



Waukesha Water Utility

SERVING WAUKESHA SINCE 1886

115 DELAFIELD STREET
WAUKESHA, WI 53188-3615

Telephone: (262) 521-5272 • Fax: (262) 521-5265 • E-mail:
contactus@waukesha-water.com

MEMORANDUM

DATE: August 12, 2022

TO: Dan Duchniak, General Manager

FROM: Cortney Nagel, Interim Administrative Services Manager

RE: 2022 Conservation Plan Update

The Utility is required by the Great Lakes Compact Diversion Approval to update the Water Conservation Plan every ten years. Our last update was completed in 2012 by Jacobs (formerly CH2MHill). Because of their expertise with our Great Lakes Diversion Approval and knowledge of our current conservation program, we requested that Jacobs provide the Utility with a proposal to complete the 2022 Conservation Plan Update.

The 2022 Conservation Plan Update will be prepared to comply with the conservation requirements of NR 852 and PSC 185. It will evaluate our current conservation measures and identify new cost-effective plan updates that will continue to move the Utility toward our goal of reducing the projected average day demand by 0.5 million gallons per day (MGD) by 2030 and 1.0 MGD by 2050.

Attached is the proposed scope of services from Jacobs at a cost not to exceed \$55,520.00. The Utility will work to complete as much work as possible in-house, based on the current status of staffing, to minimize the final contract costs.

The 2022 Conservation Plan Update has been partially budgeted in account 9060. Conservation funds not spent in prior years are available to cover the difference.

Recommended Motion: Move to approve the professional services of Jacobs to complete the 2022 Conservation Plan Update with an amount up to \$55,520.

Waukesha Water Utility

2022 Water Conservation Plan Update

Purpose and Background

The Waukesha Water Utility (WWU) has been a water conservation/water efficiency leader since adoption and implementation of its 2006 Water Conservation and Protection Plan. The WWU advanced its commitment to water use efficiency when it adopted a Water Conservation Plan during May 2012.

The purpose of the 2022 Water Conservation Plan Update (2022 Plan Update) is to assess the utility's progress relative to goals and evaluate next steps for their conservation program in accordance with Wisconsin Administrative Code NR 852 Water Conservation and Water Use Efficiency (NR 852) and their Great Lakes water supply permit.

The goals of the 2022 Plan Update include the following:

- Collaborate with utility staff on data collection and analysis.
- Evaluate effectiveness of existing water conservation efficiency measures using utility billing data and reports submitted to the Public Service Commission (PSC).
- Review production data to assess progress towards the utility's goals of reducing average day demand by 0.5 million gallons per day (mgd) by year 2030 and 1.0 mgd by 2050 and achieving cumulative water savings of approximately 182 million gallons.
- Determine if any adjustments to the conservation goals are appropriate.
- Compliance with NR 852.
- Identify new cost-effective conservation efficiency measures (incentives, education, and policies) and possible adjustments for implementing existing measures.
- Prepare an implementation plan.

In collaboration with WWU, Jacobs Engineering Group, Inc. (Jacobs) will prepare the 2022 Plan Update through completion of the following tasks:

Task 1 – Project Kick-off, Data Review, and Data Analysis Working Session

Task 2 – Water Utility Profile and Proposed Conservation Measures

Task 3 – 2022 Water Conservation Plan Update

Task 4 – Project Management and Quality Assurance/Quality Control

Task 1 – Project Kick-off, Data Review and Analysis

Project Kick-Off

Jacobs will facilitate a 2-hour project kick-off meeting to clarify goals, objectives, and expectations for the project. Jacobs will brainstorm potential new and/or revised water-saving program elements, and confirm details of the work approach, schedule, and other aspects important to a success planning process.

Data Review

Jacobs will collect and summarize pertinent water utility data and planning information including the following WWU information:

- Annual Water Conservation Reports to PSC
- Water billing data
- Utility production data
- Water and wastewater system data
- Utility staff customer knowledge and program implementation experiences

Jacobs will summarize historical data and future planning information for review and discussion at the project kick-off meeting.

Data Analysis Working Session

This task will bring the project team (WWU and Jacobs) together for an up to 3-day working session to review and analyze existing data regarding conservation program participants and water use. Topics discussed during the working session will include:

- Review existing data to identify any gaps and propose a plan for obtaining needed data.
- Evaluate WWU's existing staff resources to manage the current and expanded water conservation program. If needed, identify revised staffing and contractor needs and responsibilities that may be required to manage and implement the recommended conservation program.
- Existing and potential water efficiency and conservation measures and associated costs.
- Review of existing ordinances and policies to promote water conservation among residential and nonresidential water customers. Propose revisions to existing ordinances and policies and/or identify new ordinances and policies needed to implement the recommended conservation program.

Task 1 Deliverables

Meeting notes summarizing the discussion and decisions made during the project kick-off meeting and data analysis working session, preliminary data summaries.

Task 2 – Water Utility Profile and Proposed Conservation Measures

Key aspects of WWU's water use and other data will be prioritized for further evaluation based on outcomes from the project kick-off and data analysis working session described in Task 1. Specific analyses will be conducted by various team members to best utilize the project team resources. Throughout this task, other City of Waukesha staff may be engaged to identify opportunities for enhancing water conservation awareness and practices.

Water Utility Profile

Jacobs will prepare a utility profile updating data presented in 2012 Plan. The profile will include water supply and wastewater system information, system water loss and leakage, population, demographics, and relevant features of customer water use. We will provide a detailed assessment of customer water use characteristics and conservation program participation that will be used to refine existing conservation program approaches and guide the development of new water efficiency measures.

