

President
Stacy Doolittle

VP
Tomas Short

Directors
Tom Floen
Jane Jarlsberg
David Fick

**General
Manager**
Sarah Johnson

Legal Counsel
Jeff Hoskinson



REGULAR MEETING AGENDA OF THE BOARD OF DIRECTORS **Wednesday, May 20, 2026, at 5:00 p.m.**

MEETINGS ARE HELD IN PERSON AT 61750 CHOLLITA RD., JOSHUA TREE, CA 92252

REMOTE ACCESS IS AVAILABLE FOR THE CONVENIENCE OF THE PUBLIC

CLICK TO JOIN VIRTUALLY: [ZOOM LINK](#)

CALL TO JOIN BY PHONE: (669) 444-9171

MEETING ID: 864 4800 3304

PASSCODE: 61750

MISSION, VISION, AND VALUES

Mission Statement

To provide, protect, and maintain Joshua Tree's water - our vital community resource.

Vision Statement

To achieve excellence in all District endeavors.

Values

The community of Joshua Tree has entrusted the Board of Directors and employees of Joshua Basin Water District with its most valuable natural resource, its groundwater. As stewards of the community water supply, we oversee this critical natural resource to ensure current and future water reliability. Dedicated to this purpose, we embrace these important values:

- **Integrity** – To consistently earn our customers’ trust by prioritizing the needs of the community... doing the right thing for the right reason.
- **Transparency** – To openly and honestly share information about our operations with the public.
- **Respect** – To treat the residents of Joshua Tree, and all those contacted in the course of business, with high esteem and regard.
- **Fiscal Responsibility** – To manage all resources as if they were our own, whether revenues, assets, or water supply, in a conscientious and appropriate manner.
- **Accountability** – To take responsibility for our decisions and actions in managing this essential resource.

1. CALL TO ORDER / PLEDGE OF ALLEGIANCE

2. DETERMINATION OF A QUORUM

Consideration of Board Member requests for remote participation.

3. APPROVAL OF AGENDA

4. PUBLIC COMMENT

This is the time set aside for public comment on any District related matter, whether appearing on the agenda or not. Pursuant to the Brown Act, the Board is prohibited from taking action on items not listed on the agenda. At the discretion of the Board President comments on a particular Agenized item may be deferred until that item is heard. Please state your name and limit your comments to 3 minutes. For members of the public attending the meeting on-line, please use the “Raise Hand” reaction feature in your toolbar on Zoom to signal your desire to comment and be recognized by the Board.

5. CONSENT CALENDAR

Consent calendar items are expected to be routine and non-controversial, to be acted upon by the Board at one time, without discussion. If a board member would like an item to be handled separately, it will be removed from the Consent Agenda for separate action.

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A. GENERAL MANAGER CONTRACT AMENDMENT

6. ITEM(S) PULLED FROM CONSENT CALENDAR FOR DISCUSSION

7. DISCUSSION/ACTION CALENDAR

Pg. 7-105

A. 2025 URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN

PRESENTED BY: GENERAL MANAGER, SARAH JOHNSON INTRODUCING ZANJERO’S WATER RESOURCES PLANNER, ADRIEL RAMIREZ

RECOMMENDED ACTION: REVIEW AND DISCUSS THE DISTRICT’S NEWLY UPDATED 2025 REGIONAL URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN

Pg. 106-126

B. RIDGELINE MUNICIPAL STRATEGIES GENERAL SERVICES AGREEMENT

PRESENTED BY: DIRECTOR OF FINANCE, ANNE ROMAN

RECOMMENDED ACTION: AUTHORIZE THE GENERAL MANAGER TO EXECUTE AGREEMENT WITH RIDGELINE MUNICIPAL STRATEGIES, LLC

Pg. 127-132

C. D3-1 RESERVOIR EVALUATION – ENGINEERING SERVICES PROPOSAL

PRESENTED BY: GENERAL MANAGER, SARAH JOHNSON

RECOMMENDED ACTION: APPROVE A PROFESSIONAL SERVICES AGREEMENT WITH ARDURRA GROUP, INC. FOR ENGINEERING SERVICES TO COMPLETE A D3-1 RESERVOIR EVALUATION IN AN AMOUNT NOT-TO-EXCEED \$23,288 AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE AGREEMENT.

Pg. 133-146

D. MARCH 2026 CHECK REGISTER

PRESENTED BY: DIRECTOR OF FINANCE, ANNE ROMAN

RECOMMENDED ACTION: APPROVE CHECK REGISTER

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E. SUPPORT FOR VISION FOR OUR WATER FUTURE

PRESENTED BY: GENERAL MANAGER, SARAH JOHNSON INTRODUCING PRESENTER BOARD PRESIDENT DOOLITTLE

RECOMMENDED ACTION: CONSIDER ADOPTION OF A RESOLUTION 26-1085 IN SUPPORT OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES (ACWA) VISION FOR OUR WATER FUTURE

F. CONSIDERATION OF ESTABLISHING A STANDING COMMITTEE ON WATER & GROWTH IMPACTS

PRESENTED BY: GENERAL MANAGER, SARAH JOHNSON INTRODUCING
PRESENTER: BOARD PRESIDENT DOOLITTLE

RECOMMENDED ACTION: DISCUSS AND PROVIDE DIRECTION REGARDING THE POTENTIAL ESTABLISHMENT OF A STANDING COMMITTEE RELATED TO WATER SUPPLY, WASTEWATER/SEWER PLANNING, INFRASTRUCTURE CAPACITY, SERVICE DEMAND, FISCAL IMPACTS, AND RELATED COMMUNITY GROWTH TRENDS.

POSSIBLE ACTIONS MAY INCLUDE:

- ESTABLISHING A STANDING OR AD HOC COMMITTEE;
- PROVIDING DIRECTION REGARDING COMMITTEE SCOPE (CHARTER), COMPOSITION, AND PURPOSE;
- REFERRING THE MATTER FOR ADDITIONAL REVIEW; OR
- TAKING NO ACTION.

8. DIRECTOR REPORTS/COMMENTS

This time is reserved for Director reports and comments on matters within the District’s jurisdiction, for informational purposes only, on subjects not covered by the agenda; the opinions expressed by individual Directors do not necessarily reflect those of the Board as a whole or District staff, and no action shall be taken.

9. MANAGERS’ REPORT

For informational purposes only on subjects not covered by the agenda. No action is to be taken.

10. AGENDA ITEMS REQUESTED BY THE BOARD

Directors may request items be placed on future agendas. These requests will be recorded on the “Future Agenda Items” list, located on the page following the agenda, and scheduled as time permits. Items will be brought back for Board discussion as requested—no additional staff work will be initiated in advance. The Director making the request is responsible for being prepared to discuss the topic for initial consideration. The full Board will then vote to determine whether the item moves forward for staff involvement.

11. ADJOURNMENT

MEETING INFORMATION

The public is invited to comment on any item on the agenda during the discussion of that item.

Availability of agenda materials: Materials related to any item on this Agenda submitted to the District Board of Directors or Committee Members after distribution of the agenda packet are available for public inspection at the District's office, 61750 Chollita Road, Joshua Tree, CA 92252, during normal business hours. All documents supporting this agenda are available on the District website www.jbwd.com, subject to the staff's availability to post the documents before the meeting.

Reasonable Accommodation: Any person with a disability who requires accommodation to view the agenda or to participate in the public comment portion of the Board meeting, should direct such requests to Lisa Thompson, Executive Assistant, at 760-366-8438. Please allow three business days for your request to be processed. Requests must be received at least seventy-two (72) hours before the scheduled meeting.

Disruptive Conduct: If any meeting of the District is willfully disrupted by a person or by a group of persons so as to render the orderly conduct of the meeting impossible, a meeting may be recessed or the person or persons willfully disrupting the meeting may be ordered to leave the meeting. Disruptive individuals attending on-line may be removed from the meeting and banned for the remainder of such session. Disruptive conduct includes addressing the Board or Committee without first being recognized, not addressing the subject before the Board or Committee, repetitively addressing the same subject, failing to relinquish the podium when requested to do so, or otherwise preventing the Board or Committee from conducting its meeting in an orderly manner. Your cooperation is appreciated.



AGENDA ITEM NO:	5A
MEETING DATE:	05.20.26

Staff Report

PRESENTED BY:	Jeff Hoskinson, Legal Counsel
TOPIC:	AMENDMENT NO. 3 TO GENERAL MANAGER EMPLOYMENT AGREEMENT BETWEEN JOSHUA BASIN WATER DISTRICT AND SARAH JOHNSON
RECOMMENDATION:	APPROVE AMENDMENT NO. 3 AS PRESENTED

SUMMARY: Amendment No. 3 to the General Manager Employment Agreement is proposed to increase General Manager Sarah Johnson’s vacation accrual from 6.15 hours to 7.69 hours per pay period, effective June 20, 2026, consistent with benefits provided to other management-level employees upon reaching 10 years of service with the District, as reviewed and discussed during Ms. Johnson’s 2026 performance evaluation.

BACKGROUND: On June 23, 2023, the Joshua Basin Water District and General Manager Sarah Johnson entered into an agreement (“Agreement”) to continue her service as the District’s General Manager. That Agreement provided for her compensation and fringe benefits, including, among other things, vacation accrual at 6.15 hours of paid vacation per pay period, which equates to four weeks per year. The Agreement also set forth an intent that, with respect to the benefits provided, they were intended to align with the same benefits afforded other management level employees.

On June 20, 2026, Ms. Johnson will reach her 10-year anniversary date with the District. At such milestone, other management level employees would receive an increase in vacation accrual to 7.69 hours per pay period, which equates to five weeks per year. Accordingly, in order to maintain her benefits at a level aligned with other management level employees, Amendment No. 3 is proposed to modify the Agreement to reflect an accrual of 7.69 hours of paid vacation per pay period, effective as of June 20, 2026.

CONCLUSION: The Board, by approving Amendment No. 3, will align Ms. Johnson’s benefits with those benefits that would otherwise be received by other management level employees at the District.

STRATEGIC PLAN: 4.1 – Promote organization activities that successfully recruit, trains, develops, and retains effective leaders and team members.

**AMENDMENT NO. 3
TO
GENERAL MANAGER EMPLOYMENT AGREEMENT
BETWEEN JOSHUA BASIN WATER DISTRICT AND SARAH JOHNSON**

Amendment No. 3 (2026)

This Amendment ("AMENDMENT NO. 3") is made and entered into this 20th day of May, 2026 ("Effective Date"), amending the "General Manager Employment Agreement Between Joshua Basin Water District and Sarah Johnson" dated June 30, 2023 ("AGREEMENT"), as subsequently amended by AMENDMENT NOS. 1 and 2, by and between the Joshua Basin Water District, a California county water district ("DISTRICT"), and Sarah Johnson, an individual and JBWD's General Manager ("JOHNSON"). JBWD and JOHNSON may be called "Party," or collectively as "Parties."

RECITALS

WHEREAS, JBWD and JOHNSON entered into the AGREEMENT with an effective date of June 30, 2023, with a subsequent amendment as documented in AMENDMENT NOS. 1 and 2 executed in March 2024 and February 2025, respectively; and

WHEREAS, the Parties desire to further amend the AGREEMENT to revise provisions relating to adjustments to JOHNSON's vacation accrual benefits, as set forth herein.

AMENDMENT

1. Vacation Use. Section 7(c)(ii)(2) of the AGREEMENT is, effective as of June 20, 2026, amended and replaced, in its entirety, to read:

Vacation. JOHNSON shall receive 7.69 hours of paid vacation per pay period. Unused accrued VACATION time shall remain on the books for the term of JOHNSON's employment, and may be used as (1) VACATION time or (2) as compensation in lieu of VACATION, so long as forty (40) hours of vacation time remains on the books and JOHNSON has taken forty (40) hours of VACATION leave within the same calendar year.

2. Remainder of Agreement. The balance of the Agreement and Amendment Nos. 1 and 2, except as amended herein, shall remain in full force and effect pursuant to its terms. In the event of a conflict between this AMENDMENT NO. 3 and the AGREEMENT or AMENDMENT NOS. 1 and 2, this AMENDMENT NO. 3 shall control.

IN WITNESS WHEREOF, the Parties hereto have caused this AMENDMENT NO. 3 as of the Effective Date.

JOSHUA BASIN WATER DISTRICT

SARAH JOHNSON

Stacy Doolittle, Board President

Sarah Johnson

Thomas Short, Board Vice-President



AGENDA ITEM NO:	7A
MEETING DATE:	05.20.26

Staff Report

PRESENTED BY:	SARAH JOHNSON, GENERAL MANAGER INTRODUCING ZANJERO'S WATER RESOURCES PLANNER, ADRIEL RAMIREZ
TOPIC:	2025 URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN
RECOMMENDATION:	REVIEW AND DISCUSS THE DISTRICT'S NEWLY UPDATED 2025 REGIONAL URBAN WATER MANAGEMENT PLAN AND WATER SHORTAGE CONTINGENCY PLAN.

BACKGROUND

California Water Code Sections 10610 through 10657 require urban water suppliers to prepare and adopt an Urban Water Management Plan (UWMP) and Water Shortage Contingency Plan (WSCP) every five years. The District last adopted its 2020 UWMP and WSCP in 2022.

Although the plans are identified by the ending year of the reporting cycle (for example, 2025), State law requires the plans to be adopted and submitted by June 30 of the following year (i.e., the 2025 UWMP and WSCP are due by June 30, 2026). Accordingly, the District's 2025 UWMP and WSCP updates are on schedule and necessary to maintain compliance with State law and eligibility for State funding opportunities.

DISCUSSION

For the 2025 update cycle, the District participated in a Regional Urban Water Management Plan (RUWMP) effort led by the Mojave Water Agency (MWA). MWA contracted with Zanjero, Inc. to prepare a coordinated plan on behalf of Joshua Basin Water District and other regional desert water agencies.

This regional approach provides:

- Improved coordination and consistency among participating agencies
- Cost efficiencies through shared resources
- A more comprehensive evaluation of regional water supply reliability

The UWMP evaluates the District's water supply reliability over a **20-year planning horizon** under a range of hydrologic conditions. The WSCP establishes a framework for responding to water shortages, including defined shortage stages, response actions, and public communication strategies.

Today, representatives from Zanjero will provide the Board with an overview of both the UWMP and WSCP and answer any questions regarding the plans.

The draft documents are currently available for public review on the District's website. The District will accept public comments and feedback through May 27, 2026, and all comments received will be considered and incorporated as appropriate into the final documents.

Staff anticipates bringing the final draft documents back to the Board on June 3, 2026, for a public hearing and adoption of the final UWMP and WSCP.

ATTACHMENTS

2025 Urban Water Management Plan (Draft)
2025 Water Shortage Contingency Plan (Draft)

STRATEGIC PLAN

1.1. & 1.1.a - Plan for a sufficient long-term water supply to meet current and future customers' needs. Inventory groundwater resources and assess long-term sustainability ...
5.3.a - Determine the capacity of water supply and how much growth can be supported.

FISCAL IMPACT

Preparation of the UWMP and WSCP was coordinated through the regional effort led by MWA, resulting in cost efficiencies to the District. Funding for the District's participation was included in the adopted budget totaling \$15,000.

Chapter 13.0

Joshua Basin Water District



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Sub-Chapter 13.1 – Introduction

Joshua Basin Water District (District) was formed in 1963 as a public agency through the consolidation of several smaller water systems to provide reliable potable water service within its defined service area in San Bernardino County. The District is governed by an elected Board of Directors and operates through its core functional divisions of Operations, Finance, and Administration.

The District's service area overlies portions of the Copper Mountain and Joshua Tree groundwater subbasins and encompasses areas within and surrounding the communities of Yucca Valley and Twentynine Palms, including portions of Joshua Tree National Park and the Marine Corps Air Ground Combat Center at Twentynine Palms.

The District's water supply portfolio is comprised primarily of groundwater extracted from the Copper Mountain and Joshua Tree subbasins, which represent the predominant source of supply for meeting customer demands. To supplement local groundwater resources and support long-term basin management objectives, the District also utilizes imported water made available through the Mojave Water Agency (MWA), including supplies associated with the Morongo Basin Pipeline (MBP). Ensuring an adequate and reliable water supply for current and future customers is fundamental to the District's mission. Through participation in the 2025 Mojave RUWMP (2025 RUWMP), the District supports coordinated, basin-wide planning. Regional conditions and assumptions are presented in the 2025 RUWMP regional chapters, while this chapter focuses on District-specific system characteristics, demands, demand management measures, and reliability.

13.1.1 Background and Purpose

The District has ensured compliance with the Urban Water Management Plan Act (UWMPA) requirements for urban water suppliers through its participation in the 2025 RUWMP and preparation of this retail-specific chapter.¹ The UWMPA requires urban water suppliers to evaluate the adequacy of their water supplies to meet projected demands under average conditions, single-dry years, and multiple-dry-year scenarios through a 20-year planning horizon. This chapter presents the District's evaluation of these requirements and demonstrates its ability to meet anticipated demands under normal and drought conditions.

The 2025 RUWMP, together with this retail-specific chapter, updates the District's 2020 Urban Water Management Plan (UWMP) and incorporates new data, analyses, and regulatory

¹ California Water Code Sections 10610 through 10657.

guidance issued since 2020 by the California Department of Water Resources (DWR) pursuant to the California Water Code (CWC). In addition to satisfying statutory requirements, the 2025 RUWMP serves as a comprehensive planning document describing existing and future water supplies, projected water demands, demand management progress, and actions necessary to maintain long-term supply reliability. The regional plan also documents cooperative efforts among participating agencies to efficiently manage shared resources and address future water needs across the RUWMP Planning Area.

13.1.2 Basis for Plan Preparation

The District operates a Public Water System as described in California Health and Safety Code Section 116275. The District is also classified as an Urban Water Supplier pursuant to California Water Code (CWC) Section 10617, as it provides water for municipal purposes to more than 3,000 service connections and supplies more than 3,000 acre-feet of water annually. These qualifications require the preparation and adoption of a UWMP every five years. Under CWC Section 10620 (d)(1), these requirements may be satisfied through participation in an RUWMP, which the District and the other Urban Water Suppliers within the Planning Area have elected to prepare collaboratively. Details of the District’s Public Water System are provided in **Table 13-1**.

TABLE 13-1: PUBLIC WATER SYSTEM INFORMATION

Public Water System Number	Public Water System Name	Number of Municipal Connections ²
CA3610025	Joshua Basin Water District	~ 5,574

13.1.3 Coordination and Outreach

Preparation of the 2025 RUWMP involved coordination among the participating Urban Water Suppliers and MWA, which serves as the region’s wholesale water supplier. This coordination ensured consistency in assumptions, methodologies and regional analyses. The District actively participated in this collaborative process through technical meetings, data sharing, and review of draft materials addressing both regional conditions and District-specific operations.

As required by the UWMPA, the District coordinated with nearby agencies during development of this chapter to ensure consistency with related land use and water resource

² The number of municipal connections presented in Table 13-1 includes both active and inactive municipal service connections.

planning efforts, including General Plans, Water Master Plans, and Specific Plans associated with anticipated development.

Consistent with CWC Section 10641, the District encouraged active participation from a broad cross-section of the community representing diverse social, cultural, and economic interests within its service area during preparation of this chapter. Public notice of the plan's availability and the scheduled public hearing was provided, and a public hearing was conducted prior to adoption to solicit input from customers, stakeholders, and interested parties.

Comprehensive documentation of the regional planning process, including interagency coordination, formal notifications provided in accordance with CWC Section 10621(b), stakeholder engagement, and outreach activities conducted on behalf of all participating agencies, is provided in *Sub-Chapter 1.1.3 Coordination and Outreach of Regional Chapter 1 - Introduction*.

13.1.3.1 Water Supplier Information Exchange

Compliance with CWC Section 10631 is described in Sub-Chapter 1.1.3 Coordination and Outreach of Regional Chapter 1 - Introduction.

13.1.4 RUWMP Adoption

The District elected to hold a public workshop on May 20, 2026, to provide information regarding the 2025 RUWMP and allow for public review and discussion before formal consideration of the plan. No action was taken at the May 20, 2026, public workshop. Prior to the workshop and public hearing, the District made a draft of the 2025 RUWMP available for public inspection at 61750 Chollita Road, Joshua Tree, CA 92252. Pursuant to CWC Section 10642, general notice of the public hearing was provided through publication of the hearing date and time in the local press as required under the UWMPA.

The District's elected body held a public hearing regarding the 2025 RUWMP on June 3, 2026. Following the public hearing, the District's elected body adopted the 2025 RUWMP on June 3, 2026. A copy of the 2025 RUWMP will be submitted to DWR, provided to the County and the California State Library, and posted onto the District's website.

The District plans to submit all required documentation related to the UWMPA through the DWR submittal website soon after adoption, including the on-line submittal of information associated with the following DWR Excel workbooks:

- "FINAL Submittal 2025 UWMP Tables – Joshua Basin WD – 06.01.2026.xls"
- "Appendix F 2025 Checklist – Joshua Basin WD – 06.01.2026.xls"

13.1.5 Document Organization

This chapter is organized as follows:

- Sub-Chapter 13.2 Water Service and System Description
- Sub-Chapter 13.3 Population, Land Use, Economy, and Demographics
- Sub-Chapter 13.4 Water Supply and Infrastructure Characterization
- Sub-Chapter 13.5 Water Use Characterization
- Sub-Chapter 13.6 Water Conservation and Shortage Response
- Sub-Chapter 13.7 Water System Reliability and Drought Risk Assessment
- Sub-Chapter 13.8 Energy Intensity Analysis

Sub-Chapter 13.2 – Water Service and System Description

The Joshua Basin Water District provides potable water service to the residents and businesses within its service area, depicted in **Figure 13-1**, which encompasses Joshua Tree, other census-designated places, and portions of the Joshua Tree National Park.

Water service in the District relies entirely on groundwater extracted from wells located throughout the service area. The District manages five active wells that tap into local aquifers to provide the community's water supply. Once extracted, water is treated to meet all applicable federal and state water quality standards and is either directed into the distribution system or stored in one of the District's 17 reservoir tanks, which collectively provide approximately 12.3 million gallons of storage. These reservoirs help ensure that the community has access to adequate water during periods of high demand, particularly in the summer months.

The District's water system encompasses an extensive distribution network designed to deliver water efficiently to homes, businesses, and fire protection systems. The system includes over 300 miles of water mains, thousands of service connections, 12 booster pump stations, 12 pressure-reducing stations, and thousands of valves and fire hydrants that allow the District to isolate portions of the system for maintenance or emergencies without disrupting service to the broader community. **Table 13-2** summarizes recent historical active service connections by customer type, providing an overview of the composition of the District's customer base.³ The District also engages in regular inspection, maintenance, and replacement of system components to ensure long-term reliability and safety of the water supply.

³ Active service connection counts presented in Table 13-2 reflect the customer connection data reported in the District's Electronic Annual Report (EAR) submitted annually to the State Water Resources Control Board (SWRCB).

FIGURE 13-1: JOSHUA BASIN WATER DISTRICT SERVICE AREA

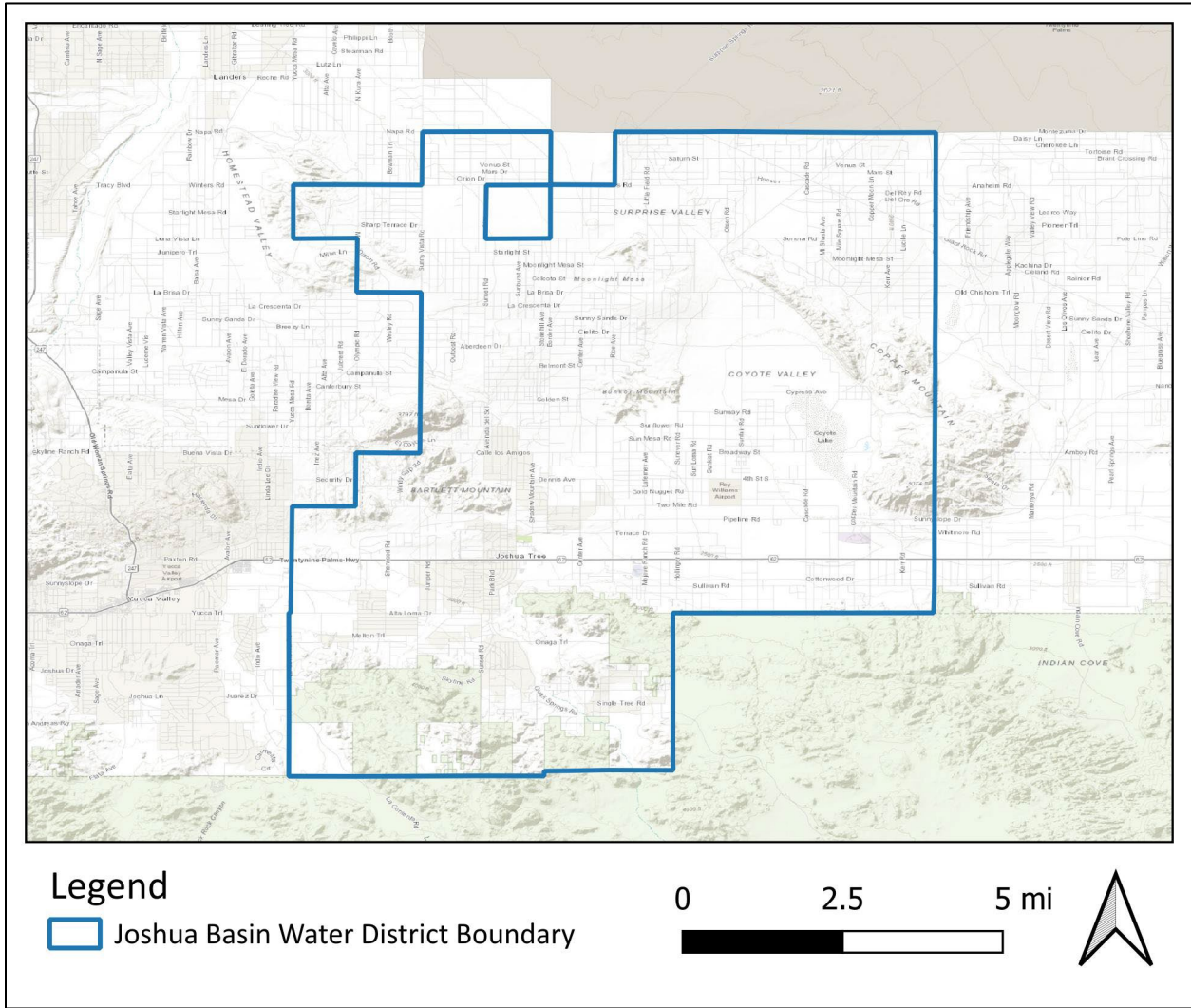


TABLE 13-2: ACTIVE CUSTOMER WATER SERVICE CONNECTIONS

Customer Class	2021	2022	2023	2024	2025
Single-Family Residential	4,831	4,857	4,703	4,629	4,638
Multi-Family Residential	95	95	90	90	83
Commercial/Institutional	142	159	109	147	143
Landscape Irrigation	21	19	19	18	17
Total	5,089	5,130	4,921	4,884	4,881

13.2.1 Service Area Climate

Located in California’s Mojave Basin, the District’s service area experiences a climate characteristic of the High Desert. The region is highly arid due to the rain shadow effects of surrounding mountain ranges and is marked by hot summers and relatively cool winters. This results in low precipitation and large diurnal temperature variations throughout the year. Average annual precipitation is minimal, with a 30-year average of 4.5 inches, occurring primarily as rainfall between December and March. While late summer monsoonal thunderstorms may contribute episodic precipitation, these events typically account for only a small portion of total annual precipitation. The annual average temperature is approximately 61 degrees Fahrenheit; however, the High Desert climate produces substantial seasonal extremes, with summer temperatures frequently exceeding 100 degrees and winter lows occasionally falling below freezing. Overall, the District’s service area climate is generally consistent with climatic conditions across the RUWMP Planning Area. A more detailed discussion of Planning Area’s climate characteristics is provided *in Sub-Chapter 2.1.5 Climate of Regional Chapter 2 – The Mojave Region*.

13.2.1.1 Climate Change

Climate change is driven by increasing concentrations of atmospheric carbon dioxide and other greenhouse gases, resulting in rising temperatures and greater hydrologic variability. These effects underscore the importance of considering climate change in this 2025 RUWMP. While the CWC does not prescribe specific climate change planning or management measures for retail water suppliers, it emphasizes that climate change is an appropriate consideration for general water management and planning. Accordingly, climate change is a critical factor in assessing the availability and reliability of water supplies, as well as future demand projections. A detailed discussion of climate change impacts on the District’s water supplies and demands, as well as those of the RUWMP Planning Area at-large, is provided in *Sub-Chapter 2.1.5 Climate of Regional Chapter 2 – The Mojave Region*.

Sub-Chapter 13.3 – Population, Land Use, Economy, and Demographics

Service area population and land use projections are critical to developing a useful planning framework as population dynamics and growth are a primary influence on water use. These projections directly influence planning measures for system supply, delivery, infrastructure, and demand management. Similarly, understanding the service area's economic, social, and demographic trends provide valuable insight to water management and planning. This sub-chapter addresses these factors to provide a supportable basis for forecasting future water use.

13.3.1 Current Population and Historic Trends

Population estimates for the District are based on the population forecast prepared in 2020 by the Center for Economic Forecasting and Development at the University of California, Riverside (UCR Study), which was commissioned by MWA as part of the 2020 Urban Water Management Plan cycle. The UCR Study developed population estimates for the entire MWA service area as well as for individual retailer water supplies using a comprehensive economic and demographic modeling approach.

In 2023, as part of MWA's Master Plan development, the agency reviewed and refined the UCR Study population projections using updated information not available during the study's development, including 2020 Census data and other available demographic indicators, to ensure that near-term population levels and growth patterns were accurately represented. Where appropriate, adjustments were applied to align study estimates with observed population totals while maintaining the long-term growth trajectory established by the UCR Study.

Population projections for the District reflect these regionally refined UCR Study estimates and therefore align with those used by the other retailers participating in the 2025 RUWMP. This approach ensures that demand projections developed for participating parties are consistent with basin-wide planning assumptions and analyses. Detailed methodologies used to develop and refine the regional population projections included in the UCR Study are presented in *Sub-Chapter 2.1.6 Current and Projected Population of Regional Chapter 2 – The Mojave Region*.

