City of Joliet

Alternative Water Source Program Implementation

Strategic Plan – Version 3.0

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Introduction

The City of Joliet's existing water source, the deep groundwater aquifer, will be depleted to the point of not being able to meet the City's maximum day water demands by the year 2030. This is a regional problem. Groundwater modeling conducted by the Illinois State Water Survey indicates that the deep groundwater wells in Joliet and neighboring communities will someday be depleted to the point of no longer being able to supply the region's future water needs. Knowing this, the City of Joliet embarked on an Alternative Water Source Study to determine alternative water sources which could be used by not only the City of Joliet, but possibly the region as a long-term, sustainable, reliable water source.

The Alternative Water Source Study began in July of 2018 and was completed in two phases. Fourteen alternatives were evaluated in the Phase I Study. These fourteen alternatives covered the full range of possible water sources including groundwater, rivers and Lake Michigan. The Phase I Study was completed in January 2019 and recommended five alternatives for further evaluation as feasible alternative water sources. The Phase II Study took a more in depth look at the five alternatives in order to determine the improvements that would be required to implement each alternative. The Phase II alternatives included Illinois River, Kankakee River, Lake Michigan Water – Chicago Department of Water Management, Lake Michigan Water – DuPage Water Commission and Lake Michigan Water – New Indiana Intake. Per a letter dated December 4, 2019 from the DuPage Water Commission, they do not want to be considered as an alternative water source supplier for the City of Joliet. Therefore, the evaluation for this option was removed from the Phase II Study. The Phase II Study evaluated the alternatives based on cost, raw water quality, sustainability/water quantity, implementation risk, operation & maintenance, and control (governance).

On December 10, 2019 the City's Environmental Commission voted to recommend the City pursue Lake Michigan – New Indiana Intake as the primary alternative water source option and Lake Michigan – Chicago Department of Water Management as the secondary water source option. This recommendation was presented for approval by the City Council on January 7, 2020 and the City Council approved pursuing both Lake Michigan options simultaneously in 2020 with a final decision on supply to be made after the completion of the 2020 Evaluation. Implementation of the Lake Michigan – New Indiana Intake option included the following components: new raw water intake and pumping, raw water transmission, raw water treatment, finished water pumping and storage, finished water transmission, receiving station, distribution system modifications, storage in the Joliet water system, back-up water sources, and nonrevenue water reduction. Implementation of the Lake Michigan – Chicago Department of Water Management option included the following components: finished water pumping and storage, finished water transmission, receiving station, distribution system modifications,





storage in the Joliet water system, back-up water sources, and nonrevenue water reduction.

Upon completion of the 2020 Evaluation, the results of the evaluation for the two alternatives (Lake Michigan Water – CDWM and Lake Michigan Water - New Indiana Intake) were presented to the Joliet City Council in November and December 2020. On January 28, 2021, the City Council approved the selection of the Lake Michigan Water – Chicago Department of Water Management Alternative as the new water source for the City of Joliet. This selection also included approval of the preliminary Water Supply Agreement with the City of Chicago and authorization to commence with the preliminary design of the selected alternative.

The documents from the Alternative Water Source Study including the Phase I and Phase II Studies and the 2020 Evaluation are available on the project website at https://www.rethinkwaterjoliet.org/reports.

The following strategic plan has been prepared for implementation of the City's new water source. Within this plan the vision, mission and core values for the program are stated. Then a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis is completed. With this information the program's strategic direction and goals are identified.

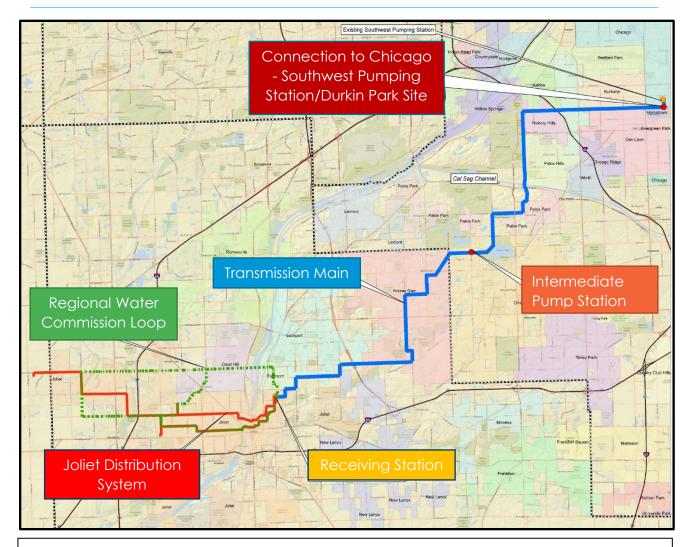
Alternative Water Source Program

The program consists of the planning, design and construction of a new Lake Michigan water source for the City of Joliet by 2030.