Proposed Conservation Measures

Jacobs will develop proposed conservation program elements for the implementation plan. Estimated savings, costs and potential implementation partners will be identified. The proposed new program elements to be considered will include measures focused on indoor and outdoor residential and nonresidential water use, landscape irrigation water use, water audits, WWU buildings and water use practices, water reuse opportunities, and system water loss and leakage. In addition, we will evaluate and recommend policy changes to the City municipal code to establish water conservation ordinances for new and existing residential and nonresidential customers. Further, we will identify and evaluate educational and financial incentive strategies to promote adoption of conservation measures by customers.

Using the most current data, the project team will rerun the Alliance for Water Efficiency (AWE) Tracking Tool to obtain revised results for up to 20 conservation measures. Additionally, any newly identified measures resulting from the more detailed customer analysis will be evaluated using the Tracking Tool.

Evaluation Criteria

Jacobs will review criteria used during the 2011-2012 planning process for prioritizing conservation measures and recommend adjustments for use in the 2022 Plan Update in Task 3.

Task 2 Deliverables

Technical Memorandum summarizing the results of the utility profile analysis, results of the AWE Tracking Tool evaluation, conservation measure descriptions and expected savings, and proposed evaluation criteria.

Task 3 – 2022 Conservation Plan Update

Following the technical evaluation of existing and proposed conservation measures, Jacobs will prepare the 2022 Plan Update. Building on the utility's existing plan and program implementation measures, the Update will provide focused attention on a 5-year implementation plan.

Draft and Final 2022 Conservation Plan Update

Jacobs will prepare the draft 2022 Plan Update for WWU review and presentation to the WWU Commission. While the 2022 Plan Update will provide a long-term perspective and strategic framework for WWU's water conservation program, it is envisioned that the plan will focus on implementation strategies, actions, and costs for the next five years. The 2022 Plan Update will provide a road map for near-term implementation of sound data-driven conservation measures. The 2022 Plan Update will also include guidance and program details on priority conservation measures, potential partners, resource requirements (e.g., staff, budget estimates for rebates and program materials, etc.), and projected water savings.

Jacobs will incorporate WWU staff and Commission input in the final 2022 Plan Update.

Task 3 Deliverables

Project overview PowerPoint presentation for WWU Commission. Draft and Final versions of the 2022 Conservation Plan Update delivered electronically.

Task 4—Project Management and Quality Assurance/Quality Control

Jacobs will manage the delivery of the professional technical services and work products to meet the WWU schedule and budget. Project management duties include project instructions, which address team communication, quality assurance/quality control (QA/QC), and cost control. Instructions to the project delivery team will guide performance by defining the following:

- Detailed scope of services and project deliverables
- Task assignments, work plan, and schedule
- Project communication plan
- Project budget and performance monitoring
- Managing potential change
- Quality management

Project team communication will be maintained through regular team meetings, teleconferences, and e-mail. During project meetings and workshops, Jacobs will provide project status information. Jacobs will submit a brief description of project activities and track budget status with each monthly invoice.

Jacobs will perform a QA/QC review of completed work and project progress prior to submission of work products.

Task 4 Deliverables

Monthly progress reports with invoices.

Schedule

August 2022:	Notice to proceed
September – October 2022:	Project Kick-Off, Data Review, and Data Analysis Working Session
October – November 2022:	Water Utility Profile and Proposed Conservation Measures
December 2022:	Draft and Final 2022 Plan Update

Level of Effort and Compensation

The estimated level of effort is 314 hours and proposed compensation is \$55,520 for professional services, as shown by task in Table 1.

Table 1. 2022 Plan Update Level of Effort and Compensation

Waukesha Water Utility								
Water Conservation Plan Update								
Task Description	Senior Project Manager	Senior Consultant	Project Engineer	Clerical	Project Accountant	Total Hours by Task	Total Expense	Total by Task
	Linda Mohr	Susan Bulter	Natalie Lenz	Matt Sluder	Wiola Zembala			
Task 1 - Kick-Off, Data Review, Data Analysis	Hours	Hours	Hours	Hours	Hours	Hours	Dollars	Dollars
Kick-Off, Data Review, Data Analysis	24	45	40	0		109	\$1,100	\$23,030
TASK 1 TOTAL	24	45	40	0	0	109	\$1,100	\$23,030
Task 2 - Water Utility Profile, Conservation Measures	Hours	Hours	Hours	Hours	Hours	Hours	Dollars	Dollars
Water Utility Profile, Conservation Measures	16	25	30	20		121	\$50	\$18,870
TASK 2 TOTAL	16	25	30	20	0	121	\$50	\$18,870
Task 3 - Water Conservation Plan Update	Hours	Hours	Hours	Hours	Hours	Hours	Dollars	Dollars
Water Conservation Plan Update	8	20	20	20		68	\$0	\$11,460
TASK 3 TOTAL	8	20	20	20	0	68	\$0	\$11,460
Task 4 - Project and Quality Management	Hours	Hours	Hours	Hours	Hours	Hours	Dollars	Dollars
Project and Quality Management	8	0	0	0	8	16	\$0	\$2,160
TASK 4 TOTAL	8	0	0	0	8	16	\$0	\$2,160
	Hours	Hours	Hours	Hours	Hours	Hours		
	56	90	90	40	8	314	\$1,150	\$55,520