Historical population trends within the District have generally followed broader regional growth patterns associated with residential development, employment opportunities, and land availability in the High Desert. Much of the growth over the past several decades has been characterized by low-density residential development to serve the needs of a growing population. Continued growth is anticipated over the planning horizon, which will influence future water demand, infrastructure requirements, and resource management strategies. The population estimates presented in this sub-chapter provide the basis for the demand projections discussed in subsequent sub-chapters.

Table 13-3 presents the District’s historical population while **Table 13-4** presents the District’s population growth over the last decade.

TABLE 13-3: HISTORICAL POPULATION

1990	2000	2010	2015	2020	2025
7,515	8,062	9,534	9,929	10,227	10,375

TABLE 13-4: POPULATION GROWTH RATE - 2015-2024

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Population	9,929	10,012	10,090	10,164	10,216	10,227	10,257	10,286	10,316	10,345
Growth Rate		0.84%	0.78%	0.73%	0.51%	0.11%	0.29%	0.28%	0.29%	0.28%

13.3.2 Projected Population

CWC Section 10631(a) requires urban retail water suppliers to evaluate projected service area populations while considering past growth rates, economic conditions, and anticipated land use changes. Coordination with local land use planning efforts helps ensure that anticipated development patterns are appropriately represented in long-term demand forecasting.

Population within the District is generally stable and characterized by slow growth as compared to other Hi-Desert communities. The District’s proximity to Joshua Tree National Park attracts seasonal visitors and short term occupants who contribute to water demand, particularly during peak visitor periods, but these users do not represent permanent service area population. Similarly, the District serves a significant number of intermittently occupied connections, including second homes and short-term rental properties, which may generate demand when occupied but are not equivalent to year-round residential population.

While the Hi-Desert continues to attract modest growth the District’s service area is characterized primarily by low-density residential development and limited large-scale economic drivers, which constrain the pace of sustained population expansion over time.

More broadly, incorporated areas served by municipal water providers within the RUWMP Planning Area are projected to accommodate a substantial share of future regional population growth relative to unincorporated areas as illustrated in *Sub-Chapter 2.1.6 Current and Projected Population of Regional Chapter 2 – The Mojave Region*.

Table 13-5 presents the District’s projected population and associated growth rates through 2060.

TABLE 13-5: POPULATION FORECAST AND GROWTH RATE

	2025	2030	2035	2040	2045	2050	2055	2060
JBWD	10,375	10,536	10,673	10,800	10,919	11,029	11,131	11,225
Annual Growth Rate		1.55%	1.30%	1.19%	1.10%	1.01%	0.92%	0.84%

13.3.3 Current and Projected Land Use

The predominant land use within the District’s service area is residential, consisting largely of low-density, single-family development. While substantial areas of vacant and undeveloped land remain, land use patterns reflect an emphasis on maintaining the community’s rural character and open space. In contrast to other MWA retailer service areas, the District’s proximity to Joshua Tree National Park has influenced the development of hospitality and commercial land uses that support tourism activity. In addition, several small-scale residential developments have been proposed within the service area. These developments are generally consistent with anticipated infill and modest growth patterns and reflected in the population projections described in this sub-chapter.

13.3.4 Economic Trends & Other Social and Demographic Factors

Economic, social, and demographic conditions within the District’s service area are generally consistent with those observed throughout the RUWMP Planning Area. The local economy is influenced by a combination of tourism-related activity associated with Joshua Tree National Park, regional employment centers, and the presence of the Marine Corps Air Ground Combat Center at Twentynine Palms. These factors contribute to a mix of permanent and temporary populations, including residents, visitors, and military personnel.

Housing within the service area is predominantly composed of single-family residences, with development patterns characterized by low-density, rural residential uses. Broader economic

and demographic trends, including income levels, employment patterns, and population characteristics, generally reflect those of the surrounding High Desert region. Additional discussion of regional economic, social, and demographic conditions is provided in *Sub-Chapter 2.1.7.2 Economic Trends and Other Social and Demographic Factors of Regional Chapter 2 – The Mojave Region*.

Sub-Chapter 13.4 – Water Supply and Infrastructure Characterization

The District’s water supply portfolio is centered on locally managed groundwater resources, supported by infrastructure and management programs that ensure reliable delivery to customers. This sub-chapter describes the District’s water supply sources, associated management frameworks, and the infrastructure used to extract, store, and convey water throughout the service area. Together, these elements define the operational and planning foundation for maintaining long-term water supply reliability.

13.4.1 Groundwater

Groundwater is the primary water supply source for the District. The District relies on groundwater pumped from the Copper Mountain Valley Groundwater Basin (DWR Basin No. 7-11) and the Joshua Tree Groundwater Basin (DWR Basin No. 7-62) to meet potable water demands within its service area. These basins are locally managed groundwater systems that serve as the foundation of the District’s water supply portfolio.

The District manages its groundwater resources through ongoing monitoring, production management, and the use of supplemental imported supplies from MWA to support groundwater recharge and long-term basin conditions. As a long-term management objective, the District seeks to offset groundwater production through recharge of supplemental supplies to the extent imported water is available, financially feasible, and operationally practical. Although recharge and production may not balance in every individual year due to hydrologic conditions, imported water availability, infrastructure capacity, and cost, this approach supports long-term basin sustainability and allows the District to maintain a reliable, locally controlled groundwater supply portfolio capable of meeting current and projected demands.

13.4.1.1 Copper Mountain Groundwater Basin Supplies

The Copper Mountain Valley Groundwater Basin underlies a substantial portion of the District’s service area and serves as a source of groundwater supply. Located in the Morongo Basin area of San Bernardino County, the basin is characterized by alluvial aquifer systems that store and transmit groundwater derived from natural recharge, subsurface inflows, and incidental recharge sources. As described in the District’s 2020 UWMP, the basin contains an estimated 264,000 acre-feet of usable groundwater in storage, representing a significant

long-term water supply resource. The basin is not identified by the DWR as being in a condition of overdraft, indicating that current basin conditions support continued groundwater use under existing management practices.

Groundwater within the Copper Mountain Valley Basin is not subject to adjudication but is managed through a combination of local and regional planning efforts. The District monitors groundwater conditions through a combination of local and regional planning efforts. The District monitors groundwater conditions and manages production to support long-term basin sustainability. In addition, the District coordinates with MWA to utilize SWP supplies delivered via the MBP. These imported supplies supplement local groundwater resources and support recharge, contributing to the long-term reliability of the basin.

Historical production from the basin reflects the District’s reliance on this resource to meet customer demands. **Table 13-6** presents the District’s recent groundwater production from the Copper Mountain Valley Basin, which serves as the basis for estimating the District’s managed groundwater supply within the basin under current and projected conditions.

TABLE 13-6: LAST FIVE YEARS OF COPPER MOUNTAIN VALLEY BASIN SUPPLY (AFY)

Year	Copper Mountain Valley Basin Supply
2021	590
2022	370
2023	117
2024	116
2025	44

The District will continue to rely on groundwater from the Copper Mountain Valley Basin as a component of its water supply portfolio. For planning purposes, projected groundwater supply from the basin is based on the District’s average production over the 2021-2025 period, as shown in **Table 13-6**. This approach provides a representative estimate of baseline production under recent production patterns and supports evaluation of supply availability under normal, single dry, and multiple dry year scenarios through 2050. However, the projections presented in **Table 13-7** and **Table 13-8** are planning estimates and are not intended to prescribe the precise volume of groundwater that must be produced from the Copper Mountain Valley Basin in any given year. Actual future production from the basin may vary based on operational needs, well availability, water quality considerations, infrastructure improvements, and other District management decisions.

TABLE 13-7: PROJECTED COPPER MOUNTAIN VALLEY BASIN SUPPLY THROUGH 2030 (AFY)

Year Type		Copper Mountain Valley Basin Supply
Normal		245
Single Dry-Year		245
Multi-Year Drought	2026 (1 st Year)	245
	2027 (2 nd Year)	245
	2028 (3 rd Year)	246
	2029 (4 th Year)	247
	2030 (5 th Year)	247

TABLE 13-8: PROJECTED COPPER MOUNTAIN VALLEY BASIN SUPPLY THROUGH 2050 (AFY)

Total Supply		2030	2035	2040	2045	2050
Normal		247	250	253	255	257
Single Dry-Year		247	250	253	255	257
Multi-Year Drought	Year 1	247	250	253	255	257
	Year 2	248	250	253	255	257
	Year 3	248	251	253	256	257
	Year 4	249	252	254	256	257
	Year 5	249	252	254	257	258

13.4.1.2 Joshua Tree Groundwater Basin Supplies

The Joshua Tree Groundwater Basin underlies a portion of the District’s service area and serves as a source of groundwater supply within the District’s water supply portfolio. The basin is located within the Morongo Basin area of San Bernardino County and is characterized by alluvial aquifer systems that store and transmit groundwater derived from natural recharge, subsurface inflows, and incidental recharge sources. As described in the District’s 2020 UWMP, the basin contains an estimated 293,000 acre-feet of usable groundwater storage, representing a substantial volume of groundwater that supports the District’s long-term water supply planning.

Groundwater within the Joshua Tree Basin is not subject to adjudication and is managed through a combination of local and regional planning efforts. The District monitors groundwater conditions and manages production to support improved groundwater management and long-term basin sustainability. In addition, the District coordinates with MWA to utilize imported SWP supplies delivered via the MBP. These imported supplies are used to supplement local groundwater resources and support groundwater replenishment efforts within the basin.

Historical production from the basin reflects its role in supporting system demands in conjunction with supplies from the Copper Mountain Valley Basin. **Table 13-9** presents the District’s groundwater production from the Joshua Tree Basin over the 2021-2025 period, which serves as the basis for estimating the District’s managed groundwater supply within the basin under current and projected conditions.

TABLE 13-9: LAST FIVE YEARS OF JOSHUA TREE BASIN SUPPLY (AFY)

Year	Joshua Tree Basin Supply
2021	722
2022	925
2023	1,155
2024	1,190
2025	1,232

The District will continue to rely on groundwater from the Joshua Tree Basin as a component of its water supply portfolio. For planning purposes, projected groundwater supply from the basin is based on the District’s average production over the 2021-2025 period, as shown in **Table 13-9**. This approach provides a representative estimate of baseline production under recent production patterns and supports evaluation of supply availability under normal, single dry, and multiple dry year scenarios through 2050. However, the projections presented in **Table 13-10** and **Table 13-11** are planning estimates and are not intended to prescribe the precise volume of groundwater that must be produced from the Joshua Tree Basin in any given year. Actual future production from the basin may vary based on operational needs, well availability, water quality considerations, infrastructure improvements, and other District management decisions.

TABLE 13-10: PROJECTED JOSHUA TREE BASIN SUPPLY THROUGH 2030 (AFY)

Year Type		Joshua Tree Basin Supply
Normal		1,045
Single Dry-Year		1,045
Multi-Year Drought	2026 (1 st Year)	1,045
	2027 (2 nd Year)	1,045
	2028 (3 rd Year)	1,049
	2029 (4 th Year)	1,053
	2030 (5 th Year)	1,053

TABLE 13-11: PROJECTED JOSHUA TREE BASIN SUPPLY THROUGH 2050 (AFY)

Total Supply		2030	2035	2040	2045	2050
Normal		1,053	1,065	1,077	1,085	1,094
Single Dry-Year		1,053	1,065	1,077	1,085	1,094
Multi-Year Drought	Year 1	1,053	1,065	1,077	1,085	1,094
	Year 2	1,057	1,065	1,077	1,085	1,094
	Year 3	1,057	1,069	1,077	1,089	1,098
	Year 4	1,061	1,073	1,081	1,089	1,098
	Year 5	1,061	1,073	1,081	1,094	1,102

13.4.2 Groundwater Quality

Groundwater produced by the District is sourced from wells completed in the Copper Mountain Valley and Joshua Tree Groundwater Basins and is treated, as necessary, to meet all applicable federal and state drinking water standards prior to distribution. Groundwater quality within these basins reflects a combination of natural hydrogeologic conditions and localized influences, including land use and recharge patterns. The District conducts routine groundwater quality monitoring in accordance with regulatory requirements to ensure the continued safety and reliability of its potable water supply.

Detailed information regarding the quality of water delivered to customers, including detected constituents, regulatory compliance status, and treatment practices, is provided annually in the District’s Consumer Confidence Report (CCR). The most recent available report is the 2024 CCR, published in June 2025, which reflects water quality data from the 2024 calendar year in accordance with state reporting requirements that mandate annual preparation and distribution of CCRs by July 1 of the following year. The CCR summarizes monitoring results for the most recent reporting year and demonstrates compliance with primary drinking water standards established by the U.S. Environmental Protection Agency and the State Water Resources Control Board Division of Drinking Water (SWRCB). The District’s most recent CCR is available through the District’s website and provides the most current information on potable water quality conditions.⁴

While this section focuses on groundwater quality as it pertains to the District’s supply sources, a broader discussion of water quality conditions throughout the Mojave Region, including basin-wide characteristics, regulatory considerations, and regional management issues is presented in *Sub-Chapter 3.1.2 of Regional Chapter 3 – Regional Water Supply Characterization*.

Table 13-12 presents a summary of groundwater quality constituents based on information reported in the District’s 2024 CCR. The table reflects a subset of reported constituents and has been adapted for clarity and relevance to this UWMP.

⁴ Joshua Basin Water District 2024 CCR available at:
<https://www.jbwd.com/files/331985fa3/CCR+ADA+2024.pdf>

TABLE 13-12: JOSHUA BASIN WATER DISTRICT POTABLE WATER QUALITY

Water Quality Standards	Goal Level	Max Level	Range	Amount Detected
Primary Standards				
Arsenic (ppb)	0.004	10	ND - 4.9	2.2
Chlorine (ppm)	4 (as Cl ₂)	4.0 (as Cl ₂)	0.79 - 1.01	0.91
Chromium (ppb)	100	50	12 - 37	24
Fluoride (ppm)	1	2.0	0.46 - 0.83	0.66
Gross Alpha Particle Activity (pCi/L)	0	15	2.46 - 4.3	3.38
Hexavalent Chromium (ppb)	20	10	13 - 38	22.4
Nitrate as N (ppm)	45	45	2.1 - 6.3	3.22
TTHMs [total trihalomethanes] (ppb)	N/A	80	4.3 - 26	15.15
Copper (ppm)	0.3	1.3	0.013 - 0.092	0.061
Lead (ppb)	0.2	15	ND - 1.2	ND
Secondary Standards				
Chloride (ppm)	N/A	500	7 - 17	13
Color	N/A	15	N/A	ND
Manganese (ppb)	N/A	50	N/A	ND
Specific Conductance (umho/cm)	N/A	1,600	240 - 490	335
Sulfate (ppm)	N/A	500	9.2 - 120	40.8
Total Dissolved Solids (TDS) (ppm)	N/A	1,000	130 - 180	162
Turbidity (NTU)	N/A	5	ND - 3.2	0.3
Zinc (ppm)	N/A	5	N/A	ND
Federal Unregulated Contaminates				
Bromodichloromethane (ppb)	N/A	N/A	1.1 - 4.4	2.75
Bromoform (ppb)	N/A	N/A	1.5 - 11	6.25
Chloroform (ppb)	N/A	N/A	ND - 1.5	0.75
Dibromochloromethane (ppb)	N/A	N/A	1.7 - 9.1	5.4
Sodium (ppm)	N/A	N/A	37 - 60	45.25

13.4.3 Recycled Water Supplies

The District does not currently utilize recycled water as part of its water supply portfolio and has no plans to develop recycled water supplies within the planning horizon. The development of recycled water infrastructure is constrained by the District’s relatively small and dispersed customer base, limited wastewater generation, and the absence of centralized wastewater treatment facilities necessary to support recycled water production and distribution. Given these conditions, recycled water is not considered a feasible or cost-effective supply option at this time. Accordingly, no recycled water supplies are included in the District’s current or projected water supply portfolio.

13.4.4 Desalination Opportunities

The UWMPA requires urban water suppliers to evaluate potential opportunities for the use of desalinated water CWC Section 10631[i]. Based on current conditions, desalination is not considered a viable supply option for the District due to the absence of suitable source waters and the substantial cost associated with treatment, conveyance, and disposal. Therefore, the District has no plans to develop desalination facilities, and desalinated supplies are not incorporated into the supply projections presented in this sub-chapter.

13.4.5 Water Transfers and Exchanges

The District does not currently participate in formal water transfer or exchange programs as part of its water supply portfolio. Unlike adjudicated basins within the MWA service area, the groundwater basins underlying the District’s service area are not subject to court-ordered allocation frameworks that facilitate transfers of production rights among parties. The District’s water supply is primarily derived from locally managed groundwater resources, supplemented by imported supplies made available through MWA. While the District coordinates with MWA and regional partners regarding water supply planning and use of imported supplies, these activities do not constitute formal transfer or exchange mechanisms. Accordingly, water transfers and exchanges are not included as a component of the District’s current or projected water supply portfolio.

13.4.6 Supply Summary

Groundwater serves as the District’s principal water supply source. These supplies, derived from the Copper Mountain Valley and Joshua Tree Groundwater Basins, are sufficient to meet existing and projected demands under a range of hydrologic conditions. The District’s overall groundwater system benefits from substantial available storage across both basins and ongoing management actions to support long-term reliability. In addition, the District participates in regional programs with MWA, through which SWP supplies are delivered to the Morongo Basin via the MBP and recharged for storage. These recharged imported supplies augment local groundwater resources and support long-term basin conditions.

The District’s water supplies are managed as an integrated groundwater system consisting of locally derived groundwater and recharged imported supplies. This system includes native groundwater in storage within the Copper Mountain Valley and Joshua Tree Basins, supported by natural recharged from precipitation, subsurface inflows, and incidental recharge sources. These supplies are further supported by imported water delivered by MWA and recharged within the basins, which serves to offset groundwater production. The District monitors groundwater levels and manages production across both basins to maintain system reliability and respond to changing demand and hydrologic conditions.

Given the substantial volume of groundwater in storage and the District’s active groundwater management approach, sufficient supplies are available to meet projected demands under normal, single dry year, and multiple dry year conditions throughout the planning horizon. Accordingly, the District’s managed groundwater production over the planning horizon represents the supply available to meet system demands. Total managed groundwater production from 2021 through 2025 is shown in **Table 13-13**.

TABLE 13-13: DISTRICT’S MANAGED GROUNDWATER PRODUCTION 2021-2025 (AFY)

Year	Groundwater Production
2021	1,333
2022	1,299
2023	1,276
2024	1,307
2025	1,292

Projected groundwater supplies are derived from the demand projections described in *Sub-Chapter 13.5 – Water Use Characterization*. Given the District’s actively managed groundwater system, which includes substantial available storage within the Copper Mountain Valley and Joshua Tree Basins as well as imported recharge, groundwater production is adjusted to meet water demands through the managed groundwater system. Accordingly, projected groundwater supplies for the planning horizon are shown in **Table 13-14** and **Table 13-15**.⁵

TABLE 13-14: DISTRICT’S PROJECTED MANAGED GROUNDWATER SUPPLY 2026 – 2030 (AFY)

Year Type		Managed Groundwater Production
Normal		1,290
Single Dry-Year		1,290
Multi-Year Drought	2026 (1 st Year)	1,290
	2027 (2 nd Year)	1,290
	2028 (3 rd Year)	1,295
	2029 (4 th Year)	1,300
	2030 (5 th Year)	1,300

TABLE 13-15: DISTRICT’S PROJECTED MANAGED GROUNDWATER SUPPLY THROUGH 2050 (AFY)

Managed Groundwater Production		2030	2035	2040	2045	2050
Normal		1,300	1,315	1,330	1,340	1,350
Single Dry-Year		1,300	1,315	1,330	1,340	1,350
Multi-Year Drought	Year 1	1,300	1,315	1,330	1,340	1,350
	Year 2	1,305	1,315	1,330	1,340	1,350
	Year 3	1,305	1,320	1,330	1,345	1,355
	Year 4	1,310	1,325	1,335	1,345	1,355
	Year 5	1,310	1,325	1,335	1,350	1,360

⁵ The values presented in **Table 13-14** and **Table 13-15** have been rounded to reflect congruency with the projected demands presented in *Sub-Chapter 13.5 – Water Use Characterization*.

13.4.7 Delivery System Details

The District's potable water system conveys groundwater from wells located throughout the service area to storage and distribution facilities that deliver water to customers. Extracted groundwater is conveyed to one of the District's storage reservoirs, which collectively provide approximately 12.3 million gallons of storage before being distributed through a pressurized potable water system. The distribution system consists of more than 300 miles of pipeline and approximately active 4,881 service connections.

Sub-Chapter 13.5 – Water Use Characterization

Understanding water use characteristics is essential for the District to reliably and cost-effectively manage its water supplies and meet the needs of customers within its service area. This sub-chapter characterizes the District’s retail customer water needs – current and forecast over the next few decades. Characteristics regarding how water use varies amongst different land use classifications, throughout the year, and under differing hydrologic conditions, help to bolster that understanding.

A thorough characterization and analysis provides a realistic prediction of future water use based upon the District’s past and current water use, in addition to considerations of anticipated growth, new regulations, climate change conditions and trends in customer water use behaviors. The analysis presented in this sub-chapter utilizes the water use forecast methodology presented in *Sub-Chapter 4.2 of Regional Chapter 4 – Water Use Characterization* which examines each water use sector for a variety of factors before aggregating the information into a comprehensive projection of customer water use that becomes the foundation for integration with the District’s water supplies, presented in *Sub-Chapter 13.4 – Water Supply and Infrastructure Characterization*, to assess long-term water system reliability, presented in *Sub-Chapter 13.7 – Water System Reliability and Drought Risk Assessment*.

As discussed in *Regional Chapter 1 – Introduction*, there have been no legislative changes to the UWMPA since the adoption of the District’s 2020 UWMP; however, updates to annual water use reporting have been implemented. These include Urban Water Use Objective (UWUO) reports, and monthly drought and conservation reporting to the Safe and Affordable Funding for Equity and Resilience (SAFER) portal that are consolidated annually into an auto-generated Clearinghouse Annual Inventory Report (CAIR).

This section is organized as follows:

Current Customer Water Use – This subsection presents actual water use data reflecting the District’s residential and non-residential customers for 2021 through 2025 as well as distribution system losses for this same period.

Compliance with Urban Water Use Objectives and past urban water use efficiency efforts – This subsection documents the derivation of the District’s UWUO, comparison to the District’s

actual water use, UWUO reporting process, and past urban water use efficiency efforts, including the District’s 2020 GPCD target.

Forecasting Customer Use – This subsection presents the derivation and results of future water use forecasts for potable and non-potable water within the District’s service area and estimation of distribution system losses. This subsection also estimates the variations in customer water use the District should expect during years with low rainfall as well as discusses longer-term climate change considerations.

Forecasting Water Use for DRA and Annual Assessment – This subsection focuses on the subset of the customer water use forecast that is necessary for completing the five-year Drought Risk Assessment (DRA) and defining the “unconstrained demand” for purposes of the District’s annual water supply and demand assessment.

Projecting Disadvantaged Community Water Use – This subsection presents the estimated water use necessary to meet lower income households, pursuant to CWC Section 10631.1.

13.5.1 Current Customer Water Use

As described in *Sub-Chapter 13.2 – Water Service and System Description*, the District provides water service to approximately active 4,881 service connections within its service area. Under normal operating conditions, customers are served groundwater supplies pumped from wells located throughout the District and treated to meet all applicable state and federal drinking water standards. Information regarding the District’s current customers, recent water use patterns, and expected trends in water demand provides the basis for developing the water use forecasts presented in this 2025 RUWMP. Furthermore, annual records of actual water use provide the basis for determining the District’s compliance with its UWUO, reported annually to DWR beginning in January of 2024.

13.5.1.1 Customer Water Use 2021–2025

Recent customer water use data assists the District in understanding water use trends, effects of any temporary use restrictions imposed during the most recent prolonged drought and recovery from such temporary restrictions, effects of long-term demand management measures, and other pertinent water use factors relevant to its forecast of future water use. The District is also required to quantify past customer water use pursuant to CWC Section 10631(d)(1). The District records potable water use within five primary categories:

Single-Family Residential

Multi-Family Residential

Commercial and Institutional

Irrigation

Other

Table 13-16 presents the District’s past customer potable water use by customer classification for 2021-2025 in acre-feet.

TABLE 13-16: POTABLE CUSTOMER USE 2021-2025 (AF)

Use Category	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Single-Family Residential	2021	55	47	44	59	67	72	88	90	80	79	52	54	785
	2022	48	45	43	62	58	68	84	56	76	56	51	44	692
	2023	45	35	40	42	46	61	64	76	73	55	52	47	635
	2024	42	37	40	38	49	63	70	83	83	60	73	35	673
	2025	48	45	39	44	55	61	66	84	69	53	55	41	660
Multi-Family Residential	2021	7	6	6	7	8	7	8	9	8	8	6	6	87
	2022	7	6	6	7	6	7	8	6	8	7	6	6	79
	2023	6	6	6	6	6	8	8	8	9	6	6	5	81
	2024	6	6	6	6	6	8	7	10	9	7	8	5	84
	2025	6	6	5	5	6	7	7	9	8	8	7	6	80
Commercial/ Institutional	2021	11	9	8	12	15	16	20	23	18	21	13	12	176
	2022	11	10	10	14	14	15	23	10	18	13	13	11	160
	2023	12	9	8	9	11	15	14	17	18	14	12	11	151
	2024	9	8	8	8	10	15	16	20	21	15	14	10	153
	2025	10	10	9	10	12	15	16	20	17	15	13	11	157
Irrigation	2021	0.2	0.1	0.2	0.3	0.3	0.3	0.5	0.4	0.5	0.5	0.3	0.3	4
	2022	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.2	0.2	3
	2023	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	2
	2024	0.1	0.1	0.1	0.1	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.2	2
	2025	0.2	0.1	0.1	0.2	0.3	0.6	0.5	1.2	0.5	0.2	0.2	0.1	4
Other	2021	10	10	8	11	12	12	16	17	16	15	12	15	154
	2022	13	11	12	17	14	16	21	15	18	15	15	13	181
	2023	22	12	14	14	13	18	17	20	21	17	16	16	201
	2024	15	12	14	15	17	19	19	23	25	17	20	15	211
	2025	17	18	15	16	19	19	19	26	21	17	19	17	225
Total Metered Deliveries	2021	84	72	65	89	101	108	133	138	123	124	83	87	1,206
	2022	80	72	71	100	92	105	137	88	121	91	85	74	1,115
	2023	85	62	68	72	77	102	103	122	121	91	87	80	1,070
	2024	72	62	69	67	83	105	112	136	138	99	116	65	1,123
	2025	81	79	69	75	92	102	109	140	117	93	94	75	1,126

The “Other” water use category included in **Table 13-16** captures a range of small, non-standard uses including fire services, vacation rentals, and long-term rentals.

13.5.1.2 Existing Distribution System Losses

Distribution system water losses (also known as “real losses”) are the physical water losses from the District’s water distribution system up to the point of delivery to the customer’s system (e.g., up to the residential water meter).

Since 2016, the District has been required to quantify its distribution system losses using the American Water Works Association Method (AWWA).⁶ An electronic copy of the audit in Excel format is to be submitted to DWR by January 1 of each year for the prior year’s estimated system losses, using DWR’s online submittal tool pursuant to California Code of Regulations (CCR) Section 638.5. Although the AWWA-based audit remains in effect as the primary tool for monitoring distribution system losses, mandated water loss reductions are on the horizon with the SWRCB’s April 1, 2023 adoption of volumetric water loss performance standards. Pursuant to CCR Section 996, the SWRCB will require suppliers to reduce real loss by January 1, 2028 to no greater than the real water loss standard calculated in its 2027 audit. After 2028, the District shall assess compliance every three years as an average of recent losses. Additionally, the District will be required to evaluate apparent losses and submit an inventory of apparent losses should average losses exceed the real water loss standard.

Consistent with DWR’s 2025 UWMP guidance, distribution system losses are reported using values submitted through DWR’s Water Loss Audit Program. **Table 13-17** summarizes the District’s reported losses for 2021 through 2024. 2025 data was not available at the time this 2025 RUWMP was prepared due to the reporting schedule associated with the AWWA water loss audit process.

TABLE 13-17: DISTRIBUTION SYSTEM LOSS 2021-2024

2021	2022	2023	2024
7.3%	14.3%	16.3%	12.6%
Average:			12.6%

Due to the dynamic functions of a pressurized potable water distribution system, the estimated annual distribution system loss as a percentage of water entering the system will vary year to year and month to month. On average, however, the District’s distribution system loss represents about 12.6% of water entering the system.

⁶ Title 23 California Code of Regulations Section 638.1 et seq.

13.5.1.3 Water Loss Control Standard

CWC Section 10608.34 required the SWRCB to develop water loss control and performance standards (Real Water Loss Standards) applicable to urban retail water suppliers. The Real Water Loss Standard for the District was developed using information submitted as part of the District’s annual water loss reporting to the State, specifically for the period 2017 through 2020. The resulting Real Water Loss Standard is 474 gallons per mile of the distribution system (i.e., mains) per day. The resulting Real Water Loss Standard as an average percent of total water supplied is 10.6%. Using the information from the same period, the average “apparent” water loss averaged 2.5% (of total water supplied). The total water loss estimate as a percentage of total water supplied is 13.1%, although recent AWWA audits discussed above show losses closer to 12.6%.

13.5.2 Compliance with Water Use Targets and Objectives

This subsection examines the District’s derivation and compliance with state-mandated water use targets and objectives. The Water Conservation Act of 2009, also known as SB X7-7, introduced water conservation targets that served as a valuable measure of progress through 2020 and beyond.

13.5.2.1 Compliance with 2020 Urban Water Use Target

SB X7-7, also known as the Water Conservation Act of 2009, introduced sustainable water use and demand reduction legislation requiring the District to make incremental progress in reducing per capita water use. Specifically, urban water retailers were tasked with achieving a 10% reduction in per capita water use by December 31, 2015, and a 20% reduction by December 31, 2020. Beyond 2020, although reporting on compliance is no longer required, this target remains valuable as a baseline for the District to measure progress on achieving water efficiency goals.

