

The mission of Three Valleys Municipal Water District is to supplement and enhance local water supplies to meet our region's needs in a reliable and cost-effective manner.



**BOARD OF DIRECTORS
REGULAR MEETING**

FEBRUARY 1, 2023

8:00 AM

1021 E. Miramar Avenue | Claremont, California 91711-2052

909.621.5568 | www.threevalleys.com



THREE VALLEYS MUNICIPAL WATER DISTRICT REGULAR BOARD MEETING AGENDA

1021 E. Miramar Avenue, Claremont, CA 91711
February 1, 2023 – 8:00 AM

The mission of Three Valleys Municipal Water District is to supplement and enhance local water supplies to meet our region’s needs in a reliable and cost-effective manner.

SPECIAL NOTICE OF TELECONFERENCE ACCESSIBILITY

Pursuant to the provisions of Assembly Bill 361, which amended certain provisions of the Brown Act regarding teleconference meetings during periods of statewide emergencies, and as a precaution to our Board of Directors, District staff and general public as a result of the ongoing COVID-19 pandemic, Three Valleys MWD will hold this meeting of its Board of Directors both in-person at the above location and via teleconference. The public may participate in the meeting by physical attendance or by teleconference.

Link to join webinar: <https://tvmwd.zoom.us/j/87425691247>

OR

Dial in: (669) 900-9128, Webinar ID: 874 2569 1247

Any member of the public wishing to participate in public comment may do so in any of the following manners: (1) when prompted by the President during the public comment period, (2) by filling out the electronic speaker’s card at the following link <https://arcg.is/0z5GqQ> prior to the close of public comment, (3) by sending an email to PublicComment@tvmwd.com prior to the close of public comment, or (4) those attending the meeting in person may complete a speaker’s card and provide it to the Executive Assistant prior to the close of public comment.

1. CALL TO ORDER ROBERTO

2. ROLL CALL TURNER

- Jody Roberto, President
- Mike Ti, Vice President
- Carlos Goytia, Secretary
- Bob Kuhn, Treasurer
- David De Jesus, Director
- Jeff Hanlon, Director
- Danielle Soto, Director

3. FLAG SALUTE ROBERTO

4. AGENDA REORDER/ADDITIONS [*Government Code Section 54954.2(b)(2)*] ROBERTO

Additions to the agenda may be considered when two-thirds of the board members present determine a need for immediate action, and the need to act came to the attention of TVMWD after the agenda was posted; this exception requires a degree of urgency. If fewer than two-thirds of the board members are present, all must affirm the action to add an item to the agenda. The Board shall call for public comment prior to voting to add any item to the agenda after posting.

5. PUBLIC COMMENT (*Government Code Section 54954.3*) ROBERTO
- Opportunity for members of the public to directly address the Board on items of public interest that is within the subject matter jurisdiction of TVMWD. The public may also address the Board on items being considered on this agenda.
- We request that remarks be limited to three minutes or less. Pursuant to Government Code Section 54954.3, if speaker is utilizing a translator, the total allotted time will be doubled.
6. ACTION AGENDA LITCHFIELD
- The following items on the Action Agenda call for discussion and action by the Board. All items are placed on the agenda so that the Board may discuss and take action on the item if the Board is so inclined.
- A. ADOPT RESOLUTION NO. 23-02-954 RE-AUTHORIZING REMOTE TELCONFERENCE MEETINGS PURSUANT TO THE PROVISIONS OF ASSEMBLY BILL 361 LITCHFIELD
- The Board will consider adopting Resolution No. 23-02-954 re-authorizing remote teleconference meetings pursuant to AB 361.
- BOARD ACTION REQUIRED 6.A**
- Staff Recommendation: Approve as Presented
7. GENERAL MANAGER'S REPORT LITCHFIELD
- The Executive Leadership Team will provide brief updates on existing matters under their purview and will be available to respond to any questions thereof.
- A. FY 2023-24 BUDGET REVIEW SCHEDULE LINTHICUM
- The Board will be provided with the budget review schedule for FY 2023-24.
- B. STRATEGIC PLAN LINTHICUM
- The Board will discuss a draft of the Strategic Plan.
- C. REVIEW RESOLUTION ENCOURAGING DISCONTINUANCE OF NON-FUNCTIONAL TURF HOWIE
- The Board will review the draft resolution encouraging the discontinuance of using non-functional turf.
- D. WATER RESOURCES MASTER PLAN PROFESSIONAL SERVICES AGREEMENT AWARD LEE
- The Board will be debriefed on the water resources master plan professional services agreement award.
- E. PROJECTS SUMMARY UPDATE PANZER
- The Board will be provided with an oral update of ongoing TVMWD projects.

- | | |
|---|------------|
| 8. DIRECTORS'/GENERAL MANAGER'S ORAL REPORTS | ROBERTO |
| Directors may report on activities for meetings to which they are assigned to serve as the representative or alternate of TVMWD and on other areas of interest. | |
| A. METROPOLITAN WATER DISTRICT | DE JESUS |
| B. CHINO BASIN WATERMASTER | KUHN |
| C. MAIN SAN GABRIEL BASIN WATERMASTER | TI |
| D. SIX BASINS WATERMASTER | ROBERTO |
| E. SAN GABRIEL BASIN WATER QUALITY AUTHORITY | KUHN |
| F. ADDITIONAL BOARD MEMBER REPORTS/COMMENTS | ALL |
| G. GENERAL MANAGER'S COMMENTS | LITCHFIELD |
| 9. CLOSED SESSION | ROBERTO |
| A. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION
[Government Code Section 54956.9(d)(1)] | |
| Name of Case: Chino Basin Municipal Water District v. City of Chino, et al., San Bernardino County Superior Court Case No. RCV RS 51010 | |
| 10. FUTURE AGENDA ITEMS | ROBERTO |
| 11. ADJOURNMENT AND NEXT MEETING | ROBERTO |
| The Board will adjourn to a regular Board Meeting on February 15, 2023 at 8:00 AM. | |

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Executive Assistant at (909) 621-5568 at least 24 hours prior to the meeting.

Pursuant to Government Code Section 54957.5, materials related to an item on this agenda submitted after distribution of the agenda packet will be posted on the TVMWD website at www.threevalleys.com.

Three Valleys MWD Board meeting packets and agendas are available for review at www.threevalleys.com.

RESOLUTION NO. 23-02-954**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE THREE VALLEYS MUNICIPAL WATER DISTRICT RE-RATIFYING THE PROCLAMATION OF A STATE OF EMERGENCY BY GOVERNOR NEWSOM, DECLARING THAT LOCAL EMERGENCY CONDITIONS PERSIST, AND RE-AUTHORIZING REMOTE TELECONFERENCE MEETINGS OF THE BOARD OF DIRECTORS AND ITS STANDING COMMITTEES FOR THE PERIOD FEBRUARY 14, 2023, TO FEBRUARY 28, 2023, PURSUANT TO BROWN ACT PROVISIONS**

WHEREAS, the Three Valleys Municipal Water District (the “District”) is committed to preserving and nurturing public access and participation in meetings of its Board of Directors; and

WHEREAS, all meetings of the District’s Board of Directors (the “Board”) and its standing committees are open and public, as required by the Ralph M. Brown Act (California Government Code Sections 54950-54963), so that any member of the public may attend, participate, and watch those bodies conduct their business; and

WHEREAS, the Brown Act, in Government Code Section 54953(e), makes provision for remote teleconferencing participation in meetings by members of a legislative body, without compliance with the requirements of Government Code Section 54953(b)(3), subject to the existence of certain conditions; and

WHEREAS, a required condition for application of Government Code Section 54953(e) is that a state of emergency is declared by the Governor pursuant to Government Code Section 8625, proclaiming the existence of conditions of disaster or of extreme peril to the safety of persons and property within the State caused by conditions as described in Government Code Section 8558; and

WHEREAS, a proclamation is made when there is an actual incident, threat of disaster, or extreme peril to the safety of persons and property within the jurisdictions that are within the District’s boundaries, caused by natural, technological, or human-caused disasters; and

WHEREAS, on March 4, 2020, Governor Gavin Newsom proclaimed a state of emergency to exist in California as a result of the threat of COVID-19, and such proclamation has not yet been lifted; and

WHEREAS, it is further required under Government Code Section 54953(e) that state or local officials have imposed or recommended measures to promote social distancing or that the legislative body meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, the Board previously adopted Resolution No. 23-01-953 on January 4 2023, finding that the requisite conditions exist for the Board and its standing committees to conduct

remote teleconference meetings without compliance with Government Code Section 54953(b)(3); and

WHEREAS, as a condition of extending the use of the provisions set forth in Government Code Section 54953(e), the Board must reconsider the circumstances of the state of emergency that exists within the District, and the Board has done so; and

WHEREAS, emergency conditions persist within the District, specifically COVID-19 and its Delta variant remain highly contagious and, therefore, a threat to the health, safety, and well-being of the District's employees, directors, vendors, contractors, customers, visitors, and residents; and

WHEREAS, orders from the Los Angeles County Department of Public Health and regulations from the State of California impose limitations on gatherings and provide guidance on best practices with respect to actions to reduce the spread of COVID-19; and

WHEREAS, the Board does hereby find that a state of emergency continues to exist within the District's service area as a result of the continuing presence of COVID-19, which has caused, and will continue to cause, conditions of imminent risk to attendees of Board meetings, and has resulted in local, State, and federal social distancing orders and related guidance, and which has caused, and will continue to cause, conditions of peril to the safety of persons within the District that are likely to be beyond the control of services, personnel, equipment, and facilities of the District, and the Board desires to re-affirm that a local emergency exists and re-affirm the proclamation of state of emergency by the Governor of the State of California; and

WHEREAS, as a consequence of the local emergency persisting, the Board does hereby find that the Board and all standing committees thereof shall continue to conduct their meetings without compliance with paragraph (3) of subdivision (b) of Government Code Section 54953, as authorized by subdivision (e) of Government Code Section 54953, and that such legislative bodies shall continue to comply with the requirements to provide the public with access to the meetings as prescribed in paragraph (2) of subdivision (e) of Government Code Section 54953; and

WHEREAS, the District will continue to provide proper notice to the public regarding all Board and standing committee meetings in accordance with Government Code Section 54953(e)(2) and shall continue to provide notice to the public of how they may access any such meeting via call-in number and/or internet link.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE THREE VALLEYS MUNICIPAL WATER DISTRICT DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Recitals. The Recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

Section 2. Affirmation that Local Emergency Persists. The Board hereby considers the conditions of the state of emergency within the District and proclaims that a local emergency

persists throughout the District as a result of the continuing presence of COVID-19, which continues to cause conditions of imminent risk to attendees of the District’s Board and standing committee meetings, and which have resulted in local, State, and federal social distancing orders and guidance, and that continuing to conduct the District’s Board and standing committee meetings virtually will minimize the possible spread COVID-19 and any variant thereof.

