



REQUEST FOR PROPOSALS

**ENGINEERING SERVICES FOR
DESIGN OF WATER TRANSMISSION MAINS
TO THE MUNICIPALITIES OF MONTGOMERY, OSWEGO, and YORKVILLE**

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DEADLINE FOR SUBMITTAL:
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DWC WATER TRANSMISSION MAIN EXTENSION TO MONTGOMERY, OSWEGO, AND YORKVILLE

1. INTRODUCTION

The DuPage Water Commission (the "Commission") is a unit of local government existing and operating under the State of Illinois Water Commission Act of 1985. The Commission is responsible for the financing, construction, acquisition, and operation of a water system to provide Lake Michigan water supply to municipal and private-utility customers in DuPage, Cook, and Will counties. The DuPage Water Commission currently provides water to 29 entities.

In 2022, legislation was amended to permit the DuPage Water Commission to extend service to additional areas in Kendall and Kane counties. This legislation was the result of the 2021 selection of the DuPage Water Commission as the preferred source of Lake Michigan water to the municipalities of Montgomery, Oswego, and Yorkville, also known as the "WaterLink Communities" (Resolution 21-R-101).

The purpose of this request for proposals is to generate plans, specifications, and an engineer's cost estimate for the construction of a new watermain between the existing DWC system and the WaterLink municipalities.

2. PROJECT DESCRIPTION

DWC intends to provide Lake Michigan drinking water to the WaterLink communities (Montgomery, Oswego, and Yorkville) through a singular point of connection to the existing DWC system and through water a transmission main and a network of smaller diameter distribution mains, which will serve all three communities. Initial concepts include the connection of the new transmission watermain to the existing 48" PCCP DWC infrastructure near 75th Street and Fort Hill Drive in Naperville, IL. The preliminary concept schematics contemplate a total extension of 29 miles of watermain ranging from 48" to 16" in diameter, ultimately providing service to 7 delivery structures serving the WaterLink communities (3 for Oswego, 2 for Montgomery, 2 for Yorkville). The design of these delivery structures is not included in this RFP, but may be included as an addendum if a standardized structure/detail is established. The locations for the delivery structures have been determined and are included in the resource documents.

A 2018 Feasibility Study was provided by AECOM to assist the WaterLink communities in evaluating source water alternatives. The 2018 study provided a conceptual routing plan, cost estimates, and delivery alternatives including prospective locations for delivery structures. Importantly, the study evaluated the hydraulic capacity of the DWC system to provide water to the WaterLink communities, finding that the existing system was capable of providing adequate pressure to all service areas based on 2020 maximum day consumption. However, evaluation of WaterLink future maximum day consumption forecasts indicated that there may be limited locations which would fall below 10-State standards relative to minimum pressure, indicating the potential for future improvements – perhaps a booster station. Since that time, the 2042 forecast for the WaterLink communities has been reduced significantly; therefore, DWC has directed AECOM to update the model accordingly. The 2023 Hydraulic Model update indicates that compliant pressure will be provide for the combined projected 2042 maximum day demand of 17 MGD for the WaterLink communities.

However, the study also indicated that dependent upon the rate of demand growth within the three communities, it may be necessary for rechlorination to be provided at the delivery points, or possibly along the transmission main. Each participant community will be providing rechlorination facilities at the point of delivery. However, the transmission main design must also include facilities to provide chlorine analyzation and rechlorination if warranted. Additionally, DWC and WaterLink communities do anticipate possible long-term regional growth may ultimately necessitate a booster station. Therefore, the proposed plan should include identification of a location for a booster station, acquisition of the site (along with transmission main easements/ROW), and installation of tees and valves to accommodate construction of a booster station if warranted in the future.

The 2018 AECOM study and 2023 Hydraulic Model update are available as a resource to RFP recipients. The WaterLink communities are currently navigating through the IDNR Lake Michigan allocation process, with hearings scheduled through Q2 2023.