The District’s 2020 GPCD target was established in the 2015 UWMP as 157 GPCD, derived as the “gross water use” divided by the population during a defined baseline period, and reduced pursuant to one of four methods defined under CWC Section 10608.20(b). The District’s calculation of their 2020 actual GPCD used the same methodology: “Gross water” was defined as total water production measured and reported based upon well production records. This value, divided by the District’s estimated population in 2020, resulted in a compliance value of 116 GPCD. Because this value was less than the District’s established target, the District was determined to be in compliance with CWC Section 10608.24(b).

Although not required by the UWMPA, in 2025, the District was determined to have an actual GPCD of 111, calculated using the same methodology presented above.

13.5.2.2 Urban Water Use Objective Compliance

In 2018, the California Legislature passed Senate Bill 606 and Assembly Bill 1668, directing the SWRCB to adopt standards to encourage more efficient urban water use. This legislation, known as "Making Conservation a California Way of Life," was adopted in 2024, establishing individualized UWUO for each urban retail water supplier. In contrast to the SB X7-7 per capita targets, this legislation functions as a water budget tailored to a supplier's service area, considering residential indoor use, residential and commercial outdoor use based on local evapotranspiration and irrigable landscape area, water loss, and bonus incentives for potable reuse. In addition to the volumetric UWUO, the regulation establishes performance measures for commercial, industrial, and institutional (CII) sectors. The standards become progressively more stringent through 2040. In each of the first three reporting years, the District submitted required annual reports to the SWRCB and demonstrated that actual water use remained below its calculated UWUO, confirming compliance in 2025

13.5.3 Forecasting Customer Use

Future water use within the District's service area is projected using a regionally consistent forecasting methodology developed as part of the 2025 RUWMP. As described in *Sub-Chapter 4.2 Future Regional Use of Regional Chapter 4 – Water Use Characterization*, this methodology integrates population and land use projections, historical water use trends, and demand management assumptions to estimate future water demands across participating agencies.

Consistent with this approach, the District's future water use projections reflect both anticipated changes in customer demand and continued implementation of water use efficiency measures. Forecasts are developed by considering existing customer use characteristics, projected growth in population and service connections, and expected changes in per capita water use over the planning horizon.

The results of this regional forecasting framework, as applied to the District, are presented in the following subsections and corresponding tables.

13.5.3.1 Existing Customer Future Use

Future water use associated with the District's existing customer base is projected based on current potable water use characteristics and representative GPCD values. As described in Subsection 13.5.2.1, the District's current GPCD, derived from recent water production and population data, reflects the combined water use of all customer sectors, including both residential and non-residential demands.

The methodology used to develop the representative GPCD value for existing customers is fully described in *Sub-Chapter 4.2 Future Regional Use of Regional Chapter 4 – Water Use Characterization*. In general, this approach utilizes total annual potable water production

divided by the corresponding service area population to establish a baseline GPCD value representative of current conditions.

For purposes of projecting future demand associated with existing customers, the District has assumed that current water use levels will remain constant over the planning horizon. This assumption reflects observed demand conditions within the District’s service area, where water use has stabilized following prior conservation efforts, regulatory requirements, and long-term demand management measures. As such, existing customer demand is considered “hardened” and no additional reductions in per capita water use have been applied to this customer group.

Accordingly, the District’s existing customer demand is projected to remain at approximately 1,285 acre-feet per year, based on a representative GPCD of 111, for the duration of the planning horizon. Because the representative GPCD is derived from total potable water production, it inherently includes distribution system losses; therefore, no separate adjustment for the District’s representative loss percentage, as described in the prior subsection, has been applied to the existing customer demand projections.

13.5.3.2 New Customer Future Use

Future water use associated with new customers is projected using a regionally consistent forecasting methodology developed as part of the 2025 RUWMP as described in *Sub-Chapter 4.2 Future Regional Use of Regional Chapter 4 – Water Use Characterization*. This approach applies representative water use factors to projected population growth to estimate incremental demand associated with new development within the District’s service area.

Unlike existing customer demand, which is based on observed production, the new customer forecast is developed by aggregating the individual components of the District’s GPCD to reflect anticipated water use characteristics for future growth and development. These components distinguish between residential indoor and outdoor use, as well as non-residential demands, and are applied to projected population growth to estimate future demand.

For the District, the representative GPCD components applied to new customers are as follows:

- Indoor Residential Use: 47 GPCD
- Outdoor Residential Use: 0 GPCD
- Total Non-Residential Use: 47 GPCD
- Total Use: 94 GPCD

As with the existing customer demand GPCD, the resulting new GPCD represents total potable water production. However, the composition of this GPCD differs for new customers, as residential indoor water use is reduced over time to reflect compliance with applicable UWUO

indoor standards, while outdoor residential and non-residential (CII) components are assumed to remain constant. The specific implementation schedule and applicable indoor water use standards are described in *Sub-Chapter 4.2 Future Regional Use of Regional Chapter 4 – Water Use Characterization*. Accordingly, the aggregate GPCD applied to new customers declines over the planning horizon as indoor efficiency requirements are incrementally achieved. Because the representative GPCD is based on total potable water production, it inherently includes distribution system losses; therefore, no separate adjustment for the District’s representative loss percentage has been applied to new customer demand projections.

Table 13-18 presents the resulting combined existing and future customer water use forecast, with values rounded to the nearest five acre-feet, which serves as the basis for evaluating the District’s ability to meet projected demands under normal and drought conditions as described in *Sub-Chapter 13.7 – Water System Reliability and Drought Risk Assessment*.

TABLE 13-18: FORECAST FUTURE WATER USE (VALUES IN ACRE-FEET PER YEAR)

2025	2030	2035	2040	2045	2050
1,285	1,300	1,315	1,330	1,340	1,350

13.5.3.3 Adjusting Water Use Forecasts for Single-Dry and Multiple Dry Conditions

The water use forecast presented in **Table 13-18** represents expected water needs under normal climatic conditions. In some regions, adjustments to this forecast may be warranted under drier conditions to reflect increased irrigation resulting from reduced rainfall. However, within the High Desert climate of the RUWMP Planning Area, urban water use is not typically influenced by variations in rainfall. Landscape and agricultural irrigation demands are not dependent on precipitation to meet water needs; therefore, reduced rainfall does not result in increased water use as it might in more temperate or rainfall-dependent regions. Accordingly, no adjustments have been made to the forecast to account for single dry or multiple dry year conditions. The values presented in **Table 13-18** represent unconstrained demand and are assumed to be consistent across all hydrologic year types.⁷

⁷ California Water Code Section 10632(a)(2) states water suppliers should use “unconstrained demand” when performing their annual water supply and demand assessment. This reflects the expected demand prior to implementing shortage response actions as detailed in a Water Shortage Contingency Plan.

13.5.3.4 Climate Change Considerations

Incorporating climate change considerations into water use analysis can help inform long-term planning by identifying potential shifts in demand patterns, such as increased landscape irrigation associated with hotter and drier conditions. However, within the High Desert climate of the RUMWP Planning Area, baseline conditions are already characterized by low precipitation and high evapotranspiration rates. As a result, near-term climate change is not expected to materially alter water use behavior or increase demand beyond levels already reflected in existing conditions. Accordingly, no adjustments have been made to the water use forecast to account for climate change. While long-term climate change may incrementally increase evapotranspiration, such effects are expected to be nominal relative to current conditions. The District will continue to evaluate potential climate-related impacts in future UWMP updates and through ongoing regional water planning efforts.

13.5.4 Forecasting Water Use for DRA and Annual Assessment

This subsection presents the subset of the District’s customer water use forecast that is used to evaluate short-term water supply reliability under drought and operational planning conditions. Specifically, this subsection supports two related but distinct analyses required under California Water Code: the five-year Drought Risk Assessment (DRA) and the Annual Water Supply and Demand Assessment (Annual Assessment).

The DRA evaluates projected water demand over a five-year planning horizon under a sequence of dry conditions to assess potential supply shortfalls. The Annual Assessment, by contrast, is conducted each year and evaluates water supply and demand conditions over a rolling twelve-month period spanning July through June, incorporating both current year conditions and near-term projections. Together, these analyses rely on a consistent representation of “unconstrained demand” derived from the District’s long-term water use forecast presented in the preceding subsections. The following subsections describe the methodology and results used to develop water demand projections for each of these planning efforts.

13.5.4.1 Projecting Water Use for Five-Year Drought Risk Assessment

The DRA requires the District to evaluate water supply reliability over a five-year planning horizon under a sequence of dry conditions. Consistent with CWC Section 10635 and guidance provided in the 2025 UWMP Guidebook, this assessment is based on a projection of “unconstrained demand” representing anticipated customer water use absent shortage response actions.

For the purposes of the DRA, the District’s projected water demands are derived directly from the long-term water use forecast described in the preceding subsections. This forecast incorporates projected changes in population, service connections, and per capita water use, as well as the effects of ongoing water use efficiency measures and regulatory requirements. Because the DRA is intended to evaluate baseline system reliability, no additional demand reductions associated with the District’s Water Shortage Contingency Plan (WSCP) are applied.

Projected demands for the DRA are derived from the District’s long-term water use forecast developed for the 2025 RUWMP and the District’s retail-specific chapter and are expressed on an annual basis for each of the five years within the planning horizon. No additional adjustments are applied; the annual values reflect the same underlying methodology and assumptions used to develop the five-year planning increment forecasts presented elsewhere in this sub-chapter. These demand projections reflect total potable water demand, including residential, commercial, institutional, and other customer uses, as well as distribution losses. The demand projections used for the DRA are consistent with those used in the Annual Assessment to ensure alignment in the District’s evaluation of water supply reliability across planning timeframes.

Table 13-19 presents the District’s projected unconstrained water demands for the DRA period (2026-2030), with values rounded to the nearest five acre-feet. These values form the basis for the reliability analysis presented in *Sub-Chapter 13.7 – Water System Reliability and Drought Risk Assessment*.

TABLE 13-19: FORECAST DRA WATER USE FOR 2026 THROUGH 2030 (AFY)

2026	2027	2028	2029	2030
1,290	1,290	1,295	1,300	1,300

13.5.4.2 Projecting Water Use for Annual Assessments

The District conducts an Annual Water Supply and Demand Assessment each year in accordance with CWC requirements. These assessments are prepared and submitted to DWR by July 1 and evaluate anticipated water supply and demand conditions over a rolling twelve-month period spanning July through June.

The District has completed and submitted an Annual Assessment each year since 2022, as required by statute. While the results of these assessments are not included in this UWMP, the methodology and demand assumptions applied are consistent with those presented in this sub-chapter.

13.5.5 Projecting Disadvantaged Community Water Use

Pursuant to CWC Section 10631.1, urban retail water suppliers are required to include projected water use for lower income households in their UWMPs. Per California Health and Safety Code Section 50079.5, a lower income household is defined as one with an income below 80 percent of the area median income, adjusted for family size. For the purposes of the District's sub-chapter within the 2025 RUWMP, the District's service area is recognized as a Disadvantaged Community, and median income assumptions are consistent with those presented in *Sub-Chapter 2.1.7.2 Economic Trends and Other Social and Demographic Factors of Regional Chapter 2 – The Mojave Region*.⁸ Accordingly, the water use forecast presented in **Table 13-19** is inclusive of disadvantaged community water use.

⁸ California Department of Water Resources, Disadvantaged Communities Mapping Tool, available at: <https://gis.water.ca.gov/app/dacs/>

Sub-Chapter 13.6 – Water Conservation and Shortage Response

Pursuant to CWC Sections 10631(e) and 10632, this sub-chapter summarizes the District's demand management measures and water shortage response framework. These efforts support efficient use of available water supplies and provide the foundation for managing water use under both normal and shortage conditions.

The District has historically implemented a range of demand management measures aimed at improving water use efficiency, reducing long-term demand, and supporting compliance with applicable State requirements. These measures include ongoing programs, policies, and regional coordination efforts designed to manage existing customer use and guide future water use patterns.

This sub-chapter also highlights key components of the District's Water Shortage Contingency Plan (WSCP), including shortage levels, response actions, monitoring procedures, and communication strategies. The WSCP establishes the framework through which the District evaluates water supply conditions and implements staged response actions during periods of constrained supply. No substantive changes have been made to the District's 2020 WSCP, and the shortage levels, response actions, monitoring procedures, and communication protocols described therein remain applicable; however, water supply reliability information has been updated and is presented in the 2025 RUWMP and this chapter, reflecting current data, assumptions, and planning conditions.

A complete description of the District's WSCP, including detailed implementation procedures and supporting documentation, is provided in Appendix 13a.

13.6.1 Demand Management Measures

The District has implemented a comprehensive set of demand management measures (DMMs) to promote the efficient use of water and support long-term water supply reliability. These measures are consistent with the requirements of CWC Section 10631(e) and are designed to reduce water use, improve system efficiency, and support compliance with State water use objectives.

The District is a member of the Alliance for Water Awareness and Conservation (AWAC), a regional partnership of water agencies within the Mojave Water Agency service area focused on promoting water conservation, public outreach, and coordination of demand management efforts. Through its participation in AWAC and collaboration with regional partners, the District leverages shared resources and consistent messaging to enhance the effectiveness of its conservation programs.

The District will continue to implement and refine its DMMs to support efficient water use and meet applicable regulatory requirements. Additional information regarding recent and planned demand management activities is provided in the following subsections.

13.6.1.1 Foundational Demand Management Measures

The District's foundational DMMs remain generally consistent with those described in the 2020 UWMP and continue to serve as the basis for ongoing water conservation efforts. These measures include water waste prevention ordinances and prohibited provisions, universal metering, conservation-oriented pricing, public education and outreach, programs to monitor and manage distribution system losses, and coordination and staffing support for conservation program implementation through customer communication, enforcement, demand monitoring, and rate-based conservation actions.

Water Waste Prevention Ordinances

The District has adopted and enforces water waste prevention ordinances that prohibit inefficient water use practices. As reflected in the 2020 UWMP and WSCP, these provisions include restrictions on outdoor irrigation during specified hours, limitations on irrigation following measurable rainfall, prevention of runoff to adjacent properties and public rights-of-way, restrictions on washing of hard surfaces except for health and safety purposes, requirements for automatic shut-off nozzles for vehicle washing, and prompt repair of leaks. These ordinances establish the regulatory framework for reducing unnecessary water use and are implemented through monitoring, customer notifications, and enforcement actions as needed.

Metering

All potable water connections within the District are metered, allowing for accurate measurement of customer water use. Metering supports volumetric billings, enables customers to better understand and manage their water use, and provides the data necessary for system monitoring and implementation of water shortage response actions.

Conservation Pricing

The District utilizes a water rate structure designed to recover the costs of providing service across varying levels of water usage. As described in the WSCP, the District has the ability to

implement drought- or shortage- based rate adjustments during periods of constrained supply, which may incidentally encourage reductions in water demand.

Public Education and Outreach

The District implements public education and outreach programs to promote water conservation and increase customer awareness of efficient water use practices. These efforts include ongoing communication through newsletters, website updates, social media, and direct customer outreach, as well as coordination with regional partners to promote consistent conservation messaging.

Programs to Assess and Manage Distribution System Losses

The District conducts ongoing efforts to monitor and manage distribution system losses, including leak detection, routine system maintenance, and repair activities. As described in the WSCP, the District evaluates production and metered use data to identify potential losses and prioritize corrective actions to improve system efficiency and reduce real water losses.

Customer Service and Support

The District provides customer support services to assist with water use efficiency, including customer notifications for unusually high water use, assistance with identifying leaks, and access to water use information. These services enable customers to identify and address inefficiencies and support overall conservation efforts.

Conservation Program Coordination and Staffing Support

The District supports implementation of DMMs through internal staffing and coordination with regional partners, including MWA. This coordination supports consistency in conservation messaging, facilitates information sharing, and enhances the overall effectiveness of conservation program implementation.

13.6.1.2 Recent DMM Activities

Since adoption of the 2020 UWMP, the District has continued to implement its foundational demand management measures as the primary approach to water conservation. Efforts have focused on maintaining and reinforcing existing programs, including ongoing customer outreach, enforcement of water waste prevention provisions, and implementation of water shortage response actions as needed. The District continues to coordinate with regional partners and evaluate opportunities to enhance conservation program effectiveness consistent with local conditions and available resources.

13.6.1.3 Planned DMM Activities

At this time, the District does not anticipate implementing new demand management programs beyond those currently in place. The District’s existing DMMs provide a

comprehensive framework for promoting efficient water use and will continue to be implemented and refined as necessary to meet evolving regulatory requirements and operational needs. Planned activities are focused on continued implementation and enhancement of existing measures, including ongoing customer outreach and education, enforcement of water waste provisions, and monitoring of water use and system conditions to support efficient operations. The District will continue to coordinate with regional partners to maintain consistent conservation messaging and identify opportunities for program improvements, as appropriate. The District remains committed to the efficient and responsible use of water resources and will continue to support customer awareness and conservation practices. Consistent with applicable State requirements, including UWUO and water loss reporting requirements, the District will continue to monitor water use and adjust its demand management approach as needed to support long-term water use efficiency and regulatory compliance.

13.6.2 Water Shortage Contingency Plan

The District has adopted a Water Shortage Contingency Plan (WSCP) in accordance with CWC Section 10632. The WSCP establishes a structured framework for managing water supply shortages through defined shortages levels, corresponding response actions, and ongoing monitoring of water supply and demand conditions. The WSCP is designed to ensure that the District can respond effectively to a range of water shortage conditions, from minor supply constraints to more severe drought scenarios. The plan identifies stages of water shortage based on severity of supply conditions and outlines the actions the District may implement to reduce demand, manage available supplies, and maintain essential public health and safety services.

The WSCP also incorporates procedures for evaluating water supply reliability, including coordination with the District’s Annual Water Supply and Demand Assessment, which serves as the primary mechanism for identifying and responding to changing water supply conditions on an ongoing basis. Public communication and outreach are integral components of the WSCP and are used to inform customers of water supply conditions, required conservation actions, and applicable restrictions during shortage events. The following subsections summarize key components of the District’s WSCP, including shortage levels, response actions, and monitoring and implementation procedures.

13.6.2.1 Summary of Water Shortage Response Actions

The District’s WSCP establishes six defined water shortage levels that correspond to increasing degrees of supply constraint, targeted demand reductions, and specific customer and District response actions. This staged framework allows the District to implement progressively more restrictive measures as conditions warrant, while maintaining essential public health, sanitation, and fire protection services. The WSCP defines shortage states ranging from up to a 10% shortage through shortages greater than 50%, and identifies

associated District actions, customer restrictions, and supply augmentation measures, outreach, and enforcement tools. The general framework of shortage levels and representative response actions is summarized below:

- **Stage 1 – Up to 10% Shortage:**

The District emphasizes voluntary conservation, expanded public information, customer education, and continued enforcement of baseline water waste prohibitions. Actions include increasing awareness of conservation measures, promoting methods to reduce water use, focused outreach to large users, and publishing WSCP stages and actions. Customers are encouraged to conserve voluntarily and comply with existing water waste restrictions.
- **Stage 2 – Up to 20% Shortage:**

The District expands public outreach and steps up enforcement of conservation measures. Stage 2 also includes mandatory restrictions such as limits on outdoor irrigation hours and reduced watering frequency. The WSCP identifies drought rate or surcharge measures and continued enforcement as tools available to help achieve the required reduction.
- **Stage 3 – Up to 30% Shortage:**

The District intensifies conservation messaging and enforcement and may provide direct notices to all customers, suspend issuance of potable construction meters, and active emergency intertie or mutual aid actions if needed. Customer restrictions become more stringent, including limiting outdoor irrigation to two days per week, prohibiting irrigation of ornamental turf on public street medians, and restricting irrigation during daytime hours.
- **Stage 4 – Up to 40% Shortage:**

Stage 4 builds on prior measures with additional mandatory restrictions and operational controls. Outdoor watering is further reduced to one day per week, customers may be required to repair leaks, breaks, or malfunctions within 48 hours, and the District may limit new meter installations and prohibit certain decorative or non-essential uses. These actions are intended to achieve significant demand reductions while preserving critical service levels.
- **Stage 5 – Up to 50% Shortage:**

The District may impose severe restrictions on non-essential uses and compel mandatory water consumption goals or allocations for customers. Outdoor irrigation with potable water may be prohibited, and stronger enforcement and pricing actions may be used to manage increasingly constrained supplies. Stage 5 reflects emergency shortage conditions in which demand management actions become substantially more restrictive.
- **Stage 6 – Greater than 50% Shortage:**

- Stage 6 represents catastrophic failure or extreme shortage conditions. In addition to all prior measures, the District may activate crisis communications, coordinate with regulatory and public safety agencies, recall temporary meters, suspend new development approvals and new water connections, and restrict outdoor water use to health and safety purposes only. Customer actions at this stage focus on curtailing all non-essential uses and prioritizing critical water needs.

Response actions are cumulative across stages, such that measures implemented at earlier stages remain in effect and are intensified as shortage conditions worsen. The WSCP also provides for supply augmentation and operational adjustments, including use of additional groundwater production and, where available, SWP supplies through MWA, alongside customer demand reductions. The District determines the appropriate shortage stage based on its Annual Water Supply and Demand Assessment and may also act in response to emergency conditions, infrastructure failures, or disaster declarations.

13.6.2.2 Summary of Monitoring Procedures and Implementation

The District’s WSCP includes procedures for monitoring water supply and demand conditions and implementing appropriate response actions based on observed and anticipated conditions. These procedures ensure that shortage response actions are timely and commensurate with the severity of supply constraints. The District monitors key indicators of water supply reliability, including groundwater production, groundwater levels, customer demand, and overall system conditions. This information is used to evaluate supply availability and inform decisions regarding the initiation, modification, and termination of water shortage stages.

The District’s Annual Water Supply and Demand Assessment serves as the primary mechanism for evaluating near-term supply reliability and informing implementation of shortage response actions. Additional detail regarding the Annual Assessment is provided in *Subsection 13.5.4 Forecasting Water Use for DRA and Annual Assessment of Sub-Chapter 13.5 – Water Use Characterization*.

Implementation of the WSCP includes coordination among District staff and communication with customers and regional partners. When a water shortage stage is implemented, the District provides public notification of applicable restrictions and conservation measures and monitors compliance to ensure demand reduction targets are achieved.

Sub-Chapter 13.7 – Water System Reliability and Drought Risk Assessment

This sub-chapter evaluates the reliability of the District’s water supplies to meet projected demands under a range of hydrologic conditions, consistent with CWC Sections 10631 (c) and 10635. The analysis integrates the water supply characterization presented in *Sub-Chapter 13.4 – Water Supply and Infrastructure Characterization* with the water use projections developed in *Sub-Chapter 13.5 – Water Use Characterization* to assess the District’s ability to meet customer demands during normal, single dry, and multiple dry year conditions.

The reliability analysis considers the availability of the District’s water supplies, including groundwater production and supplemental supplies, in relation to projected customer demands over the planning horizon. This evaluation is intended to identify potential supply shortfalls and assess the District’s capacity to maintain reliable water service under varying conditions. In addition to the long-term reliability analysis, this sub-chapter incorporates the District’s Drought Risk Assessment, which evaluates water supply reliability over a five-year planning horizon under a sequence of dry conditions.

The results of this analysis provide the basis for evaluating the District’s water supply reliability and inform the implementation of the District’s WSCP, as described in *Sub-Chapter 13.6 – Water Conservation and Shortage Response*.

13.7.1 Five Year Drought Risk Assessment

The DRA evaluates the District’s ability to meet projected water demands over a five-year planning horizon under a sequence of dry conditions. This assessment provides a forward-looking evaluation of water supply reliability and is intended to identify potential supply-demand imbalances under extended drought scenarios. Projected water demands for the DRA are based on the District’s unconstrained demand forecast described in *Sub-Chapter 13.5 – Water Use Characterization* and are expressed on an annual basis over the five-year planning period. These demands reflect anticipated customer use absent implementation of shortage response actions.

Available water supplies are evaluated based on the District’s managed groundwater supplies, which include groundwater production from the Copper Mountain Valley and Joshua Tree Basins, stored groundwater, and recharged imported supplies delivered via the MBP. As described in – *Water Supply and Infrastructure Characterization*, the District actively manages these resources as an integrated groundwater system to support long-term reliability. Given the substantial volume of groundwater in storage across both basins and the District’s groundwater management approach, the District has flexibility to adjust groundwater production and utilize available stored supplies to meet projected demands under a range of hydrologic conditions.

The DRA compares projected water demand to available supplies to evaluate the District’s capacity to meet customer needs over the five-year period. **Table 13-20** presents the results of this analysis, including projected demand, available supplies, and any resulting surplus or shortage for each year of the DRA planning horizon, with values rounded to the nearest five acre-feet.

TABLE 13-20: FIVE YEAR DROUGHT RISK ASSESSMENT (AFY)

	2026	2027	2028	2029	2030
Supply	1,290	1,290	1,295	1,300	1,300
Demand	1,290	1,290	1,295	1,300	1,300
Difference	0	0	0	0	0

13.7.2 Long Term Service Reliability

The UWMPA directs urban water purveyors to analyze water supply reliability in a normal, single dry, and five consecutive dry years over a 20-year planning horizon. The 2025 UWMP Guidebook recommends extending that period to twenty-five (25) years to provide a guiding document for future land use and water supply planning through the next UWMP cycle. The District’s long-term service reliability reflects the recommended 25-year planning horizon anticipating a normal, single dry, and five consecutive dry years from 2025 – 2050.

13.7.2.1 Normal and Single Dry Conditions 2030 – 2050

The following analysis evaluates the District’s availability to meet projected water demands under normal and single dry year conditions for the 2030 through 2050 planning horizon. This evaluation compares available water supplies to projected customer demands to assess the District’s capacity to reliably meet water needs under varying hydrologic conditions. Under both normal and single dry year conditions, the District’s supplies are managed through its integrated groundwater system, which provides flexibility in balancing groundwater production, stored supplies, and supplemental recharge resources to meet projected

demands. As a result, available supplies are sufficient to meet projected demands throughout the planning horizon.

Table 13-21 presents the results of the normal and single dry year reliability analyses, including projected demands, available supplies, and resulting surplus or shortage for each timestep from 2030 through 2050. Values are rounded to the nearest five acre-feet.

TABLE 13-21: NORMAL AND SINGLE DRY YEAR WATER SUPPLY AND DEMAND THROUGH 2050 (AFY)

Normal Year	2030	2035	2040	2045	2050
Supply	1,300	1,315	1,330	1,340	1,350
Demand	1,300	1,315	1,330	1,340	1,350
Difference	0	0	0	0	0

Single Dry Year	2030	2035	2040	2045	2050
Supply	1,300	1,315	1,330	1,340	1,350
Demand	1,300	1,315	1,330	1,340	1,350
Difference	0	0	0	0	0

13.7.2.2 Five Consecutive Dry Years 2030 – 2050

The following analysis evaluates the District’s ability to meet projected water demands over a five-year period of consecutive dry conditions for the 2030 through 2050 planning horizon. This assessment provides a more conservative evaluation of water supply reliability by examining the potential effects of extended drought conditions on available supplies. Under multiple dry year conditions, the District continues to manage its supplies within its integrated groundwater system, which provides flexibility in balancing groundwater production, stored supplies, and supplemental recharge resources to meet projected demands. This managed approach enables the District to adjust its supply portfolio over time to meet projected demands, even during extended periods of drought.

Table 13-22 presents the results of the multiple dry year reliability analysis, including projected demands, available supplies, and any resulting surplus or shortage for each year of the five-year dry sequence. Values are rounded to the nearest five acre-feet.

Together, the available supplies, when paired against projected demand conditions, demonstrate that the District has sufficient supplies to meet water demands under five consecutive dry year conditions through 2050.

TABLE 13-22: FIVE CONSECUTIVE DRY YEARS WATER SUPPLY AND DEMAND THROUGH 2050 (AFY)

		2030	2035	2040	2045	2050
Year 1	Supply	1,300	1,315	1,330	1,340	1,350
	Demand	1,300	1,315	1,330	1,340	1,350
	Difference	0	0	0	0	0
Year 2	Supply	1,305	1,315	1,330	1,340	1,350
	Demand	1,305	1,315	1,330	1,340	1,350
	Difference	0	0	0	0	0
Year 3	Supply	1,305	1,320	1,330	1,345	1,355
	Demand	1,305	1,320	1,330	1,345	1,355
	Difference	0	0	0	0	0
Year 4	Supply	1,310	1,325	1,335	1,345	1,355
	Demand	1,310	1,325	1,335	1,345	1,355
	Difference	0	0	0	0	0
Year 5	Supply	1,310	1,325	1,335	1,350	1,360
	Demand	1,310	1,325	1,335	1,350	1,360
	Difference	0	0	0	0	0

13.7.3 Annual Reliability Assessment

Each year, the District considers current supply and demand conditions and performs an Annual Water Supply and Demand Assessment pursuant to CWC Section 10632.1 to evaluate real time or near-term circumstances that are different than the DRA scenario. This assessment evaluates actual current water supply and use conditions for a prescribed 12-month forecast (July through the following June). Procedures for conducting the Annual Assessment are contained in the District’s Water Shortage Contingency Plan. The District has conducted the assessment as required by the CWC and will continue this planning exercise to provide a reliability assessment for then-current conditions regarding supplies and expected (unconstrained) demands.

13.7.4 Water Supply Reliability Summary

The District’s water supply portfolio is capable of meeting the water uses in its service area in normal, single dry, and five consecutive dry years from 2025 through 2050.

Sub-Chapter 13.8 – Energy Intensity Analysis

Pursuant to CWC Section 10631.2, the District evaluates the energy intensity of its water supply and distribution system. Energy intensity is defined as the amount of energy used to extract, treat, and deliver water to customers and is typically expressed in kilowatt-hours per acre-foot (kWh/AF). The District’s water supply portfolio is primarily comprised of locally produced groundwater. As a result, energy use is largely associated with groundwater extraction and distribution within the District’s service area, rather than long-distance conveyance or advanced treatment processes.

The District continues to monitor energy use associated with its water system operations and will evaluate opportunities to improve operational efficiency where feasible. Total energy intensity is reported in **Table 13-23**.