Section 3. Re-Ratification of Governor’s Proclamation of a State of Emergency. The Board hereby re-ratifies the Governor of the State of California’s Proclamation of State of Emergency regarding COVID-19, dated March 4, 2020.

Section 4. Remote Teleconference Meetings. The District’s General Manager, or his or her delegee, and the Board and standing committees of the District are hereby authorized and directed to take all actions necessary to carry out the intent and purpose of this Resolution, including but not limited to continuing to conduct open and public meetings in accordance with Government Code Section 54953(e) and other applicable provisions of the Brown Act.

Section 5. Effective Date of Resolution. This Resolution shall take effect on February 14, 2023 and shall be effective until the earlier of (i) February 28, 2023, or (ii) such time as the Board adopts a subsequent resolution in accordance with Government Code Section 54953(e)(3) to extend the time during which the Board and standing committees of the District may continue to teleconference without compliance with paragraph (3) of subdivision (b) of Government Code Section 54953.

PASSED AND ADOPTED by the Board of Directors of the Three Valleys Municipal Water District this 1st day of February 2023, by the following vote:

- AYES:
- NOES:
- ABSENT:
- ABSTAIN:

Jody Roberto
President, Board of Directors

ATTEST:

Carlos Goytia
Secretary, Board of Directors

SEAL:



BOARD OF DIRECTORS STAFF REPORT

To: TVMWD Board of Directors
From: Matthew H. Litchfield, General Manager 
Date: February 1, 2023
Subject: **FY 23-24 Budget Review Schedule**

Funds Budgeted: \$ Fiscal Impact: \$

Staff Recommendation

No Action Necessary – Informational Item Only

Discussion

Included below is the tentative schedule for review of the FY 23-24 budget. Meeting dates listed are tentative and subject to change by the General Manager and the Board.

3/1/23	Board Workshop	Budget Workshop Water Sales Forecast Overall Budget and Rates (1 st draft)
3/9/23	Manager’s Meeting	Budget Workshop Water Sales Forecast Overall Budget and Rates (1 st draft)
4/5/23	Board Workshop	Overall Budget and Rates (2 nd draft)
4/11/23	MWD Board Meeting	Confirmation of no changes to previously adopted CY 2024 Rates
4/13/23	Manager’s Meeting	Overall Budget and Rates (2 nd draft)
4/19/23	Board Meeting	Adoption of TVMWD FY 2023-24 Budget and CY 2024 Rates

Strategic Plan Objective(s)

3.1 – Utilize and comply with a set of financial policies to maintain TVMWD’s financial health

3.3 – Be accountable and transparent with major decisions

Attachment(s)

None

Meeting History

None

NA/JL



BOARD OF DIRECTORS STAFF REPORT

To: TVMWD Board of Directors
From: Matthew H. Litchfield, General Manager 
Date: February 1, 2023
Subject: **Strategic Plan**

Funds Budgeted: \$

Fiscal Impact: \$

Staff Recommendation

No Action Necessary – Informational Item Only

Background:

The Strategic Plan is derived from TVMWD's mission and vision statements, as they provide a big picture perspective regarding TVMWD. The Strategic Plan outlines the challenges that need to be addressed and sets a roadmap for achieving TVMWD's mission and vision.

Discussion:

Attached for review is a draft of the Strategic Plan. Changes of note from the prior plan:

- Staff is proposing to eliminate the annual update of this plan. The document would be updated only as the overall goals and objectives of TVMWD change.
 - This change eliminates the need to provide annually updated 5 Year Capital Improvement Plan (CIP). The CIP will be provided annually during budget adoption.
 - This change also eliminates the need to set specific priorities for each objective for the fiscal year. These priorities will be more clearly defined within the annual General Manager's Workplan.
- Updated Industry Outlook to reflect current water conditions.
- Objectives associated with each goal have been condensed to big picture ideas.
- Action items have been eliminated, as these will be outlined within the annual General Manager's Workplan to be considered in June 2023.
- Reserve goal amounts have been removed, as these will be discussed and adopted annually during budget adoption.

TVMWD's four main goals remain:

1. Provide a reliable, high-quality water supply
2. Provide water supplies in the most cost-effective manner
3. Be financially responsible and maintain public trust
4. Continuously implement necessary organizational enhancements

Strategic Plan Objective(s)

3.3 – Be accountable and transparent with major decisions

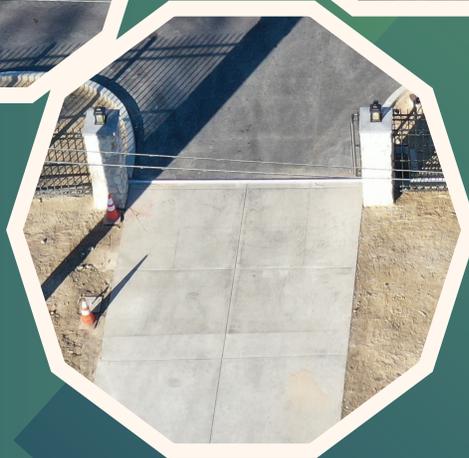
Attachment(s)

Exhibit A – Strategic Plan

Meeting History

None

NA/JL



STRATEGIC PLAN



TABLE OF CONTENTS

<u>Section</u>	<u>Page #</u>
Purpose of Strategic Plan	1
Mission.....	1
Vision	1
Core Values.....	2
Profile	3
Industry Outlook.....	4
Challenges.....	5
Goals.....	6
Reserve Policies	7
Debt Management Analysis.....	7
Acronyms and Abbreviations	8



PURPOSE OF STRATEGIC PLAN

The strategic plan sets the short-term and long-term path for achieving TVMWD’s mission and vision. The plan provides the opportunity to reflect on challenges at TVMWD and in the water industry to ensure we are setting goals and objectives that best serve the regional needs of TVMWD.

MISSION

The mission of Three Valleys Municipal Water District is to supplement and enhance local water supplies to meet our region’s needs in a reliable and cost-effective manner.

VISION

TVMWD meets its regional water supply needs through:

- 1. Collaboration with its member agencies to understand their short-term and long-term needs**
- 2. Development and implementation of the strategic plan to address these needs in a cost-effective manner based on current water conditions**
- 3. Periodic update of the plan as needs or as major changes in water conditions occur**
- 4. Adaptive management strategies that seek a combination of operational and cost efficiency**

CORE VALUES

To achieve success, TVMWD must have a set of core values from which it bases its policies and actions. To meet current and future challenges, the single most important factor to our success is faithful and consistent adherence to these values.



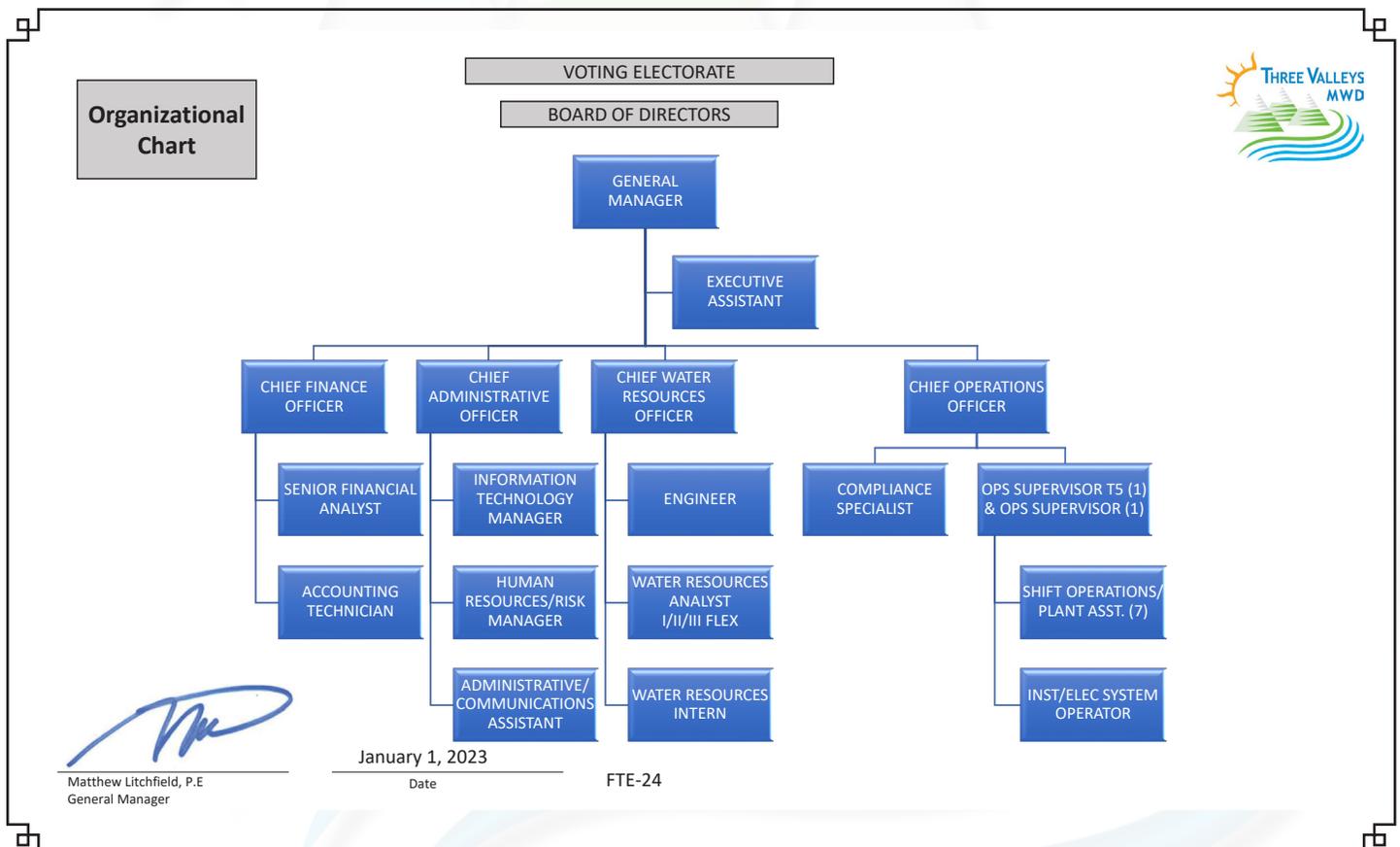
- Teamwork – the coordination, collaboration, participation and understanding of everyone’s role in fulfilling the mission and vision
- Communication – the exchanging of information and sharing of ideas
- Customer Service – the process of ensuring customer satisfaction
- Personal Responsibility – being accountable for something within one’s control
- Employee Development – the steps taken to encourage each employee’s professional and personal growth
- Professional Integrity – the manner in which people behave and act in the workplace
- Innovation – the process of inventing or introducing something new
- Recognition – appreciating the value of an achievement

PROFILE

TVMWD is a special district formed by public election in 1950 and is the area’s primary source of supplemental water covering the Pomona, Walnut and East San Gabriel Valleys. TVMWD is one of 26 member agencies of the Metropolitan Water District of Southern California (MWD) that is authorized to deliver wholesale water supplies from the Colorado River and Northern California. The region served by TVMWD spans over 133 square miles and serves 13 retail member agencies that in turn serve a population of approximately 515,000.