Water will be purchased from the City of Chicago at the Southwest Pumping Station site and pumping facilities and transmission mains will be constructed to bring finished water to the City of Joliet for distribution throughout the existing system. The conceptual implementation costs for the program range from \$600 - \$800 million depending upon capacity, not including purchased water costs. The conceptual location of the proposed facilities is shown in the exhibit below.







Disclaimer: The location of facilities associated with these alternatives are approximate for the purpose of conceptually estimating costs. Siting of proposed facilities will be evaluated during preliminary and final design.

Benefits of implementing this new water source program for the City of Joliet include:

- ♦ High Quality Water Source from Lake Michigan that will eliminate the need for water home softeners and purchase of bottled water.
- ♦ Collaboration with the City of Chicago to provide finished water to Joliet and potentially the region via an established water supply that has provided water to millions of customers in northeastern Illinois for over 100 years.
- Sustainable water quantity to serve Joliet and potentially the region now and in the future.





- A guaranteed fair and equitable purchased water cost based on an established American Water Works Association cost of service methodology for which Joliet only pays for the cost to operate and maintain facilities used to provide water to Joliet.
- Opportunity to have input on City of Chicago water service to Joliet and rate setting via an Advisory Council established by Chicago consisting of representatives of its wholesale customers.
- Ability to complete improvements and bring new water source online by 2030.

Stakeholders

Identification and engagement of stakeholders was initiated during the Alternative Water Source Study and it is critical that this engagement be continued throughout program implementation. Stakeholders will play a major role in the success of the program and the implementation of this Strategic Plan. Stakeholders for Joliet's new water source are:

- ♦ Customers: Residents of the City of Joliet, Businesses and Industry, and Satellite Communities.
- ♦ Elected Officials: Joliet City Council and Mayor.
- ♦ City Committees: Public Service Committee, Finance Committee, Water Conservation Subcommittee.
- ♦ Department Heads: City Manager, Public Works, Legal, Finance, IT, Community Development, Human Resources.
- Employees: The employees working for the utility department who will need to operate and maintain the new infrastructure.
- Potential Regional Partners: Nearby communities and/or industries who rely on the same natural resources.
- Regulatory Agencies: The Illinois Environmental Protection Agency and the United States Army Corps of Engineers that will need to issue permits for construction and operation of the new infrastructure.
- Permitting Entities: Entities such as the Illinois Department of Transportation, Will County and Cook County Department of Transportations, Will County and Cook County Forest Preserves, Illinois Tollway Authority, ComEd, Natural Gas Companies,





Railroads, Townships and Municipalities that may need to grant access for transmission main construction depending upon final transmission main route.

- ♦ Land Acquisition Partners: Property owners within vicinity of water facility improvements and along transmission routes.
- Environmental Action Groups: Local, Regional and National groups that are concerned with the program's impact on the environment.
- ♦ Community Groups: Neighborhood Councils, Homeowner Associations, Rotary, Lions Club, Chamber of Commerce, City Center Partnership, Spanish Community Center, Churches.
- Schools: Public and Private Schools including elementary, middle, high school and higher education.
- ♦ Media: Local radio, television and newspapers.
- Legislators: State and National representatives.
- ♦ Water Industry: Engineers, contractors, manufacturers, and academia.

Vision

The vision statement provides a future oriented declaration of the program's purpose. The statement provides inspiration to stakeholders. The vision statement for the City of Joliet Alternative Water Source Program is:

To be recognized by our customers, employees, elected officials, regulatory agencies, regional partners and the water industry as a leader in providing sustainable, reliable and high-quality water in an innovative and efficient manner for our community.