3. SCOPE OF SERVICES

The following scope of services is not intended to be an inclusive or fully-prescribed scope of work. Rather it is intended to provide general perspective as to the primary elements that are expected to be included within the work effort. It is expected that each RFP respondent will consider these elements within their described approach, and will provide a more detailed scope of services, schedule, and manpower estimate based upon their recommended approach.

- **Coordination with WaterLink Communities**

An important aspect for the advancement of the transmission main project will be to coordinate design efforts with the WaterLink communities and their engineering consultants. While the ownership, operation, and maintenance of the transmission main will be held solely by the DuPage Water Commission - including all final design directives, easements, and rights-of-way - the project will be funded through an escrow established by the WaterLink Communities for this purpose, ultimately resulting in a capital cost which will be embedded within their rate. Additionally, the

WaterLink communities will need to confirm the locations of the delivery structures in a manner which provides the desired connection point and functionality for each community, which will impact the preferred route and ultimate termination points for the transmission main, and hydraulic information at the point of transfer will need to be coordinated among all parties.

The selected consultant should expect to engage with the WaterLink communities and their consultants at appropriate times throughout the project to ensure the effective transfer of data, coordination of project termination points, and establishment of final transmission main routes.

- Federal compliance will be essential for this project, as it is anticipated that WIFIA and other federal funds will be included in the financing instruments for the project. All design elements, procedures, and processes must ensure compliance with all applicable Federal policies, standards, and procedures.

- Reports & Hydraulic Model Review

The engineering work requested at this time has been preceded by a number of studies, analysis, and production of reports. It will be expected that the selected consultant review associated background material to ensure continuity of data, consideration of previously generated concepts, and an understanding of the project background, history, and objectives. Available studies, reports, and information will include the following (*available upon request at this time*):

- DWC Hydraulic Model analysis with WaterLink forecast, AECOM Q1 2023
- Feasibility Study to Receive Lake Michigan Water via the DuPage Water Commission – Yorkville & Oswego, AECOM 10/2017
- Feasibility Study to Receive Lake Michigan Water via the DuPage Water Commission –Oswego, Montgomery, & Yorkville, AECOM 9/2018
- Alternative Water Source Evaluation, Village of Oswego, Illinois, Baxter & Woodman, 1/13/2022
- Report in Support of Application, Village of Oswego, Illinois, Baxter & Woodman, 3/17/2022, Revised 11/1/2022
- IDNR Lake Michigan Allocation hearing submittals and support documents, as they become available
- Yorkville & Montgomery Technical memorandum, EEI

- Phase I Engineering

Conventional Phase I Engineering services will include evaluation of geographic, geologic, environmental, and regulatory considerations in conjunction with the project objectives and intentions. Phase I Engineering work should include establishment of

critical design parameters such as intended design flow, pressure, and velocity, as well as consideration of pipe material, diameter, cathodic protection, and bury condition. Engagement with regulatory agents and stakeholders, particularly municipalities, County, State, and Federal Departments of Transportation, and public and private utilities which may own conflicting infrastructure will be required.

A Project Development Report (PDR) will be provided which documents purpose and need, and which documents the recommended approach based upon the Phase I activities, as well as an Engineer's Estimate of Cost. Phase I engineering should include recommendations as to construction phasing/sequencing, including consideration of conventional vs. design-build approaches, and recommendations as to dematerialization of the work into various construction contracts based upon construction approach, regulatory impacts, ROW continuity, risk management, and prospective contractor capabilities.

- Corrosion Testing [separate contract]

The WaterLink Communities, Montgomery, Oswego, and Yorkville will be changing water sources as a function of this project. A critical element for this project will be for the selected consultant to complete a through corrosion test/loop study to ensure that modification of the water source from deep aquifer source managed independently by the three towns, to Lake Michigan water processed through the City of Chicago Jardine Water Treatment Facility, and conveyed through DuPage Water Commission infrastructure, will not pose any health hazards associated with corrosion, especially exposure to lead and copper. This process should include harvesting premise plumbing from all three WaterLink communities and conducting a study over a period of time utilizing DWC water. DWC will provide a location for this study at a DWC facility, preferably near the point of connection to best simulate the detention time likely for the new infrastructure (possibly DWC tank site #4 in Naperville). The corrosion loop study will not be included in the scope of this proposal, but will rather be coordinated separately. Nonetheless, it will be important for the successful pipeline consultant to engage with the corrosion consultant for the sharing of information as both initiatives advance.

