



**MADDAUS WATER MANAGEMENT INC.**

105 Zephyr Place, Danville, CA 94526 (925) 831-0194

March 6, 2023

Sofia Mangalam  
City of Foster City  
610 Foster City Blvd  
Foster City, CA 94404

**Subject: Proposal for Development of the EMID Water Neutrality Growth Ordinance**

Dear Ms. Mangalam,

Maddaus Water Management Inc. (MWM) is pleased to present this proposal to provide technical and public meeting support services for the City of Foster City (City). The City prepared a Water Neutrality Growth Policy Framework (Policy Framework) during the development of the Foster City Housing Element and Safety Elements Update. The City has requested MWM's support with the development of a Water Neutrality Growth Ordinance (Ordinance). This letter proposal presents MWM company and personnel information along with a scope of work, schedule, and estimated fees.

**SCOPE OF WORK**

The Scope of Work that MWM intends to complete is outlined below.

**Task 1 – Water Neutrality Growth Ordinance Development**

MWM will use the City's Policy Framework and the Net Blue Ordinance Worksheet to develop an Ordinance Outline for one initial round of City staff review. MWM will also coordinate and attend up to six, 1-hour virtual meetings with City staff, external parties, industry, and utility partners who have developed and/or implemented a water neutrality policy to discuss their approach. These meetings are distinct from the public (likely City Council) meetings that MWM will participate in Task 2.

MWM will incorporate lessons learned from industry and utility partners, as well as any City staff comments from the initial review, into a Draft Ordinance. City staff will route the Draft Ordinance to all necessary parties and will compile all comments into one Word document with tracked changes. MWM will revise the Draft Ordinance once and will prepare a Draft Final Ordinance for the City.

Following the completion of public meetings (Task 2), MWM will incorporate public comments and will prepare a Final Ordinance. City staff will route the Final Ordinance to all necessary parties and will compile all comments into one Word document with tracked changes. MWM will revise the Final Ordinance once for City staff approval.

**Task 1 Deliverables**

- Meeting preparation and attendance for up to six, 1-hour virtual internal coordination meetings.
- Outline and Draft Water Neutrality Growth Ordinance as an electronic Word document, approximately 15 pages long.
- Final Water Neutrality Growth Ordinance as an electronic Word document and PDF document, approximately 15 pages long.

**Task 2 – Support City Review Process**

MWM will attend and present virtually at up to three public meetings to support the City's Ordinance review and approval process. MWM assumes that the City will publish all applicable notifications, promote, and

coordinate all Public Meetings as necessary. MWM also assumes the City will develop all presentation materials, staff reports, and other necessary materials for these public meetings.

#### Task 2 Deliverables

- Meeting preparation and attendance for up to three 1-hour virtual public meetings.

#### Task 3 – Project Management

Project management involves the coordination of meetings and staff resources, preparation of invoices, budget and schedule tracking, and other tasks required to ensure successful completion of this Scope of Work. Michelle Maddaus will serve as the Project Manager for this Scope of Work.

#### Task 3 Deliverables

- None

### SCHEDULE

The Scope of Work outlined above has a planned completion date of May 31, 2023.

### COST ESTIMATE

The cost estimate for this project is approximately \$27,000, as shown in Table 1. The project is to be completed on a time and materials basis. MWM will not exceed the project budget without prior written authorization from City of Foster City and Urban Planning Partners Inc.

**Table 1. Cost Proposal for Foster City Water Neutrality Growth Ordinance Development**

Task	Description	Lisa Maddaus \$315/hr	Michelle Maddaus \$315/hr	Sierra Orr \$180/hr	Nicki Powell \$135/hr	Kara Kelly \$135/hr	Total Budget
1	Ordinance Development	26	10	10	3	36	<b>\$18,405</b>
2	Support City Review Process	6	6	-	-	3	<b>\$4,185</b>
3	Project Management	-	10	-	-	9	<b>\$4,365</b>
<b>Total</b>		<b>32</b>	<b>26</b>	<b>10</b>	<b>3</b>	<b>48</b>	<b>\$26,955</b>

### SUMMARY OF KEY STAFF AND 2023 RATE SCHEDULE

Table 2 presents specific qualifications for all MWM personnel. Staff biographies are available on the MWM web site at: <http://www.maddauswater.com/team.html>. Full resumes are available upon request.