Mission

The mission statement identifies the program's objectives and incorporates overall goals. It will be used to guide the actions of the program. The mission statement for the City of Joliet Alternative Water Source Program is:

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





Core Values

The core operating values articulate ideals that the City intends to hold itself accountable to in order to carry out its mission. The core values for the City of Joliet Alternative Water Source Program are:

- Public Safety: Provide safe drinking water that meets and exceeds all regulatory requirements.
- Environmental Stewardship: Protect natural resources from harm.
- ◆ Transparency and Honesty: Operate openly and honestly to gain stakeholder trust.
- Innovative and Creative Solutions: Identify and utilize new ideas to provide more efficient and effective water service.
- Sustainability: Provide sufficient water quantity to support community growth and development.
- Reliability: Consistent and dependable water service.
- Cooperation & Collaboration: Emphasize the importance of teamwork amongst Stakeholders in order to accomplish positive outcomes.
- Leadership: Champion regional participation for the benefit of all.
- Commitment: United approach to achieve the program mission and vision.
- Open Mindedness: Receptive to input from Stakeholders.
- Flexibility: Ability to adapt to changing conditions that may impact program implementation.
- Fiscal Responsibility: Utilize public funds efficiently and in the best interest of our customers.
- Education: Guide the public in rethinking our water source, their water use, how we can conserve and the value of water.





SWOT Analysis

The SWOT analysis identifies the program's strengths, weaknesses, opportunities and threats. Strengths and weaknesses are internal while opportunities and threats assess external activities that may impact the program.

Strengths

- ◆ Joliet's Experience: Over 100 years of experience as a water utility meeting all regulatory requirements.
- Management: Committed and motivated staff willing to undertake a program of this magnitude.
- Elected Official Support: Mayor and council who understand the need for a new water source and support the program.
- ♦ Alternative Water Source Study (Phase I, Phase II & 2020 Evaluation): Defensible evaluations of alternative water sources to support selection of new water source.
- ♦ Independence: Ability to implement the new water source without requiring the involvement of other communities.
- State Revolving Fund Loan Experience: The City has a history of utilizing SRF loans and has shown it is a reliable and responsible funding recipient.

Weaknesses

- Aging infrastructure: Water pipes are over 100 years old and are prone to failure.
- ♦ High levels of non-revenue water: Over 30% of water pumped annually is not billed. Levels must be reduced below 10% by 2030 to obtain a Lake Michigan Allocation Permit.
- Operations and Maintenance: No experience maintaining infrastructure outside of Joliet.
- Unreliability of existing water source: The deep aquifer is unsustainable.
- Scope of Program: Program complexity with magnitude of improvements, permitting, and land acquisition.
- ♦ Value of Water: Currently low water rates have led to water being taken for granted and lack of conservation.





- Lead Water Service Lines: City has an unknown number of lead water service lines that can attribute to water quality concerns during water source transfer.
- ♦ Water Demand Planning: City's Comprehensive Land Use Plan was not completed so future water demand projections were based on the best available information.

Opportunities

- WIFIA Loan Availability: The City has been invited to submit a low interest WIFIA loan application for up to 49% of the program costs.
- State Revolving Fund Loan Availability: IEPA willingness to work with City to maximize SRF loan funding.
- ♦ Technology: Improvements in technology that will allow for efficient and effective operations.
- Regional Cost Optimization: Partnering with other communities for a regional solution that will achieve lower water costs for the region.
- Updated Groundwater Modeling: Improved model by the Illinois State Water Survey available to guide short term water decision making needs.
- ♦ Water Conservation: Achieve lower water use per capita to minimize sizing of improvements.
- Heightened Water Awareness: Take advantage of increased interest in water to further understanding of the value of water.
- State & Federal Funding: Position City to take advantage of potential state and federal funding and grant opportunities for infrastructure through proactive advocacy.
- ♦ Infrastructure Improvements: Replacement of water mains to meet 10% non-revenue water requirement for Lake Michigan water will include removal of majority of City's lead water service lines.
- Disadvantaged Business Enterprises (Minority Business Enterprises and Women Business Enterprises) and Local Enterprises: Ability to engage DBEs and local Joliet businesses in the design and construction of the new water source.