- Corridor Identification, ROW Acquisition

A critical aspect of the early engineering work will be to establish a routing corridor for the proposed infrastructure. As described previously in this document, the infrastructure termini will include a connection to existing DWC 48" PCCP infrastructure near 75th Street and Book Road in Naperville, and at 7 delivery structure locations within the WaterLink communities. The AECOM study provides conceptual route information which should be considered but should not be assumed to represent a final route.

Establishment of the project corridor should include impacts to project cost, schedule, number of parcels to be acquired, complexity of construction. Whenever possible, existing rights-of-way, existing utility corridors, or other governmental properties should be considered as a preferred location to the taking of private property, so long as such action is cost effective. RFP respondents should provide a description of their approach to corridor scoping, with details as to expertise and experience in assembling lengthy utility corridors for similar construction projects. It is expected that the selected consultant will manage the identification, solicitation, documentation, and ultimate purchase/assembly of the necessary easements in conjunction with DWC staff. As noted previously, the corridor shall include an adequate parcel for a future booster pump station, and the infrastructure at that location shall include connection points including tees and valves capable of constructing a future booster station without impacting flow through the transmission main.

- **Phase II Engineering**

Phase II Engineering will conclude with the final preparation of plans, specifications, and estimates, along with fully permitted, issued for construction documents. This work will include conventional detailed design drawings suitable for solicitation of construction bids and for utilization in implementing the project design into a constructed and fully-commissioned project in accordance with all applicable AWWA, IEPA, IDNR, DOT, and any other applicable standard, including any and all federal standards necessary for the utilization of federal funds. Phase II Engineering will include final acquisition of all necessary easements, parcels, rights-of-way, and permits from all regulatory agencies necessary based upon the scope of work. Consideration should be given to availability of resources, installation methodology, minimization of conflicts with existing infrastructure, process and speed of construction, staging, phasing and testing of new infrastructure, ease of operations and maintenance, life cycle costs, and final testing, flushing, and commissioning of the pipeline.

- **Bidding Assistance & Contractor Selection**

It is desired that the selected engineering consultant provide bid assistance, including contractor identification/solicitation/qualification, bid review, responses to RFI information, attendance to pre-bid meetings and bid opening meetings, review and evaluation of bid proposals, and attendance and presentation at DWC Board meetings, as well as WaterLink community public meeting, if requested.

- **Financing & Funding Assistance**

While not required for response to this RFP, DWC and the WaterLink partners will seek assistance with identification, solicitation, and assembly of financing instruments, likely including WIFIA/federal sources, State Revolving Loan funds, and conventional

revenue bonds, in the amount and assembly which is most financially desirable based upon market conditions. Firms with experience assembling financing documents may include a summary of their approach and experience, which although not required for submittal, will be considered as an additional qualification.

- Phase III Engineering

While not required for response to this RFP, DWC recognizes that Phase III engineering will be the final engineering sequence for this project. Firms with experience with Phase III Construction Engineering services may wish to present their experience, which although not required for submittal, will be considered as an additional qualification.

4. PROJECT MILESTONE TARGETS

MILESTONE	TARGET DATE
WATERLINK COMMUNITIES IDNR Allocation	1/1/2023 – 7/1/2023
DRAFT MOY / DWC Agreement – Escrow IGA	6/1/2023
Engineering Team Selection	4/1/2023 – 6/1/23
Local Financing Target (municipal side infrastructure)	9/1/2023
Preferred Route Determined	1/1/2024
Financing instruments assembled (DWC System Extension)	9/1/2023 -6/1/2024
Property / Easement Acquisition Complete	12-18 MONTHS, 1/1/2025
Construction Document Engineering (PSE/Phase II)	12 MONTHS, 1/1/2025
WATERLINK/DWC TRANSMISSION Pipeline Construction	24-36 months, EOCS '27
WATERLINK/DWC Connection Facilities (Metering Stations)	24-36 months, EOCS '27
Montgomery local watermain work complete	TBD, target EOCS '30
Oswego local watermain work complete	TBD, possible EOCS '26
Yorkville local watermain work complete	TBD, possible EOCS '26
Lake Michigan water service to WATERLINK PARTNERS available	Oswego/Yorkville 2027; M 2030