TVMWD’s operations consist of a conventional surface water treatment plant, a state certified laboratory, four groundwater production wells, five hydroelectric generators, residual solids removal, groundwater recharge pipelines, pump stations, and transmission pipelines. Water is treated at the Miramar Treatment Plant and wholesaled to local agencies through several miles of pipeline. Approximately 30% of TVMWD’s total treated sales are from the Miramar Treatment Plant (of which 6% is from groundwater wells), while the remaining 70% is from MWD’s Weymouth Treatment Plant. TVMWD receives a Tier 1 water supply allotment from MWD of 80,688 AFY. TVMWD has water storage accounts in Six Basins (stored: approx. 3,500 AF; capacity: 3,500 AF) and Main San Gabriel Basin (stored: approx. 6,000 AF; capacity: 50,000 AF).

TVMWD is governed by a seven-member Board of Directors elected by the registered voters residing within TVMWD’s boundaries. The Board has a combined 70 years of experience with TVMWD. TVMWD employs a team of 24 staff members who are responsible for administering the day-to-day operations of the facility and implementing strategic objectives and policies set forth by the Board. The average tenure of TVMWD employees is 10 years. This stability provides a tremendous benefit to TVMWD.



INDUSTRY OUTLOOK

MWD imports water supplies to Southern California from two main sources: the Sacramento and San Joaquin Rivers through the State Water Project (SWP) and the Colorado River via the Colorado River Aqueduct (CRA). The SWP is operated and maintained by the California Department of Water Resources (DWR), who allocates water annually to each of the twenty-nine SWP contractors throughout the state. MWD is the largest contractor of the SWP, receiving about 50% of the supplies. The CRA is owned, operated and maintained by MWD. Operation of the CRA is dictated by The Law of the Colorado River, which provides for the benefit of the seven western states that rely on the Colorado River or its tributaries.



The state of California is entering a fourth year of drought. The National Aeronautics and Space Administration (NASA) rated 2022 the fifth warmest year on record since 1880, which is its best estimate of record for when preindustrial temperatures occurred. The past three water years (WY) have been characterized by record breaking temperatures and extremely dry soils, which has led to large and unexpected reductions in runoff from the State's snowpack. On the Colorado River Basin, similar prolonged drought conditions have pushed water levels in Lake Mead and Lake Powell to historic lows.

The National Weather Service's Three-Month Outlook released on January 19, 2023, shows that the Southern portion of California will likely continue to experience average temperatures and average to below average precipitation. DWR's State Water Project allocation for 2023 is currently at 5%, however the first snow survey of the season on January 1st and electronic readings show statewide snowpack at 174% of average thanks to several December storms that have continued for the first half of January. While this situation is good news, last year started out in a similar fashion before being followed by three months of extremely dry conditions.

Due to these increasing swings in extremely wet to dry conditions, in August 2022, Governor Newsom released the "California's Water Supply Strategy, Adapting to a Hotter, Drier Future", which calls for investing in new projects and technologies that will modernize how the state manages water. In alignment with the Governor's strategy, the recently adopted 2022 update to the Central Valley Flood Protection Plan identifies actions needed to adapt much of California's flood infrastructure to a rapidly changing climate. Current climate research indicates the state will see bigger swings from extreme heat and dry conditions to larger and more powerful storms that deliver temporary large boosts to the state snowpack as well as flood risk.

CHALLENGES

The Executive Team has identified the following items as current or ongoing challenges.

CURRENT CHALLENGES

Financial/
HR software
inefficient
and support
declining

Imported
water supply
reliability

Efficiently &
effectively
incorporating
groundwater

ONGOING CHALLENGES

Maximizing
Miramar
Treatment
Plant
efficiencies

Maximizing
water
resources

Aging
infrastructure

Readiness
for an
emergency
event

Regional approach
while meeting
individual member
agency's needs

Staying up-
to-date with
technology and
cybersecurity

Continue MWD
and member
agency
engagement

Impact of
regulatory
or legislative
changes

Reliability of water
supplies; current
and future water
quality issues

Preparing next
generation of
water professionals

GOALS

The following goals have been identified to assist TVMWD in executing its mission:

1. Provide a reliable, high-quality water supply to meet regional demands
2. Provide water supplies in the most cost-effective manner
3. Be financially responsible and maintain public trust
4. Continuously implement necessary organizational enhancements

Each goal has several specific objectives to support the goals and address the challenges above.

GOALS

Goal #1 - Provide a Reliable, High-Quality Water Supply to Meet Regional Demands

Objective

- 1.1 Secure water supplies that exceed the estimated annual demands
- 1.2 Maintain compliance with water quality standards
- 1.3 Maintain diverse sources of reliable water supplies and storage
- 1.4 Maintain reliable water infrastructure
- 1.5 Be prepared for catastrophic events

Goal #2 – Provide Water Supplies in the Most Cost-Effective Manner

Objective

- 2.1 Maximize the most cost effective water resources
- 2.2 Maintain efficient and safe operations
- 2.3 Maintain involvement and awareness of all aspects of MWD

Goal #3 – Be Financially Responsible and Maintain Public Trust

Objective

- 3.1 Utilize and comply with a set of financial policies to maintain TVMWD's financial health
- 3.2 Maintain website with useful information
- 3.3 Be accountable and transparent with major decisions
- 3.4 Communicate TVMWD's role in the delivery of water
- 3.5 Advocate legislation and initiatives that further TVMWD's mission and vision

Goal #4 – Continuously Implement Necessary Organizational Enhancements

Objective

- 4.1 Prepare next generation of water professionals
- 4.2 Maintain information technology at industry standards
- 4.3 Maximize employee retention
- 4.4 Maintain digital records and cloud storage

RESERVE POLICIES

- a. Consistent with sound and prudent fiscal practices as well as legal requirements, TVMWD will maintain reserve funds that comply with adopted policy and legal bond documents.
- b. Objectives of reserve funds:
 - i. To balance short-term fluctuations in revenues/expenses without adopting unplanned rate increases.
 - ii. To provide a safety net in the event of emergency.
 - iii. To minimize external borrowing and interest expense.
 - iv. To determine the most opportune time to issue debt when necessary.
- c. In setting reserve goals TVMWD will consider that reserve levels affect bond ratings and ultimately the ability to access debt markets at favorable interest rates.
- d. The Board shall annually reevaluate what is reasonable for each reserve fund.

DEBT MANAGEMENT ANALYSIS

TVMWD DEBT SUMMARY

TVMWD is debt free.

ANALYSIS

Based on budget/rate forecasts and the five-year capital improvement plan, TVMWD should not need to issue debt in the foreseeable future. However, TVMWD is well positioned to obtain debt at favorable rates should the need arise.



ACRONYMS AND ABBREVIATIONS

- AF – Acre-Feet
- AFY – Acre-Feet per Year
- CRA – Colorado River Aqueduct
- DDW – Department of Drinking Water
- DWR – Department of Water Resources
- EPA – Environmental Protection Agency
- FY – Fiscal Year
- MWD – Metropolitan Water District of Southern California
- SDLF – Special District Leadership Foundation
- SWP – State Water Project
- TVMWD – Three Valleys Municipal Water District
- WY – Water Year



THREE VALLEYS MUNICIPAL WATER DISTRICT





BOARD OF DIRECTORS STAFF REPORT

To: TVMWD Board of Directors
From: Matthew H. Litchfield, General Manager 
Date: February 1, 2023
Subject: **Review of Resolution Encouraging Discontinuance of Non-Functional Turf**

Funds Budgeted: \$

Fiscal Impact: \$

Staff Recommendation

No Action Necessary – Informational Item Only

Discussion

Due to severe and persistent drought conditions, The Metropolitan Water District (MWD) Board declared a regional drought emergency in November 2021 and adopted an Emergency Water Conservation Program in April 2022 to address supply shortages in the State Water Project-dependent areas. Conditions on the Colorado River are equally concerning as both Lake Mead and Lake Powell are at their lowest historical levels. In June 2022, the U.S. Bureau of Reclamation Commissioner Camille Touton announced that Colorado River water users need to reduce use by two to four million-acre feet. Agencies need to permanently reduce potable water demand for all non-essential uses.

In November 2022, TVMWD staff presented to the board the districts Legislative Priorities and Principles for 2023, that included “support of administrative/legislative actions and funding for the long-term conversion of non-functional turf (NFT) in residential, commercial, industrial, and institutional (CII) existing landscapes and ban the installation of NFT in new construction.” At the MWD level, the Turf Replacement Program (TRP) is the focus of nonfunctional turf management activities going forward.

As part of the state’s drought response, the State Water Resources Control Board adopted in May 2022 an emergency regulation banning the irrigation of non-functional turf with potable water for all commercial, industrial, and institutional properties throughout the state. This emergency regulation expires on June 14, 2023. In adopting this regulation, the state acknowledged that irrigation of turf that is not used for recreational or community gathering purposes is an unnecessary use of water.

To date, Southern California residents have removed more than 200 million square feet of turf at residential and commercial properties through the MWD TRP. A recent study indicates that

96 percent of properties in the service area which convert from turf to California friendly landscaping maintain that landscaping over time. In addition, the study found that for every 100 landscapes that are installed using incentives, another 134 are installed *without* the use of an incentive payment. Both studies focused on residential properties, but these findings can be extended to commercial properties as well, constituting a significant reduction in potable water demand.