Threats

- Regulations: New regulations from permitting agencies.
- ♦ Legal Challenges: Lawsuits from Environmental Action Groups or other impacted parties.
- ♦ Leadership Changes: Potential leadership changes at City Council, City staff, potential regional partners and program team.
- Existing Water Source: Continued aquifer depletion that could result in water restrictions until new water source is online.
- ♦ Water Supply & Access Uncertainty: Negotiations for water supply and access to occur during preliminary design.
- Regionalization: Inability to obtain concurrence on governance structure and community participation for potential regional solution.
- ♦ Schedule: Magnitude of work to be completed by known deadline of 2030 failure of which would result in significant impact to City's ability to supply water to customers.
- ♦ Short Term Water Needs: Timeline to implement necessitates cost for maintenance and expansion of existing water source to meet water demands until 2030.
- Cost: Uncertainties inherent to conceptual planning could result in significant cost fluctuation upon project completion.
- Permitting: Changing requirements, timeframe and number of permits could impact implementation.
- Water Quality: Impacts to water quality due to changing water chemistry from water source switch.
- ♦ Contaminants of Emerging Concern: Currently unregulated source water constituent concentrations determined to be a health concern in the future.
- ◆ Land Acquisition: Challenges purchasing property for water facilities construction and obtaining permanent and temporary construction easements for transmission and distribution system improvements.
- Affordability: Program costs result in water bills that residents cannot afford resulting in non-payment and potential termination of water service.





Strategic Direction

Based upon identification of the strengths, weaknesses, opportunities and threats the strategies to be taken to carry out the City of Joliet Alternative Water Source Program mission are:

- ♦ Continue to educate customers regarding the need and cost of implementing a new water source via an updated public relations strategy.
- ♦ Provide regular updates to the City Council, Public Service Committee and Finance Committee to allow for sound decision making.
- Actively pursue formation of a regional water commission that would result in financial savings for Joliet customers and the entire region. Take a leadership role in bringing together potential regional partners and agencies and be openminded to potential regional governance structures.
- Proactively engage environmental action groups and other impacted parties.
- Effectively utilize the City's team of experts who can implement all aspects of the program including engineering, legal, financing, public relations, advocacy and planning.
- Develop a permitting plan and initiate discussions with permitting agencies in the early stages of program development to identify and mitigate any concerns early in the process.
- Maintain program transparency via regular stakeholder group meetings.
- Improve awareness of the importance of water conservation and provide incentive programs to encourage conservation.
- Implement short-term groundwater strategies to maintain existing water supply.
- Elevate the value of water as a vital resource to the public health, safety and economic interest of the community.
- Prioritize demand management including non-revenue water reduction and water conservation efforts for optimization of improvement capacity.
- Support the City's watermain replacement program as a strategy to reduce non-revenue water below 10% and replace lead water service lines.
- Train City Staff on the operation and maintenance of the new infrastructure.





- Implement political strategy to garner support for the program from local, state and federal legislators.
- Advocate for and position City to receive federal and state funding support and grants.
- Collaborate with the City of Chicago to develop final water supply to best serve the long term needs of Joliet.
- ♦ Coordinate with the City of Chicago for the design and construction of project elements within Chicago.
- Participate in formation and ongoing operation of Advisory Council in order to have meaningful input in provision of water to Joliet and rate setting.
- Establish a funding strategy that will most cost effectively implement the program and consider affordability measures.
- **♦** Maintain water quality throughout water source transition.
- Prepare a contracting plan for construction to meet scheduling needs, optimize funding and utilize DBEs (MBEs and WBEs) and local businesses.
- Proactively identify and mitigate project implementation risks.
- Initiate land acquisition processes in the early stages of the program to allow sufficient time to acquire targeted properties or easements, but also allow sufficient time to switch to alternative properties or routes if needed.
- ♦ Maintain and update this Strategic Plan as a living document to guide the program.

Goals & Objectives

In order to fulfill the strategic direction, the City of Joliet has identified goals and objectives that address three key aspects of the program. These goals and key decision points are identified in the Appendix 1 - Implementation Plan Timeline.

Oversight/Program Management

- Quarterly newsletter distributed to City Council and Stakeholders.
- Monthly update presentations to Public Service Committee.