5. REQUIRED SUBMITTALS

Firms providing a proposal may assemble and format their proposal in the manner that they feel best presents their understanding of the project and illustrates the necessary expertise

and experience. Submittals should include a flash drive with a .pdf file, as well as 10 paper copies of the submittal. At minimum, the submittal should include the following elements:

- Firm background, capabilities, & experience (general)
- Relevant firm experience (regional large diameter watermain projects)
- Project understanding
- Critical project elements and Firm's approach
- Scope of Services summary
- Engineering project milestones and target schedule
- Project team organizational chart, vitae for team members
- Identification of corporate/technical partners & subcontractors
- Summary of resources, listing personnel and hours, as well as subcontractor/partner hour estimates. **[DO NOT INCLUDE COST AT THIS TIME]**

6. RFP EVALUATION PROCESS

The Request for Proposals has been submitted to firms which DWC considers qualified for this work and for whom DWC maintains a current Master Services Agreement. Qualified firms without a current MSA are also invited to submit proposals. Submittals will be reviewed by a panel of stakeholders, including technical representatives from the DuPage Water Commission and WaterLink Partners. Submittals will be reviewed based on:

- Project Understanding and Scope of Services
- Project Approach
- Firm/personnel experience with similar projects
- Identification of critical elements and firm approach to resolution

Shortlisted Firms:

Following the initial submittal review, the panel will reduce the number of candidates to three (unless otherwise determined). The three remaining firms will be requested to make a presentation and participate in a panel interview at which the panel will ask questions to the candidate firm. At the time of the presentation, the firm will be expected to review their personnel hour estimates and provide a detailed summary of their approach, identification of critical issues, and their proposed solution to the same.

Following identification of the most qualified firm, the panel will request the firm to provide a cost proposal for Phase I Engineering Services, which will be considered in making the final recommendation to the Board of Commissioners.

All shortlisted firms will be compensated \$8,000.

7. SELECTION PROCESS & SCHEDULE

Proposal submittals shall include one flash drive with a .pdf and 10 printed copies of the submittal. The anticipated selection process and approval schedule is as follows:

March 3	RFPs provided to qualified firms
March 29	Deadline for questions / RFIs
April 7	Proposals due to DWC
April 10-21	Proposal review and evaluation
April 24, 2023	Shortlisted firms Identified
May 1-5	Interviews with shortlisted firms
May 5	Cost proposal provided from identified most qualified firm
May 8-12	Negotiation & development of Professional Services contract/scope
May 18	DWC Board of Commissioners Engineering Phase I authorization
June 2023	Kick-off meeting and project commencement

8. RESOURCES

- DWC Hydraulic Model analysis with WaterLink forecast, AECOM Q1 2023
- Feasibility Study to Receive Lake Michigan Water via the DuPage Water Commission – Yorkville & Oswego, AECOM 10/2017
- Feasibility Study to Receive Lake Michigan Water via the DuPage Water Commission – Oswego, Montgomery, & Yorkville, AECOM 9/2018
- Alternative Water Source Evaluation, Village of Oswego, Illinois, Baxter & Woodman, 1/13/2022
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- IDNR Lake Michigan Allocation hearing submittals and support documents, as they become available
- Yorkville & Montgomery Technical Memorandum, EEI
- DWC Transmission Main Map
- DWC GIS data/map information upon request

9. CONTACT INFORMATION

Any questions regarding access to DropBox resource files should be directed to Jenessa Rodriguez at rodriguez@dpwc.org (630) 834-0100.

All other questions, inquiries, and requests for information should be directed to:

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