A few months ago, the MWD board adopted a resolution encouraging municipalities and land use planning entities to ban the irrigation of non-functional turf with potable water. Staff reported in December that the member agencies of MWD have been called to adopt a resolution with a similar message. A draft resolution was presented at that time and the board recommended that staff further discuss with the member agencies and return with an updated resolution that addressed any remaining concerns. The attached draft resolution is intended for discussion today and for consideration of board action/adoption at the next meeting on February 15.

In addition, attached is sample water conservation ordinance language that the local land use planning or other entities within the service area of TVMWD may consider, depending on the nature and scope of their authority. The sample language provides a basic framework, including a definition of non-functional turf, and the following options for addressing nonfunctional turf:

1. Prohibit irrigation of non-functional turf with potable water after the effective date of the ordinance, with certain exceptions.
2. Prohibit installation of non-functional turf after the effective date of the ordinance, with certain exceptions.
3. Require the removal of all non-functional turf from commercial, industrial, or public properties or facilities by a date-certain.

The proposed language provides placeholders to insert the preferred enforcement methods and timelines. TVMWD recommends this approach as it allows the agencies to make adjustments as they see fit to ensure higher levels of acceptance and accountability with their customers.

Strategic Plan Objective(s)

1.2 – Maintain 100% compliance with water quality standards

3.4 – Be accountable and transparent with major decisions

3.5 – Maintain awareness of legislation that may affect TVMWD

Attachment(s)

Exhibit A – Draft TVMWD Resolution discontinuing NFT

Exhibit B – Draft member agency Ordinance language discontinuing NFT

Meeting History

Board of Directors Meeting, December 7, 2022, Informational Item Only

NA/KRH

RESOLUTION NO. 23-02-DRAFT

**RESOLUTION OF THE BOARD OF DIRECTORS OF
THE THREE VALLEYS MUNICIPAL WATER DISTRICT
ENCOURAGING DISCONTINUANCE OF USING NON-FUNCTIONAL TURF**

WHEREAS, The Three Valleys Municipal Water District is Responsible for Treating, Distributing, Managing, and Developing Supplies to Meet Current and Future Water Demands Within its Respective Service Area.

Three Valleys Municipal Water District (TVMWD) was established in 1950 and is comprised of thirteen retail member agencies covering an area of 133 square miles and a population of over half a million residential customers.

TVMWD's mission is to supplement and enhance local water supplies to meet our region's needs in a reliable and cost-effective manner.

WHEREAS, Long-term and Short-term Trends Suggest that Imported Water Supplies Into the Region May Be Constrained by Drought, Climate Change, and Other Environmental Factors.

The Colorado River system has been continuously in drought since 2000. Lake Mead and Lake Powell were near full in 2000; however, both reservoirs are now at their lowest historical levels since initial filling.

In June 2022, the U.S. Bureau of Reclamation Commissioner, Camille Touton, announced that Colorado River water users need to reduce use by two- to four million acre-feet per year.

Extended drought and increased regulatory constraints have resulted in an average 35 percent allocation of Table A contract supplies from the State Water Project (SWP) over the last 10 years. During the previous 10-year period, TVMWD wholesaler Metropolitan Water District (MWD) received an average 68 percent allocation from the State Water Project.

Combined deliveries of allocated water from the State Water Project during the past three years are lower than in any other three-year period in the history of the SWP.

The California Department of Water Resources (DWR) classified water years 2020 to 2022 (October 1, 2019, through September 30, 2022) as dry or critically dry, and it projects these three water years will be the driest on record in California for statewide precipitation.

In addition to reduced precipitation since 2020, California's climate is transitioning to a warmer setting in which historical relationships among temperature, precipitation, and runoff are changing. In addition, precipitation in the Colorado River Basin was near 100 percent normal in 2022, but runoff was only at 62 percent of normal. In 2021 precipitation was at 87 percent of normal while runoff was at 32 percent of normal.

WHEREAS, Governor Newsom Has Declared a State of Emergency to Exist in All California Counties Due to These Severe Drought Conditions.

On October 19, 2021, Governor Gavin Newsom declared a state of emergency to exist in all California counties due to worsening drought conditions. This proclamation follows other increasingly expansive drought declarations and executive orders that have been issued since April 2021.

Governor Newsom has called on Californians to re-double their efforts to reduce water use by 15 percent and for local and regional water agencies to implement their Water Shortage Contingency Plans (WSCPs) “at a level appropriate to local conditions that takes into account the possibility of a third consecutive dry year.”

California has declared a State of Emergency due to severe drought conditions three separate times since 2007.

On August 11, 2022, Governor Newsom issued his California Water Supply Strategy which includes a long-term commitment to replace 500 million square feet of turf with drought tolerant landscaping by promoting programs and policies that incentivize turf conversion.

WHEREAS, Water Conservation and Water Use Efficiency Play a Critical Role in Ensuring Supplies Meet Demands in TVMWD’s Service Area.

Local water suppliers and communities throughout southern California have made multi-billion-dollar strategic and forward-looking investments in water conservation, water recycling, stormwater capture and reuse, groundwater storage, seawater desalination and other strategies to improve drought resilience.

Water conserved throughout the TVMWD service area, among other things, has helped protect against shortages and meet demands during these dry conditions.

WHEREAS, a Commitment to Converting Non-functional Turf to California Friendly Landscaping through Local Ordinances and Regulations Would Result in a Significant Reduction in Potable Water Demand.

Non-Functional turf is defined as turf that is solely ornamental and not regularly used for human recreation, civic or community purposes. Non-functional turf does not include sports fields.

Amending local ordinances and other land use planning regulations to further prevent non-functional turf from being irrigated with potable water, installed in new construction, or maintained in existing construction will contribute to more sustainable demands within TVMWD’s service area.

Irrigation of turf grass represents the single largest application of consumptive use of potable water in Southern California and reducing the amount of turf represents a significant water conservation opportunity.

The removal of non-functional turf and replacement with drought-tolerant landscaping reduces water usage on a given site by up to 80 percent.

Approximately 96 million square feet of non-residential non-functional turf have been removed through MWD's turf rebate programs, which results in water savings today of approximately 13,000 acre-feet per year.

Since the State Water Resources Control Board issued an emergency regulation on June 10, 2022, temporarily banning the irrigation of non-functional turf with potable water, commercial applications for the turf replacement program have tripled. Therefore, local ordinances permanently banning the irrigation, installation, and maintenance of non-functional turf could lead to an even greater increase in turf replacement projects.

TVMWD will pursue funding opportunities to help promote the development of sustainable landscapes in its service area to achieve immediate drought relief as well as build long-term water resilience.

Regulations addressing irrigation, installation and maintenance of non-functional turf may be adopted as local governmental codes and ordinances by local land use planning entities, as permitted by each jurisdiction's legal authority.

Removal of non-functional turf allows for sustainable and efficient use of resources, builds resiliency to climate change, and helps ensure the community's current and future water needs are continued to be met.

NOW, THEREFORE, BE IT RESOLVED that The Three Valleys Municipal Water District Board of Directors supports the adoption and promotion of the following principles throughout TVMWD's service area:

1. Prohibit the use of potable water to irrigate non-functional turf on non-residential properties.
2. Replace all non-functional turf with sustainable native drought-tolerant landscapes, regardless of the source of water used for such irrigation.
3. Prohibit the installation of non-functional turf in any new or existing non-residential properties, including at any commercial or industrial properties, public buildings, or public spaces including medians.
4. Discourage installation of non-functional turf in any new residential properties or communal areas maintained by Homeowners Associations (HOAs) of residential properties.
5. Remove all non-functional turf from all non-residential properties, both public and private, including HOAs, by a date certain in the future.

BE IT FURTHER RESOLVED that the Board of Directors strongly recommends that all Land Use Planning Entities within TVMWD's service area amend their regulatory codes and ordinances, as appropriate, to implement these principles in a manner consistent with each jurisdiction's legal authority. A model ordinance consistent with these principles is attached for reference and potential use.

PASSED AND ADOPTED by the Board of Directors of the Three Valleys Municipal Water District this 15th day of February 2023, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:

Jody Roberto
President, Board of Directors

ATTEST:

Carlos Goytia
Secretary, Board of Directors

SEAL:

DRAFT

Model Ordinance Language

Section X: Definitions

(A) As used in this section:

- (1) "Non-functional turf" means turf that is not regularly used for human recreational purposes or for civic or community events.
- (2) "Turf" means any narrow-leaved grass species that form a uniform, long-lived ground cover that can tolerate traffic and low mowing heights (usually two inches or below). Such grasses include, but are not limited to, annual bluegrass, Kentucky bluegrass, Perennial ryegrass, Red fescue, Tall fescue, Bermudagrass, Kikuyugrass, Seashore Paspalum, St. Augustine grass, Zoysiagrass, Buffalo grass, and their associated hybrids.

Section XX: Permanent Water Conservation Requirements

(A) Prohibition on irrigation of non-functional turf

- (1) After the effective date of this ordinance, non-functional turf shall not be irrigated using potable water with the sole exception of turf at residential properties that was present prior to the effective date of this ordinance.

(B) Prohibition on installation of non-functional turf

- (1) After the effective date of this ordinance, non-functional turf shall not be installed at any new or existing commercial, industrial, or public properties or facilities, including parks, playgrounds, medians, greenbelts, and HOAs. In addition, non-functional turf shall not be installed in any new residential properties.

(C) Removal of non-functional turf

- (1) No later than [DATE CERTAIN], non-functional turf shall be removed from commercial, industrial, or public properties or facilities, including parks, playgrounds, medians, greenbelts, and HOAs.

Section XXX: Penalties and Enforcement

[TO BE DETERMINED BY ADOPTING JURISDICTION]



BOARD OF DIRECTORS STAFF REPORT

To: TVMWD Board of Directors
From: Matthew H. Litchfield, General Manager 
Date: February 1, 2023
Subject: **Water Resources Master Plan Professional Services Agreement Award**

Funds Budgeted: \$ \$199,000 **Fiscal Impact: \$**

Staff Recommendation

No Action Necessary – Informational Item Only

Background

The purpose of the Water Resources Master Plan and Drought Contingency Plan (WRMP-DCP or Project) is to develop a roadmap to enhance Three Valleys Municipal Water District's (Three Valleys/TVMWD) water supply portfolio thereby providing reliable, sustainable and robust water resources and supplies for the next 50 years. The Project will develop supply portfolios and suites of actions based on the projected short and long-term needs that account for the potential impacts on water supply and availability due to climate change. This will include evaluating the current and future water resources priorities along with a vulnerability assessment to develop a comprehensive long-term plan.