TABLE 13-23: ENERGY INTENSITY – TOTAL UTILITY APPROACH FOR JAN 2025 THROUGH JAN 2025

Sum of All Water Management Processes	
Volume of Water Entering Process (acre-feet)	1,292
Energy Consumed (kWh)	35,720
Energy Intensity (kWh/acre-foot)	28

2025 Water Shortage Contingency Plan for Joshua Basin Water District



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Acronyms

AF	Acre-Feet
AFY	Acre-Feet per Year
AWWA	American Waterworks Association
CCF	hundred cubic feet
DWR	Department of Water Resources
GPCD	Gallons Per Capita Per Day
HMP	Hazard Mitigation Plan
JBWD	Joshua Basin Water District
LHMP	Local Hazard Mitigation Plan
MWA	Mojave Water Agency
SWP	State Water Project
UWMP	Urban Water Management Plan
WSCP	Water Shortage Contingency Plan

DWR Checklist Table for WSCP

Water Code Section	Summary as Applies to UWMP/WSCP	2020 WSCP Location
Subject: Water Shortage Contingency Planning 2020 UWMP Guidebook Location: Appendix J		
10632(a)	Provide a water shortage contingency plan (WSCP) with specified elements below.	Full Document
10632(a)(2)(A)	Provide the written decision-making process and other methods that the supplier will use each year to determine its water reliability.	Section 2.5
10632(a)(2)(B)	Provide data and methodology to evaluate the supplier's water reliability for the current year and one dry year pursuant to factors in the code.	Section 2
10632(a)(3)(A)	Define six standard water shortage levels of 10, 20, 30, 40, 50 percent shortage and greater than 50 percent shortage. These levels shall be based on supply conditions, including percent reductions in supply, changes in groundwater levels, changes in surface elevation, or other conditions. The shortage levels shall also apply to a catastrophic interruption of supply.	Section 3.1
10632(a)(3)(B)	Suppliers with an existing water shortage contingency plan that uses different water shortage levels must cross reference their categories with the six standard categories.	Section 3.1
10632(a)(4)(A)	Suppliers with water shortage contingency plans that align with the defined shortage levels must specify locally appropriate supply augmentation actions.	Section 3.3
10632(a)(4)(B)	Specify locally appropriate demand reduction actions to adequately respond to shortages.	Section 3.4
10632(a)(4)(C)	Specify locally appropriate operational changes.	Section 3.5
10632(a)(4)(D)	Specify additional mandatory prohibitions against specific water use practices that are in addition to state- mandated prohibitions are appropriate to local conditions.	Section 3.7.4
10632(a)(4)(E)	Estimate the extent to which the gap between supplies and demand will be reduced by implementation of the action.	Section 3.4, 3.7
10632(a)(5)(A)	Suppliers must describe that they will inform customers, the public and others regarding any current or predicted water shortages.	Section 4.1
10632(a)(5)(B) 10632(a)(5)(C)	Suppliers must describe that they will inform customers, the public and others regarding any shortage response actions triggered or anticipated to be triggered and other relevant communications.	Table 4.1
10632(a)(7)(A)	Describe the legal authority that empowers the supplier to enforce shortage response actions.	Section 6
10632(a)(7)(B)	Provide a statement that the supplier will declare a water shortage emergency Water Code Chapter 3.	Chapter 3
10632(a)(7)(C)	Provide a statement that the supplier will coordinate with any city or county within which it provides water for the possible proclamation of a local emergency.	Section 4.1
10632(a)(8)(A)	Describe the potential revenue reductions and expense increases associated with activated shortage response actions.	Section 7.1
10632(a)(8)(B)	Provide a description of mitigation actions needed to address revenue reductions and expense increases associated with activated shortage response actions.	Section 7.3
10632(a)(8)(C)	Describe the cost of compliance with Water Code Chapter 3.3: Excessive Residential Water Use During Drought.	Table 7-1
10632(a)(9)	Retail suppliers must describe the monitoring and reporting requirements and procedures that ensure appropriate data is collected, tracked, and analyzed for purposes of monitoring customer compliance.	Section 5.2
10632(a)(10)	Describe reevaluation and improvement procedures for monitoring and evaluation the water shortage contingency plan to ensure risk tolerance is adequate and appropriate water shortage mitigation strategies are implemented.	Section 1.4

10632(b)	Analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas.	Section 3.4
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Section 1: Introduction

Water supplies may be interrupted or reduced significantly in a number of ways, such as a drought that limits supplies, an earthquake that damages water delivery or storage facilities, a regional power outage or a toxic spill that affects water quality. This Plan addresses the requirements in the California Water Code Section 10632, which requires that every urban water supplier shall prepare and adopt a Water Shortage Contingency Plan (WSCP, Plan) as part of its Urban Water Management Plan (UWMP). This WSCP serves as a guide for the intended actions by Joshua Basin Water District (JBWD, the District) during water shortage conditions to improve preparedness for droughts and other impacts on water supplies by describing the process used to address varying degrees of water shortages.

This plan describes the actions JBWD will take to identify and respond to water shortage per requirements of the Urban Water Management Act, Section 10632 of the California Water Code.

1.1 Declaration of Purpose of WSCP

The WSCP adopts regulations and restrictions on outdoor water use through the six standard water shortage stages, including domestic (residential), commercial/institutional/industrial, landscape, parks, and golf courses, and agriculture. These regulations are effective immediately and shall be effective until the District Board of Directors (Board) finds that water shortage no longer exists.

The overall principle of the District's WSCP is to reliably meet water demands during shortages caused by droughts, supply reductions and emergency conditions.

The purpose of the WSCP is to:

- Monitor and compare anticipated supplies and demands consistent with Water Code Section Water Code Section 10632(a)(2);
- Keep water use within supply and delivery capability;
- Define procedures to be used when supply cannot meet demand or continuing pumping will result in harm to supply source;
- Familiarize all of JBWD customers (residential, business, industrial, institutional/governmental and others) with procedures to be implemented when voluntary or mandatory water restrictions are in effect.

The District has developed a Draft Water Shortage Contingency Ordinance (included in Appendix A) that provides a framework and guides the District actions in the event of a water shortage emergency. The draft ordinance includes voluntary and mandatory stages to address a reduction in water supply, at various levels reduce demand by up to 50%. Prohibitions, penalties, and financial impacts of shortages have been developed by the District and are summarized in Section 7.

1.2 Reduced Water Use During Water Shortage Events

This WSCP establishes changes that may be imposed on water users during Water Shortage Events. Such events may be a lengthy drought that has limited groundwater supplies, the sudden presence of an unforeseen toxin, which may require shutting the main groundwater pumping system, or an emergency condition brought about by an earthquake, fire, or other interruption in water delivery to the system. These actions are discussed in later sections of this WSCP.

A consideration for planning is water needed (gallons per capita per day [GPCD]) to maintain health and safety. The American Water Works Association (AWWA 2011) suggests that on the high end, water necessary for health and safety is 58 GPCD. AWWA suggests that with water savings fixtures and habit changes water needed for health and safety can be as low as 30 GPCD (AWWA 2011). These estimates are consistent with the amount of water recommended for health and safety by the US Bureau of Reclamation, which uses 50 GPCD for drought planning purposes (Reclamation 2010).

1.3 Plan Preparation, Adoption, Submittal and Availability

JBWD began preparation of this Plan in 2021. The public hearing for the Water Shortage Contingency Plan was noticed in the local newspapers (The Desert Star), as prescribed in Government Code 6066, which included the time and place of the hearing (August 17, 2022 at the District's office located at 61750 Chollita Road in Joshua Tree), as well as the location where the plan was available for public inspection. Interested parties, including other local agencies, were notified of the public hearing. The 2020 UWMP was made available from the District's website for public inspection prior to the public hearing, so that comments could be received and discussed by the District's Board of Directors prior to plans adoption on August 17, 2022 at the District's office.

The final draft of the Plan was adopted by the Board of Directors (provided in Appendix D of the UWMP) and was submitted to the Department of Water Resources (DWR) within 30 days of approval. Additionally, the adopted plan will be made available per the requirements of the Water Code.

As part of the 2025 RUWMP process, the District review this WSCP and determined that its shortage levels, response actions, communication protocols, monitoring procedures, enforcement provisions, and financial response framework remain appropriate for District operations and current planning conditions. No substantive revisions have been made to the WSCP since its 2022 adoption. The District is therefore readopting this WSCP in conjunction with the adoption of the 2025 RUWMP to maintain consistency with the current regional planning cycle and to reaffirm the District's shortage response framework.

Following re adoption, the District will submit the 2025 RUWMP and associated WSCP documentation to DWR through the required submittal process. The adopted WSCP will also be made available to the public, provided to applicable local agencies, and posted on the District's website in accordance with California Water Code requirements.

1.4 Water Shortage Contingency Plan Refinement Procedures

JBWD will convene the following departmental staff as needed to refine the WSCP:

- Engineering Staff
- Administrative Staff
- Operational Staff

The WSCP will be updated and refined as appropriate and needed following significant changes to JBWD's supply portfolio or significant changes to the water allocation plans of its supply agencies (Mojave Water Agency [MWA]), but no less than every 5 years.

1.5 Relationship to the Urban Water Management Plan

Water Code Section 10632(a) requires that every urban water supplier prepare and adopt a water shortage contingency plan as part of its urban water management plan. Although the WSCP is a stand-alone document that may be amended separately from the UWMP, it is informed by the water supply reliability analyses prepared as part of the District's UWMP planning process.

The District's 2025 RUWMP includes the water supply reliability and drought risk assessment information required by the Urban Water Management Planning Act, including evaluation of normal year, single dry year, and five consecutive dry year conditions. Those analyses are presented in the District's retail-specific chapter of the 2025 RUWMP, including Sub-Chapter 13.7 Water System Reliability and Drought Risk Assessment.

This WSCP provides the District's procedural framework for identifying, declaring, communicating, and responding to water shortage conditions. Accordingly, while the 2025 RUWMP evaluates the District's long-term and near-term water supply reliability, this WSCP describes the actions the District may implement if supply conditions, regulatory requirements, emergency conditions, or the Annual Water Supply and Demand Assessment indicate that shortage response actions are necessary.

Section 2: Procedures for Annual Water Supply and Demand Assessment

California Water Code Division 1, Section 350, states:

“The governing body of a distributor of a public water supply, whether publicly or privately owned and including a mutual water company, shall declare a water shortage emergency condition to prevail within the area served by such distributor whenever it finds and determines that the ordinary demands and requirements of water consumers cannot be satisfied without depleting the water supply of the distributor to the extent that there would be insufficient water for human consumption, sanitation, and fire protection.”

These Annual Assessment procedures described herein are one tool to be used to determine if a water shortage is to be declared.

New provisions in Water Code Section 10632.1. require that an urban water supplier such as JBWD, conduct an annual water supply and demand assessment (“Annual Assessment”), on or before July 1 of each year, to be submitted to DWR. An urban water supplier that relies on imported water from the State Water Project (SWP) or the Bureau of Reclamation shall submit its Annual Assessment within 14 days of receiving its final allocations, or by July 1 of each year, whichever is later. The requirement to perform the Annual Assessment begins in July 2022.

Droughts occur with unpredictable frequency, intensity, and duration. Developing and maintaining a healthy groundwater supply to serve its customers has always been an ongoing District priority, and the District wants to be prepared for drought and water shortages. The District regularly monitors its water supplies and demands and produces a Consumer Confidence Report (CCR) annually.

Water supply projections and hydrologic conditions are significant components in deciding when a drought response is needed. The amount of the water supply shortage contributes to the severity of drought declared and the necessary level of response from the District and customers.

2.1 Timeline for Conducting the Annual Assessment

Table 2-1 provides targets for performing the Annual Assessment. The table outlines actions for the current year and one year of drought. By starting to plan in 2022, JBWD will get a snapshot of conditions and can start lining up the resources to mitigate supply and start outreach to customers to manage demand. Major actions are proposed in February, when an initial estimate of supply is made and compared to demand. A final annual assessment is proposed in May 2023.

TABLE 2-1. CALENDAR FOR PERFORMING ANNUAL ASSESSMENT

Target Date	Action
Oct-Jan	Monitor groundwater supply Monitor demand trends
Feb	Confirm anticipated weather (e.g., National Weather Service Climate Prediction Center, La Niña, US Drought Seasonal Outlook) Prepare initial assessment of supplies (<i>Supply Table 1</i>) Make initial assessment of unconstrained demand (<i>Demand Tables 1, 2, 3</i>) Make initial estimate of shortage If shortage anticipated, form Water Shortage Task Force
Mar	Prepare informational item to the Board of Directors confirming assessment of supplies and identify any additional supply mitigations
Apr	Start public outreach Identify supplier efficiency actions Complete Draft Annual Assessment and present to the Board of Directors
May	Continue public outreach Finalize Annual Water Assessment and submit to DWR If necessary, prepare notices of public hearing on water shortage
Jun-Sept	Continue public outreach If necessary, declare water shortage and implement supply mitigations and demand reduction actions Monitor customer response to water shortage messaging and other actions

2.2 Factors Affecting Demand and Supply

Weather affects the District’s supply in multiple ways. Due to drought conditions the area has recently received far less than the historical average of approximately five inches of annual rainfall. There is negligible infiltration of direct precipitation in areas where alluvial deposits are thick, and substantial amount of available runoff is lost to evaporation after flowing into the basin.

Even without population changes, water demand could increase. Precipitation and temperature influence water demand for outdoor landscaping and irrigated agriculture. Evaporative coolers and outdoor water use are large components of water demands in the District’s service area.

2.2.1 Weather Outlook

Lower spring rainfall increases the need to apply irrigation water. Further, warmer temperatures increase crop evapotranspiration, which increases water demand.

While no long-term study or correlation between weather parameters and the local groundwater supply have been performed, there are general “rules of thumb” that can be considered when looking at the groundwater supply.

- Potential for La Niña. ENSO (El Niño Southern Oscillation) is the warming and cooling of the ocean water along the Equator in the Eastern Pacific Ocean near South America. The warm phase is called El Niño and the cold phase is called La Niña. When the Eastern Pacific Ocean is 0.5 degrees Celsius above normal for 5 consecutive 3-month average periods, an El Niño is declared. When the Eastern Pacific Ocean is 0.5 degrees Celsius below normal for 5 consecutive 3-month average periods, a La Niña is declared. The El Niño and La Niña are declared as Weak, Moderate, or Strong depending on how far from normal the water temperature gets. When the temperature is above 1.5 degrees Celsius, it is declared as strong. When the temperature is above 1.0 degrees Celsius, it is declared as Moderate. When the temperature is above 0.5 degrees Celsius, it is declared as Weak. The effect on the District trends to be wetter with El Niños and drier with La Niñas. The National Weather Service Climate Prediction Center provides information on potential for La Niña conditions.
- US Drought Information Seasonal Outlook. The National Weather Service Climate Prediction Center provides information geographically on drought conditions and categorizes geographies as “Drought Persists”, “Drought Remains but Improves”, “Drought Removal Likely”, and “Drought Development Likely”.

2.3 Current Year Unconstrained Demand

DWR guidance for the Annual Assessment is to consider the expected water use in the upcoming year, based on recent water use, and before any projected response actions a Supplier may trigger under its WSCP.

2.3.1 Land Use

In order to evaluate water demand, the District will examine current use and coordinate and with the County of San Bernardino to understand near-term projected land uses. The land use evaluation will start with the current general plan and a summary of built dwelling-units (residential) and square footage (non-residential). Using known development projects constructed since the adoption of the general plan, a summarized total of the existing land use within the District’s service area through the end of the recent calendar year will be developed.

The District will coordinate with the County to help identify pending and approved projects that are anticipated to utilize water in the in current calendar year and one future calendar year.

2.3.2 Current Demand

The District will create a table that will summarize the total water consumption (potable and untreated) for each consumption category within the District’s water service area for the most recent 10-year average, by month (*Demand Table 1*). Based on anticipated weather, the District may adjust *Demand Table 1* to assume an increase in current demands. *Demand Table 1* will estimate existing demand in the current calendar year and demand in the subsequent calendar year. For the purposes of the analysis the subsequent year will be assumed to be a drought year.

2.3.3 Potential Demand

JBWD will create a table showing anticipate demands from “Under Construction and Approved Projects” (*Demand Table 2*). In *Demand Table 2* anticipated water use will be forecasted by month. The calculations in Demand Table 2 will use the most recently developed demand factors inclusive of water loss and including a contingency to account for annual demand variations that are likely to occur.

2.3.4 Total Near-Term Demands

Near-Term Demands (*Demand Table 3*) will be the sum of the demands reflected in *Demand Table 1* plus *Demand Table 2*.

2.4 Assessing Supply in Current Year and One Dry Year

JBWD will evaluate the local water sources available including Joshua Tree Basin groundwater, Copper Mountain Basin groundwater, and SWP water. Table 2-2 summarizes the factors to be considered.

Using Table 2-2 above as a guide, JBWD will develop a summary of each water source available in the upcoming year assuming the subsequent year will be a dry year. JBWD will develop *Supply Table 1*, in which a quantified summary of each anticipated supply source is provided for the upcoming year assuming the subsequent year is a dry year. Anticipated water supply will be forecasted by month using past supply patterns.

TABLE 2-2 ANNUAL ASSESSMENT OF SUPPLY

Source	Factors to be Evaluated in Current Year	Establishing Supply in Assumed Subsequent Dry Year
SWP Water/Mojave Water Agency (MWA)	<p>What is anticipated SWP Allocation for upcoming 12 months</p> <p>Any constraints on supply due to infrastructure or water quality</p> <p>Any constraints on wheeling water to Mojave Water Agency (MWA)/JBWD system</p>	<p>What is anticipated SWP dry year allocation</p> <p>Any constraints on supply due to infrastructure or water quality</p> <p>Any constraints on wheeling water to MWA/JBWD system</p>
Joshua Tree Groundwater Basin	<p>Regulatory limitations</p> <p>Annual extractions past 10-years</p> <p>Any constraints on supply due to infrastructure or water quality</p> <p>Consider if supply would be managed differently if it is known subsequent year will be dry year</p>	<p>Regulatory limitations</p> <p>Annual extractions past 10-years</p> <p>Any constraints on supply due to infrastructure or water quality</p>
Copper Mountain Groundwater Basin	<p>Regulatory limitations</p> <p>Annual extractions past 10-years</p> <p>Any constraints on supply due to infrastructure or water quality</p> <p>Consider if supply would be managed differently if it is known subsequent year will be dry year</p>	<p>Regulatory limitations</p> <p>Annual extractions past 10-years</p> <p>Any constraints on supply due to infrastructure or water quality</p>

2.5 Assessing Water Supply Reliability

JBWD will compare *Supply Table 1* and *Demand Table 3* and determine if a supply shortage is anticipated, the level of shortage, and prepare if necessary to implement its WSCP.

2.6 Coordination with Cities and Counties

Should a water shortage be declared, JBWD, will coordinate with any District or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code, and also to ensure that City/County facilities are being operated in a water efficient manner. Coordination will also include other agencies within the District’s service area such as schools, parks, and others.

Section 3: Six Standard Water Shortage Levels

3.1 Stages of Action to Respond to Water Shortages

As required by California Water Code Section 10632(a)(3)(A), this WSCP is framed around six standard water shortage stages, which correspond to progressive ranges of percent supply reductions from zero to more than fifty percent. Table 3-1 presents a description of the six water supply shortage stages, defined as stages I to VI.

Each stage may be triggered by a declaration from federal or state authorities, or JBWD to address events that result in a water shortage. The stages and applicable triggers are summarized in Table 3-2.

Table 3-1. Rationing and Reduction Goals (DWR Table 8-1)

Deficiency or State Mandated Reduction	Stage	Demand Reduction Goal	Type of Program	Water Shortage Condition
1-10%	1	10% reduction	Voluntary	Minor Shortage
11-20%	2	20% reduction	Mandatory	Moderate Shortage
21-30%	3	30% reduction	Mandatory	Severe Shortage
31-40%	4	40% reduction	Mandatory	Critical Shortage
41-50%	5	50% reduction	Mandatory	Emergency Shortage
>50%	6	>50% reduction	Mandatory	Catastrophic Failure

TABLE 3-2 STAGES OF JBWD WATER SHORTAGE CONTINGENCY PLAN

Stage	Percent Supply Reduction	Triggers
I	Up to 10%	<ul style="list-style-type: none"> Results of the Annual Assessment Federal, state, or local disaster declaration that may impact water supplies State declaration due to drought or system maintenance Unplanned JBWD water system maintenance
II	Up to 20%	<ul style="list-style-type: none"> Results of the Annual Assessment Federal, state, or local disaster declaration that may impact water supplies State declaration due to drought or system maintenance Unplanned JBWD water system maintenance requiring more time to repair

Stage	Percent Supply Reduction	Triggers
III	Up to 30%	<ul style="list-style-type: none"> • Results of the Annual Assessment • Federal, state, or local disaster declaration that may impact water supplies • State determination due to drought or significant system failure • State outdoor irrigation restriction; and/or • Unplanned JBWD water system failure or emergency
IV	Up to 40%	<ul style="list-style-type: none"> • Federal, state, or local disaster declaration that may impact water supplies • State determination due to drought or significant system failure • State outdoor irrigation restriction; and/or • Unplanned JBWD water system failure or emergency
V	Up to 50%	<ul style="list-style-type: none"> • Results of the Annual Assessment • Federal, state, or local disaster declaration that may impact water supplies • State determination due to drought or significant system failure • State outdoor irrigation restriction; and/or • Advanced JBWD water system failure or emergency
Stage VI	50% or higher	<ul style="list-style-type: none"> • Results of the Annual Assessment • Federal, state, or local disaster declaration that may impact water supplies • MWA failure to supply SWP for groundwater recharge • State determination due to drought or significant system failure • Natural or human-caused catastrophe disrupting delivery of water to, or within the service area • Severe JBWD water system failure

3.1.1 Procedures for Water Shortage Level Determination

The results of the Annual Assessment will be used to determine the water shortage level. In case of emergencies, a special meeting may be called by a majority of the Board on less than twenty-four-hour notice and without an agenda to deal with the disruption of service. If an emergency arises which would ordinarily be brought to the attention of the Board, but insufficient time exists, the General Manager has administrative authority to take action as deemed appropriate and reasonable.

3.2 Water Shortage Response Actions

Once a shortage stage is declared, JBWD may implement shortage response actions required by the customer and through operational changes, as listed in Section 3.5. These actions will be supported by communication protocols (discussed in Section 4), enforcement actions (discussed in Section 3.8.2) and monitoring and reporting efforts (discussed in Section 5) activities appropriate at each shortage stage level.

TABLE 3-3 CUSTOMER AND JBWD WATER SHORTAGE ACTIONS

Stage	District Actions	Customer Actions
Stage I	<ul style="list-style-type: none"> • Initiate public information campaign • Increase awareness of conservation measures • Commence enforcement of conservation measures • Promote methods to reduce water use • Conduct focused outreach to large water users • Publish Water Shortage Contingency Plan stages and actions per stage 	<ul style="list-style-type: none"> • Voluntary water conservation • Adhere to conservation measures • Consider conversion to more efficient irrigation methods
Stage II	<ul style="list-style-type: none"> • Expand public information campaign • Step up enforcement of conservation measures • Continue previous actions 	<ul style="list-style-type: none"> • Comply with mandatory conservation regulations • Continue previous actions
Stage III	<ul style="list-style-type: none"> • Continue previous actions • Intensify public information campaign • Expand enforcement of conservation measures • Provide incentives to single metered multi-family units to install individual meters or sub-meters • Send direct notices to all customers • Provide regular media, District Board, and County briefings • Activate emergency connections with mutual aid agencies • Suspend issuance of potable construction meters. • Evaluate size of monetary fines for water waste 	<ul style="list-style-type: none"> • Continue previous actions • Limit washing of sidewalks, driveways, walkways, parking lots, or any other hard-surfaced area by hose or flooding unless otherwise necessary • Comply with prohibited outdoor irrigation of ornamental landscape or turf with potable water through an irrigation system between 9:00 am and 6:00 pm and limit system use to two days a week
Stage IV	<ul style="list-style-type: none"> • Continue previous actions 	<ul style="list-style-type: none"> • Continue previous actions • Obligation to fix leaks, breaks, or malfunctions within 48 hours
Stage V	<ul style="list-style-type: none"> • Continue previous actions • Compel mandatory water consumption goals and allocations for all customers and users 	<ul style="list-style-type: none"> • Prohibit all outdoor irrigation with potable water • Continue previous actions
Stage VI	<ul style="list-style-type: none"> • Continue previous actions • Implement crisis communication plan • Activate Emergency Operations Center • Coordinate actions with regulatory agencies • Coordinate actions with public safety agencies to address enforcement and fire protection issues • Recall all temporary meters and activate water fill stations • Suspend issuance of new development approvals and new water connections other than those required to be processed by state law 	<ul style="list-style-type: none"> • Continue previous actions • Terminate outdoor water use for irrigation, pools, and fountains • Water may only be used outdoors for public health and safety purposes • Be on alert for Boil Water Orders if they become necessary

3.3 Supply Augmentation

Any water shortage event should trigger a review of potential sources for supplemental water supply. The groundwater basins in the District’s area are the limiting factor in groundwater production but are expected to continue to produce reliable supplies even in a catastrophe. Water stored in the District’s distribution system storage tanks are monitored and managed to not allow the reservoir volumes to drop to very low levels. Standard practice is to maintain, at a minimum, the required emergency and fire flow within all tanks at all times. In an emergency, these stored water volumes are available for distribution or truck delivery, as necessary.

Potential sources for supplemental water include pumping additional groundwater or imported water supply from MWA. Any supplemental water supply project or improvements to existing facilities to allow for entitled flows should be a priority for consideration in immediate capital projects if shortage (e.g., demands exceeding supplies) greater than ten percent is anticipated or when a Stage 3 Water Shortage Event continues for more than 18 months. Supply augmentation in near term is presented in Table 3-4 below.

TABLE 3-4 SUPPLY AUGMENTATION ACTIONS

Shortage Level	Supply Augmentation Methods and Other Actions by Water Supplier (based on DWR’s WUE database categories)	How much is this going to reduce the shortage gap?	Additional Explanation or Reference
3	Groundwater	158 AF	Pump Additional Groundwater
3	State Water Project	Will vary	Amounts would vary depending on if SWP is available and the amount
4	Groundwater	215 AF	Pump Additional Groundwater
4	State Water Project	Will vary	Amounts would vary depending on if SWP is available and the amount
5	Groundwater	473 AF	Pump Additional Groundwater
5	State Water Project	Will vary	Amounts would vary depending on if SWP is available and the amount
6	Groundwater	631 AF	Pump Additional Groundwater
6	State Water Project	Will vary	Amounts would vary depending on if SWP is available and the amount

3.4 Demand Reduction Actions

Currently, JBWD implements water conservation measures and irrigation practices aimed at increasing everyday water use efficiency. Those measures, plus those to be enacted in the various stages, are presented in Table 3-5.

TABLE 3-5 PROHIBITIONS DURING DIFFERENT SHORTAGE STAGES

Stage	Prohibition/Requirement
In Effect at All Times	<p>Water waste is prohibited at all times. Water waste includes but is not limited to:</p>
	<ul style="list-style-type: none"> • Application of potable water to driveways and sidewalks is prohibited. • Use of hose that dispenses potable water to wash a motor vehicle is prohibited, except where the hose is fitted with a shut-off nozzle or device • Water leaks shall be repaired in a timely manner and sprinklers shall be adjusted to eliminate over-spray. • Hosing of hardscape surfaces, except where health and safety needs dictate, is prohibited.
	<p>Other</p>
	<ul style="list-style-type: none"> • Water for construction purposes, including but not limited to de-brushing of vacant land, compaction of fills and pads, trench backfill, and other construction uses shall be in an efficient manner. • All new construction, including residential, commercial, and industrial, shall be equipped with low flow toilets and fixtures.
Stage I	<ul style="list-style-type: none"> • No watering of outdoor landscapes within 48 hours of measurable rainfall. • Car washing and outside cleaning activities prohibited except when performed with buckets and automatic hose shutoff devices. • The serving of drinking water other than upon request in eating or drinking establishments is prohibited. • Operators of hotels and motels shall provide guests with the option of choosing not to have towels and linens laundered daily. The hotel or motel shall prominently display notice of this option in each guestroom.
Stage II	<ul style="list-style-type: none"> • All restrictions/prohibitions/initiatives from Stage I are in effect • Landscape watering between the hours of 1000 and 1800 hours is prohibited • Outdoor watering is limited to 3 days per week. • Irrigation with potable water outside of newly constructed homes and buildings not delivered by drip or micro spray is prohibited.
Stage III	<ul style="list-style-type: none"> • All restrictions/prohibitions/initiatives from Stage I and Stage II are in effect and are mandatory. • Irrigation with potable water of ornamental turf on public street medians is prohibited. • Outdoor watering is limited to 2 days per week. • Potable water cannot be used to maintain fountains, reflection

Stage	Prohibition/Requirement
	ponds and decorative water bodies for aesthetic or scenic purposes, except where necessary to support aquatic life.
Stage IV	<ul style="list-style-type: none"> All restrictions/prohibitions/initiatives from Stage I, Stage II, and Stage III are in effect and are mandatory. Outdoor watering is limited to 1 day per week. Filling of new swimming pools, spas, hot tubs, or the draining and refilling of existing pools, etc. is prohibited. Topping off is allowed to the extent that the designated water allocation is not exceeded. Meters will only be installed for new accounts where the building permit was issued prior to the declaration of the water shortage.
Stage V	<ul style="list-style-type: none"> Filling of new swimming pools, spas, hot tubs, or the draining and refilling of existing pools, etc. is prohibited. Topping off is allowed to the extent that the designated water allocation is not exceeded. Meters will only be installed for new accounts where the building permit was issued prior to the declaration of the water shortage
Stage VI	<ul style="list-style-type: none"> All restrictions/prohibitions/initiatives from previous Shortage Stages are in effect and are mandatory. No meters will be installed for new accounts. Outdoor irrigation is prohibited, with the exception of drip or hand watering to preserve established trees.

As described in the table above, prohibitions and restrictions on water features that are artificially supplied with water, such as ornamental lakes, ponds and decorative fountains are treated differently from swimming pools and spas, as defined in Section 115921 of the California Health and Safety Code.

3.4.1 Shortage Stage Allocation

Besides prohibitions, when shortage is greater than 30%, the District may implement allocation limits for each customer class. At the direction of the General Manager each customer will be classified and assigned a monthly allotment according to the methods described in the Draft Water Shortage Contingency Ordinance. Customers will be notified of their classification and allotment by mail before the date when allocation goes into effect. In a disaster, prior notice of allotment may not be possible. In such cases, notice may be provided by other means, such as telephone, radio, television, or newspaper. Customers may appeal the classification on the basis of use or the allotment on the basis of incorrect calculation. The appeals process is set forth in the Draft Water Shortage Contingency Ordinance and described in Section 6.