- Quarterly update presentations to full City Council.
- Triannual update presentations to Finance Committee.
- Triannual stakeholder group meetings (every 4 months).
- ♠ Monthly Water Conservation Subcommittee Meetings and implementation of subcommittee goals: Incentivize water conservation programs and policies; empower citizens and business owners to conserve water; educate the public on conservation opportunities; motivate people to take action to reduce water consumption.
- Prepare and implement a public relations plan that will reach all stakeholders.
- Maintain project specific website.
- ◆ Develop and implement a structure for the overall management of activities associated with the implementation (design, permitting, bidding, construction & commissioning) of the new water source.
- Define and implement a Risk Management and Value Management Plan using a structured approach for the review and mitigation of program implementation risks.
- Develop a workforce development plan focused on the recruitment, development and training of City Staff to meet the needs of the program. Evaluate options (public versus private) for operation of facilities outside Joliet. Hire engineering support staff for program assistance.
- Investigate and implement a program management information system (PMIS) for the effective management and efficient delivery of the Alternative Water Source Program over its life cycle.
- Develop and consistently apply quality management practices through the development of a quality management plan incorporating design standards/practices and document review in order to reduce risk, increase efficiencies and deliver a quality project for the City.

External Coordination

• Continue to utilize lobbyists to represent the City's interests at a federal and state level including the development of political strategy and coordination of water commission legislation.





- Continue to utilize Special Legal Counsel to aid in regional water discussions, negotiation of agreements and land acquisition.
- ◆ Conduct negotiations with City of Chicago for final water supply agreement by October 2021.
- ♦ Obtain Lake Michigan allocation from the Illinois Department of Natural Resources.
- ◆ Facilitate Regional Water Commission formation meetings and develop regional governance documents in 2021 to allow for water commission formation in January 2022 and have water supply agreements between new water commission and member communities by April/May 2022.
- ♦ Identify, appraise and acquire property and easements required for construction of improvements.
- Obtain construction and operating permit from the Illinois Environmental Protection Agency.
- Obtain all other permits necessary for construction.
- ♦ Conduct meetings between project team and City's water rate and financial advisors to refine the funding strategy for program implementation. Investigate additional funding opportunities.
- ♦ Coordinate with USEPA and IEPA for low interest loan programs. Submit WIFIA loan application for first phase of WIFIA funding in 2021.
- Pursue opportunities for grant funding to offset the impact of the project implementation on Joliet's water customers.
- Continue to assess program impacts on affordability and present potential affordability strategies for implementation by Council.

Engineering

- ♦ Continue to utilize project team of Stantec/CMT selected in April 2020 for preliminary engineering, design, permitting, bidding construction and start-up/commissioning of program improvements including transmission main and pumping design, and distribution system modifications.
- Perform preliminary engineering in 2021 (with some continuing into 2022):





- Capital Improvement Project (CIP) #1 Chicago Connection Facilities at the Southwest Pumping Station/Durkin Parkin Site consisting of Tunnel Extension (Tunnel Connection being completed by the City of Chicago), Low Service Pump Station, Meter Vault, Suction Well and High Service Pump Station
- CIP #2 Finished Water Transmission Main consisting of over 30 miles of transmission from the Southwest Pumping Station/Durkin Park Site to the Joliet Receiving Station
- CIP #3 Intermediate Pump Station and Storage Facilities near the midpoint of the Finished Water Transmission Main
- o CIP #4 Receiving Pump Station and Storage Facilities
- o CIP #5 System-Wide SCADA/Communication
- CIP #6 Regional Water Transmission System
- CIP #7 Finished Water Transmission Main Mega Crossing consisting of major crossing along the Finished Water Transmission Main (CIP #2)
- CIP #8 City of Joliet Distribution System Improvements including six new storage and pump station facilities within the City
- Work with Illinois EPA to develop and implement a water source transfer plan which will address potential water quality issues as a result of switching to a new water source.
- ♦ Conduct annual non-revenue water audits. Implement the non-revenue water reduction plan which includes replacing 3% of the City's water mains annually beginning in 2022 in order to reduce non-revenue water to less than 10% by 2030.
- Continue to participate in the Southwest Water Planning Group to facilitate groundwater modeling updates and regional discussions.
- Implement short term groundwater management strategies including groundwater monitoring, well rehabilitation and development and make decision on new well to support growth.
- Identify and obtain concurrence for final sizing of the improvements inclusive of regional participation and City's build-out projections.