Three Valleys received grant funding in the amount of \$200,000 from United States Bureau of Reclamation (USBR) for the 2022 WaterSMART Drought Contingency Plan.

Discussion

On December 20, 2022, Staff issued a request for proposal to five firms that are on TVMWD's Master On-Call Professional Services to develop the WRMP and DCP. On January 18, 2023, five proposals were received from GEI Consultants Inc., Intera Inc., Kennedy & Jenks, Inc., Woodard & Curran, Inc, and Water Systems Consulting, Inc. The proposals were evaluated based on the understanding of the project, creativity, project team, work effort, adaptability for future use and the proposed methodology for the Project. Staff recommends the award of the contract to GEI Consultants, Inc. based on their understanding, the project team, experience working with USBR on similar projects and commitment to meet schedule.

The item will be presented for the TVMWD Board of Directors' consideration on February 15, 2023 for the award of the Professional Services Agreement to GEI Consultants, Inc. in the amount of \$399,000.00. The total project cost is \$199,000, with the \$200,000 funding from USBR. The study is anticipated to be completed within 18 months of notice to proceed, pending the USBR funding agreement for the Drought Contingency Plan. The USBR estimates the funding agreement to be executed by the end of February 2023.

Strategic Plan Objective(s)

- 1.1 – Secure water supplies that exceed the estimated annual demands
- 1.3 – Maintain diverse sources of water supplies and storage
- 1.4 – Maintain infrastructure to assure 100% reliability
- 1.5 – Prepare for long term MWD shutdown or catastrophic event that affects operations
- 2.5 – Increase ability to store water for future use
- 3.3 – Be accountable and transparent with major decisions

Attachment(s)

Exhibit A – GEI Proposal – WRMP and DCP

Meeting History

Board of Directors Meeting, October 19, 2022, Action Item

NA/SL



January 18, 2023

Consulting
Engineers and
Scientists

Ms. Sylvie Lee, P.E.
Chief Water Resources Officer
Three Valleys Municipal Water District
1021 E. Miramar Avenue
Claremont, CA 91711

Subject: Proposal for Water Resources Master Plan and Drought Contingency Plan

Dear Ms. Lee:

GEI Consultants, Inc. (GEI) understands that Three Valleys Municipal Water District (TVMWD) has a need to enhance water supply reliability to ensure the agency is able to provide an adequate and reliable water supply into the future. This need includes consideration of the potential for more severe drought conditions in the future as a result of climate change.

TVMWD's Water Resources Master Plan and Drought Contingency Plan (WRMP-DCP) will help to address regional water supply reliability challenges by identifying and prioritizing conceptual projects to be included in a roadmap for enhancing the region's water supply portfolio. Development of the roadmap will be informed by an assessment of regional water demands and supplies along with vulnerabilities as a result of climate change, drought, and other factors. GEI proposes to perform these two planning efforts in an integrated fashion and has mapped the required tasks associated with the DCP to the WRMP to ensure the resulting plan will be compliant with U.S. Bureau of Reclamation requirements.

Our team has completed over 10 Integrated Regional Water Management Plans over the last 15 years, along with three DCPs over the last five years. Together, this experience demonstrates that we are highly qualified to support TVMWD in developing a coordinated and connected WRMP-DCP which will outline the region's priority actions to ensure a robust and reliable water supply that meet the region's needs in both the short and long-term.

The proposed GEI project manager and DCP lead is Katie Laird, P.E., who will be supported by four key leads and a strategic advisor to advance the development of the WRMP/DCP:

- Roger Putty, P.E., P.M.P – Principal-in-Charge and WRMP lead
- Michael Cornelius, P.G. – Needs Assessment and Project Portfolio lead
- Kwabena Asante, Ph.D., P.E. – Vulnerability/Uncertainty Analysis lead
- Maria Pascoal – Communication and Facilitation lead
- Mark Cowin, P.E. – Planning and Financial Analysis Senior Advisor

We appreciate the opportunity to be considered for this important project. If you have any questions about our proposal or require additional information, please contact Katie Laird at 213.422.5860 or by email at klaird@geiconsultants.com.

Sincerely,

GEI Consultants, Inc.

A handwritten signature in blue ink that reads "R. Putty".

Roger Putty, P.E., P.M.P.
Principal-in-Charge

A handwritten signature in blue ink that reads "Katie Laird".

Katie Laird, P.E.
Contract Manager

Project Understanding

GEI Consultant's Inc. (GEI) will assist Three Valleys Municipal Water District (TVMWD) with preparation of a Water Resources Master Plan and Drought Contingency Plan (WRMP-DCP). This project will include an evaluation of the region's water demands, water supplies, vulnerabilities, and potential short and long-term actions to ensure reliable, sustainable, and robust water supplies for the region. Our approach will align work efforts to efficiently develop the common components and meet the distinct requirements for the WRMP-DCP. The DCP will be developed based on knowledge gained from a holistic approach to advancing the WRMP with additional work effort as necessary to meet the U.S. Bureau of Reclamation's (Reclamation) requirements for the DCP.

Our GEI team brings extensive experience and valuable insight pertinent to the development of DCPs and regional plans that will align with the development of this DCP. Our team has developed three DCPs within the last five years, and the most recent DCP was for an agency that required the completion of its 2020 Urban Water Management Plan (UWMP) in parallel with the DCP. GEI assisted with the successful completion of these coordinated plans and provided an efficient approach to identifying strategic actions for implementing high priority projects to achieve a sustainable and resilient water supply. GEI also has extensive experience developing Integrated Regional Water Management Plans (IRWMPs) and has completed over ten in the last 15 years. These plans identify and prioritize projects that integrate regional water resources into a portfolio of projects that together achieve a region's goal of achieving both short-term and long-term water supply reliability that is resilient to climate change and other vulnerabilities. GEI's team of planners, engineers, and scientists will draw on this collective experience to assist TVMWD with the development of a coordinated and integrated WRMP-DCP.

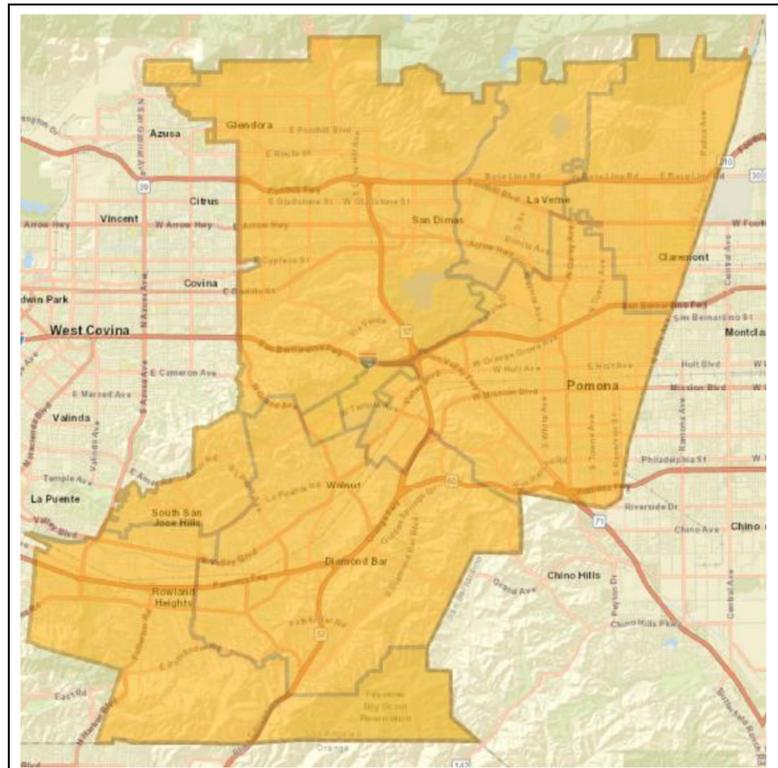


Figure 1: TVMWD Service Area

The WRMP-DCP Project (Project) will cover the TVMWD service area (**Figure 1**), which includes the eastern portion of Los Angeles County and includes the Cities of Claremont, Covina, Diamond Bar, Glendora, Industry, La Verne, Pomona, San Dimas, Walnut, West Covina, and unincorporated areas of Los Angeles County (including Charter Oak and Rowland Heights). This encompasses an area of approximately 133 square miles.

-
1. Regional Needs Assessment
 2. Local Agency Water Reliability Assessment
 3. Regional Supply Portfolio
 4. Conceptual Projects
 5. Uncertainty Analysis
 6. Financial Analysis of Project Portfolio

GEI carefully reviewed the WRMP-DCP Scope of Work (SOW) provided by TVMWD on December 20, 2022. To formulate our approach to completing the WRMP-DCP, GEI considered the goals and requirements for the WRMP-DCP, the six key elements identified by TVMWD in the SOW, and experiences

preparing numerous IRWMPs and DCPs. This GEI approach is discussed in the Approach and Tasks section below and is framed by two phases. Phase 1 consists of pre-planning tasks to get the WRMP-DCP effort off to a quick, organized start. Phase 2 involves the detailed technical tasks that will address the 6 key elements in the SOW and produce a WRMP that provides a roadmap for high priority implementable projects and a DCP that meets Reclamation’s requirements. The development of the WRMP-DCP will be informed and managed through facilitated workshops, and project management practices involving project communications, coordination, tracking, reporting, and adapting. The Project phases, tasks, management, and deliverables are illustrated in the schedule shown in **Figure 2**.

Development of the WRMP-DCP will be steered and informed by TVMWD and member agency managers. Input and coordination will occur with regional and neighboring agencies, groundwater basin watermasters, and key stakeholders. The interaction will be supported by a WRMP-DCP Management Team (Management Team). GEI has extensive experience working with management teams for the preparation of planning studies, including regional water management plans, DCPs, and feasibility investigations. GEI believes that it is imperative to work with our client’s management leadership to identify the level of participation and responsibilities of agencies and organizations. GEI has identified a preliminary Management Team and will confirm its composition with TVMWD leadership when the Project is initiated.