Specific water allotments for Shortage Stages 4 through 6 shortages were developed using the California Water Code Stage 2, 3, and 4 health and safety allotments of 58 GPCD, or 28 hundred cubic feet (CCF) per person per year as the basis.

3.5 Operational Changes

The District shall comply with the restrictions similar to those implemented for the public to the extent possible and not inconsistent with the restrictions provided for the District in this section. The District will encourage all water customers to cooperate with the water restrictions imposed by each stage.

Limit use of potable water to irrigate newly planted street, park and/or golf course trees, street medians, and general irrigation on all District properties. Non-potable water from wastewater treatment shall be used by District personnel if available for such purposes. No new plantings shall be installed by the District during Stage 3 or higher Water Shortage Events, unless necessary for erosion control. Other actions include efficient water use practices identified in Table 3-5, such as minimizing waste of water in construction, following a modified outdoor landscape watering schedule for District facilities depending on shortage stage, and fixing any identified leaks in the distribution system or other related water infrastructure components.

3.6 Actions to Prepare for Catastrophic Interruption

The distribution infrastructure within groundwater basins from which the District relies are the limiting factor in groundwater production but is expected to continue to produce reliable supplies even in a catastrophe with the management action items identified herein and in the Local Hazard Mitigation Plan described below. Water stored in the District's distribution system storage tanks are monitored and managed to not allow the reservoir volumes to drop to very low levels. Standard practice is to maintain, at a minimum, the required emergency and fire flow within all tanks at all times. In an emergency, these stored water volumes are available for distribution or truck delivery as necessary. Potential supply impacts from catastrophic interruption of SWP supplies are provided for in the MWA WSCP.

3.7 Local Hazard Mitigation Plan

Per the Water Code Section 10632.5, Suppliers are required to assess seismic risk to water supplies as part of their WSCP. The plan also must include a seismic risk assessment and mitigation plan to assess the vulnerability of each of the various facilities of a water system and mitigate those vulnerabilities.

Pursuant to Water Code, the seismic risk assessment must include a description of the vulnerability of each of its water system(s) facilities. Suppliers are encouraged to assess the vulnerability of external facilities or components that extend outside the Supplier's service distribution area (e.g., transmission pipes, delivery canals, surface water diversion pumps) since failure of them would still ultimately disrupt the Supplier's ability to serve their customers.

The Local Hazard Mitigation Plan (LHMP) for the District was developed and adopted in June 2019 to formulate mitigation measures for the future protection of JBWD's critical infrastructure and the community's safety. The LHMP was completed with the coordination and involvement of the JBWD staff and representatives from the local community. The following plans were utilized to obtain information on the hazards that face the area and the mitigation goals of the County of San Bernardino:

- Bighorn Desert View LHMP
- Twentynine Palms Water District LHMP
- San Bernardino County Hazard Mitigation Plan (HMP)
- USGS Golden Guardian Shake Out 2008
- Joshua Basin Water District's Water Master Plan
- California HMP 2013
- San Bernardino County Flood Control
- FEMA Flood Insurance Study for San Bernardino County

The goal of the LHMP is to reduce the future impacts of a hazard, including property damage, disruption to local and regional economies, and the amount of public and private funds spent for recovery. The District has identified the following hazards to be the most likely to affect District's service area:

- Earthquake: There are many faults running through the District's service area.
- Terrorist Event: A major terrorist event at the Marine Base Twentynine Palms could have a negative effect on the water supply or damage the infrastructure utilized by the District, leaving the District with no power and no water in the system due to ruptured pipelines, contamination, or other damages.
- Lightning Strikes: Lightning strikes on wells, pumps, motors, and electrical equipment are common and can happen at any location in the District Service area. The area is prone to lightning storms during monsoon season from July to September each year.
- Flash Flooding: Flash flooding is very common in the San Bernardino County deserts and happens almost yearly. These events uncovered pipelines installed within paved and unpaved roads throughout the distribution system. USGS and the County of San Bernardino do not keep records on the events of flash flooding and there are no flood control systems in the Joshua Basin.
- Climate Change/Drought: The District relies on groundwater and the impacts from climate change are long-term. Climate change could affect the groundwater extraction, increase flash flood risks, decrease groundwater recharge, and cause increased pumping costs in the water supply wells.

The District has identified hazards in the community, assessed those hazards that pose the most significant risk, and identified projects to help reduce and/or eliminate those risks. Global measures that apply across all hazards include:

- Continually improve the community's understanding of potential impacts due to hazards, and the measures needed to protect lives and critical infrastructure
- Provide public outreach to inform the public of the hazards identified to the drinking water system in emergencies, how to conserve water in the event of a disaster and how to obtain drinking water when water may not be available

- Continually provide State and Local Agencies with updated information about hazards, vulnerabilities, and mitigation measures at the District
- Review local codes and standards to verify that they protect human life and the District's facilities
- Review and verify that the District's owned and operated infrastructure meet minimum standards for safety
- Review the District's facilities and developments in high-risk areas to verify that these areas are appropriately protected from potential hazards

The information contained in the Plan is intended to guide staff and inform other emergency responding agencies and includes plans and procedures for the response team.

The LHMP is included in Appendix D.

3.8 Benefit of Shortage Response Actions

As discussed above, supply actions and actions within JBWD operations will help reduce water shortage. Closing the "gap" between supplies and demands through customer actions, will include:

- Public Information
- Enforcement
- Restrictions on Non-Essential Water Uses
- Pricing

The water shortage response actions and their anticipated effect are summarized in Table 3-5.

3.8.1 Public Information

Without exception, experience has shown that a well-informed public is generally more willing to heed requests to voluntarily conserve or alter water use patterns and will be more likely to comply if mandatory water use restrictions become necessary. DWR (2008) estimates that public information campaigns have alone reduced demand in the range of 5 to 20 percent, depending on the time, money, and effort spent. Public information supports voluntary and mandatory measures by educating and convincing the public that a critical water shortage exists and provides information on how water is used and how they can help. The DWR Drought Guidebook highlights that when the public perceives the drought to be severe, they changed behaviors (such as flushing the toilet less often).

The information provided to the public should include a description of the conditions that will trigger implementation of shortage stages as well as a description of what the plan entails (restrictions, enforcement provisions, etc.). It is also advisable to provide practical "consumer" information that will help water users comply with the plan. For example, information about restrictions on lawn watering might be accompanied with information about watering practices.

Based on past experience, with minimal public outreach, a water savings of 5 percent is assumed, with extensive public outreach a water savings of 7 percent is assumed, public information combined with enforcement (Section 3.7.2) is assumed to achieve a savings of up to 22 percent.

3.8.2 Enforcement

A study examining the effectiveness of drought management programs in reducing residential water-use (Virginia Polytechnic Institute 2006) showed considerable variation in the effectiveness of drought management programs and highlighted the importance of public information and enforcement. Results, shown in Table 3-6, indicate that overall reductions in residential water-use ranged from 0-7 percent for voluntary restrictions and from 0-22 percent for mandatory restrictions. The observed differences were statistically attributed to information efforts for voluntary restrictions and both information and enforcement efforts for mandatory restrictions.

TABLE 3-6 DROUGHT PROGRAM MANAGEMENT VARIABLES EFFECT ON RESIDENTIAL WATER-USE

Classification	Estimated change in Water-Use	Statistically Different than no effect?
Voluntary Restrictions		
Little or no information disseminated	-2%	No
Moderate level of information	-2%	No
Aggressive information dissemination	-7%	Yes
Mandatory Restrictions		
Low information and low enforcement	-5%	No
Moderate information and low enforcement	-6%	Yes
Aggressive information and low enforcement	-12%	Yes
Low information and moderate enforcement	-4%	No
Moderate information and enforcement	-9%	Yes
Aggressive information and moderate enforcement	-15%	Yes
Moderate information and aggressive enforcement	-20%	Yes
Aggressive information and enforcement	-22%	Yes

Source: Virginia Polytechnic Institute 2006.

The analysis highlights the key role that public outreach and information plays in the success of drought response actions. Voluntary restriction programs with little to moderate levels of information dissemination had no appreciable effect on water-use. Voluntary restriction programs with active promotional efforts, however, reduced water-use by an estimated 7 percent from what would have otherwise occurred without any restriction program. Thus, for voluntary restrictions, only the most intense programs had even a moderate level of success in reducing water-use.

Mandatory restriction programs without a significant enforcement component broadly mirrored the outcomes achieved by the voluntary programs. Programs with mandatory restrictions that invested minimal effort in information dissemination did not appreciably reduce residential water-use. Programs with no active enforcement efforts but with moderate to high levels of informational dissemination achieved 6 and 12 percent reductions in water-use, respectively. These estimated reductions are similar to those achieved by voluntary programs with aggressive informational campaigns.

The experience the City of Santa Cruz had implementing its Drought Contingency Plan and successfully reaching its reduction goals supports the importance of a strong public information program. Analysis of the implementation program identified the key ingredient to its success was "the public's understanding, awareness, and belief that the District was confronted with a true water shortage problem. Media coverage of water problems across California reinforced the

situation. Without that sense of a real and imminent problem, it's likely the level of cooperation and willingness demonstrated by the community in making changes they did might have been considerably reduced." (Santa Cruz 2010)

Delivering accurate and timely information to water users, news media and local governments with updates on conditions, restrictions, and helpful contact information is key.

With aggressive information dissemination and enforcement its assumed JBWD could achieve a 22 percent water savings.

3.8.3 Restrictions on Non-Essential Water Uses

The Stages of Action focus on curtailing water waste and non-essential water use. Outdoor water use, including washing sidewalks and watering ornamental landscapes are targeted. These uses are typically considered to be discretionary or nonessential, are highly visible, and therefore relatively easy to monitor, and often are a substantial component of water demand, particularly during the summer months when drought conditions are likely most severe.

AWWA estimates that voluntary outdoor water use limits can result in a water savings of up to 10 percent and mandatory outdoor water limits can achieve up to a 56 percent reduction in outdoor water use (AWWA 2008, AWWA 2011). There have not been detailed studies on outdoor water use in the JBWD service area. However, a comparison of low water use months, when water use is assumed to be primarily indoor (January and February) with high-water use months when outdoor water use is greatest has been used to estimate the percent of outdoor water demand. Based on this comparison, it is estimated that outdoor water use may make up between 20 to 50 percent of District water use. To be conservative and so as to not overestimate the savings that could be achieved by curtailing outdoor water use, this Plan assumes outdoor water use is 30% of the JBWD demand:

- Voluntary outdoor water limits could save 10% of outdoor water use or about 35 AFY (about 3% of total water use)
- Restricting water use to twice a week could reduce outdoor water use by 33 percent or about 114 AFY (about 10% of total water use)
- Restricting water use to once a week could reduce outdoor water use by 56 percent or about 193 AFY (about 17% of total water use)
- Eliminating outdoor water use would reduce demand by approximately 30%, about 343 AFY.

3.8.3.1 Additional Mandatory Restrictions

The State, through the State Water Board, adopted drought emergency conservation regulations in July 2014. The Board expanded, updated, extended, and readopted the emergency regulations several times and in the prohibitions on wasteful water use practices were in place until November 25th, 2017.

As directed by Executive Order B-40-17, the State Water Board is conducting a rulemaking to put in place permanent prohibitions on wasteful water use practices. This rulemaking is part of the broader legislation, *Making Water Conservation a California Way of Life*.

The specific outcome of the permanent prohibitions cannot be known at this time. The emergency conservation regulations in effect through November 2017 included the following prohibitions:

- Application of potable water to outdoor landscapes in a manner that causes runoff such that water flows onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures;
- The use of a hose that dispenses potable water to wash a motor vehicle, except where the hose is fitted with a shut-off nozzle or device attached to it that causes it to cease dispensing water immediately when not in use
- The application of potable water to driveways and sidewalks
- The use of potable water in a fountain or other decorative water feature except where the water is part of a recirculating system
- The application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall
- The serving of drinking water other than upon request in eating or drinking establishments
- Irrigation with potable water of ornamental turf on public street medians.

JBWD’s water use restrictions are consistent with the State’s prohibitions to prevent water waste.

TABLE 3-7 EFFECTIVENESS DEMAND REDUCTION AND OTHER ACTIONS

Shortage Level	Demand Reduction Actions	Reduction in Shortage Gap	Explanation	Penalty, Charge, or Other Enforcement?
1	Expand Public Information Campaign	7%	Based on AWWA 2008 assumes savings of 7%	No
2	Expand Public Information Campaign	22%	Based on AWWA 2008 assumes savings of 22% with enforcement	Yes
2	Implement or Modify Drought Rate Structure or Surcharge	10%	Based on AWWA 2011 assumes savings of 10%	Yes
3	Expand Public Information Campaign	22%	Based on AWWA 2008 assumes savings of 22% with enforcement	Yes

3	Implement or Modify Rate Structure	10%	Based on AWWA 2011 assumes savings of 10%	Yes
3	Landscape - Other landscape restriction or prohibition	3%	Outdoor water limited to 3 days a week. Based on AWWA 2011	Yes
4	Expand Public Information Campaign	22%	Based on AWWA 2008 assumes savings of 22% with enforcement	Yes
4	Implement or Modify Rate Structure	15%	Based on AWWA 2011 assumes savings of 15%	Yes
4	Landscape - Other landscape restriction or prohibition	10%	Outdoor water limited to 2 days a week. Based on AWWA 2011.	Yes
5	Expand Public Information Campaign	22%	Based on AWWA 2008 assumes savings of 22% with enforcement	Yes
5	Implement or Modify Rate Structure	15%	Based on AWWA 2011 assumes savings of 15%	Yes
5	Landscape - Other landscape restriction or prohibition	17%	Outdoor water limited to 1 day a week. Based on AWWA 2011.	Yes
6	Expand Public Information Campaign	22%	Based on AWWA 2008 assumes savings of 22% with enforcement	Yes
6	Implement or Modify Rate Structure	15%	Based on AWWA 2011 assumes savings of 15%	Yes
6	Landscape - Other landscape restriction or prohibition	30%	Outdoor water use prohibited	Yes

Section 4: Communications Protocols

The District will periodically provide the public with information about the WSCP, including its implementation. Such information will include, but will not be limited to, stages of action, restrictions on water use, water-saving tips, monetary assessment, and fines for noncompliance of prohibited activities for water conservation, water use efficiency, and failure to achieve water budget reductions redefined in the WSCP.

4.1 Customer Outreach

Customer participation is a key element in responding to a supply shortage. While general media coverage of a drought is likely to increase awareness, JBWD should still develop and implement a specific and comprehensive outreach program. The goals of the outreach program will be to:

- Educate customers and public about state and local drought conditions
- Make water shortage stages and customer responsibilities clear
- Target specific customer groups with specialized messaging
- Provide information to customers and general public that will assist them in reducing water demand

JBWD regularly communicates with its customers and has a long history of promoting conservation. Staff continues to implement customer outreach programs. Ongoing outreach activities are summarized in Table 4-1. Conservation giveaways also provide a means for JBWD to interact with customers for water efficiency messaging.

TABLE 4-1 JBWD OUTREACH PROGRAMS

Action	Description	Years Implemented				
		2016	2017	2018	2019	2020
Monthly E-Newsletter	The monthly Tier Drop Newsletter provides information on capital improvement projects, conservation programs, public meetings, workshops, and special events.	X	X	X	X	X
Website	JBWD regularly updates the website with FAQs, public notices, water quality data, water conservation information, public meeting information, project updates, and more.	X	X	X	X	X
Outreach Events	15-20 public outreach events per year, consisting of job fairs, District-sponsored events, Chamber of Commerce events, with giveaways and informational handouts.	X	X	X	X	X
Social Media	JBWD maintains a presence on Facebook and, YouTube.	X	X	X	X	X

Action	Description	Years Implemented				
		2016	2017	2018	2019	2020
Public Engagement Materials	Water quality Consumer Confidence Report. Brochures “Protecting our Pipes”; “Understanding Water and Wastewater Charges”; “Customer Assistance Program”; “Water Disaster Preparedness”; and “Fats, Oils, and Grease”.	X	X	X	X	X
Targeted Outreach	Brochures, annual mailer, postcards, and door hangers.	X	X	X	X	X
Conservation Giveaways	JBWD continues to offer customers water conservation giveaways including materials such as “Doing Our Part to Save Water” yard signs, low-flow showerheads, faucet aerators, toilet leak detection kits, shower timers, dish squeegees, and more.	X	X	X	X	X

Public outreach will be enhanced during anticipated water shortages. In addition to traditional outreach (monthly e newsletter, billing statements), JBWD will consider utilizing new and innovative outreach efforts using social media. Proposed outreach should include, but not be limited to:

- Multi-media Tear Drop *Conservation Stories*, a campaign that will include testimonial water conservation case studies, experiences and lessons learned from a variety of JBWD customer types (residential, institutional, and commercial). This campaign can be published in the monthly newsletter.
- Social media sites (YouTube, Facebook) to distribute *Conservation Stories* and other messaging.
- Specific JBWD website section dedicated to the drought.
- Customized state and regional partner outreach materials and links.
- Water shortage declarations provided as inserts to monthly water bills.
- Post-cards and mailings to JBWD customers.
- Targeted outreach (contact by letters and phone calls) to large water users
- Employee outreach and education to ensure consistent organization messages concerning drought and conservation.
- Enhanced community presence of JBWD materials (handouts at schools, plumbing centers, hardware stores, farmers markets, and community events).

Proposed coordination with retail water agencies and land use agencies is summarized below:

Outreach Target	Goals of Coordination	Schedule
All customers of JBWD	Educate customers and public about drought conditions	Feb of first year of drought and ongoing through drought
General Public	<p>Make water shortage stages and customer responsibilities clear</p> <p>Target specific customer groups with specialized messaging</p> <p>Provide information to customers and general public that will assist them in reducing water demand</p>	

Table 4-2 provides a summary of public outreach actions and the applicable water shortage stage when this action would be employed.

TABLE 4-1 WATER SHORTAGE PUBLIC OUTREACH PLAN

Element	Description	Applicable Drought Stage				
		I-II	III	IV	V	VI
Quarterly Newsletter	Quarterly newspaper that discusses regular JBWD news. Will be enhanced to specifically provide information on: Water supplies/ Actions JBWD taking to improve supply					
	Water Conservation Tips					
	Actions JBWD taking to reduce JBWD's water use	◆	◆	◆	◆	◆
	News Items - <i>Conservation Stories</i>					
	Feature Stories - Any Proposed Water Shortage Declaration					
Website	Feature Stories - Any Applicable Restrictions					
	Feature Stories - Proposed and Applicable Allocations					
	"Report Water Waste" link on home page					
	Rotator Message graphic on Home Page					
	Water supplies/ Actions JBWD is taking to improve supply					
Billing Messages	Comprehensive Customer Conservation actions section					
	Actions JBWD is taking to reduce JBWD's water use	◆	◆	◆	◆	◆
	News Items - <i>Conservation Stories</i>					
	Home Page Stories - Any Proposed Water Shortage Declaration					
	Home Page Stories - Any Applicable Restrictions					
Billing Messages	Home Page Stories - Proposed and Applicable Allocations					
	Conservation messages within monthly bills					
	Any proposed Water Shortage Declaration		◆	◆	◆	◆
	Any applicable restrictions					
	Any applicable allocations					

Element	Description	Applicable Drought Stage				
		I-II	III	IV	V	VI
Talking Points	Develop talking points related to conservation and drought for:					
	Board of Directors Management Customer Service Staff	◆	◆	◆	◆	◆
Media Contact	Contact the following media with information on water supply, conservation, and drought:					
	Hi-Desert Star	◆	◆	◆	◆	◆
Enhanced Media Contact	JBWD will develop a media kit that will include:					
	Press Release on Water Shortage Declaration Frequently Asked Questions Information Sheet/Brochure Photographs Conservation Partner Links		◆	◆	◆	◆
Collateral Materials	JBWD will present Letters to the Editor from Board Members, Management, and key constituents concerning the Water Shortage Declaration.					
	Water Conservation Tip Handouts Restaurant table cards Hotel room notices	◆	◆	◆	◆	◆
Enhanced Collateral Materials	Distribution of materials at plumbing centers, hardware stores, schools, farmers markets:					
	Water conservation tips Print materials related to "Conservation Stories"		◆	◆	◆	◆

Element	Description	Applicable Drought Stage				
		I-II	III	IV	V	VI
Partner Resources	JBWD should continue to utilize partnership opportunities to share conservation messages and links that are being implemented by state and regional agencies and organizations, including:	◆	◆	◆	◆	◆
	State of California Water Conservation Programs Association of California Water Agencies Programs					
Customized Partner Materials	JBWD will work with regional and state partner organizations to utilize and customize conservation related materials specific to the Joshua Tree area, including:					
	Broadcast public service announcements					
	Print Ads		◆	◆	◆	◆
	Web banners and links					
	Posters Print materials					
Conservation Stories Outreach Campaign Materials	JBWD will produce "Conservation Stories", a public outreach campaign that will feature residents and representatives from businesses and organizations who are taking steps to conserve water in the Joshua Tree Area. Campaign shall include:					
	Informational Video					
	Podcast style audio segments					
	Broadcast public service announcements	◆	◆	◆	◆	◆
	Print advertisements					
	Web banners on JBWD website					
	Conservation postcards					
	Posters, pop-up banners and collateral materials Social media "Conservation Stories"					

Element	Description	Applicable Drought Stage				
		I-II	III	IV	V	VI
Establish and Maintain Social Media Presence	JBWD will develop and maintain social media sites including YouTube, Twitter, and Facebook to share "Conservation Stories" and images with the public. The YouTube site will be used as an operational tool for uploading videos that will then be embedded directly on the JBWD website. Social media icons that link to JBWD social media sites will be added to the JBWD website Home Page. Facebook will be used to post "Conservation Stories" briefs and images along with drought and conservation related news items, links, and graphics. Flickr will be used to upload photos to galleries related to drought and conservation efforts. The JBWD Twitter site will be linked to other JBWD social media resources to automatically provide updates when new items are posted.	◆	◆	◆	◆	◆
Targeted Outreach	JBWD will conduct focused targeted outreach to specific customer segments, including the Top 10 water users by sector. Outreach will include: Phone calls Letters Postcards Letters	◆				
Enhanced Targeted Outreach	JBWD will conduct focused targeted outreach to specific customer segments, including the Top 20 water users by sector. Outreach will include: Phone calls Letters Postcards Letters		◆			
Additional Targeted Outreach	JBWD will conduct focused targeted outreach to specific customer segments, including the Top 30-50 water users by sector. Outreach will include: Phone calls Letters Postcards			◆	◆	◆

Element	Description	Applicable Drought Stage				
		I-II	III	IV	V	VI
	Letters					
JBWD Customer Touch-Points	JBWD will utilize existing customer touch-point opportunities to share drought information with the public, including: JBWD vehicle signage Facility conservation signage and materials Door hangers and notices	◆	◆	◆	◆	◆
Enhanced JBWD Customer Touch-Points	JBWD will undertake customer outreach activities at local and regional events. JBWD will staff table/booths to provide information on: low flow shower heads low flow faucet aerators toilet leak detectors low flow garden hose nozzles drought tolerant landscape guides native seed coasters		◆	◆	◆	◆
JBWD Employee Communications	JBWD will conduct outreach to employees in order to promote consistent organizational messages concerning drought and conservation.	◆	◆	◆	◆	◆
Individualized letters to all customers	Letters communicating specific restrictions and allocations applicable to their account		◆	◆	◆	◆
Townhalls/Public Meetings	JBWD will plan and host meetings to share water shortage information with residents and provide an opportunity for residents to voice concerns.		◆	◆	◆	◆
Customer Assisted Enforcement	Maintain water-waste hotline		◆	◆	◆	◆

4.2 Neighboring Retail Water Agencies and Land Use Agencies

The purpose of meeting with neighboring water agencies and land use agencies is to ensure that residents in the District are receiving consistent messages about the drought, drought severity, and are aware of the actions they can take to reduce demand. Key agencies would include the Mojave Water Agency (MWA), Bighorn-Desert View Water Agency (BDVWA), Hi-Desert Water District (HDWD), Twentynine Palms Water District (TPWD), Marine Corps Air Ground Combat Center (MCAGCC), and the County of San Bernardino.

In June 2015, JBWD joined the Emergency Response Network of the Inland Empire (ERNIE). ERNIE facilitates public agency preparedness for, response to, and recovery from local and regional disasters to ensure the delivery of critical public services through mutual aid and communications. ERNIE meets monthly and provides regular training for utilities in emergency response and long-term emergency planning. Through the ERNIE network JBWD can receive mutual aid from other local water districts. JBWD may also provide mutual aid to its sister agencies if resources are not needed within the District itself. JBWD maintains an emergency intertie with Hi-Desert Water District.

If a disaster overwhelms the local resources, JBWD will coordinate with the California Water/Wastewater Agency Response Network (CalWARN) system for statewide mutual aid. JBWD will immediately contact the State Water Resources Control Board Division of Drinking Water, San Bernardino County Fire, Operations of Emergency Services, and the California Utilities Emergency Association to coordinate mutual aid and assistance. If local resources are overwhelmed by the disaster, the County of San Bernardino Fire Operations of Emergency Services will contact the State of California Governor's Office of Emergency Services for assistance.

All the agencies listed below participate in the Alliance for Water Awareness and Conservation (AWAC), whose mission is to achieve water conservation goals within the 4,900 square mile service area of Mojave Water Agency. The members of AWAC are known to each other, and it would be relatively simple to add a special drought subcommittee to this group. The intent of these meetings will be to develop a common message to the community about the drought and to find opportunities to share costs (e.g., share costs of radio announcements and newspaper advertisements). As the drought progresses, the meetings will serve to refine the drought messaging to address any common misconceptions or common customer questions. Monthly meetings are proposed, starting in February, ongoing through the drought.

Should a water shortage be declared, JBWD will coordinate with any District or county within which it provides water supply services for the possible proclamation of a local emergency, as defined in Section 8558 of the Government Code.

Proposed coordination with retail water agencies and land use agencies is summarized below:

Participants	Goals of Coordination	Schedule
Apple Valley Heights County Water District	Identify opportunities to share public outreach costs	Feb to Aug
Bighorn-Desert View Water Agency	Develop common brochures	
City of Adelanto	Develop common website messages	
Golden State Water Company - Apple Valley	Refine drought messaging based on customer response	
Golden State Water Company - Barstow	Determine need for proclamation of local emergency	
Helendale Community Services District		
Hesperia Water District		
Hi-Desert Water District		
Indian Wells Valley Water District		
Juniper Riviera Water District		
Liberty Utilities		
Mariana Ranchos Water District		
Phelan Pinon Hills Community Services District		
San Bernardino County Special Districts Water and Sanitation		
Twentynine Palms Water District		
Thunderbird County Water District		
Victorville Water District		

Section 5: Monitoring and Reporting

Certain aspects of water conservation can be readily monitored and evaluated, such as metered water use and production quantities. Other aspects such as public education are more difficult to measure in terms of effectiveness. Additionally, weather patterns make it more difficult to compare one year's water demand and conservation results with another year's usage.

When severe shortages occur and some degree of mandatory reduction is required, a program's effectiveness can be judged directly by water billings. In these cases, targeted results must be met, and even reluctant customers will, on the whole, meet the goals. Specific methods to evaluate effectiveness of water conservation programs to be employed by the District are:

1. Monitoring of Metered Water Usage – This will determine how much has been used. Compiling statistics to track usage of customer groups to determine trends is currently being done through the water billing computer system. Meter readings/billings can be compared and analyzed to determine the effectiveness of conservation for all customer classes.
2. Monitoring Production Quantities – In normal water supply conditions, production figures are recorded daily by the District's automated system. The Water Production Supervisor and the Production Lead monitor the accuracy of the monthly production totals. The totals are incorporated into the monthly water supply report to the State by the Water Treatment Supervisor.

To verify that conservation reduction goals are being met, production and metered usage reports will be provided to the JBWD General Manager and Water Utility Manager during each stage of the conservation period. Water production figures will be compared to previous year production figures for the same time period to ascertain if conservation goals are being reached. Results will be posted on the JBWD website.

Additional actions available to JBWD include:

1. Transition current customer water meters to "smart meters" to allow timely monitoring by customer of water use patterns..
2. Provide incentives to property owners to install individual meters or sub-meters in multi-family structures for resident/property owners to track water usage.
3. The District shall develop means to distribute reclaimed water to interested users for landscape irrigation and other non-potable uses.

Section 6: Enforcement

Enforcement of restrictions shall be in accordance with California Water Code Section 375, water waste prohibited. The provisions of the section apply to all persons using District water, both in and outside the District, and within the District water service areas.

6.1 Enforcement of the Water Waste Prohibition

Prohibited actions and penalties for violating the Water Waste Ordinance are specified in the Municipal Code. JBWD's ordinance on water use efficiency is included in Appendix A.

6.1.1 Civil Penalties

For the first violation of any of the provisions of the code, a written notice is to be given.

For the second violation of any of the provisions of the code, a non-compliance charge is imposed in an amount of \$50, payable as part of the water bill, by the customer at the premises at which the violation occurred.

For the third violation of any of the provisions of the code a non-compliance charge is imposed in an amount equal to \$100. This penalty is payable as part of the water bill, by the customer at the premises at which the violation occurred.

6.1.2 Notices

The District will give notice of each violation to the customer at the premises at which the violation occurred, as follows:

- For a first, second or third violation, the District may give written notice of the fact of such violation to the customer personally or by regular mail.
- If the penalty assessed is, or includes the installation of a flow restrictor or the discontinuance of water service to the customer for any period of time whatever, notice of the violation will be given in the following manner:
 - By giving written notice thereof to the customer personally; or
 - If the customer is absent from or unavailable at either the customer's place of residence or place of business, by leaving a copy with an adult at either place, and sending a copy through the United States mail addressed to the customer at either the customer's place of business or residence; or
 - If such place of residence and business cannot be ascertained, or an adult cannot be found on the premises, then by affixing a copy in a conspicuous place on the property where the failure to comply has occurred and also by delivering a copy to a person residing at the premises, if such person can be found, and also by sending a copy through the United States mail addressed to the customer at the customer's billing address and to the place where the property is situated;

- All notices will contain, in addition to the facts of the violation, a statement of the possible penalties for each violation, a statement informing the customer of the customer's right to a hearing on the violation, a brief summary of the appeal process specified herein, and the date and time termination will occur.