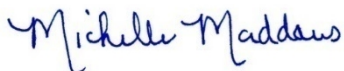
**Table 2. MWM Personnel Qualifications and 2023 Rates**

Person	Position	Service/Discipline	Education/Degree	Hourly Rate
Michelle Maddaus, P.E.	Principal Engineer, President	Water Demand Forecasting, Water Conservation Planning and Management	M.B.A., B.S. Engineering	\$315
Lisa Maddaus, P.E.	Principal Engineer, CFO	Water Resource Planning and Management, Water Conservation Strategy Development, CalWEP and State Compliance	M.S. Engineering	\$320

Person	Position	Service/Discipline	Education/Degree	Hourly Rate
Christopher Matyas	Senior Software Engineer, DSS Modeling Lead	Software for Water Efficiency, Water Resource Planning and Management	B.S. Engineering	\$315
Tess Kretschmann	Staff Engineer, DSS Modeler	Water Resource Planning and Management	B.S. Engineering	\$210
Zach Vernon	Senior Data Analyst and AMI Specialist	Data Automation, Analysis & Visualization, Geostatistics	M.S. Forestry, B.S. Renewable Natural Resources	\$210
Sierra Orr	Sr. Coordinator Project Management & Communications	Water Resource Planning and Outreach, Technical Document Editor	M.A. Leadership, B.A. History; B.A. Communications	\$180
Nicki Powell	Water Resources Analyst, Demand Forecast Modeler	Water Resource Planning and Management	B.S. Environmental Studies, B.A. Biostatistics	\$135
Kara Kelly	Water Resources Analyst	Water Resource Planning and Management	B.S. Environmental Studies and Planning: Water Resources Management	\$135

We look forward to having the opportunity to continue working with City staff. If you have any questions or would like additional information, please contact Michelle Maddaus at (925) 831-0194 or [michelle@maddauswater.com](mailto:michelle@maddauswater.com).

Sincerely,



Michelle Maddaus, P.E.  
President, Maddaus Water Management

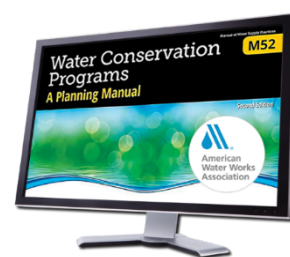
## FIRM OVERVIEW AND QUALIFICATIONS



As an internationally recognized water conservation authority, Maddaus Water Management Inc. (MWM) brings extensive knowledge of demand analysis and forecasting and unparalleled expertise in water conservation planning and implementation. MWM has robust experience in Commercial, Industrial, and Institutional (CII) conservation program design, drought management planning, water loss analysis, and water shortage contingency planning.

Our firm is a certified Small Business Enterprise and Women Business Enterprise in California and has completed over 520 projects in the past 28 years. More than 95% of our clients are municipal agencies or governmental entities, with over 85% of our work coming from repeat clients. This illustrates our in-depth knowledge of the technical, regulatory, and stakeholder challenges and our commitment to listening and responding to individual client needs.

MWM serves as the lead author of the American Water Works Association M52 Water Conservation Programs Planning Manual. As a result, we are intimately familiar with the best practices outlined in the M52 Manual. Furthermore, we have worked on several reports that included the American Water Works Association/American National Standards Institute (AWWA/ANSI) G480 Water Conservation Program Operation and Management Standard and can ensure that tasks generally conform to and meet the G480 standard.