- Conduct field investigations such as field surveys, utilities investigations, environmental investigations and subsurface geotechnical exploration to support the implementation of the program.
- ♦ Identify sustainable practices that can be incorporated into the design and construction of the project elements.
- ♦ Complete preliminary design (30% engineering) by 2022 and final design (100% engineering) by 2024 to allow for the commencement of construction in 2024 and completion of construction by December 2029.
- Conduct independent value engineering, constructability and cost reviews during final design.
- Commissioning and start-up of project components beginning in January 2030 to allow for initiation of operation by May 2030.
- Post-transition water quality monitoring to minimize the risk of negative water quality impacts and achieve compliance with regulatory requirements.

Implementation

In order for the goals identified in this strategic plan to be realized, proper implementation is necessary. The plan for implementation is as follows:

- ♦ Obtained approval from City Council for strategic plan in January 2020 via Resolution No. 7489.
- Presented strategic plan to stakeholders and obtained input.
- Continue to review and update strategic plan as major program milestone are met.
- Identify person(s) who are responsible for carrying out each task.
- Prepare a schedule for achieving tasks.
- Identify means by which implementation of tasks identified in plan can be measured.
- Review and revise strategic plan every six months.





Evaluation

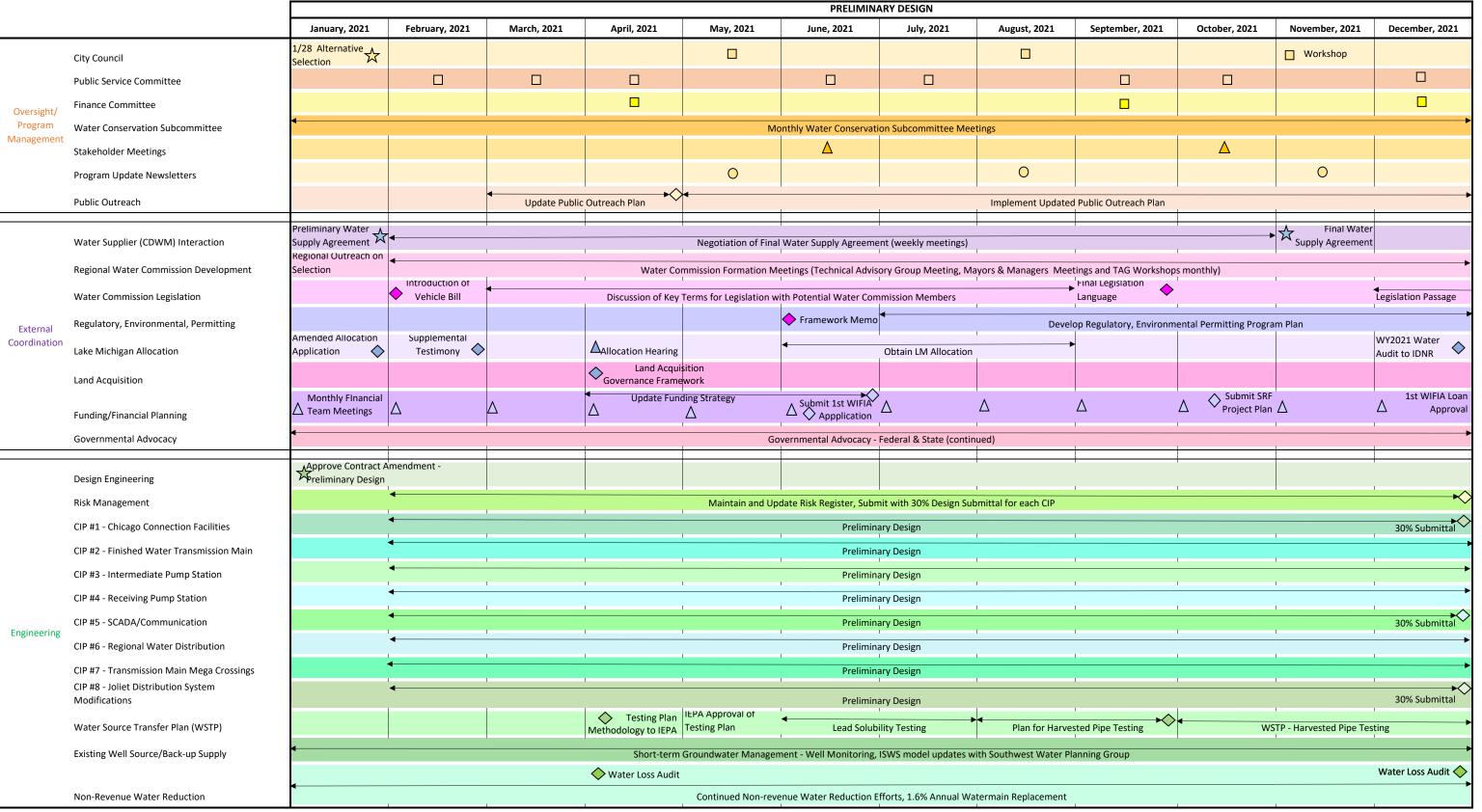
Evaluation is a key component of the success of this strategic plan and should be conducted every six months throughout the program implementation timeframe. Questions to ask during evaluation include:

- ♦ Are the tasks being implemented as planned? Why or why not? What is facilitating or impeding implementation?
- Do team members have the needed resources to achieve goals?
- ♦ Are there goal areas that are receiving less attention than others? Why?
- Are there any recommendations for improvement?
- ♦ Are stakeholders active and engaged?
- Is there a need to change the plan?

The implementation of an alternative water source will be the most significant and costly program that the City of Joliet will embark on this century. This Strategic Plan provides a framework that the City can utilize throughout the implementation to recognize strengths, weaknesses, opportunities and threats and identify ways to mitigate threats and take advantage of opportunities, resulting in a successful program for the City and its residents.

Joliet Alternative Water Source Program Appendix 1 - Implementation Plan Timeline

City Council Decision/Action Newsletter April, 2021 January, 2021 February, 2021 March, 2021 April, 2021 May, 2021



IDNR = Illinois Department of Natural Resources IEPA = Illinois Environmental Protection Agency IGA = Intergovernmental Agreement ISWS = Illinois State Water Survey

PSC = Public Service Commission

NRW = Non-Revenue Water

SRF = State Revolving Fund TAG = Technical Advisory Group WCS = Water Conservation Subcommittee WIFIA = Water Infrastructure Finance & Innovation Act WSTP = Water Source Transfer Plan

Appendix 1 - Implementation Plan Timeline City Council Decision/Action Newsletter April, 2021 Deliverable COMPLETION OF PRELIMINARY DESIGN, BEGINNING OF FINAL DESIGN - Timing Varies for each Capital Improvement Project (CIP) February, 2022 January, 2022 March, 2022 April, 2022 May, 2022 June, 2022 July, 2022 August, 2022 September, 2022 October, 2022 November, 2022 December, 2022 Final Sizing City Council Decision* **Public Service Committee** Finance Committee Oversight/ Program Water Conservation Subcommittee Monthly Water Conservation Subcommittee Meetings Management Δ Stakeholder Meetings 0 \circ 0 **Program Update Newsletters** Public Outreach Implement Updated Public Outreach Plan (continued) Update Public Outreach Plan Implement Updated Outreach Plan Water Supplier (CDWM) Interaction Commission IGA Water Commission - Develop By-Laws & Water Supply Agreement Supply Agreement **Regional Water Commission Development** Water Commission Meetings, Coordination with Water Commission on Program Implementation Water Commission Legislation Program Plan (Continued) Regulatory, Environmental, Permitting External WY2022 Water Coordination Lake Michigan Allocation Audit to IDNR Land Acquisition Land Acquisition Plats, Appraisals and Negotiations for Water Facility Sites and Transmission Main Easements 2nd WIFIA Loan Approval Submit 2nd WIFIA $\triangle \diamondsuit$ Appplication** \triangle Δ Δ Δ Δ $|\Delta|$ Δ Funding/Financial Planning Governmental Advocacy Governmental Advocacy - Federal & State (continued) Design Engineering Maintain and Update Risk Register, Submit with 30% Design Submittal for each CIP Risk Management CIP #1 - Chicago Connection Facilities 30% Submittal Final Design CIP #2 - Finished Water Transmission Main 30% Submittal Final Design CIP #3 - Intermediate Pump Station 30% Submittal CIP #4 - Receiving Pump Station Final Design CIP #5 - SCADA/Communication Final Design Engineering 30% Submittal CIP #6 - Regional Water Distribution Final Design 30% Submittal CIP #7 - Transmission Main Mega Crossings Final Design CIP #8 - Joliet Distribution System Modifications Final Design Water Source Transfer Plan (WSTP) Water Source Transfer Plan - Harvested Pipe Testing (Continued) Existing Well Source/Back-up Supply Short-term Groundwater Management - Well Monitoring, ISWS model updates with Southwest Water Planning Group (continued) Water Loss Audit 🔷 Continued Non-revenue Water Reduction Efforts, 3% Annual Watermain Replacement Non-Revenue Water Reduction

to be incorporated into the design.