6.1.3 Appeals

Any customer against whom a penalty is to be levied shall have a right to an appeal, in the first instance by the District General Manager, with the right of appeal to the District Board of Directors, on the merits of the alleged violation, upon the written request of that customer to the District clerk within 15 days of the date of notification of the violation. Penalties, including termination of water service, will be stayed until a decision is reached and a written decision is made by the District General Manager or their designee.

A request for an appeal must be in writing and filed with the District secretary. The filing by a customer of a request for an appeal for any form of relief must be made within 15 days of the decision of the water superintendent. Filing of such a request will automatically stay the implementation of the proposed course of action, pending the decision of the District's General Manager. No other or further stay will be granted. The appeal hearing will be scheduled to occur within a reasonable, prompt period of time following the written notice of appeal. The water user may present any evidence which would tend to show that the alleged wasteful water use has not occurred. Formal rules of evidence will not apply, and all relevant evidence customarily relied upon by reasonable persons in the conduct of serious business affairs will be admissible, unless a sound objection warrants its exclusion by the District public works director. The decision of the District public works director shall be final.

Where water service is disconnected, it will be reconnected upon correction of the condition or activity and the payment of the estimated reconnection charge.

6.2 Enforcement of Water Reductions

The JBWD Board of Directors may choose to take actions through ordinance and resolution that establish mandatory water regulations that may include enforcement actions such as those previously implemented which includes:

A customer who does not meet the mandatory reduction above the health and safety baseline (6 CCF bimonthly use) shall pay a surcharge.

The JBWD General Manager may prescribe rules and regulations for the implementation of ordinance provisions.

Section 7: Financial Consequences of Actions During Shortages

Consumption reduction will impact revenues by decreasing the amount of water sold to customers. Water shortages may also impact construction activities. A reduction in construction activities will reduce water service connection fees collected by the District.

As consumption decreases, some expenditures are expected to increase. Staff costs for community education, enforcement of ordinances, monitoring and evaluation of water use, drought planning, and dealing with customer questions and complaints are expected to rise. Operations and maintenance costs may also increase because of the need to identify and quickly repair all water losses. A shift to alternative sources would change pumping, purchase, and treatment costs as different water supplies incur different purchase, treatment, and distribution costs.

JBWD has structured its rates into two main components: a fixed service charge and a commodity rate. The fixed service charge has been set with the intent of covering the water utility's fixed costs (meter infrastructure, billing, administration). The fixed service charge is meant to provide a fixed amount of income to JBWD independent of water consumption. Currently about 25 percent of JBWD's revenue comes from the fixed service charge. The commodity rate is a cost per unit consumed by the customer and is meant to recover the District's variable costs for providing water service. The commodity charge also sends the customer a price signal and rewards customers who conserve water. A decrease in consumption would impact revenue from the commodity charges as estimated in Table 7-1 below:

TABLE 7-1 REVENUE IMPACTS OF REDUCED WATER DEMAND

Demand Reduction	Annual Revenue Reduction (\$ million)	% of ~\$24M Water Base Revenue
10%	-\$1.73 M	- 7%
20%	-\$3.45 M	- 14%
30%	-\$5.18 M	- 22%
40%	-\$6.90 M	- 29%
50%	- \$8.63 M	- 36%

A reduction in water revenue could be mitigated substantially through deferral or avoidance of capital fund expenditures. This would meet short-term cash flow needs, although it should only be considered on a short-term basis.

The water purchases, utility costs and chemical costs are not a linear function of the water usage reduction. However, in order to provide an estimate of the cost savings, it is assumed that if there is a ten percent reduction in usage, there will also be a ten percent reduction in associated costs.

7.1 Revenue Impacts of Reduced Sales and Increased Costs

Water Shortage Rates would be implemented when mandatory stages are enacted by the District Board of Directors. A rate schedule has been created for each mandatory stage of this plan. The rates would resume to normal rates once the Water Shortage Event is retracted based on triggers in this plan.

1. Goals of Water Shortage Rates:
 - Meet community expectations to provide safe and reliable water supply during shortages at rates that are fair and as low as possible.
 - Maintain fiscal stability in the event of a sudden or long-term water shortage.
 - Achieve state mandates and legal requirements.

2. Principles of the Water Shortage Rates:
 - The rates will be increased for each stage of mandatory conservation to ensure full revenue loss recovery.
 - Any additional expenses from the water wholesaler or regulatory agencies due to drought will be passed onto customers through a water shortage pass-through when the District's Water Enterprise is charged.

3. Codifying the Water Shortage Rates:
 - Customers will be given 30 days-notice prior to the rates going in effect unless the District Board takes extraordinary action.

JBWD prepared water shortage rates as part of its 2015 Water Shortage Rates Study. JBWD implemented drought shortage rates in FY16, FY17, FY18, FY19, FY20. An update to the water shortage rates are being studied as part of JBWD's current rate study.

In the case of future water use reductions resulting from the implementation of the WSCP, JBWD would likely experience impacts to operating revenue and would draw as necessary and as possible from reserves. Depending on the level of mandatory water reductions, the District could experience a decrease in revenue between 3 to 33%, based on water use reductions of 5 to 50%, respectively. Future or continued reductions in consumption would ultimately cause a rate structure adjustment, or the District may consider implementation of a drought surcharge rate that would generate enough revenue to fund operations without drawing from reserves.

7.2 Mitigation Actions to Address Revenue Reductions

A reduction in water revenue could be mitigated by use of the established reserve fund, deferral or avoidance of capital fund expenditures, use of less costly water supplies (if possible), and implementation of drought surcharge rates. This would meet short-term cash flow needs, although it should only be considered on a short-term basis.

A summary of measures to overcome revenue and expenditure impacts is provided in Table 7-1.

TABLE 7-1 MEASURES TO OVERCOME REVENUE IMPACTS DURING SHORTAGE

Measure	Summary of Effects
Use of Reserve Funds	Use of reserves may provide short-term rate stabilization but would require delays in capital expenditures and rebuilding of reserves after the water shortage.
Re-evaluate Capital Expenditure Plans	Delay major construction projects for facilities as well as upgrades and replacements.
Shift Water Sources to Less Costly Supplies if Possible	Reduce costs associated with purchase, treatment, and distribution of water.
Shortage Rates	Increase revenue.

It should be noted that expenditure impacts could be reduced 2-10 percent during mandatory conservation efforts less than 50 percent because of the reduction in costs associated with the treatment and deliver of potable water. Rate adjustments could also be employed either solely or in conjunction with capital expenditure reductions.

7.3 Financial Consequences of Limiting Excessive Water Use

Per the California Water Code Section 365 et al., retail water suppliers are required to prohibit or discourage excessive water use. Reporting this is not a required part of the UWMP; however, Water Code Section 10632(a)(8)(C) requires the financial consequences of these actions be reported as part of the UWMP.

Water Code Section 367 states that there are three types of drought emergencies:

- Declared statewide drought emergency
- When a supplier implements its mandatory reductions per their WSCP
- A declared local drought emergency

Water Code Section 366 states that a retail water supplier must prohibit excessive use through one of two strategies:

- Rate structure, specifically, a rate structure that includes block tiers, water budgets, or rate surcharges over and above base rates for excessive water use by a residential water customer.
- An excessive water use ordinance, specifically an ordinance that includes a procedure to identify and address excessive water use by metered single-family residential customers and customers in multiunit housing complexes in which each unit is individually metered or submetered and may include a process to issue written warnings to a customer and perform a site audit of customer water usage prior to deeming the customer in violation.

Section 8: References

American Water Works Association, 2011. Drought Preparedness and Response. Manual of Water Supply Practices, M60.

American Water Works Association. 2008. Forecasting Urban Demand. Second Edition.

California Department of Water Resources (DWR). 2008. Preparing for California's Next Drought : Changes Since 1987-92.

District of Santa Cruz Water Department, Water Conservation Office, December 2010. The 2009 Water Shortage An Evaluation of Water Management Strategies, Actions, and Results.

JBWD. 2022. 2020 Urban Water Management Plan.

US Bureau of Reclamation. 2010. Central Valley Project Municipal and Industrial Water Shortage Policy Review.

Virginia Polytechnic Institute and State University Blacksburg, Virginia, 2006. The Effectiveness of Drought Management Programs in Reducing Residential Water-Use in Virginia.

<http://water.ky.gov/wa/Documents/AdditlDroughtResources/VirginiaStudyonDroughtProgramEffectiveness.pdf>



AGENDA ITEM NO:	7B
MEETING DATE:	05.20.26

Staff Report

PRESENTED BY:	Anne Roman, Director of Finance
TOPIC:	RIDGELINE MUNICIPAL STRATEGIES GENERAL SERVICES AGREEMENT
RECOMMENDATION:	Authorize the General Manager to execute agreement with Ridgeline Municipal Strategies, LLC

ANALYSIS: In fall 2025, the District entered into an agreement with Ridgeline Municipal Strategies, LLC to support initial Chromium 6 financial planning, including development of a 10-year financial projection and evaluation of financing options. With that phase now complete, the District must transition from planning to ongoing implementation and financial management as the Chromium 6 compliance project advances.

To support this next phase, the District is considering continued engagement with Ridgeline to provide flexible, as-needed financial support over the next two years. This will ensure continuity in financial strategy, allow timely updates to projections and funding approaches, and provide technical support as new information, funding opportunities, and regulatory requirements emerge. This agreement encompasses the following scope of work:

Task 1: General Financial Planning and Financing Strategy Implementation Support

Ridgeline will provide general financial planning and financing strategy implementation support, as requested by the Client. The scope may include the following tasks:

- Grant and earmark application support (including the work that was completed for the 2026 earmark applications)
- Updates to the previously developed financial model and forecast
- Rate study update support
- General advice on project financing strategy
- General financial analysis support
- Attendance of meetings and calls, as necessary
- Other tasks, as may be required by the Client

The Scope of Services does not include municipal advisory services for specific financings.

* * * * *

Services will be billed hourly (current rates ranging from \$115 to \$330), with a not-to-exceed amount of \$15,000 through June 30, 2028. Costs associated with future financings are excluded and would be addressed under separate agreements.

RECOMMENDED ACTION: Authorize the General Manager to execute agreement with Ridgeline Municipal Strategies, LLC

STRATEGIC PLAN: N/A

FISCAL IMPACT: Not-to-exceed budget of \$15,000, available through 06/30/2028. Work will be billed on a time-and-materials basis, only as needed. This cost has been built into the 2026/27 proposed budget.

RIDGELINE MUNICIPAL STRATEGIES, LLC

AGREEMENT FOR MUNICIPAL ADVISORY AND CONSULTING SERVICES

THIS AGREEMENT (the “Agreement”), made and entered into this 20th day of May, 2026, by and between the Joshua Basin Water District, a public agency organized and operating under the laws of the State of California, with its principal place of business at 61750 Chollita Rd, Joshua Tree, CA 92252 (the “Client”), and Ridgeline Municipal Strategies, LLC, a California Limited Liability Company, with its principal place of business at 2213 Plaza Drive, Rocklin, CA 95765 (“Ridgeline”), sets forth the terms and conditions under which Ridgeline shall provide consulting services to the Client.

WHEREAS, the Client seeks to retain the services of a financial consultant and municipal advisor to assist with the implementation of the funding strategy for its capital projects (the “Project”);

WHEREAS, Ridgeline is duly licensed and has the qualifications, experience, and personnel necessary to properly provide the Scope of Services;

WHEREAS, the Client desires to retain Ridgeline to provide the Scope of Services;

WHEREAS, the General Manager is authorized to enter into this Agreement on behalf of the Client; and

NOW, THEREFORE, in consideration of the mutual covenants and conditions contained herein, and intending to be legally bound hereby, the Client and Ridgeline agree as follows:

SECTION I. SCOPE OF SERVICES

A. Ridgeline shall provide the services described in Exhibit A to this Agreement (hereinafter referred to interchangeably as the “Services” or “Scope of Services”). Any material changes in or additions to the Scope of Services described in Exhibit A shall be promptly reflected in a written supplement or amendment to this Agreement. Services provided by Ridgeline that are not specifically referenced in the Scope of Services shall be completed as agreed in writing in advance between the Client and Ridgeline. Upon request of the Client, Ridgeline may agree to additional services to be provided by Ridgeline by a separate agreement between the Client and Ridgeline.

B. Ridgeline shall perform all such work with skill and diligence and pursuant to generally accepted standards of practice in effect at the time of performance. Ridgeline shall provide corrective services without charge to the Client for work which fails to meet

these standards and which is reported to Ridgeline in writing within sixty (60) days of discovery.

C. The Client shall cooperate with Ridgeline and will furnish all information, data, records, and reports existing and available to the Client to enable Ridgeline to carry out work outlined in the Scope of Services. Ridgeline shall be entitled to reasonably rely on information, data, records, and reports furnished by the Client, however, the Client makes no warranty as to the accuracy or completeness of any such information, data, records, or reports available to it and provided to Ridgeline which were furnished to the Client by a third party. Ridgeline shall have a duty to bring to the Client's attention any deficiency or error it may discover in any information provided to Ridgeline by the Client or a third party.

SECTION II. WORK SCHEDULE

The services of Ridgeline are to commence as soon as practicable after the execution of this Agreement. Ridgeline shall thereafter diligently perform the Services through to completion unless otherwise directed by the Client or unless earlier terminated.

SECTION III. REGISTERED MUNICIPAL ADVISOR; REQUIRED DISCLOSURES

A. Ridgeline is a registered municipal advisor with the Securities and Exchange Commission (the "SEC") and the Municipal Securities Rulemaking Board (the "MSRB"), pursuant to the Securities Exchange Act of 1934 Rule 15Ba1-2. This Agreement designates Ridgeline as the Client's independent registered municipal advisor ("IRMA") with regard to the attached Scope of Services for purposes of SEC Rule 15Ba1-1(d)(3)(vi) (the "IRMA Exemption"). Ridgeline shall not be responsible for, or have any liability in connection with, verifying that Ridgeline is independent from any other party seeking to rely on the IRMA Exemption (as such independent status is required pursuant to the IRMA Exemption, as interpreted from time to time by the SEC). The Client acknowledges and agrees that any reference to Ridgeline, its personnel, and its role as IRMA, including in the written representation of the Client required under SEC Rule 15Ba1-1(d)(3)(vi)(B) shall be subject to prior approval by Ridgeline. The Client further agrees not to represent that Ridgeline is the Client's IRMA with respect to any aspect of a municipal securities issuance or municipal financial product outside of the attached Scope of Services or without Ridgeline's prior written consent. Notwithstanding the foregoing, the Parties acknowledge that this Agreement is a public record under the California Public Records Act as set forth in Government Code section 7920.000 *et seq.*, and accordingly is subject to disclosure to the public on request.

B. MSRB Rule G-42 requires that municipal advisors make written disclosures to their clients of all material conflicts of interest and certain legal or disciplinary events.

Such disclosures are provided in Ridgeline's Disclosure Statement delivered to the Client together with this Agreement as Exhibit C.

SECTION IV. COMPENSATION

A. For the Services provided under this Agreement, Ridgeline's professional fees shall be paid as provided in Exhibit B to this Agreement. Any services which are not included in the Scope of Services set forth in Exhibit A of this Agreement will be subject to separate, mutually acceptable fee structures.

B. Invoice(s) in a format and on a schedule acceptable to the Client shall be submitted to and be reviewed and verified by the Client. The Client shall notify Ridgeline of exceptions or disputed items and their dollar value within fifteen (15) days of receipt. Payment of the undisputed amount of the invoice will typically be made approximately thirty (30) days after the invoice is received by the Client.

C. Ridgeline will maintain clearly identifiable, complete and accurate records with respect to all costs incurred under this Agreement on an industry recognized accounting basis. Ridgeline shall make available to the representative of the Client all such books and records related to this Agreement, and the right to examine, copy and audit the same during regular business hours upon three (3) business days' notice for a period of three (3) years from the date of final payment under this Agreement. Such right to audit shall extend to the California State Auditor pursuant to Government Code section 8546.7.

SECTION V. TERMS AND TERMINATION

A. Unless otherwise provided, the term of this Agreement shall begin on the date of its full execution and shall expire on June 30, 2028, unless extended by amendment or terminated earlier as provided herein.

B. The Client may suspend this Agreement and Ridgeline's performance of the Services, wholly or in part, for such period as it deems necessary in the Client's sole discretion. Ridgeline will be paid for satisfactory services performed through the date of suspension.

C. If Ridgeline at any time refuses or neglects to perform its Services in a timely fashion or in accordance with the schedule identified in Exhibit A, or is declared bankrupt, or commits any act of insolvency, or makes an assignment for the benefit of creditors without Client's consent, or fails to make prompt payment to persons furnishing labor, equipment, materials or services, or fails in any respect to properly and diligently perform its Services, or otherwise fails to perform fully any and all of the Agreements herein contained, this Agreement shall be terminated.

D. If Ridgeline fails to cure the default within seven (7) days after written notice from the Client, the Client may, at its sole option, demand possession of any documents or other materials (in paper and electronic form) prepared or used by Ridgeline in connection with the provision of Services and (1) provide any such work, labor, materials or services as may be necessary to overcome the default and deduct the cost thereof from any money then due or thereafter to become due to Ridgeline under this Agreement; or (2) terminate this Agreement.

E. This Agreement and all Services to be rendered under it may be terminated upon fifteen (15) days written notice from either party, with or without cause. In the event Client elects to terminate this Agreement, Ridgeline shall be paid for all services rendered, unless the termination is made for cause, in which event compensation, if any, shall be adjusted in the light of the particular facts and circumstances involved in the termination. This continuing right to receive full compensation shall survive the term of this Agreement.

SECTION VI. ASSIGNMENT

Ridgeline shall not assign any interest in this Agreement.

SECTION VII. INFORMATION TO BE FURNISHED TO AND BY RIDGELINE

A. All information, data, reports, and records ("Data") in the possession of the Client or any third-party agent to the Client necessary for carrying out any services to be performed under this Agreement shall be furnished to Ridgeline, and the Client shall cause its agent(s) to cooperate with Ridgeline in its conduct of reasonable due diligence in performing the services.

B. Unless otherwise provided for herein, all documents, materials, data, computer data files, basis for calculations, and reports originated and prepared by Ridgeline under this Agreement shall be and remain the property of the Client for its use in any manner it deems appropriate. Ridgeline agrees that all copyrights which arise from creation of the work pursuant to this Agreement shall be vested in the Client and waives and relinquishes all claims to copyright or intellectual property rights in favor of the Client. Ridgeline shall deliver the work product to the Client in the PDF format electronically. Ridgeline shall use all reasonable efforts to ensure that any electronic files provided to the Client will be compatible with the Client's current computer hardware and software. Ridgeline makes no representation as to long-term compatibility, usability or readability of the format resulting from the use of software application packages, operating systems or computer hardware differing from those in use by the Client at the commencement of this Agreement. Ridgeline shall be permitted to maintain copies of all such data for its files. The Client acknowledges that its use of the work product is limited

to the purposes contemplated by the Scope of Services and, should the Client use these products or data in connection with additions to the work required under this Agreement or for new work without consultation with and without additional compensation to Ridgeline, Ridgeline makes no representation as to the suitability of the work product for use in or application to circumstances not contemplated by the Scope of Services and shall have no liability or responsibility whatsoever in connection with such use which shall be at the Client's sole risk. Any and all liability arising out of changes made by the Client to Ridgeline's deliverables is waived against Ridgeline unless the Client has given Ridgeline prior written notice of the changes and has received Ridgeline's written consent to such changes.

C. To the extent the Client requests that Ridgeline provide advice with regard to any recommendation made by a third party, the Client will provide to Ridgeline written direction to do so as well as any Data it has received from such third party relating to its recommendation. The Client acknowledges and agrees that while Ridgeline is relying on the Data in connection with its provision of the services under this Agreement, Ridgeline makes no representation with respect to and shall not be responsible for the accuracy or completeness of such Data.

D. In the course of performing services under this Agreement, Ridgeline may obtain, receive, and review confidential or proprietary documents, information or materials that are and shall remain the exclusive property of the Client. Should Ridgeline undertake the work on behalf of other agencies, entities, firms or persons relating to the matters described in the Scope of Services, it is expressly agreed by Ridgeline that any such confidential or proprietary information or materials shall not be provided or disclosed in any manner to any of the Ridgeline's other clients, or to any other third party, without the Client's prior express written consent.

SECTION VIII. NOTICES

All notices given under this Agreement shall be in writing, sent by registered United States mail, with return receipt requested, addressed to the party for whom it is intended, at the designated below. The parties designate the following as the respective places for giving notice, to wit:

JOSHUA BASIN WATER DISTRICT
61750 Chollita Rd
Joshua Tree, CA 92252
Attention: General Manager

RIDGELINE MUNICIPAL STRATEGIES, LLC
2213 Plaza Drive
Rocklin, CA 95765

SECTION IX. INDEMNIFICATION

To the maximum extent permitted by law, Ridgeline shall hold harmless, defend, and indemnify Client and its officers, officials, employees, agents, and volunteers (collectively, "Client Indemnitees") from and against any and all claims, liabilities, losses, damages, expenses, judgements, awards, and costs (including without limitation attorneys fees and costs of litigation) of every nature arising out of or in connection with Ridgeline's (i) material breach of this Agreement; (ii) Ridgeline's negligent acts or omissions in the performance of the Services; or (iii) Ridgeline's willful misconduct in connection with the Services, except to the extent such loss or damage was caused by (a) the sole negligence or willful misconduct of the Client, (b) the Client's use of Ridgeline's work product in a manner not contemplated by the Scope of Services; (c) information, data, records, or reports furnished to Ridgeline by the Client or any third party upon which Ridgeline reasonably relied; or (d) any decision made by the Client independently of Ridgeline's advice or contrary to Ridgeline's written recommendation.

SECTION X. INSURANCE

Ridgeline shall procure and maintain for the duration of this Agreement insurance against claims for injuries or death to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Ridgeline, its agents, representatives, employees or sub-contractors, with coverage at least as broad as that set forth in Exhibit D attached hereto and incorporated herein by this reference.

SECTION XI. LIMITATION OF LIABILITY

A. Ridgeline shall be liable to the Client only for losses directly caused by Ridgeline's material breach of this Agreement, including a breach of its fiduciary duty under applicable law or a failure to perform its services in accordance with applicable professional standards. Ridgeline shall not be liable for error of judgment made in good faith or for any act or omission taken in good faith reliance upon information provided by the Client or third parties.

B. The Client retains sole authority to make all decisions regarding the issuance of municipal securities, municipal financial products, investments, or other financial actions. Ridgeline shall not be liable for any losses, damages, or consequences arising from: (a) the Client's decision to act contrary to Ridgeline's advice or recommendation; (b) the Client's decision not to implement a recommendation made by Ridgeline; or (c) any action taken by the Client independent of Ridgeline's advice.

C. The exclusive remedy available to the Client for any alleged loss arising from or related to Ridgeline's services shall be the right to pursue claims for actual

damages that are directly caused by Ridgeline's breach of this Agreement or Ridgeline's violation of applicable professional standards.

D. Unless disallowed by law or regulation, the Client may not bring any legal proceeding against Ridgeline unless it is commenced within forty-eight (48) months after the date on which the Client discovered, or reasonably should have discovered, the act, omission, or circumstance giving rise to the claim (the "Limitation Period"). In no event, however, shall the Limitation Period extend beyond sixty (60) months after the date on which Ridgeline delivered the report, service, or other deliverable identified in the relevant Scope of Services, or the date of termination of the Scope of Services, whichever is earlier. The Limitation Period shall apply regardless of whether Ridgeline performs other services for the Client after the date of such delivery or termination.

E. Ridgeline shall not be responsible for any misstatements in its deliverables to the Client that it may fail to detect as a result of misrepresentations or concealment of information by the Client or any of its associated persons. Unless disallowed by law, regulation, or applicable professional standards, the Client shall indemnify and hold Ridgeline harmless from any claims, losses, settlements, judgments, awards, damages, and attorneys' fees arising from any such misstatement or concealment of information.

SECTION XII. INDEPENDENT CONTRACTOR; NO THIRD-PARTY BENEFICIARY

A. Ridgeline, its employees, officers and representatives at all times shall be independent contractors and shall not be deemed to be employees, agents, partners, servants and/or joint venturers of the Client by virtue of this Agreement or any actions or services rendered under this Agreement. This Agreement shall not be construed as an agreement for employment. Nothing in this Agreement is intended or shall be construed to give any person, other than the parties hereto, their successors and permitted assigns, any legal or equitable rights, remedy, or claim under or in respect of this Agreement or any provisions contained herein.

B. Ridgeline acknowledges that Ridgeline: (1) is free from the control and direction of the Client in connection with the performance of the Services; (2) performs Services outside the usual course of the Client's business; and (3) is customarily engaged in an independently established trade, occupation, or business of the same nature as Ridgeline performs for the Client, and has the option to perform such work for other entities. Ridgeline shall have no authority to contract for or otherwise bind the Client.

SECTION XIII. DISPUTE RESOLUTION

A. If any dispute arises between the parties as to proper interpretation or application of this Agreement, the parties shall first meet and confer in a good faith attempt to resolve the matter between themselves. If the dispute is not resolved by

meeting and conferring, the matter shall be submitted for formal mediation to a mediator selected mutually by the parties. The expenses of such mediation shall be shared equally between the parties. If the dispute is not or cannot be resolved by mediation, the parties may mutually agree (but only as to those issues of the matter not resolved by mediation) to submit their dispute to arbitration. Before commencement of the arbitration, the parties may elect to have the arbitration proceed on an informal basis; however, if the parties are unable so to agree, then the arbitration shall be conducted in accordance with the rules of the American Arbitration Association. The decision of the arbitrator shall be binding, unless within thirty (30) days after issuance of the arbitrator's written decision, any party files an action in court. Venue and jurisdiction for any such action between the parties shall lie in the Superior Court for the County of San Bernardino.

B. In the event of any controversy, claim or dispute relating to this Agreement, or the breach thereof, the prevailing party shall be entitled to recover from the losing party reasonable expenses, attorney's fees, and costs.

SECTION XIV. SURVIVAL

The representations, warranties, covenants, and agreements of Ridgeline and Client set forth in Sections IV, V, VI, VIII, IX, X, XI, XII, XIII, XIV, XV, XVI, and XVII of this Agreement shall survive the termination of this Agreement.

SECTION XV. ELECTRONIC DELIVERY OF DOCUMENTS

Client agrees that delivery of information and documents shall be in a manner acceptable to Ridgeline, and Client agrees and acknowledges that delivery shall normally be via electronic means, including, but not limited to, an emailed hyper-link to the email address provided to Ridgeline by Client. Client hereby consents to such electronic delivery of all documents and information required pursuant to this Agreement, acknowledges that this form of electronic delivery constitutes delivery to Client of the information linked thereto or contained therein and agrees and acknowledges that: (i) Client's consent to electronic delivery means that Client will receive an email that contains either a hyper-link that will connect Client to the relevant information on a particular web page of Ridgeline's website or the web site of a third-party or an attachment, such as a PDF file or other document; (ii) Client has access to this media and the ability to print and/or download the information provided thereby; (iii) Client will update Client's electronic contact information immediately if Client's email address changes; (iv) Client agrees to maintain a working and operational email address, and maintain a computer system that is able to accept and incorporate then-current standards of communication; and (v) Client's consent to electronic delivery, as described herein, is valid until Client effectively revokes such consent. Occasional requests for paper documents will not trigger revocation. Client may revoke such consent to electronic delivery at any time by providing written notice to Ridgeline.

SECTION XVI. APPLICABLE LAW

This Agreement shall be construed, enforced, and administered according to the laws of the State of California. Ridgeline and the Client agree that, should a disagreement arise as to the terms or enforcement of any provision of this Agreement, each party will in good faith attempt to resolve said disagreement prior to pursuing other action.

SECTION XVII. ENTIRE AGREEMENT; SEVERABILITY

This Agreement represents the entire agreement between the Client and Ridgeline and may not be amended or modified except in writing signed by both parties. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision.

SECTION XVIII. EXECUTION; COUNTERPARTS

Each party to this Agreement represents and warrants that the person or persons signing this Agreement on behalf of such party is authorized and empowered to sign and deliver this Agreement for such party. This Agreement may be signed in any number of counterparts, each of which shall be an original and all of which when taken together shall constitute one and the same document.

[Signature Page to Follow on Next Page]

IN WITNESS THEREOF, the Client and Ridgeline have executed this Agreement as of the day and year herein above written.

JOSHUA BASIN WATER DISTRICT

By: _____

Name: Sarah Johnson
Title: General Manager

RIDGELINE MUNICIPAL STRATEGIES, LLC

By: _____

Name: Dmitry Semenov
Title: Principal

EXHIBIT A
SCOPE OF SERVICES

Task 1: General Financial Planning and Financing Strategy Implementation Support

Ridgeline will provide general financial planning and financing strategy implementation support, as requested by the Client. The scope may include the following tasks:

- Grant and earmark application support (including the work that was completed for the 2026 earmark applications)
- Updates to the previously developed financial model and forecast
- Rate study update support
- General advice on project financing strategy
- General financial analysis support
- Attendance of meetings and calls, as necessary
- Other tasks, as may be required by the Client

The Scope of Services does not include municipal advisory services for specific financings.

**EXHIBIT B
COMPENSATION FOR SERVICES**

For services associated with Task 1, Ridgeline will be compensated on a time-and-materials basis **up to a not-to-exceed budget of \$15,000**. Invoices will be submitted to the Client monthly, due and payable within 30 days. If there are material changes to the Scope of Services, a revised budget may be established by a mutual written agreement.

Hourly rates are updated on an annual basis on January 1 to reflect inflation impacts. The hourly rates for the 2026 calendar year are as follows:

Title	Rate
Principal	\$330
Sr. Associate	\$205
Associate	\$155
Research Associate	\$115

All project deliverables will be provided electronically in PDF format. No printing and reproduction costs are included in the budget above. If hard copies are required, the Client will be responsible for all printing and reproduction costs.

EXHIBIT C
DISCLOSURE OF CONFLICTS OF INTEREST AND OTHER INFORMATION
RIDGELINE MUNICIPAL STRATEGIES, LLC

I. Introduction

Ridgeline Municipal Strategies, LLC (hereinafter, referred to as “Ridgeline”) is a registered municipal advisor with the Securities and Exchange Commission (the “SEC”) and the Municipal Securities Rulemaking Board (the “MSRB”), pursuant to the Securities Exchange Act of 1934 Rule 15Ba1-2.