To initiate the Project in a timely and clear fashion, the GEI Team will meet with TVMWD and member agency managers to obtain input and review of the GEI approach presented in this proposal, confirm the Management Team, and develop a detailed workplan. GEI will host a Kick-off Meeting and Workshop No. 1 to discuss comments and input and confirm the approach. The workplan will build from the GEI approach presented in this proposal.

GEI also proposes to prepare a preliminary outline for the WRMP-

DCP. GEI will work with TVMWD to review and refine this outline. GEI has found that preparing an outline early in the planning process provides an effective and focused direction to the technical work designed to achieve the goals and objectives of the plan. A Communication and Outreach Plan (C&O

WRMP-DCP Management Team		
<i>The WRMP-DCP will be steered and informed by TVMWD and member agency managers. Input and coordination will occur through workshops that engage regional and neighboring agencies, basin watermasters, and key stakeholders. Participation level is aligned with responsibilities. Proposed Management Team subject to refinement.</i>		
Participation (Proposed)	Agency	Responsibilities
Primary Member	TVMWD Member Agencies	Lead and Inform WRMP-DCP Serve on Drought Task Force Lead/Support Workshops
Associate Member	Neighboring agencies MWD	Inform WRMP-DCP Serve on Drought Task Force WRMP-DCP Workshops as requested
Governing Agencies	Reclamation* Basin Watermasters	Inform/Review* WRMP-DCP Support Drought Task Force
Other	Other Stakeholders	WRMP-DCP Workshops as requested

Plan) will also be prepared to outline expected interactions between primary members and associate members of the Management Team and other stakeholders.

Summarized below is GEI's proposed approach and tasks to completing the Project.

Approach and Tasks

GEI understands that TVMWD has been a proactive steward and manager of the region's water supplies and the infrastructure used to deliver these supplies to its member agencies. GEI will leverage TVMWD's efforts and resources to further advance its master planning of the region's water resources to achieve even greater water supply security. The WRMP and DCP will be important tools that TVMWD will use to advance projects to enhance services and increase water supply reliability.

GEI proposes to implement an integrated planning approach that produces a WRMP-DCP that achieves the goals and objectives identified by TMMWD and the overall Management Team and informs the development of a WRMP-DCP that is compliant with Reclamation's WaterSMART requirements for a DCP.

The DCP tasks were outlined in the DCP WaterSMART grant application that was prepared by TVMWD with assistance from GEI. The GEI Team has worked together to prepare several DCPs in the last five years and our team of experts will apply this experience to assist TVMWD with the development of a DCP that addresses the risk to water supply reliability resulting from droughts and other factors, such as water quality considerations. GEI successfully prepared DCPs for Inland Empire Utilities Agency and Western Municipal Water District, both of which received high praise from Reclamation. Our GEI Team is confident in its ability to lead and complete TVMWD's DCP through the development of the WRMP-DCP following the integrated planning approach outlined in this section.

The WRMP-DCP will support TVMWD's ongoing annual strategic plan development and other efforts that support TVMWD's goal of developing a roadmap to enhancing the region's water supply portfolio through implementation of projects that provide regional and local agency benefits over a 50-year planning horizon. **Figure 3** illustrates the connected relationships between the WRMP, DCP, TVMWD's annual strategic plan updates, and other plans and projects.

As noted previously, there are two distinct phases to the WRMP-DCP planning process. The first phase will review and confirm the goals and objectives of the integrated WRMP-DCP, develop a detailed work plan for completing the WRMP-DCP so that it achieves the goals and objectives and produces a Reclamation compliant DCP, prepare a draft outline for the WRMP-DCP, and prepare a C&O Plan to support the development of the WRMP-DCP. The second phase involves the technical tasks needed to support the WRMP-DCP, including evaluating needs and shortage conditions, formulating conceptual projects and combining them into project portfolios, completing uncertainty (vulnerability) analyses and financial analyses of project portfolios, and integrating the findings from these tasks into the WRMP-DCP. The activities in phase 2 will be supported by workshops performed at key decision points. GEI will perform project management activities over the life of the Project and support TVMWD with WaterSMART grant administration requirements.

The tasks that GEI identified for completing the WRMP-DCP are discussed below. The findings and recommendations from each task will be documented in a technical memorandum (TM). These TMs are identified in **Figure 2**, including those that will be delivered to Reclamation as part of development of

the DCP. Each task of the WRMP-DCP process will be completed through a collaborative workshop framework that involves Management Team primary members, associate members, Reclamation, and others. The framework for this involvement will be described in the C&O Plan completed as part of the WRMP-DCP Phase 1 efforts (discussed above). This collaborative approach is important to gain understanding and buy-in among the parties as the work progresses through the two phases.

Phase 1 consists of three pre-planning tasks that will establish the foundation for the planning tasks that will follow in Phase 2. These pre-planning tasks are critical to getting the WRMP-DCP effort started on the right track. GEI's Team is poised to begin these tasks right away and complete them within 60 days, laying a solid foundation for the Phase 2 efforts. Phase 1 tasks are discussed below. These tasks are listed numerically for discussion purposes. However, as shown on the attached schedule (**Figure 2**), activities from different tasks will occur in parallel with periods of overlap designed into the process to facilitate needed coordination among supporting tasks.

Task 1: Develop a Detailed Workplan and Report Outline

Objective: Develop a workplan designed to accomplish the goals and objectives of the WRMP and produce a Reclamation compliant DCP.

Activities:

- Gather and review existing planning documents
- Review and refine goals and objectives for the WRMP-DCP
- Define deliverables and schedule for the WRMP-DCP
- Develop a crosswalk table which identifies how the WRMP-DCP will meet Reclamation requirements
- Review the Draft Detailed Workplan with Reclamation to confirm compliance with DCP requirements.
- Develop Draft WRMP-DCP Report Outline
- Review the Detailed Workplan and WRMP-DCP Report Outline with the Management Team (see Task 3)

Deliverables/Outcomes:

- Draft WRMP-DCP Detailed Workplan
- Draft WRMP-DCP Report Outline

Task 2: Develop a Communications and Outreach (C&O) Plan

Objective: Develop a C&O Plan to guide the development of the WRMP-DCP that is informed, reviewed, and implemented by TVMWD and followed by the Management Team.

Activities

- Define the communication and outreach needs
- Define the roles and responsibilities of the Management Team
- Outline the workshop process for Management Team members, associated members, and other stakeholder input and review
- Review the C&O Plan with the Management Team (see Task 3)

Deliverables/Outcomes:

- Draft WRMP-DCP C&O Plan

Task 3: WRMP-DCP Kick-off/Workshop 1

Objective: The objectives of this meeting are to meet with the Management Team and review and finalize the detailed workplan and C&O Plan in an effort to build shared clarity about the project.

Activities

- Develop kick-off meeting objectives and agenda
- Prepare kick-off meeting materials
- Conduct kick-off meeting:
 - Review Draft WRMP-DCP Detailed Workplan
 - Review draft project schedule alignment with workshops and decision points to keep the project on schedule
 - Review roles and responsibilities of WRMP-DCP Management Team
 - Review Draft C&O Plan
 - Review and discuss information/data request delivered to member agencies (to support Task 4 and other technical activities)
- Summarize actions and decisions from kick-off meeting, and finalize Detailed Workplan and C&O Plan

Deliverables/Outcomes:

- Final WRMP-DCP Detailed Workplan
- Final WRMP-DCP C&O Plan
- Kick-off/Workshop 1 Meeting summary

Phase 2

GEI's approach to completing the WRMP-DCP is organized in the remaining tasks. Each task includes a set of activities that, when completed, will provide the planning components necessary for completing the WRMP-DCP. The tasks provide a systematic approach to completing activities. Many of these tasks and activities serve the dual purpose of advancing the WRMP and the required components of the DCP. The completed WRMP-DCP will include a roadmap for implementation of prioritized projects that best achieve the region's goals and also produces a Reclamation compliant DCP. The tasks for completing the WRMP-DCP are included below.

Task 4: Evaluate Needs and Shortage Conditions

Under Task 4, GEI will review water supply and demand conditions from recent publicly available information, such as UWMPs, local master plans, and other agency reports. GEI will confirm this information with the Management Team as part of an initial information request made to TVMWD and member agencies and GEI's summary of the information obtained.

Objectives: Review and document water supplies and demands for the service area shortage conditions. Prepare a Drought Monitoring Plan. Conduct Workshop No. 2.

Activities:

- Collect and review demand data for the 2020 UWMP for TVMWD and member agencies
- Estimate current demand and future demand projections based on available land use information, water use efficiency standards, and other data
- Analyze and summarize comparison of estimated demands with published demands

- Collect and review regional and member agency water supplies, including imported water, groundwater, stormwater, recycled water, Pure Water Southern California, and local water supplies
- Conduct vulnerability analysis of regional and member agency water supplies (meets DCP requirement) and identify the range of uncertainties associated with each supply
- Use vulnerability analysis and identified range of uncertainties to summarize regional and member agency water supply portfolio conditions
- Assess water shortage conditions based on current and future water supply needs and anticipated impacts to supplies from climate change and other risks
- Identify key indicators of water shortage conditions and use to formulate a drought monitoring plan to be implemented in the region to monitor existing and forecasted water supply conditions (meets DCP requirement)
- Develop project evaluation criteria and metrics (to be applied to selected projects and project portfolios in Tasks 5 and 6). Criteria will be formed with the following goals and objectives in mind:
 - To determine how well short and long-term needs are addressed accounting for potential impacts on water supply due to climate change. GEI will work with TVMWD to identify the basis for the short and long-term needs and will apply the vulnerability analysis (noted above) to help express the metrics for the project evaluation criteria
 - To support the current and future water resources priorities accounting for regional vulnerabilities due to climate change, drought, and other factors such as emerging contaminants and aging infrastructure
- Prepare a TM summarizing the regional and member agency demands, water supply, and shortage conditions. The shortage conditions will be represented by a range, such as low, high, and average. This range will be informed by the uncertainties identified in the vulnerability analysis noted above.
- Prepare a TM that summarizes the Drought Monitoring Plan
- Conduct Workshop No. 2
 - Review and develop a common understanding of the estimated water supply demands, water supplies conditions, and forecasted shortage conditions
 - Review the Demand, Supply, and Shortage Conditions TM
 - Review the Drought Monitoring Plan TM
 - Review project evaluation criteria and metrics (developed to support Task 5 and 6)
 - Summarize project description request (developed to support Task 5)

Deliverables/Outcomes (TMs to be shared with Reclamation once finalized):

- Demand and Water Shortage Conditions TM
- Drought Monitoring Plan TM
- Evaluation criteria and metrics
- Workshop No. 2 meeting summary

Task 5: Formulate Conceptual Projects

GEI will work with TVMWD and its member agencies to identify an array of projects to be evaluated using established criteria, as informed by the identified needs and water supply portfolio from Task 4. GEI will work with TVMWD and its member agencies to formulate objectives and screening criteria. The

objectives and screening criteria will be critical for identifying, organizing, and evaluating proposed projects.