### Complete Range of Water Management Services

Within the field of water use efficiency and management, MWM offers a complete range of services, including the following:

- Long-range water conservation planning
- Drought preparedness planning
- Water savings evaluation from conservation programs
- Program implementation and evaluation
- Climate Change Analysis
- Water demand forecasts incorporating conservation
- Advanced Metering Infrastructure (AMI) water data analysis
- Geographic Information Systems (GIS) mapping and water budgets
- Commercial/industrial water efficiency audits and training
- Water loss IWA/AWWA M36 analysis and validation
- Landscape water use analysis
- Alternative water use analysis (storm water, graywater, rainwater, recycled water)
- Water conservation research
- Integrated water resources planning
- Weather normalization
- Water supply assessments

Further information on Maddaus Water Management can be found on our website: <http://maddauswater.com/>.

### General Company Information

#### Maddaus Water Management Headquarters

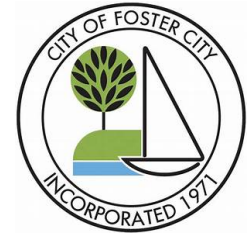
105 Zephyr Place  
Danville, CA 94526  
Phone: (925) 831-0194  
Contact: Michelle Maddaus, PE (CA), President  
Email: [michelle@maddauswater.com](mailto:michelle@maddauswater.com)

#### Maddaus Water Management Sacramento Office

3170 Dullanty Way  
Sacramento, CA 95816  
Phone: (916) 730-1456  
Contact: Lisa Maddaus, PE  
(CA), Board Chair and  
Chief Financial Officer  
Email:  
[lisa@maddauswater.com](mailto:lisa@maddauswater.com)

### ***City of Foster City, Water Supply Assessments, California***

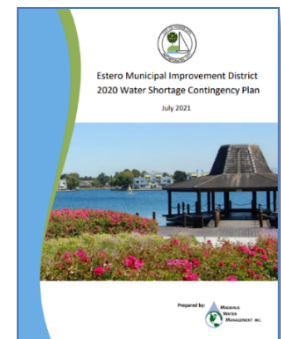
MWM Project Manager: Michelle Maddaus  
MWM Technical Lead (DSS Model): Chris Matyas  
Value of Contracts: \$130,000  
Projects Completed: 2014–2021  
Contacts: Laura Galli, Engineering Manager  
Allen Smith, Public Works Maintenance Manager  
Phone: 650-867-2280 (Laura); 650-286-3546 (Allen)  
Email: [lgalli@fostercity.org](mailto:lgalli@fostercity.org); [asmith@fostercity.org](mailto:asmith@fostercity.org)



MWM assisted the City of Foster City in the development of four Water Supply Assessments (WSAs), which were drafted to provide information for use in the California Environmental Quality Act (CEQA) analysis for the proposed projects. The WSAs added to previous water demand projections created as part of the Bay Area Water Supply and Conservation Agency (BAWSCA) Regional Demand and Conservation Projections completed by MWM. The purpose of the WSAs was to determine if there was adequate water supply to meet the water needs of the newly proposed projects within the Foster City/Estero Municipal Improvement District (EMID) service area. MWM collaborated on the WSAs with Urban Planning Partners and the Foster City (EMID) Planning and Engineering Departments. MWM's role was to estimate calculations for water demand and assist in compiling WSA reports for the following projects: Lincoln Center Campus, Pilgrim Triton Development Project Phase C, new hotel in Metro Center, and the more recent Gilead Wellbeing Center.