The MSRB is the primary rulemaking body for the municipal securities industry in general and municipal advisors in particular. Their website can be accessed at www.msrb.org. The website includes, among other things, the municipal advisory client brochure, which describes protections that are provided by the MSRB’s rules and the process for filing complaints with appropriate regulatory authorities. The municipal advisory client brochure can be accessed at:

<http://www.msrb.org/~media/Files/Resources/MSRB-MA-Clients-Brochure.ashx?la=en>.

In accordance with MSRB rules, this disclosure statement is provided by us to each client prior to the execution of our advisory agreement with written disclosures of all material conflicts of interests and legal or disciplinary events that are required to be disclosed with respect to providing financial advisory services pursuant to MSRB Rule G-42(b) and (c)(ii). Ridgeline employs a number of resources to identify and subsequently manage actual or potential conflicts of interest in addition to disclosing actual and potential conflicts of interest provided herein.

Fiduciary Duty

Ridgeline has a fiduciary duty to the Client and must provide both a Duty of Care and a Duty of Loyalty that includes the following.

Duty of Care:

- Exercise due care in performing its municipal advisory activities;
- Possess the degree of knowledge and expertise needed to provide the Client with informed advice;
- Make a reasonable inquiry as to the facts that are relevant to the Client’s determination as to whether to proceed with a course of action or that form the basis for any advice provided to the Client; and,
- Undertake a reasonable investigation to determine that we are not providing any recommendations on materially inaccurate or incomplete information.
- We must have a reasonable basis for:
 - Any advice provided to or on behalf of the Client;
 - Any representations made in a certificate that we sign that will be reasonably foreseeably relied upon by the Client, any other party involved in the municipal securities transaction or municipal financial product, or investors in the Client’s securities; and,
 - Any information provided to the Client or other parties involved in the municipal securities transaction in connection with the preparation of an official statement.

Duty of Loyalty:

We must deal honestly and with the utmost good faith with the Client and act in the Client's best interests without regard to the financial or other interests of Ridgeline. We will eliminate or provide full and fair disclosure (included herein) to the Client about each material conflict of interest (as applicable). We will not engage in municipal advisory activities with the Client, as a municipal entity, if we cannot manage or mitigate our conflicts in a manner that permits us to act in the Client's best interest.

How We Identify and Manage Conflicts of Interest

Code of Ethics. Ridgeline requires all of its employees to conduct all aspects of our business with the highest standards of integrity, honesty and fair dealing. All employees are required to avoid even the appearance of misconduct or impropriety and avoid actual or apparent conflicts of interest between personal and professional relationships that would or could interfere with an employee's independent exercise of judgment in performing the obligations and responsibilities owed to a municipal advisor and our clients.

Policies and Procedures. Ridgeline has adopted policies and procedures that include specific rules and standards for conduct. Some of these policies and procedures provide guidance and reporting requirements about matters that allow us to monitor behavior that might give rise to a conflict of interest. These include policies concerning the making of gifts and charitable contributions, entertaining clients, and engaging in outside activities, all of which may involve relationships with clients and others that are important to our analysis of potential conflicts of interest.

Supervisory Structure. Ridgeline has both a compliance and supervisory structure in place that enables us to identify and monitor employees' activities, both on a transaction and firm-wide basis, to ensure compliance with appropriate standards. Prior to undertaking any engagement with a new client or an additional engagement with an existing client, appropriate municipal advisory personnel will review the possible intersection of the client's interests, the proposed engagement, our engagement personnel, experience and existing obligations to other clients and related parties. This review, together with employing the resources described above, allows us to evaluate any situations that may be an actual or potential conflict of interest.

Disclosures. Ridgeline will disclose to clients those situations that it believes would create a material conflict of interest, such as:

- 1) any advice, service or product that any affiliate may provide to a client that is directly related to the municipal advisory work of Ridgeline;
- 2) any payment made to obtain or retain a municipal advisory engagement with a client;
- 3) any fee-splitting arrangement with any provider of an investment or services to a client;
- 4) any conflict that may arise from the type of compensation arrangement we may have with a client; and
- 5) any other actual or potential situation that Ridgeline is or becomes aware of that might constitute a material conflict of interest that could reasonably be expected to impair our ability to provide advice to or on behalf of clients consistent with regulatory requirements.

If Ridgeline identifies such situations or circumstances, we will prepare meaningful disclosure describing the implications of the situation and how we intend to manage the situation. Ridgeline will also disclose any legal or disciplinary events that are material to a client's evaluation or the integrity of our management or advisory personnel. Ridgeline will provide this disclosure (or a means to access this information) in writing prior to starting our proposed engagement, and will provide such additional information or clarification as the client may request. Ridgeline will also advise clients in writing of any subsequent

material conflict of interest that may arise, as well as the related implications, its plan to manage that situation, and any additional information such client may require.

II. General Conflict of Interest Disclosures

Disclosure of Conflicts Concerning the Firm's Affiliates

Ridgeline does not have any affiliates that provide any advice, service, or product to or on behalf of the Client that is directly or indirectly related to the municipal advisory activities to be performed by Ridgeline.

Disclosure of Conflicts Related to the Firm's Compensation

Ridgeline has not made any payments directly or indirectly to obtain or retain the Client's municipal advisory business.

Ridgeline has not received any payments from third parties to enlist Ridgeline's recommendation to the Client of its services, any municipal securities transaction or any municipal finance product.

Ridgeline has not engaged in any fee-splitting arrangements involving Ridgeline and any provider of investments or services to the Client.

From time to time, Ridgeline may be compensated by a municipal advisory fee that is or will be set forth in an agreement with the Client to be, or that has been, negotiated and entered into in connection with a municipal advisory service. Payment of such fee may be contingent on the closing of the transaction and the amount of the fee may be based, in whole or in part, on a percentage of the principal or par amount of municipal securities or municipal financial product. While this form of compensation is customary in the municipal securities market, it may be deemed to present a conflict of interest since we may appear to have an incentive to recommend to the Client a transaction that is larger in size than is necessary. Further, Ridgeline may also receive compensation in the form of a fixed fee arrangement. While this form of compensation is customary, it may also present a potential conflict of interest if the transaction ultimately requires less work than contemplated and we are perceived as recommending a more economically friendly pay arrangement. Finally, Ridgeline may contract with clients on an hourly fee basis. If Ridgeline and the client do not agree on a maximum amount of hours at the outset of the engagement, this arrangement may pose a conflict of interest as we would not have a financial incentive to recommend an alternative that would result in fewer hours. Ridgeline manages and mitigates all of these types of conflicts by disclosing the fee structure to the client, and by requiring that there be a review of the municipal securities transaction or municipal financial product to ensure that it is suitable for the client in light of various factors, after reasonable inquiry, including the client's needs, objectives, and financial circumstances.

Disclosure Concerning Provision of Services to State and Local Government, and Non-Profit Clients

Ridgeline regularly provides financial advisory services to state and local governments, their agencies, and instrumentalities, and non-profit clients. While our clients have expressed that this experience in providing services to a wide variety of clients generally provides great benefit for all of our clients, there may be or may have been clients with interests that are different from (and adverse to) other clients. If for some reason any client sees our engagement with any other particular client as a conflict, we will mitigate this conflict by engaging in a broad range of conduct, if and as applicable. Such conduct may include one or any combination of the following: 1) disclosing the conflict to the client; 2) requiring that there be a review of the municipal securities transaction or municipal financial product to ensure that it is suitable for the client in light of various factors, including the client's needs, objectives and financial circumstances; 3) implementing procedures that establish a "firewall" that creates physical, technological and procedural barriers and/or separations to ensure that non-public information is isolated to particular area such that certain governmental transaction team members and supporting functions operate separately during the

course of work performed; and 4) in the rare event that a conflict cannot be resolved, we will withdraw from the engagement.

Disclosure Related to Legal and Disciplinary Events

As registered municipal advisors with the SEC and the MSRB, pursuant to the Securities Exchange Act of 1934 Rule 15Ba1-2, our legal, disciplinary and judicial events are required to be disclosed on our forms MA and MA-I filed with the SEC, in 'Item 9 Disclosure Information' of form MA, 'Item 6 Disclosure Information' of form MA-I, and if applicable, the corresponding disclosure reporting page(s). To review the foregoing disclosure items and material change(s) or amendment(s), if any, clients may electronically access Ridgeline filed forms MA and MA-I on the SEC's Electronic Data Gathering, Analysis, and Retrieval system, listed by date of filing starting with the most recently filed at www.sec.gov/edgar/searchedgar/companysearch.html.

Ridgeline does not have any legal or disciplinary events or disciplinary history on its Form MA and Form(s) MA-I, which includes information about any criminal actions, regulatory actions, investigations, terminations, judgements, liens, civil judicial actions, customer complaints, arbitrations, and civil litigation. There have been no material changes to a legal or disciplinary event disclosure on any form MA or Form MA-I filed with the SEC.

Disclosure Related to Recommendations

If Ridgeline makes a recommendation of a municipal securities transaction or municipal financial product or if the review of a recommendation of another party is requested in writing by the Client and is within the scope of the engagement, Ridgeline will determine, based on the information obtained through reasonable diligence of Ridgeline whether a municipal securities transaction or municipal financial product is suitable for the Client. In addition, Ridgeline will inform the Client of:

- the evaluation of the material risks, potential benefits, structure, and other characteristics of the recommendation;
- the basis upon which Ridgeline reasonably believes that the recommended municipal securities transaction or municipal financial product is, or is not, suitable for the Client; and,
- whether Ridgeline has investigated or considered other reasonably feasible alternatives to the recommendation that might also or alternatively serve the Client's objectives.

If the Client elects a course of action that is independent of or contrary to the advice provided by Ridgeline, Ridgeline is not required on that basis to disengage from providing services to the Client.

Disclosure Related to Record Retention

Pursuant to the SEC record retention regulations, Ridgeline is required to maintain in writing, all communications and created documents between Ridgeline and the Client for five (5) years.

III. Specific Conflicts of Interest Disclosures - Client

To our knowledge, following reasonable inquiry, as of the commencement of the Scope of Services, we are not aware of any actual or potential conflict of interest that could reasonably be anticipated to impair our ability to provide advice to or on behalf of the Client in accordance with applicable standards of conduct of MSRB Rule G-42. If we become aware of any potential conflict of interest that arises after this disclosure, we will disclose the detailed information in writing to the Client in a timely manner.

Ridgeline does not act as principal in any of the transactions related to its role / work on the Scope of Services.

Ridgeline does not have any other engagements or relationships that might impair Ridgeline's ability to either render unbiased and competent advice to or on behalf of the Client, or to fulfill our fiduciary duty to the Client, as applicable.

EXHIBIT D

MINIMUM INSURANCE REQUIREMENTS

Coverage - Coverage shall be at least as broad as the following:

1. **Commercial General Liability (CGL)** - Insurance Services Office (ISO) Commercial General Liability Coverage (Occurrence Form CG 00 01) including products and completed operations, property damage, bodily injury, personal and advertising injury with limit of at least one million dollars (\$1,000,000) per occurrence or the full per occurrence limits of the policies available, whichever is greater. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (coverage as broad as the ISO CG 25 03, or ISO CG 25 04 endorsement provided to Client) or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability** - Insurance Services Office (ISO) Business Auto Coverage (Form CA 00 01), covering Symbol 1 (any auto) or if Ridgeline has no owned autos, Symbol 8 (hired) and 9 (non-owned) with limit of one million dollars (\$1,000,000) for bodily injury and property damage each accident.
3. **Workers' Compensation Insurance** - as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease. **Waiver of Subrogation:** The insurer(s) named above agree to waive all rights of subrogation against the Client, its elected or appointed officers, officials, agents, authorized volunteers and employees for losses paid under the terms of this policy which arise from work performed by the Named Insured for the Agency; but this provision applies regardless of whether or not the Client has received a waiver of subrogation from the insurer.
4. **Professional Liability** - Insurance appropriate to the Ridgeline profession, with limits no less than \$1,000,000 per occurrence or claim, and \$1,000,000 policy aggregate.

If Claims Made Policies:

1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided **for at least five (5) years after completion of the contract of work.**
3. If coverage is canceled or non-renewed, and not **replaced with another claims-made policy form with a Retroactive Date** prior to the contract effective date, the Ridgeline must purchase "extended reporting" coverage for a minimum of **five (5)** years after completion of contract work.

If the Ridgeline maintains broader coverage and/or higher limits than the minimums shown above, the Client requires and shall be entitled to the broader coverage and/or higher limits maintained by the Ridgeline. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Client.

Other Required Provisions - The general liability policy must contain, or be endorsed to contain, the following provisions:

1. **Additional Insured Status:** Client, its directors, officers, employees, and authorized volunteers are to be given insured status (at least as broad as ISO Form CG 20 10 10 01), with respect to liability arising out of work or operations performed by or on behalf of the Ridgeline including materials, parts, or equipment furnished in connection with such work or operations.
2. **Primary Coverage:** For any claims related to this project, the Ridgeline's insurance coverage shall be primary at least as broad as ISO CG 20 01 04 13 as respects to the Client, its directors, officers, employees and authorized volunteers. Any insurance or self-insurance maintained by the Client its directors, officers, employees and authorized volunteers shall be excess of the Ridgeline's insurance and shall not contribute with it.

Notice of Cancellation: Each insurance policy required above shall provide that coverage shall not be canceled, except with notice to the Client.

Self-Insured Retentions - Self-insured retentions must be declared to and approved by the Client. The Client may require the Ridgeline to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or Client.

Acceptability of Insurers - Insurance is to be placed with insurers having a current A.M. Best rating of no less than A: VII or as otherwise approved by Client.

Verification of Coverage - Ridgeline shall furnish the Client with certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the Client before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Ridgeline's obligation to provide them. The Client reserves the right to require complete, certified copies of all required insurance policies, including policy Declaration pages and Endorsement pages.

Sub-contractors - Ridgeline shall require and verify that all sub-contractor maintain insurance meeting all the requirements stated herein, and Ridgeline shall ensure that Client its directors, officers, employees, and authorized volunteers are an additional insured are an additional insured on Commercial General Liability Coverage.



AGENDA ITEM NO:	7C
MEETING DATE:	05.20.26

Staff Report

PRESENTED BY:	SARAH JOHNSON, GENERAL MANAGER
TOPIC:	D3-1 RESERVOIR EVALUATION – ENGINEERING SERVICES PROPOSAL
RECOMMENDATION:	APPROVE A PROFESSIONAL SERVICES AGREEMENT WITH ARDURRA GROUP, INC. FOR ENGINEERING SERVICES TO COMPLETE A D3-1 RESERVOIR EVALUATION IN AN AMOUNT NOT-TO-EXCEED \$23,288 AND AUTHORIZE THE GENERAL MANAGER TO EXECUTE THE AGREEMENT.

BACKGROUND The District’s D3-1 Reservoir is a 110,000-gallon welded steel potable water storage facility that is currently experiencing significant condition issues, including deterioration of the interior shell, overflow components, and ladder. Given the condition of the facility, the District requires a comprehensive evaluation to determine the most cost-effective and reliable long-term solution.

DISCUSSION Ardurra Group, Inc. has submitted a proposal to provide a planning-level evaluation comparing two primary alternatives:

Reservoir Repair

- Address existing structural and corrosion issues
- Recoat the reservoir interior

Reservoir Replacement

- Construct a new 150,000-gallon reservoir at the existing site
- Demolish the existing reservoir

The evaluation will include:

- Feasibility analysis
- Rough order of magnitude construction costs
- 20-year life cycle cost comparison
- Technical recommendations documented in a formal Technical Memorandum

The scope also includes project management, quality assurance/quality control, and coordination with District staff through two key meetings (kickoff and draft review). It is important to note that this effort is planning-level only and does not include a detailed structural assessment.

Ardurra anticipates completing the final Technical Memorandum within **three (3) months** from issuance of a Notice to Proceed.

This evaluation is a critical step in:

- Ensuring long-term reliability of potable water storage infrastructure
- Supporting capital planning and budgeting decisions
- Reducing risk associated with continued use of a deteriorating facility

Ardurra Group, Inc. served as the District’s design engineer for the E2-1 Reservoir Rehabilitation Project and recently assisted the District through the bidding and bid evaluation process for that project. Their familiarity with the District’s infrastructure, standards, and operational needs provides important continuity between planning, design, and construction phases.

Maintaining this continuity is critical to ensure accurate interpretation of technical requirements, timely resolution of issues, and overall protection of the District’s interests.

In addition, staff has found Ardurra to be highly responsive, patient, and proactive in providing guidance throughout recent projects. Their ability to support staff and clearly communicate technical information has been especially valuable given the complexity of reservoir-related work.

For these reasons, staff recommends utilizing Ardurra for this evaluation effort as the most efficient and effective approach.

ATTACHMENTS

Ardurra Proposal – D3-1 Reservoir Evaluation.

STRATEGIC PLAN

3.2 – Construct and operate facilities and equipment to meet compliance with all state and federal regulations.

FISCAL IMPACT

The proposed work will be completed on a time-and-materials basis with a not-to-exceed amount of \$23,288.

A breakdown of costs (as shown in the fee table on page 3 of the proposal) indicates:

- Project Management and QA/QC: \$6,136
- Technical Memorandum Development: \$17,152



April 1, 2026

Mr. Ray Kolisz
Joshua Basin Water District
61750 Chollita Road
Joshua Tree, CA 92252

SUBJECT: PROPOSAL FOR D3-1 RESERVOIR EVALUATION

Dear Mr. Kolisz:

Ardurra is pleased to submit this proposal to the Joshua Basin Water District (District) to provide professional engineering services for the D3-1 Reservoir Evaluation. The District's D3-1 Reservoir is a 110,000-gallon welded steel potable water storage facility with significant condition issues. The proposed tasks consist of preparing a planning level evaluation comparing the alternatives of reservoir repair versus reservoir replacement. The results of the evaluation will be presented in a Technical Memorandum in accordance with the following scope of services.

SCOPE OF SERVICES:

TASK 1 Project Management and QA/QC

- 1.1 Project Management:** Management responsibilities associated with project setup, scheduling, budget control, invoice preparation, and coordination.
- 1.2 QA/QC:** Ardurra will perform an independent review of deliverables prior to submittal to the District.
- 1.3 Meetings:** Ardurra will conduct two (2) virtual meetings with the District. It is anticipated the meetings will consist of the following:
 - Kickoff Meeting
 - Draft Technical Memorandum Review Meeting

TASK 2 Technical Memorandum

- 2.1 Data Collection and Review:** Ardurra will gather and review available information related to the project including record drawings, inspection reports and videos, and District specifications.
- 2.2 Technical Memorandum:** Ardurra will evaluate the feasibility, rough order of magnitude design and construction costs, and 20-year life cycle cost analysis for reservoir repair versus replacement, which will be summarized in a Technical Memorandum. A Draft version of the Technical Memorandum will be submitted for District review. A Final version of the Technical Memorandum will be submitted after incorporation of District comments from the Draft review. The evaluation will include the following alternatives and considerations:



- Reservoir Repair
 - Repair of existing reservoir condition issues including metal loss on reservoir shell interior, at overflow line, and on ladder.
 - Recoating of reservoir interior.
- Reservoir Replacement
 - New 150,000-gallon reservoir on current site.
 - Demolition of existing reservoir.

Task 2 Deliverables:

- Draft Technical Memorandum
- Final Technical Memorandum

ASSUMPTIONS

A condition assessment or structural analysis of the reservoir will not be performed.

FEE AND SCHEDULE

Ardurra proposes to perform the scope of work as described above on a time and materials basis in the not-to-exceed amount of **\$23,288** in accordance with the enclosed fee proposal and enclosed rate schedule. Ardurra will submit the final Technical Memorandum three (3) months from the notice-to-proceed.

We appreciate the opportunity to provide this proposal and assist the District with this important project. Please contact me at (949) 205-7196 or Ryan Huston at (858) 774-4847 should you have any questions or need additional information.

Sincerely,

Leah Russell, MS, ENV SP
Project Manager

Ryan Huston, PE
Principal-in-Charge

**Joshua Basin Water District
D3-1 Reservoir Evaluation**

		Ardurra Personnel							
Task/ Subtask	Task/Subtask Description	<i>Principal</i>	<i>Project Manager</i>	<i>Structural Advisor</i>	<i>Senior Engineer/ Tech Advisor</i>	Subtask Labor-Hours	Subtask Labor Cost	Direct Cost	Total Cost
		<i>R. Huston</i>	<i>L. Russell</i>	<i>M. Auchter</i>	<i>P. Mulvey</i>				
		\$352	\$224	\$296	\$255				
Task 1	Project Management and QA/QC								\$6,136
1.1	Project Management	1	8			9	\$2,144		\$2,144
1.2	QA/QC	1			6	7	\$1,882		\$1,882
1.3	Meetings (2)	2	4		2	8	\$2,110		\$2,110
Task 2	Contract Documents								\$17,152
2.1	Data Collection and Review		4			4	\$896		\$896
2.2	Technical Memorandum (Draft and Final)	2	38	10	16	66	\$16,256		\$16,256
		6	54	10	24	94			
		\$2,112	\$12,096	\$2,960	\$6,120		\$23,288	\$0	\$23,288

TOTAL NOT-TO-EXCEED FEE: \$23,288



ARDURRA GROUP, INC. (CALIFORNIA)

Standard Billing Rate Schedule (July Fiscal Year 2025-26)

Rates Effective July 1, 2025 through June 30, 2026

(Future years subject to review for Consumer Price Index escalation or 3%, whichever is greater)

ENGINEERING, MUNICIPAL, WATER, ENVIRONMENTAL, TRAFFIC, & SURVEYING SERVICES

STAFF	HOURLY RATE	STAFF	HOURLY RATE
Principal / Project Manager VI.....	\$352	Senior Structural Engineer.....	\$297
Project Manager V.....	\$344	Structural Engineer.....	\$233
QA/QC Manager.....	\$308	SUE Technician*.....	\$154
Project Manager IV.....	\$296	SWPPP Practitioner*.....	\$186
Project Manager III.....	\$275	Specialty Professional/Discipline.....	\$297
Project Manager II.....	\$255	Scientist VI.....	\$224
Project Manager I.....	\$224	Scientist V.....	\$214
Project Engineer VI.....	\$296	Scientist IV.....	\$179
Project Engineer V.....	\$235	Scientist III.....	\$168
Project Engineer IV.....	\$224	Scientist II.....	\$158
Project Engineer III.....	\$194	Scientist I.....	\$138
Project Engineer II.....	\$168	Planner VI.....	\$255
Project Engineer I.....	\$148	Planner V.....	\$240
Program Manager VI.....	\$255	Planner IV.....	\$224
Program Manager V.....	\$224	Planner III.....	\$184
Program Manager IV.....	\$204	Planner II.....	\$153
Program Manager III.....	\$194	Planner I.....	\$133
Program Manager II.....	\$173	Senior Landscape Architect.....	\$265
Program Manager I.....	\$158	Landscape Architect.....	\$196
Project / CAD Designer VI.....	\$204	Principal Architect.....	\$265
Project / Designer V.....	\$194	Senior/Associate Architect.....	\$233
Project / CAD Designer IV*.....	\$179	Architect.....	\$223
Project / CAD Designer III*.....	\$163	3-Person Survey Crew*.....	\$403
Project / CAD Designer II*.....	\$158	2-Person Survey Crew*.....	\$329
Project / CAD Designer I*.....	\$143	1-Person Survey Crew*.....	\$223
Administrative Assistant VI*.....	\$133	Survey Director.....	\$265
Administrative Assistant V*.....	\$122	Assistant Surveyor (not Licensed)*.....	\$196
Administrative Assistant IV*.....	\$112	GIS Analyst*.....	\$196
Administrative Assistant III*.....	\$102	GIS Specialist*.....	\$175
Administrative Assistant II*.....	\$97	Graphic Designer*.....	\$154
Administrative Assistant I*.....	\$92	Drone Operator*.....	\$196
Plan Check Engineer IV.....	\$287	Flow Monitoring Project/Data Manager.....	\$212
Plan Check Engineer III.....	\$239	Flow Monitoring Field Manager.....	\$191
Plan Check Engineer II.....	\$212	Flow Monitoring Field Supervisor*.....	\$159
Plan Check Engineer I.....	\$196	Flow Monitoring Field Technician III*.....	\$133
Senior Traffic Engineer.....	\$276	Flow Monitoring Field Technician II*.....	\$122
Traffic Engineer III.....	\$265	Flow Monitoring Field Technician I*.....	\$101
Traffic Engineer II.....	\$223	Community Relations Strategic Advisor.....	\$308
Traffic Engineer I.....	\$196	Community Relations Project Manager.....	\$276
Traffic Engineering Associate II.....	\$180	Community Relations Assistant Project Manager.....	\$244
Traffic Engineering Associate I.....	\$154	Community Relations Senior Account Coordinator.....	\$180
Traffic Engineering Technician III*.....	\$159	Community Relations Account Coordinator.....	\$154
Traffic Engineering Technician II*.....	\$138	Community Relations Specialist.....	\$167
Traffic Engineering Technician I*.....	\$111	Community Relations Senior Graphic Artist.....	\$202
Sr. Grants Manager.....	\$244	Community Relations Graphic Artist.....	\$170
Grants Manager.....	\$180	Community Relations Account Assistant.....	\$133
Sr. Project Coordinator/Graphic Artist.....	\$202	Field Representative III.....	\$133
Project Coordinator/Graphic Artist.....	\$154	Field Representative II.....	\$122
Public Works Technician III*.....	\$159	Field Representative I.....	\$112
Public Works Technician II*.....	\$138		



AGENDA ITEM NO:	7D
MEETING DATE:	05.20.26

Staff Report

PRESENTED BY:	Anne Roman, Director of Finance
TOPIC:	MARCH 2026 CHECK REGISTER
RECOMMENDATION:	Approve check register.

SUMMARY: The March 2026 check register is presented for review and approval. **This register contains checks, most of which have previously been reviewed and signed by various Directors.** The regular check register totals \$388,024.87, payroll processing register \$1,712.81, utility refunds of \$666.02 and Director stipends of \$5,400.

ANALYSIS: The check register includes the following notable items:

- **Big Tex Trailer World, Inc.** – Trailer purchase; Check reissued
- **California Assoc. of Mutual Water** – Annual sponsorship
- **Core and Main LP** – Inventory and Mainline/Leak Repair Supplies
- **Gemini Group Consulting LLC** – Mandated annual Consumer Confidence Report
- **Layne Christensen Company** – F Booster pump & motor
- Several Staff and Director reimbursements.
- The Payroll processing cost register includes \$1,170.64 payroll and FSA processing costs. The balance is employee-funded FSA reimbursements.

The Board may inquire about these or any additional transactions, as desired.

The regular check register totals \$388,024.87, payroll processing register \$1,712.81, utility refunds of \$666.02 and Director stipends of \$5,400.

RECOMMENDED ACTION: Approve check register.

