Station	2	$ 740,000	$ 1,480,000
			Subtotal	$ 14,840,000
			Subtotal Rounded	$ 14,840,000
		Contingency	30%	$ 4,452,000
		Legal, Design and Construction Engineering	20%	$ 2,968,000
			Total	$ 22,260,000
			Total Rounded	**$ 22,260,000**
		Oswego Share	80.05%	$ 17,820,000
		Montgomery Share	9.97%	$ 2,220,000
		Yorkville Share	9.97%	$ 2,220,000

Notes

1 Assumes pumping and storage required at all receiving stations with 25 psi delivery pressure.

2 Assumes connections are on Village/City property and do not require land acquisition.

Illinois American Water Option - Oswego Internal Improvements
OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 12"				
Low Density	12"	0	$ 230	$ -
Medium Density	12"	0	$ 310	$ -
High Density	12"	0	$ 450	$ -
Trenchless Crossing	12"	0	$ 240	$ -
Trenchless Crossing (Railroad)	12"	0	$ 1,250	$ -
Utility Corridor	12"	0	$ 2,280	$ -
Water Main, 16"				
Low Density	16"	0	$ 290	$ -
Medium Density	16"	0	$ 390	$ -
High Density	16"	0	$ 510	$ -
Trenchless Crossing	16"	0	$ 310	$ -
Trenchless Crossing (Railroad)	16"	0	$ 1,560	$ -
Utility Corridor	16"	0	$ 2,590	$ -
Water Main, 20"				
Low Density	20"	0	$ 370	$ -
Medium Density	20"	5,100	$ 470	$ 2,397,000
High Density	20"	0	$ 610	$ -
Trenchless Crossing	20"	0	$ 370	$ -
Trenchless Crossing (Railroad)	20"	0	$ 1,770	$ -
Utility Corridor	20"	0	$ 2,800	$ -
Water Main, 24"				
Low Density	24"	0	$ 450	$ -
Medium Density	24"	2,800	$ 570	$ 1,596,000
High Density	24"	0	$ 710	$ -
Trenchless Crossing	24"	0	$ 450	$ -
Trenchless Crossing (Railroad)	24"	0	$ 2,080	$ -
Utility Corridor	24"	0	$ 3,110	$ -
Water Main, 30"				
Low Density	30"	0	$ 460	$ -
Medium Density	30"	0	$ 580	$ -
High Density	30"	0	$ 730	$ -
Trenchless Crossing	30"	0	$ 450	$ -
Trenchless Crossing (Railroad)	30"	0	$ 2,280	$ -
Utility Corridor	30"	0	$ 3,320	$ -

Illinois American Water Option - Oswego Internal Improvements
OPINION OF PROBABLE COST

Item	Size	Quantity	Unit Cost	Construction Cost
Water Main, 36"				
Low Density	36"	0	$ 480	$ -
Medium Density	36"	0	$ 640	$ -
High Density	36"	0	$ 800	$ -
Trenchless Crossing	36"	0	$ 480	$ -
Trenchless Crossing (Railroad)	36"	0	$ 2,590	$ -
Utility Corridor	36"	0	$ 3,630	$ -
Water Main, 42"				
Low Density	42"	0	$ 650	$ -
Medium Density	42"	0	$ 730	$ -
High Density	42"	0	$ 900	$ -
Trenchless Crossing	42"	0	$ 540	$ -
Trenchless Crossing (Railroad)	42"	0	$ 2,800	$ -
Utility Corridor	42"	0	$ 3,840	$ -
Water Main, 48"				
Low Density	48"	0	$ 740	$ -
Medium Density	48"	0	$ 940	$ -
High Density	48"	0	$ 1,120	$ -
Trenchless Crossing	48"	0	$ 710	$ -
Trenchless Crossing (Railroad)	48"	0	$ 3,110	$ -
Utility Corridor	48"	0	$ 4,150	$ -
Appurtenances				$ 90,000
			Subtotal	$ 4,083,000
			Subtotal Rounded	$ 4,090,000
			Contingency 30%	$ 1,227,000
			Legal, Design and Construction Engineering 20%	$ 818,000
			Total	$ 6,135,000
			Total Rounded	**$ 6,140,000**
			Oswego Share 100.0%	$ 6,140,000
			Montgomery Share 0.0%	$ -
			Yorkville Share 0.0%	$ -

Notes

Description	Fox River Option				DuPage Water Commission Option				Joliet Water Commission Option			
	Total	Oswego	Montogmery	Yorkville	Total	Oswego	Montogmery	Yorkville	Total	Oswego	Montogmery	Yorkville
Sub-Regional Well SR-1	$3,110,000	$2,190,000	$0	$920,000								
Raw Water Transmission Mains	$54,920,000	$18,430,000	$16,630,000	$19,860,000								
25 MGD Intake Pump Station	$8,570,000	$3,240,000	$2,240,000	$3,090,000								
25 MGD Lime Softening WTP	$121,880,000	$46,070,000	$31,880,000	$43,930,000								
Treated Water Transmission Mains	$72,710,000	$12,720,000	$19,030,000	$40,960,000	$161,780,000	$43,040,000	$44,330,000	$74,410,000	$8,910,000	$947,000	$2,809,000	$5,154,000
Buy-in Costs					$27,720,000	$10,373,000	$10,285,000	$7,062,000	$243,130,000	$82,690,000	$71,340,000	$89,100,000
Regional Improvements Subtotal	**$261,190,000**	**$82,650,000**	**$69,780,000**	**$108,760,000**	**$189,500,000**	**$53,413,000**	**$54,615,000**	**$81,472,000**	**$252,040,000**	**$83,637,000**	**$74,149,000**	**$94,254,000**
Receiving Stations	$6,660,000	$3,330,000	$1,110,000	$2,220,000	$12,600,000	$6,840,000	$2,880,000	$2,880,000	$22,260,000	$17,820,000	$2,220,000	$2,220,000
Intermediate Oswego Well & Treatment	$6,410,000	$6,410,000							$6,410,000	$6,410,000		
Internal Storage & Pumping	$12,620,000	$12,620,000	$0		$22,658,675	$6,700,000	$6,903,375	$9,055,300	$15,958,675		$6,903,375	$9,055,300
Internal Distribution Improvements	$27,452,123	$8,600,000	$16,560,423	$2,291,700	$47,282,330	$6,140,000	$36,324,390	$4,817,940	$47,282,330	$6,140,000	$36,324,390	$4,817,940
Internal System Improvements Subtotal	**$53,142,123**	**$30,960,000**	**$17,670,423**	**$4,520,000**	**$82,541,005**	**$19,680,000**	**$46,107,765**	**$16,753,240**	**$91,911,005**	**$30,370,000**	**$45,447,765**	**$16,093,240**
Total	**$314,350,000**	**$113,610,000**	**$87,460,000**	**$113,280,000**	**$272,060,000**	**$73,100,000**	**$100,730,000**	**$98,230,000**	**$343,960,000**	**$114,010,000**	**$119,600,000**	**$110,350,000**