**2nd WIFIA Application may be sooner depending on execution of Water Supply Agreements with Water Commission Members.

*Final Sizing Decision - Decision on the capacity of the alternative improvements to be constructed as well as the future expansion capacity

NRW = Non-Revenue Water

Joliet Alternative Water Source Program

Joliet Alternative Water Source Program

Appendix 1 - Implementation Plan Timeline April, 2021

Symbol Key:

City Council Decision/Action Deliverable Newsletter Update Presentation △ Meeting FINAL DESIGN CONSTRUCTION 2023 2024 2025 2027 2028 2029 2030 2026 Quarterly City Council Updates Quarterly City Council Updates City Council ☐ Monthly PSC Updates Monthly Public Service Committee Updates **Public Service Committee** Triannual Finance Committee Updates Triannual Finance Committee Updates **Finance Committee** Oversight/ Monthly WCS Meetings Program △ Monthly Water Conservation Subcommittee Meetings Water Conservation Subcommittee Management ▲ Triannual Stakeholder Meetings ▲ Triannual Stakeholder Meetings Stakeholder Meetings Quarterly Newsletters Quarterly Newsletters **Program Update Newsletters** Continued Update and Implementation of Continued Update and Implementation of Public Outreach Plan Public Outreach Public Outreach Plan Water Supplier (CDWM) Interaction Water Commission Meetings, Coordination Water Commission Meetings, Coordination with Water Commission on Program Implementation **Regional Water Commission Development** with Water Commission on Program Water Commission Legislation Obtain IEPA Operating Permits after Permitting (including IEPA) Regulatory, Environmental, Permitting Construction is complete External Coordination Yearly Water Audits Yearly Water Audits submitted to IDNR 🔷 Lake Michigan Allocation Purchase land for water facility sites & Land Acquisition easements Receive SRF & WIFIA Funding (Supplement with Bond Issue) Apply for SRF, Issue Bonds, etc. Funding/Financial Planning Continued Governmental Advocacy Continued Governmental Advocacy Governmental Advocacy Final Design, Independent Reviews Approve Construction Contracts, Construction, Start-up; Staff Development & Training Design Engineering (Value, Constructability, Cost) Maintain & Update Risk Register 🔷 Maintain & Update Risk Register Risk Management \Diamond (Final Design) (Start-up) CIP #1 - Chicago Connection Facilities \Diamond (Final Design) (Start-up)) (Construction) CIP #2 - Finished Water Transmission Main \Diamond (Final Design) (Construction) (Start-up) CIP #3 - Intermediate Pump Station (Final Design) (Construction) (Start-up) CIP #4 - Receiving Pump Station \Diamond (Final Design) (Construction) (Start-up) CIP #5 - SCADA/Communication Engineering (Final Design) \Diamond (Construction) (Start-up) CIP #6 - Regional Water Distribution (Final Design) \Diamond (Start-up) CIP #7 - Transmission Main Mega Crossings CIP #8 - Joliet Distribution System (Final Design) (Construction) (Start-up) Modifications IEPA Approval WSTP/Corrosion Implementation of WSTP, corrosion control Water Source Transfer Plan (WSTP) Control to IEPA of WSTP monitoring after start-up Continued Short-Term Groundwater Existing Well Source/Back-up Supply Continued Short-Term Groundwater Management, Establish back-up water supply Continued NRW Reduction Efforts, Annual Continued NRW Reduction Efforts, Annual Water Loss Audit, 3% Annual Watermain Replacement for NRW Reduction Water Loss Audit, 3% Annual Watermain Non-Revenue Water Reduction Replacement for NRW Reduction

> IDNR = Illinois Department of Natural Resources IEPA = Illinois Environmental Protection Agency

IGA = Intergovernmental Agreement

ISWS = Illinois State Water Survey

NRW = Non-Revenue Water PSC = Public Service Commission SRF = State Revolving Fund

TAG = Technical Advisory Group WCS = Water Conservation Subcommittee

WIFIA = Water Infrastructure Finance & Innovation Act

WSTP = Water Source Transfer Plan





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