Objectives: Review and document regional and member agency projects. Apply screening criteria to evaluate and identify potential projects for project portfolio integration.

Activities:

- Request information from member agencies for potential projects that would enhance the region’s water supply portfolio. GEI anticipates projects to be available in various forms such as:
 - Existing well-developed projects that have supporting information showing how the project integrates with and/or contributes to the region’s water supply portfolio
 - Existing conceptual or planning level projects that need further development to demonstrate how they integrate with or contribute to the region’s water supply portfolio
 - New projects identified during the project formulation phase or projects that are the result of the integration of existing well-developed projects and existing conceptual projects.
- Prepare planning-level designs and costs for all projects. Evaluate other considerations such as technical and implementation complexity as well as economic and regulatory considerations to determine the implementability of each project
- Apply evaluation criteria to projects using the established criteria. These criteria will be applied in two steps.
 - The first step is to apply the project screening criteria to the individual projects to identify their effectiveness at meeting the project goals
 - Projects that pass the initial screening criteria will be considered for inclusion into the project portfolios
 - Conduct one-on-one interviews with project proponents to review questions and address information gaps. As an option, request agency to resubmit project information to address questions and information gaps
- Prepare a TM summarizing the screening and evaluation process, including the screening criteria and how they are to be applied
- Prepare a TM that summarizes the screening and evaluation of the projects, and the findings of that process
- Conduct Workshop No. 3
 - Present the summary of project descriptions received from member agencies
 - Review the project screening and evaluation process and the draft findings from the screening and evaluation of the projects
 - Review concepts for how projects could be integrated together into various project portfolio groupings that, when connected to one another, could better meet the region’s needs and goal of the WRMP-DCP, providing the best value for the region

Deliverables/Outcomes:

- Screening and Evaluation Process TM
- Project Screening and Evaluation TM
- Common understanding among TVMWD and its member agencies of how possible project portfolios could add benefit to the region and how this will be evaluated in subsequent tasks
- Workshop No. 3 meeting summary

Task 6: Develop Project Portfolios

Findings from Task 5 efforts will inform the identification and organization of project portfolios. GEI will use input to assess and prioritize project portfolios. Input will come from TVMWD, member agencies and other stakeholders. GEI will develop and apply a decision model that incorporates the project evaluation criteria, benefits, costs, and feasibility conditions (technical, environmental, financial, and institutional) to develop project portfolios. Project portfolio themes may be developed, such as investment-based portfolios (low, medium, and high), uncertainty-based portfolios, and maximum-benefit based portfolios. GEI will work with TVMWD and member agencies to develop and confirm the appropriate themes based on the regional and local goals and needs.

Objectives: Identify and evaluate opportunities for integration of TVMWD and member agency projects and resources into project portfolios that provide regional benefit and document regional and member agency projects. Apply screening criteria to evaluate and identify potential projects for project portfolio integration.

Activities:

- Configure information for selected projects into a series of infographics including maps and illustrations to represent commonalities and differences among agency water resources and infrastructure
- Develop and apply a high-level network tool representing the TVMWD distribution system (Microsoft Excel based or similar practical platform). Apply tool together with information collected for the projects to identify potential integration opportunities among TVMWD and its member agency sponsored projects.
- Organize the project portfolios into themes
- Develop and apply a decision tool informed in part by the high-level network tool and other project characteristics to assess the benefits, costs, and feasibility conditions of project portfolios within each theme. Identify the best performing project portfolio within each theme.
- Summarize the preferred project portfolio from each theme.
- Identify what projects within the project portfolios best mitigate vulnerabilities due to drought and climate change. These projects will be used to inform the Mitigation Actions element required of the DCP. The Drought Task Force will review and comment on these recommended Mitigation Actions in Workshop No. 4 (see below).
- Identify what projects within the project portfolios best respond to drought conditions and water supply shortages due to drought and climate change. These projects will be used to inform the Response Actions element required of the DCP. The Drought Task Force will review and comment on these recommended Response Actions in Workshop No. 4 (see below).
- Prepare a TM that summarizes the integration and evaluation of the project portfolios, and the Mitigation Actions identified through this assessment for addressing supply vulnerabilities.
- Conduct Workshop No. 4
 - Present the process for evaluating projects portfolios.
 - Review the findings and recommendations for the project portfolios
 - Review the identified Mitigation Actions TM
 - Review the identified Response Actions TM

Deliverables/Outcomes:

- Project Portfolio TM
- Mitigation Actions TM (to be shared with Reclamation once finalized)
- Response Actions TM (to be shared with Reclamation once finalized)
- Workshop No. 4 Meeting Summary

Task 7: Prepare the Water Resources Master Plan and DCP

GEI will integrate findings from Tasks 4, 5, and 6 into the WRMP-DCP. GEI will conduct a financial analysis of the recommended project portfolio, including potential costs and impacts on TVMWD's water rates and recommendations for cost recovery. GEI will review available grant and loan funding opportunities to identify potential alignment with projects and develop a funding strategy. GEI will develop an implementation plan or roadmap that describes the process for taking next steps to pursuing the priority project portfolio.

Objectives: Prepare a financial analysis as part of the WRMP-DCP. Prepare an Operational and Administrative Framework for implementing the WRMP-DCP. Develop a process for updating the WRMP-DCP. Prepare the WRMP-DCP.

Activities:

- Develop financial analysis for the recommended project portfolio
- Identify potential grant and loan opportunities and develop funding strategy
- Develop WRMP Implementation Plan ("WRMP Roadmap")
- Develop Operations and Administrative Framework (required for DCP). This includes an implementation plan that will include aspects of agency roles and responsibilities for planned management actions.
- Develop Plan Development and Update Process (required for DCP). This includes a process and schedule for monitoring, evaluating, and updating the WRMP-DCP.
- Prepare WRMP-DCP
- Workshop No. 5
 - GEI will facilitate a workshop with TVMWD and the Management Team to review the preparation of the draft WRMP-DCP
 - Review findings from the WRMP and DCP
 - Prepare WRMP Roadmap
 - Apply feedback during workshop to make refinements and finalize the draft DCP for delivery to Reclamation
- Workshop No. 6
 - GEI will facilitate a workshop with TVMWD and the Management Team to review the draft-final WRMP-DCP (and possible separated DCP that is Reclamation-compliant) and discuss next steps
 - Apply any final feedback received from Reclamation or during workshop to make refinements to the WRMP-DCP and finalize

Deliverables/Outcomes:

- WRMP-DCP
- DCP (as a stand-alone separate document, if needed for Reclamation compliance)
- Workshop No. 5 meeting summary
- Workshop No. 6 meeting summary

Task 8: Workshop Facilitation

Objectives:

To facilitate workshops for development of the WRMP-DCP to ensure that a wide range of perspectives are considered.

Activities:

- Host workshops as outlined in the schedule (**Figure 2**) to occur at logical points in the project to share results and gather input
- Prepare infographics to develop a common understanding of workshop topics
- Develop workshop materials for review by TVMWD
- Conduct run-of-show meetings prior to workshops
- Facilitate workshops and prepare meeting summaries

Deliverables/Outcomes:

- Workshop meeting materials
- Workshop meeting summaries

Task 9: Project Management and Reclamation Grant Administration

Objectives:

To communicate, monitor, and track project activities and progress to ensure work efforts and deliverables occur on schedule, on budget, and meet quality standards. To ensure project activities are in compliance with the Reclamation funding agreement.

Activities:

- Track monthly project progress and budget
- Host monthly project coordination meetings
- Maintain communication and coordination with the project team and TVMWD

Deliverables/Outcomes:

- Monthly invoices and progress reports to TVMWD
- Quarterly progress reports for TVMWD to submit to Reclamation

Key Staff

KATIE LAIRD, P.E. – PROJECT MANAGER AND DCP LEAD

Ms. Laird has over 10 years of water resources management experience in California. Ms. Laird has served as project and/or task order manager for several water resources projects and is well versed in managing teams of staff across multiple disciplines to ensure that projects are properly planned, executed, monitored, and completed. Her recent technical experience includes serving as the project manager and technical lead for TVMWD's WaterSMART DCP grant application to Reclamation, which was awarded in 2022, and for Western Municipal Water District's DCP, which received high praise by Reclamation.

ROGER PUTTY, P.E., P.M.P. – PRINCIPAL-IN-CHARGE AND WRMP LEAD

Mr. Putty has over three decades of water resources management experience supporting numerous aspects of water management and supply planning, feasibility investigations, and engineering studies. In the past 3 years, Mr. Putty has successfully overseen, as Project Manager and Principal-in-Charge, the development of two DCPs, respectively, for the Inland Empire Utilities Agency and Western Municipal Water District and served as GEI's Principal-in-Charge lead for TVMWD's WaterSMART DCP grant

application to Reclamation. In addition, Mr. Putty has managed and provided technical support to numerous integrated regional plans over the past 15 years. This extensive project experience demonstrates Mr. Putty's effectiveness in working with regional and local water management agencies to understand and assess their challenges and water supply vulnerabilities, and provide GEI resources to effectively support their needs for integrated water management planning and engineering services.

MIKE CORNELIUS, P.G. – NEEDS ASSESSMENT AND PROJECT PORTFOLIO LEAD

Mr. Cornelius is a principal geologist and has 34 years of experience in water resources management in California. His experience includes conducting and managing groundwater management, integrated regional water management, and flood management plans. Many of these efforts include establishing the base set of information and presenting it in a transparent format that gains acceptance by the participating agencies to become foundation to the planning study. These efforts support the development of a common set of information that helps the planning studies move forward efficiently and stay on schedule with support from the participating agencies. He has applied this experience in recent Groundwater Sustainability Plans and for the 2020 Eastern San Joaquin County IRWMP Addendum.