### ***City of Foster City 2020 Urban Water Management Plan and Water Shortage Contingency Plan, California***

MWM Project Manager: Michelle Maddaus  
MWM Technical Review (QA/QC): Lisa Maddaus  
MWM Lead Modeler: Hannah Braun  
Value of Contract: \$22,000  
Completion Date: July 2021  
Contacts: Laura Galli, Engineering Manager  
Allen Smith, Public Works Maintenance Manager  
Phone: 650-867-2280 (Laura); 650-286-3546 (Allen)  
Email: [lgalli@fostercity.org](mailto:lgalli@fostercity.org); [asmith@fostercity.org](mailto:asmith@fostercity.org)



MWM worked as a team with EKI Environment and Water, Inc. to prepare the 2020 Urban Water Management Plan (UWMP) and 2020 Water Shortage Contingency Plan (WSCP) for the City of Foster City/Estero Municipal Improvement District (EMID). The UWMP closely followed the requirements in the California Department of Water Resources 2020 UWMP Guidebook. MWM supported Chapter 4 of the UWMP, an evaluation of current and future water demand estimates. EMID's UWMP projected water demands came from the DSS Model demand analysis, a result of MWM's work on the BAWSCA 2020 Demand Analysis. This included updated population, production and consumption for 2019 and 2020.

For the 2020 WSCP, MWM helped EMID present potentially catastrophic conditions leading to water shortages, planned response to short-term and long-term water shortages (including drought), and an organizational chart including the roles and responsibilities of EMID staff and other stakeholders with regard to tracking and implementing the WSCP. Furthermore, the WSCP outlined the water shortage stages of action and prohibitions of water end uses, including landscape irrigation, CII uses, water features, and swimming pools. In the WSCP, consumption reduction methods were defined, water shortage reductions were determined, and EMID's standard supply and conservation activity was described. Revenue and expenditure impacts as well as drought rate structures and surcharges were exhibited. A Public Outreach Plan relating to WSCP implementation was also included and was based on MWM's prior experience working with Foster City/EMID.

EMID's [2020 UWMP and 2020 WSCP](#) were adopted by the City Council after a public hearing then submitted to DWR for approval by July 1, 2021.

### ***Valley of the Moon Water District, Sonoma County Springs Specific Plan Water Supply Assessment, California***

MWM Project Manager: Michelle Maddaus

Value of Contract: \$20,000

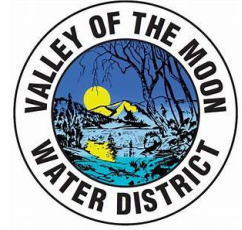
Completion Date: July 2019

Contacts: Beth Thompson, De Novo Planning Group

Chris Petlock, Valley of the Moon Water District

Phone: 916-812-7927 (Beth); 707-996-1037 (Chris)

Email: [bthompson@denovoplanning.com](mailto:bthompson@denovoplanning.com); [cpetlock@vomwd.org](mailto:cpetlock@vomwd.org)



MWM assisted De Novo Planning Group in the preparation of a Water Supply Assessment (WSA) for the development of the Springs Specific Plan in Sonoma County. The WSA was drafted to provide information for use in the California Environmental Quality Act (CEQA) analysis for the proposed projects. This WSA built on previous water demand projections created as part of the 2015 Urban Water Management Plan Water Demand Analysis and Water Conservation Measures Update. It was worked on in conjunction with the eight other Sonoma-Marin Saving Water Partnership (SMSWP) Water Contractors and completed in July 2015. The purpose of the WSA was to determine if there was adequate water supply to meet the water needs of the proposed Springs Specific Plan project.

This project included the following:

- 15 new neighborhood commercial connections with 8 dwelling units
- 82 new commercial connections with 120 hotel rooms
- 50 new mixed-use connections with 138 new dwelling units
- 3 mixed-use irrigation connections
- 3 new recreational connections
- 131 medium density residential connections with 119 single-family and 113 multifamily dwelling units
- 31 high density residential connections with 310 new multifamily dwelling units

MWM's role was to estimate calculations for water demand and assist in compiling WSA reports for Sonoma County. The analysis concluded that the Springs Specific Plan project will add a total of 209 acre-feet of water per year.

More information about the Springs Specific Plan can be found online:

<https://sonomacounty.ca.gov/PRMD/Long-Range-Plans/Springs-Specific-Plan/#:~:text=Its%20purpose%20is%20to%20implement,infrastructure%20to%20serve%20the%20area.>