KWABENA ASANTE, Ph.D., P.E. – VULNERABILITY/UNCERTAINTY ANALYSIS LEAD

Dr. Asante is a hydrologist and climate resilience specialist with extensive experience in model development, resource assessment, building operational decision support systems and integrated planning for complex natural and man-made systems. He has supported the development of several regional water management and climate resilience plans, and most recently served as the vulnerability analysis lead for Western Municipal Water District's DCP.

MARIA PASCOAL – COMMUNICATION AND FACILITATION LEAD

Ms. Pascoal is a senior communications professional specializing in public outreach, technical writing, and graphic design. She has 20 years of experience with communications for engineering and scientific clients. She leads GEI's Strategic Communications Team to combine industry knowledge, technical writing, and graphic design to produce clear, effective communications for stakeholders and the public. Ms. Pascoal has supported numerous IRWMPs and other regional planning efforts such as Groundwater Sustainability Plans. In this capacity, she has provided strategic communications support, developed communications and engagement plans, prepared high-level reports documenting project progress for public and decision makers, and prepared executive summaries at project completion.

MARK COWIN, P.E. – PLANNING AND FINANCIAL ANALYSIS SENIOR ADVISOR

Mr. Cowin has 40 years of experience specializing in water resource planning and management. Before joining GEI, Mr. Cowin spent seven years as director of the California Department of Water Resources, where he managed a staff over 3,500 employees with authority and responsibility to protect, conserve, and manage the state's water supply. Mr. Cowin advised the governor and secretary for natural resources and worked closely with the state legislature in developing and implementing water resource management policy. He collaborated with principals from numerous federal, state, and local agencies in water operations, regulatory proceedings, and other issues.

Budget

The budget associated with our proposed scope of work is provided in **Table 1**.

Table 1: Anticipated Level of Effort

Task	Estimated Cost	Hours*
Task 1: Develop Detailed Workplan and Report Outline	\$8,000	33
Task 2: Develop a Communications and Outreach Plan	\$16,000	67
Task 3: WRMP-DCP Kick-off/Workshop 1	\$12,000	50
Task 4: Evaluate Needs and Shortage Conditions	\$90,000	375
Task 5: Formulate Conceptual Projects	\$70,000	292
Task 6: Develop Project Portfolios	\$100,000	417
Task 7: Prepare the Water Resources Master Plan and DCP	\$45,000	188
Task 8: Workshop Facilitation	\$28,000	117
Task 9: Project Management and Reclamation Grant Administration	\$30,000	123
Total	\$399,000	1,661

*Note: Assumes an average billing rate of \$240/hour

Schedule

The proposed schedule for development of the WRMP/DCP is provided as **Figure 2**. The project will begin immediately following Notice to Proceed and is expected to take place over 24 months, which is partially informed by the agreement to be executed between TVMWD and Reclamation for development of the DCP.

Figure 2: WRMP-DCP Schedule

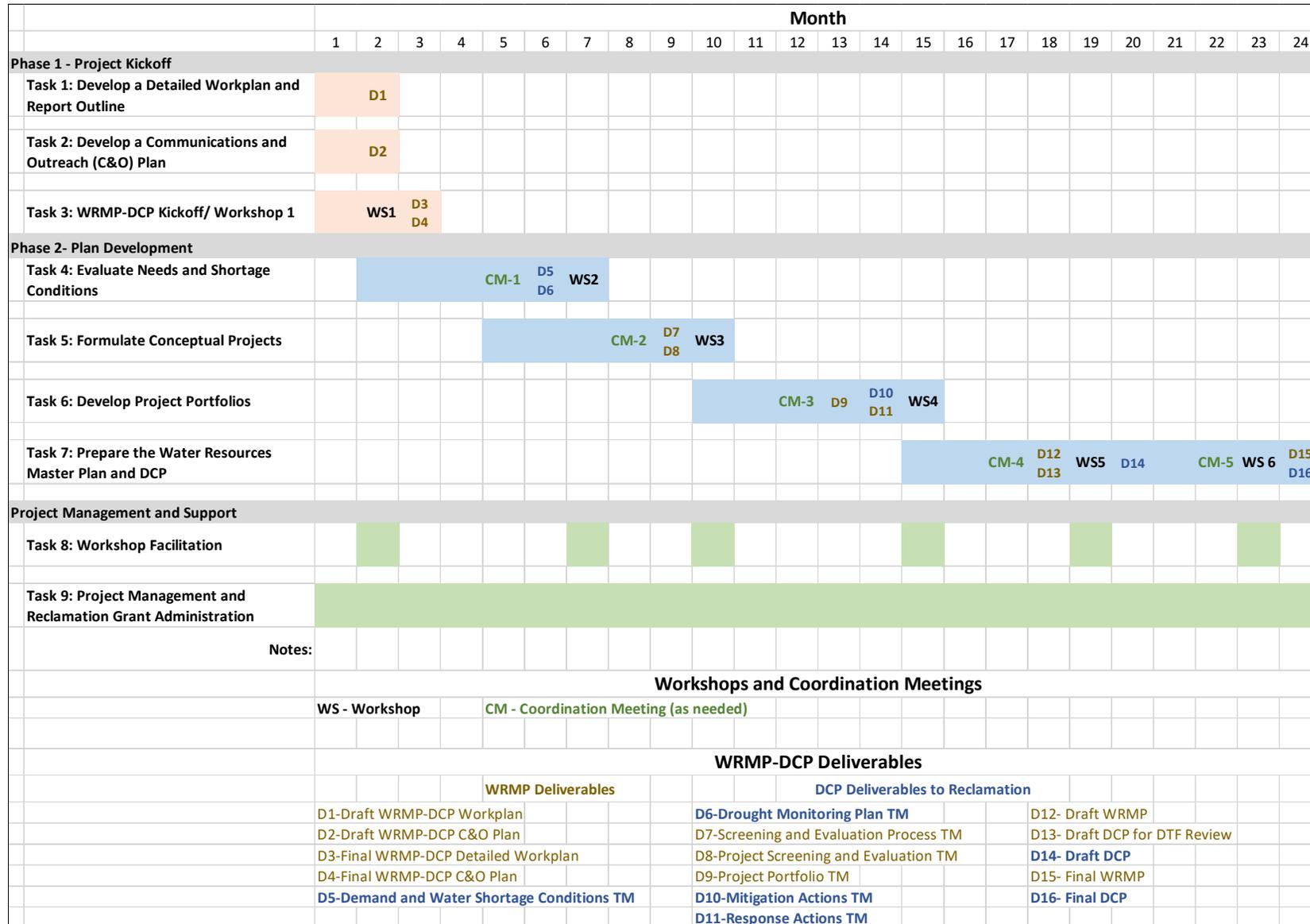
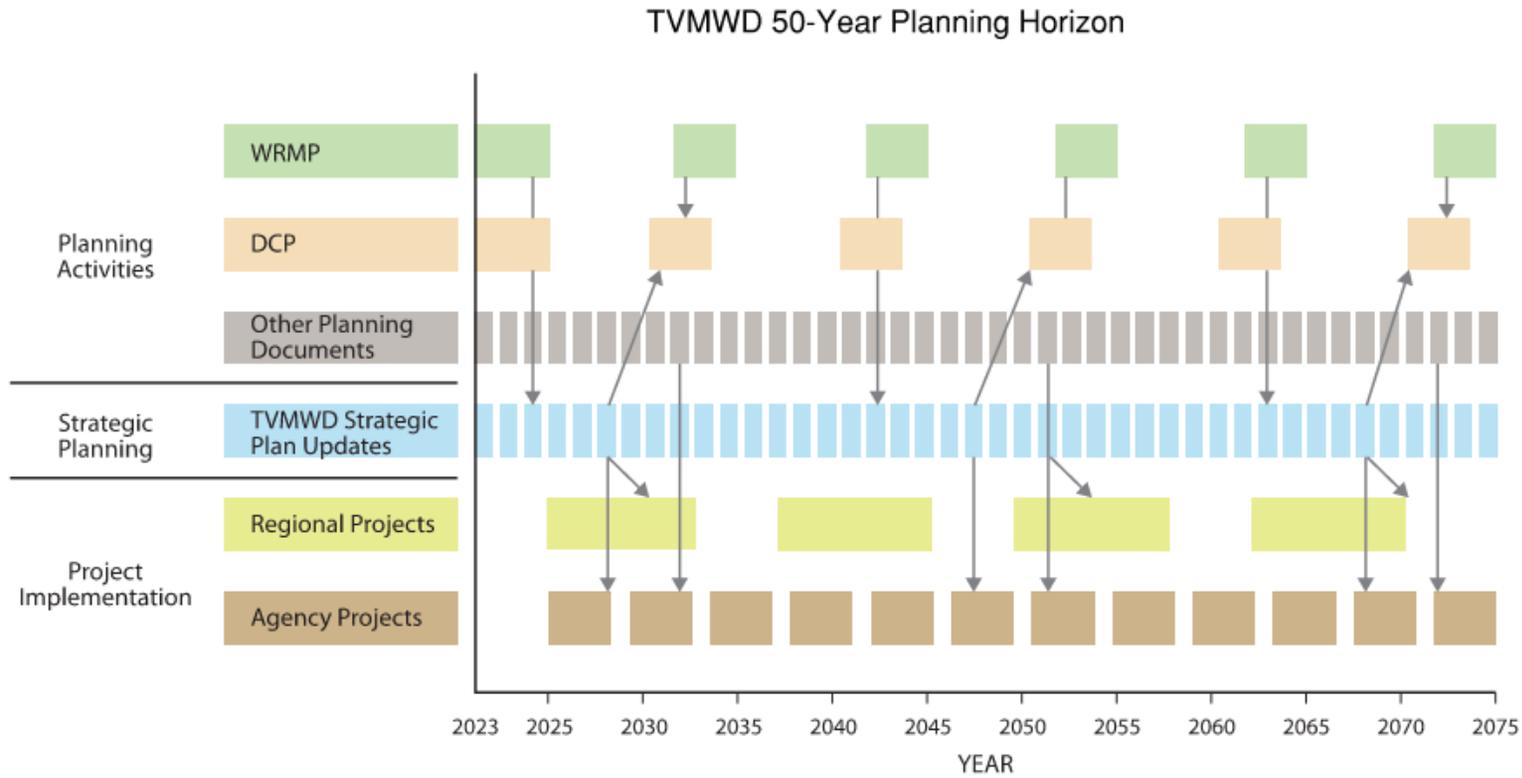


Figure 3: Relationship Between the WRMP, DCP, Strategic Planning Efforts, and Other Plans and Projects



For illustrative purposes only