FISCAL IMPACT: N/A



Joshua Basin Water District

Check Report

By Vendor DBA Name

Date Range: 03/01/2026 - 03/31/2026

Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Post Date	Payable Description	Discount Amount	Payable Amount	
Bank Code: AP-AP Cash						
000501	ACWA JPIA	03/04/2026	Regular	0.00	34,186.53	68045
0708626	Invoice	03/04/2026	EE HEALTH BENEFIT & EAP - 04/2026	0.00	34,186.53	
013998	AMAZON CAPITAL SERVICES INC	03/04/2026	Regular	0.00	2,390.96	68046
1FKL-FFJY-V467	Invoice	03/04/2026	OFFICE SUPPLIES	0.00	43.19	
1LDH-CXJH-3KCN	Invoice	03/04/2026	VEHICLE MAINT: V46 & SHOP EXPENSE	0.00	290.15	
1LQR-1YKQ-YKK3	Credit Memo	03/04/2026	CREDIT: OFFICE SUPPLIES	0.00	-20.79	
1YRV-C6PL-WY...	Invoice	03/04/2026	OFFICE & SHOP OFFICE SUPPLIES/SM TOOLS/UNIFORMS	0.00	2,078.41	
013019	ARBORIST SERVICES	03/17/2026	Regular	0.00	950.00	68100
92232	Invoice	03/17/2026	DEMO GARDEN/BUILD MAINT 02/16/26 – 03/15/26	0.00	950.00	
014104	ARDURRA GROUP INC	03/17/2026	Regular	0.00	10,660.50	68085
181515	Invoice	03/17/2026	ENGINEERING SVS: E2-1 TANK 02/01/26 - 02/28/26	0.00	10,660.50	
000950	ASSOCIATION OF THE SB CO SPEC DISTRICTS	03/04/2026	Regular	0.00	45.00	68047
485	Invoice	03/04/2026	MONTHLY DINNER 02/23/26: FICK	0.00	45.00	
000950	ASSOCIATION OF THE SB CO SPEC DISTRICTS	03/04/2026	Regular	0.00	120.00	68048
477	Invoice	03/04/2026	DINNER 01/26/26: FICK, JARLSBERG & DOOLITTLE	0.00	120.00	
001630	ATT MOBILITY	03/17/2026	Manual	0.00	3,236.86	902921
829480028X030...	Invoice	03/17/2026	COMMUNICATIONS - 02/2025 & ADMIN: COMP EQUIP	0.00	3,236.86	
014070	AUDRIANA SHEEHAN	03/04/2026	Regular	0.00	98.17	68049
AS030226	Invoice	03/04/2026	MILEAGE REIMBURSEMENT	0.00	98.17	
000214	BABCOCK LABORATORIES INC	03/04/2026	Regular	0.00	397.74	68050
CB61559-2287	Invoice	03/04/2026	SAMPLING	0.00	114.60	
CB61753-2287	Invoice	03/04/2026	SAMPLING	0.00	283.14	
000214	BABCOCK LABORATORIES INC	03/17/2026	Regular	0.00	1,017.39	68086
CC60307-2287	Invoice	03/17/2026	SAMPLING	0.00	133.70	
CC60427-2287	Invoice	03/17/2026	SAMPLING	0.00	19.10	
CC60428-2287	Invoice	03/17/2026	SAMPLING: E2-1 RESERVOIR REHAB	0.00	38.20	
CC60442-2287	Invoice	03/17/2026	SAMPLING	0.00	19.10	
CC60653-2287	Invoice	03/17/2026	SAMPLING	0.00	114.60	
CC60654-2287	Invoice	03/17/2026	SAMPLING	0.00	19.10	
CC60859-2287	Invoice	03/17/2026	SAMPLING	0.00	465.73	
CC60866-2287	Invoice	03/17/2026	SAMPLING	0.00	207.86	
013375	BIG TEX TRAILER WORLD INC	03/04/2026	Regular	0.00	46,849.15	68051
BTT022426	Invoice	03/04/2026	EQUIPMENT TRAILER PURCHASE	0.00	46,849.15	
013375	BIG TEX TRAILER WORLD INC	03/09/2026	Regular	0.00	-46,849.15	68051
013375	BIG TEX TRAILER WORLD INC	03/17/2026	Regular	0.00	46,849.15	68087
BTT022426	Invoice	03/04/2026	EQUIPMENT TRAILER PURCHASE	0.00	46,849.15	
004110	BURRTEC WASTE AND RECYCLING SVCS	03/04/2026	Manual	0.00	744.72	902908
N1310000839	Invoice	03/04/2026	TRASH & RECYCLING (OFFICE) - 03/2026	0.00	189.90	
N1310004011	Invoice	03/04/2026	TRASH REMOVAL (SHOP) - 02/2026	0.00	554.82	
013838	CALIFORNIA ASSOCIATION OF MUTUAL WATER	03/17/2026	Regular	0.00	5,000.00	68088
09022	Invoice	03/17/2026	COMMUNITY WATER SYSTEMS ALLIANCE-PLCY SPONSOR	0.00	5,000.00	
001517	CalPERS	03/13/2026	Manual	0.00	14,729.19	902916
PPE 3-6-26	Invoice	03/13/2026	PAY PERIOD ENDING 3/6/26	0.00	14,729.19	

Check Report

Date Range: 03/01/2026 - 03/31/2026

Vendor Number Payable #	Vendor DBA Name Payable Type	Post Date	Payment Date Payable Description	Payment Type	Discount Amount Discount Amount	Payment Amount Payable Amount	Number
001555 260302252101	CENTRATTEL LLC Invoice	03/04/2026	03/04/2026 DISPATCH SERVICES - 02/2026	Regular	0.00 0.00	889.77 889.77	68052
000510 116905701030126	CHARTER COMMUNICATIONS Invoice	03/17/2026	03/17/2026 INTERNET SERVICES - 03/2026	Regular	0.00 0.00	570.00 570.00	68089
001850 2600293-JOS02	CLINICAL LABORATORY OF SAN BERNARDINO IN Invoice	03/04/2026	03/04/2026 HDMC WWTP SAMPLING- JAN 26	Regular	0.00 0.00	1,047.50 1,047.50	68053
000237 39905610213736	COLONIAL LIFE AND ACCIDENT INSURANCE CO I Invoice	03/04/2026	03/04/2026 EE LIFE INSURANCE - 02/2026	Manual	0.00 0.00	838.76 838.76	902907
013373 Y495257	CORE AND MAIN LP Invoice	03/04/2026	03/04/2026 INVENTORY	Regular	0.00 0.00	25,504.43 25,504.43	68055
013373 X832749 Y207809 Y270464 Y416670-C Y495237 Y530062 Y563530 Y591940	CORE AND MAIN LP Invoice Invoice Invoice Credit Memo Invoice Invoice Invoice Invoice Invoice	03/17/2026 03/17/2026 03/17/2026 03/17/2026 03/17/2026 03/17/2026 03/17/2026 03/17/2026 03/17/2026	03/17/2026 INVENTORY MAINLINE/LEAK REPAIR SUPPLIES INVENTORY CREDIT: SALES TAX INVENTORY INVENTORY INVENTORY INVENTORY INVENTORY	Regular	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	23,822.65 231.46 498.76 10,179.99 -32.15 783.35 6,658.95 3,133.37 2,368.92	68091
014194 DC031626	DAVID CARRILLO Invoice	03/17/2026	03/17/2026 LEGISLATIVE TRIP:CAC MEMBER MEAL REIMB	Regular	0.00 0.00	47.85 47.85	68092
014064 INV00366740	DIGIUM CLOUD SERVICE Invoice	03/17/2026	03/17/2026 OFFICE TELEPHONE - 03/2026	Regular	0.00 0.00	761.19 761.19	68106
013928 52774	DIRTY BOYS DESIGNZ Invoice	03/04/2026	03/04/2026 UNIFORM LOGO EMBROIDERY	Regular	0.00 0.00	233.82 233.82	68061
002565 202602119	DUDEK Invoice	03/17/2026	03/17/2026 ENG SERV: HDMC WWTP 01/24/26 - 02/20/26	Regular	0.00 0.00	2,630.00 2,630.00	68093
013991 EI02007516	EIDE BAILLY LLP Invoice	03/04/2026	03/04/2026 ACCOUNTING/AUDIT SERVICES - 02/2026	Regular	0.00 0.00	4,289.25 4,289.25	68056
000156 2600038 2600039	FORSHOCK Invoice Invoice	03/04/2026 03/04/2026	03/04/2026 MONTHLY SCADA MONITORING - 03/2026 MONTHLY SCADA MONITORING - 03/2026	Regular	0.00 0.00 0.00	304.00 38.00 266.00	68064
013222 FC0326	FRONTIER COMMUNICATIONS INC Invoice	03/04/2026	03/04/2026 HDMC WWTP - TELEPHONE - 03/2026	Regular	0.00 0.00	181.31 181.31	68058
000058 10842036	GARDA CL WEST INC Invoice	03/17/2026	03/17/2026 ARMORED COURIER - 03/2026	Regular	0.00 0.00	781.66 781.66	68095
014152 3009	GEMINI GROUP CONSULTING LLC Invoice	03/17/2026	03/17/2026 CONSUMER CONFIDENCE REPORT	Regular	0.00 0.00	5,808.00 5,808.00	68096
014178 12715-1	HALE ELECTRIC Invoice	03/04/2026	03/04/2026 BUILDING MAINTENANCE - SHOP	Regular	0.00 0.00	1,600.00 1,600.00	68057
014178 12736	HALE ELECTRIC Invoice	03/17/2026	03/17/2026 ELECTRICAL REPAIRS: WELL 15	Regular	0.00 0.00	190.00 190.00	68094
004165 298407	HI GRADE MATERIALS CO Invoice	03/17/2026	03/17/2026 MAINLINE/LEAK REPAIR - CLEAN UP	Regular	0.00 0.00	617.60 617.60	68098
004195 HD0226	HOME DEPOT CREDIT SERVICES Invoice	03/17/2026	03/17/2026 SHOP EXPENSE/SMALL TOOLS/ TANK MAINTENANCE	Manual	0.00 0.00	1,933.53 1,933.53	902922

Check Report

Date Range: 03/01/2026 - 03/31/2026

Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Post Date	Payable Description	Discount Amount	Payable Amount	
013797 305486	INFOSEND INC Invoice	03/17/2026	03/17/2026 Regular PRINT & MAIL WATER BILL - 02/2026	0.00	4,150.89	68099
009054 26-0228-1	KATHLEEN J RADNICH Invoice	03/04/2026	03/04/2026 Regular PUBLIC RELATIONS SERVICES - 02/2026	0.00	4,500.00	68062
013227 3146636	LAYNE CHRISTENSEN COMPANY Invoice	03/04/2026	03/04/2026 Regular F BOOSTER STATION: NEW PUMP & MOTOR	0.00	10,708.35	68063
006507 60860401	McMASTER CARR SUPPLY COMPANY Invoice	03/17/2026	03/17/2026 Regular TANK & RESERVOIR MAINTENANCE	0.00	218.43	68102
014042 MSR031326	MISSION SQUARE RETIREMENT Invoice	03/13/2026	03/13/2026 Manual EE & ER 457 REMITTANCE - 03/13/26	0.00	5,241.50	902917
014042 MSR032726	MISSION SQUARE RETIREMENT Invoice	03/27/2026	03/27/2026 Manual EE & ER 457 REMITTANCE - 03/27/26	0.00	5,041.50	902923
013990 202603	MOMS DESERT VALLEY CLEANING Invoice	03/17/2026	03/17/2026 Regular JANITORIAL SERVICES - 03/2026	0.00	1,500.00	68101
000233 530143 531453 531493	NAPA AUTO PARTS Credit Memo Invoice Invoice	03/04/2026 03/04/2026 03/04/2026	03/04/2026 Regular CREDIT: CORE DEPOSIT VEHICLE MAINT: V42 & V38/SHOP EXPENSE VEHICLE MAINT: V46 & VEHICLE MAINT SUPPLIES	0.00 0.00 0.00	596.66 -117.45 363.20 350.91	68081
003930 202602-1227	NBS Invoice	03/04/2026	03/04/2026 Regular CMM DELINQUENT LETTERS	0.00	776.16	68066
000070 1376424	ONLINE INFORMATION SERVICES INC Invoice	03/04/2026	03/04/2026 Regular ID VERIFICATION SERVICES - 02/2026	0.00	215.80	68067
014150 41700328	PEAC SOLUTIONS Invoice	03/17/2026	03/17/2026 Manual COPIER LEASE 2/25/26 - 3/24/26	0.00	574.71	902920
008200 3107720402 3107757522	PITNEY BOWES INC Invoice Invoice	03/17/2026 03/17/2026	03/17/2026 Manual LEASING CHARGES 1/30/26 - 4/29/26 LEASING CHARGES - PROPERTY TAX	0.00 0.00	276.47 246.33 30.14	902919
013828 24454	PRO SECURITY SYSTEMS INC Invoice	03/17/2026	03/17/2026 Regular ANNUAL MAINT 04/01/26 - 03/31/27	0.00	1,200.00	68103
008415 23920426 23920430	PRUDENTIAL OVERALL SUPPLY Invoice Invoice	03/04/2026 03/04/2026	03/04/2026 Regular SHOP EXPENSE OFFICE SUPPLIES	0.00 0.00	206.72 99.62 107.10	68068
008415 23926664 23926667	PRUDENTIAL OVERALL SUPPLY Invoice Invoice	03/17/2026 03/17/2026	03/17/2026 Regular SHOP EXPENSE OFFICE SUPPLIES	0.00 0.00	329.62 99.62 230.00	68104
008201 PB031226	PURCHASE POWER Invoice	03/17/2026	03/17/2026 Manual POSTAGE REFILL FOR METER	0.00	355.00	902918
009065 P2816445 P2816545	RDO EQUIPMENT COMPANY Invoice Invoice	03/04/2026 03/04/2026	03/04/2026 Regular TRACTOR MAINTENANCE: E4544 TRACTOR MAINTENANCE: E41	0.00 0.00	1,365.45 90.70 1,274.75	68069
014176 25035-04	RIDGELINE MUNICIPAL STRATEGIES LLC Invoice	03/04/2026	03/04/2026 Regular CHROM: MUNI ADVISORY SERVICES - 02/2026	0.00	8,588.75	68071
014182 202713	ROJAS PUBLIC AFFAIRS Invoice	03/04/2026	03/04/2026 Regular LEGISLATIVE ADVOCACY - 03/2026	0.00	6,000.00	68060
000091 SB021926	SAN BERNARDINO COUNTY RECORDER Invoice	03/04/2026	03/04/2026 Regular RELEASE OF LIENS	0.00	20.00	68072

Check Report

Date Range: 03/01/2026 - 03/31/2026

Vendor Number Payable #	Vendor DBA Name Payable Type	Post Date	Payment Date Payable Description	Payment Type	Discount Amount Discount Amount	Payment Amount Payable Amount	Number
000091 SB031626	SAN BERNARDINO COUNTY Invoice	RECORDER 03/17/2026	03/17/2026 RELEASE OF LIENS	Regular	0.00 0.00	20.00 20.00	68105
013228 SJ031626	SARAH J JOHNSON Invoice	03/17/2026	03/17/2026 REIMB: MILEAGE, MEALS & AIRFARE	Regular	0.00 0.00	792.25 792.25	68107
014149 INV-3000495546	SATMODO Invoice	03/04/2026	03/04/2026 EMERGENCY SATELLITE PHONES - 01/2026	Regular	0.00 0.00	164.26 164.26	68054
014149 INV-3000494826 INV-3000496161	SATMODO Invoice Invoice	03/17/2026 03/17/2026	03/17/2026 EMERGENCY SATELLITE PHONES - 02/2026 EMERGENCY SATELLITE PHONES - 03/2026	Regular	0.00 0.00 0.00	328.52 164.26 164.26	68090
013820 IN-0000307144	SC FUELS Invoice	03/04/2026	03/04/2026 FUEL FOR VEHICLES	Manual	0.00 0.00	3,901.95 3,901.95	902910
009898 GAS0226	SOCALGAS Invoice	03/04/2026	03/04/2026 HEAT FOR SHOP 01/16/26 - 02/17/26	Manual	0.00 0.00	47.60 47.60	902909
009880 SCE0226	SOUTHERN CALIFORNIA EDISON CO Invoice	03/04/2026	03/04/2026 POWER TO BUILDINGS & GENERATORS - 02/2026	Manual	0.00 0.00	1,502.30 1,502.30	902912
009878 SCE0226	SOUTHERN CALIFORNIA EDISON Invoice	03/04/2026	03/04/2026 POWER FOR PUMPING - 02/2026	Manual	0.00 0.00	43,994.44 43,994.44	902911
VEN01020 26-2078 26-3029SC 26-3030SC 26-3031SC	SOUTHWEST NETWORKS INC Invoice Invoice Invoice Invoice	03/17/2026 03/17/2026 03/17/2026 03/17/2026	03/17/2026 ADDITIONAL SUPPLEMENTAL IT (AMC) - 02/2026 SUPPLEMENTAL IT (AMC) - 02/2026 & 03/2026 MOBILE DEVICE MANAGEMENT FEE - 03/2026 IT SERVICES - 04/2026 - 06/2026	Regular	0.00 0.00 0.00 0.00	20,711.75 78.75 486.00 20.00 20,127.00	68108
013852 SLO22326	SPENCER LAYMON Invoice	03/04/2026	03/04/2026 REIMBURSEMENT: SAFETY BOOTS	Regular	0.00 0.00	350.00 350.00	68073
014183 SO022426	STEVEN OBADJA Invoice	03/04/2026	03/04/2026 PLAN CHECK DEPOSIT REFUND	Regular	0.00 0.00	4,213.57 4,213.57	68074
009981 SWRCB030426 SWRCB030426-01	SWRCB FEES Invoice Invoice	03/04/2026 03/04/2026	03/04/2026 WELL 10, 14, 15, 16 & 17 EXTRACTION - 2024 WELL 10, 14, 15, 16 & 17 EXTRACTION - 2025	Regular	0.00 0.00 0.00	500.00 250.00 250.00	68075
013982 3008	TAYLOR GARAGE DOORS AND GATES INC Invoice	03/04/2026	03/04/2026 GATE REPAIRS & MAINTENANCE	Regular	0.00 0.00	2,485.00 2,485.00	68076
014174 TF031026	TOM FLOEN Invoice	03/17/2026	03/17/2026 MEALS, MILEAGE & PARKING FEE REIMBURSEMENT	Regular	0.00 0.00	357.60 357.60	68109
014114 TS031026	TOMAS SHORT Invoice	03/17/2026	03/17/2026 MEALS, BAGGAGE & TRANSPORTATION REIMB	Regular	0.00 0.00	333.62 333.62	68110
010635 1118626	TOPS N BARRICADES Invoice	03/04/2026	03/04/2026 SHOP EXPENSE	Regular	0.00 0.00	332.78 332.78	68077
000023 056237 056243 056251	ULTIMATE MOTORS INC Invoice Invoice Invoice	03/17/2026 03/17/2026 03/17/2026	03/17/2026 VEHICLE MAINTENANCE: V35 VEHICLE MAINTENANCE: V50 VEHICLE MAINTENANCE: V36	Regular	0.00 0.00 0.00	137.10 45.70 45.70 45.70	68111
010850 220260370	UNDERGROUND SERVICE ALERT Invoice	03/04/2026	03/04/2026 TICKET DELIVERY SERVICE - 02/2026	Regular	0.00 0.00	111.05 111.05	68078
CC-ANNE US0226	US BANK CORPORATE Invoice	03/04/2026	03/04/2026 JOTFORM YEARLY SUBSCRIPTION	Manual	0.00 0.00	234.00 234.00	902915

Check Report

Date Range: 03/01/2026 - 03/31/2026

Vendor Number Payable #	Vendor DBA Name Payable Type	Post Date	Payment Date Payable Description	Payment Type	Discount Amount Discount Amount	Payment Amount Payable Amount	Number
CC-DAVID US0226	US BANK CORPORATE Invoice	03/04/2026	03/04/2026 DISTRICT TOURS 2026/SUBSCRIPTION/EE TRAINING	Manual	0.00 0.00	3,300.66 3,300.66	902914
CC-SARAH US0226	US BANK CORPORATE Invoice	03/04/2026	03/04/2026 LEGISLATIVE ADVOCACY/DIRECTOR TRAINING	Manual	0.00 0.00	7,719.89 7,719.89	902913
010900 INV00963815 INV00974912 INV00975836 INV00975901	USABLUBOOK Invoice Invoice Invoice Invoice	03/04/2026 03/04/2026 03/04/2026 03/04/2026	03/04/2026 SHOP EXPENSE SMALL TOOLS - DISTRIBUTION SHOP EXPENSE SHOP EXPENSE	Regular	0.00 0.00 0.00 0.00	4,521.24 74.96 3,503.83 521.20 421.25	68059
010900 INV00983154 INV00983530	USABLUBOOK Invoice Invoice	03/17/2026 03/17/2026	03/17/2026 SMALL TOOLS - DISTRIBUTION SMALL TOOLS - DISTRIBUTION	Regular	0.00 0.00 0.00	3,362.79 1,732.59 1,630.20	68097
009500 USDA 03/26 LN	USDA RURAL DEVELOPMENT Invoice	03/02/2026	03/02/2026 CMM INT. - LOAN #2	Manual	0.00 0.00	36,504.86 36,504.86	902906
014107 26542	UTILITY COST MANAGEMENT LLC Invoice	03/04/2026	03/04/2026 SCE SAVINGS COMMISSION 10/2025 - 01/2026	Regular	0.00 0.00	189.71 189.71	68065
014056 24AR3332269	VISUAL EDGE IT Invoice	03/04/2026	03/04/2026 COPIER SUPPLIES 11/25/25 - 02/24/26	Regular	0.00 0.00	145.32 145.32	68079
000327 11120	WATER QUALITY SPECIALISTS Invoice	03/04/2026	03/04/2026 HDMC WWTP: OPERATION & MAINT - 02/2026	Regular	0.00 0.00	4,130.00 4,130.00	68080
013809 2602-107	WEST COAST CIVIL INC Invoice	03/17/2026	03/17/2026 ENGINEERING SERVICES: MULTIPLE PROJECTS	Regular	0.00 0.00	3,200.00 3,200.00	68112
011615 92706883	WESTERN EXTERMINATOR Invoice	03/04/2026	03/04/2026 PEST CONTROL SERVICES - SHOP & OFFICE	Regular	0.00 0.00	89.07 89.07	68070

Bank Code AP Summary

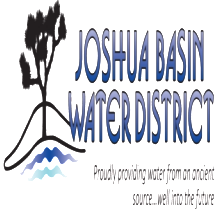
Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	100	65	0.00	304,696.08
Manual Checks	20	18	0.00	130,177.94
Voided Checks	0	1	0.00	-46,849.15
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	120	84	0.00	388,024.87

All Bank Codes Check Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	100	65	0.00	304,696.08
Manual Checks	20	18	0.00	130,177.94
Voided Checks	0	1	0.00	-46,849.15
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	120	84	0.00	388,024.87

Fund Summary

Fund	Name	Period	Amount
01	GENERAL FUND	3/2026	388,024.87
			388,024.87



Joshua Basin Water District

Check Report

By Vendor DBA Name

Date Range: 03/01/2026 - 03/31/2026

Vendor Number	Vendor DBA Name	Payment Date	Payment Type	Discount Amount	Payment Amount	Number
Payable #	Payable Type	Post Date	Payable Description	Discount Amount	Payable Amount	
Bank Code: PR-Payroll Account						
000248	PAYCHEX	03/03/2026	Manual	0.00	5.00	950304
745655564	Invoice	03/03/2026	EMPLOYEE FUNDED MEDICAL FSA USE	0.00	5.00	
000248	PAYCHEX	03/05/2026	Manual	0.00	5.16	950305
493852450	Invoice	03/18/2026	EMPLOYEE FUNDED MEDICAL FSA USE	0.00	5.16	
000248	PAYCHEX	03/10/2026	Manual	0.00	155.26	950306
496121632	Invoice	03/10/2026	EMPLOYEE FUNDED MEDICAL FSA USE	0.00	149.59	
496589461	Invoice	03/10/2026	EMPLOYEE FUNDED MEDICAL FSA USE	0.00	5.67	
000248	PAYCHEX	03/11/2026	Manual	0.00	325.00	950307
1500334229	Invoice	03/11/2026	EMPLOYEE FUNDED MEDICAL FSA USE	0.00	325.00	
000248	PAYCHEX	03/13/2026	Manual	0.00	528.78	950308
2026031101	Invoice	03/13/2026	PAYROLL PROCESSING FEE - 03/13/26	0.00	528.78	
000248	PAYCHEX	03/16/2026	Manual	0.00	19.78	950309
748223219	Invoice	03/16/2026	EMPLOYEE FUNDED MEDICAL FSA USE	0.00	19.78	
000248	PAYCHEX	03/16/2026	Manual	0.00	75.00	950310
32424167	Invoice	03/13/2026	FSA PROCESSING FEE - 03/2026	0.00	75.00	
000248	PAYCHEX	03/18/2026	Manual	0.00	16.11	950311
749820531	Invoice	03/18/2026	EMPLOYEE FUNDED MEDICAL FSA USE	0.00	16.11	
000248	PAYCHEX	03/18/2026	Manual	0.00	10.86	950312
1503428346	Invoice	03/18/2026	EMPLOYEE FUNDED MEDICAL FSA USE	0.00	10.86	
000248	PAYCHEX	03/25/2026	Manual	0.00	5.00	950313
750164865	Invoice	03/25/2026	EMPLOYEE FUNDED MEDICAL FSA USE	0.00	5.00	
000248	PAYCHEX	03/27/2026	Manual	0.00	566.86	950314
2026032501	Invoice	03/27/2026	PAYROLL PROCESSING FEE - 03/27/25	0.00	566.86	

Bank Code PR Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	0	0	0.00	0.00
Manual Checks	12	11	0.00	1,712.81
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	12	11	0.00	1,712.81

All Bank Codes Check Summary

Payment Type	Payable Count	Payment Count	Discount	Payment
Regular Checks	0	0	0.00	0.00
Manual Checks	12	11	0.00	1,712.81
Voided Checks	0	0	0.00	0.00
Bank Drafts	0	0	0.00	0.00
EFT's	0	0	0.00	0.00
	12	11	0.00	1,712.81

Fund Summary

Fund	Name	Period	Amount
01	GENERAL FUND	3/2026	1,712.81
			1,712.81

**JOSHUA BASIN WATER DISTRICT
UTILITY REFUND REGISTER**

<u>Account Number</u>	<u>Name</u>	<u>Date</u>	<u>Type</u>	<u>Amount</u>	
08-00030-012	BLALOCK, DAVID	3/4/2026	Refund	201.27	Check #: 68043
60-00072-007	BARRETT, ARTHUR W	3/4/2026	Refund	101.18	Check #: 68044
05-00034-007	HOEPER, PATRICK	3/17/2026	Refund	181.91	Check #: 68082
55-00145-014	REICH, SARAH	3/17/2026	Refund	81.14	Check #: 68083
65-00218-003	HERNANDEZ, VICTOR	3/17/2026	Refund	100.52	Check #: 68084
				<u>666.02</u>	

JOSHUA BASIN WATER
 DISTRICT
 PO BOX 675
 Joshua Tree, CA 922520675

Pay Adjustments Report
 02/21/2026 - 03/20/2026

<u>Employee Number</u>	<u>Employee Name</u>	<u>Date</u>	<u>Type</u>	<u>Units</u>	<u>Additions</u>	<u>Deductions</u>
513	Doolittle, Stacy	03/04/2026	JBWD BOARD MEETING - PAID 100/504//10050	1.0000	\$200.00	
		03/09/2026	OTHER MEETING - PAID Note: SACRAMENTO LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00	
		03/10/2026	OTHER MEETING - PAID Note: SACRAMENTO LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00	
		03/11/2026	OTHER MEETING - PAID Note: SACRAMENTO LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00	
		03/13/2026	OTHER MEETING- PAID Note: ACWA SPRING QUARTERLY POLICY COMMITTEE MEETING 100/504//10050	1.0000	\$200.00	
		03/18/2026	OTHER MEETING - PAID Note: GM MEETING 100/504//10050	1.0000	\$200.00	
		03/19/2026	JBWD BOARD MEETING - PAID Note: SPECIAL MEETING 100/504//10050	1.0000	\$200.00	
				Totals:	\$1,400.00	\$0.00
				Employee Total:	\$1,400.00	

<u>Employee Number</u>	<u>Employee Name</u>	<u>Date</u>	<u>Type</u>	<u>Units</u>	<u>Additions</u>	<u>Deductions</u>
516	Fick, David	03/04/2026	JBWD BOARD MEETING - PAID 100/504//10050	1.0000	\$200.00	
		03/09/2026	OTHER MEETING - PAID Note: SACRAMENTO LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00	
		03/10/2026	OTHER MEETING - PAID Note: SACRAMENTO LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00	
		03/11/2026	OTHER MEETING- PAID Note: SACRAMENTO LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00	
		03/19/2026	JBWD BOARD MEETING - PAID Note: SPECIAL MEETING 100/504//10050	1.0000	\$200.00	
				Totals:	\$1,000.00	\$0.00
				Employee Total:	\$1,000.00	

<u>Employee Number</u>	<u>Employee Name</u>	<u>Date</u>	<u>Type</u>	<u>Units</u>	<u>Additions</u>	<u>Deductions</u>	
511	Floen, Tom	02/23/2026	OTHER MEETING- PAID Note: ACWA/ROJAS WASHINGTON DC LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00		
		02/24/2026	OTHER MEETING - PAID Note: ACWA/ROJAS WASHINGTON DC LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00		
		02/25/2026	OTHER MEETING- PAID Note: ACWA/ROJAS WASHINGTON DC LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00		
		02/26/2026	OTHER MEETING - PAID Note: ACWA/ROJAS WASHINGTON DC LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00		
		02/27/2026	OTHER MEETING - PAID Note: ACWA/ROJAS WASHINGTON DC LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00		
		03/19/2026	JBWD BOARD MEETING - PAID Note: SPECIAL MEETING 100/504//10050	1.0000	\$200.00		
					Totals:	\$1,200.00	\$0.00
					Employee Total:	\$1,200.00	

<u>Employee Number</u>	<u>Employee Name</u>	<u>Date</u>	<u>Type</u>	<u>Units</u>	<u>Additions</u>	<u>Deductions</u>	
512	Jarlsberg, Jane	03/04/2026	JBWD BOARD MEETING - PAID 100/504//10050	1.0000	\$200.00		
		03/19/2026	JBWD BOARD MEETING - PAID Note: SPECIAL MEETING 100/504//10050	1.0000	\$200.00		
					Totals:	\$400.00	\$0.00
					Employee Total:	\$400.00	

<u>Employee Number</u>	<u>Employee Name</u>	<u>Date</u>	<u>Type</u>	<u>Units</u>	<u>Additions</u>	<u>Deductions</u>
515	Short, Thomas	02/23/2026	OTHER MEETING- PAID Note: ACWA/ROJAS WASHINGTON DC LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00	
		02/24/2026	OTHER MEETING- PAID Note: ACWA/ROJAS WASHINGTON DC LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00	
		02/25/2026	OTHER MEETING- PAID Note: ACWA/ROJAS WASHINGTON DC LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00	
		02/26/2026	OTHER MEETING- PAID Note: ACWA/ROJAS WASHINGTON DC LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00	
		02/27/2026	OTHER MEETING- PAID Note: ACWA/ROJAS WASHINGTON DC LEGISLATIVE TRIP 100/504//10050	1.0000	\$200.00	
		03/04/2026	JBWD BOARD MEETING - PAID 100/504//10050	1.0000	\$200.00	
		03/19/2026	JBWD BOARD MEETING - PAID Note: SPECIAL MEETING 100/504//10050	1.0000	\$200.00	
Totals:					\$1,400.00	\$0.00
Employee Total:					\$1,400.00	

Pay Adjustment Summary

<u>Type</u>	<u>Units</u>	<u>Additions</u>	<u>Deductions</u>
JBWD BOARD MEETING - PAID	9.0000	\$1,800.00	
OTHER MEETING - PAID	9.0000	\$1,800.00	
OTHER MEETING- PAID	9.0000	\$1,800.00	

Grand Totals:	\$5,400.00	\$0.00
Grand Total:	\$5,400.00	



AGENDA ITEM NO:	7E
MEETING DATE:	05.20.26

Staff Report

PRESENTED BY:	GENERAL MANAGER SARAH JOHNSON INTRODUCING PRESENTER: BOARD PRESIDENT DOOLITTLE
TOPIC:	SUPPORT FOR VISION FOR OUR WATER FUTURE
RECOMMENDATION:	CONSIDER ADOPTION OF A RESOLUTION 26-1085 IN SUPPORT OF THE ASSOCIATION OF CALIFORNIA WATER AGENCIES’ (ACWA) VISION FOR OUR WATER FUTURE.

BACKGROUND As directed by President Stacy Doolittle, this item has been placed on the agenda for Board consideration regarding potential adoption of a resolution supporting ACWA’s Vision for Our Water Future initiative.

The Vision for Our Water Future initiative was launched by the Association of California Water Agencies (ACWA) in April 2026 and outlines statewide water priorities intended to inform California’s next Administration. The initiative focuses on water reliability, affordability, infrastructure investment, regulatory modernization, and statewide collaboration among water agencies.

- ATTACHMENTS**
1. Director Doolittle Request/Supporting Information
 2. Resolution 26-1085 SUPPORTING VISION FOR OUR WATER FUTURE

STRATEGIC PLAN

FISCAL IMPACT N/A

ATTACHMENT 1

DIRECTOR REQUEST / SUPPORTING INFORMATION

Sent: Tuesday, May 5, 2026, 12:35 PM

The following request was submitted by Director Stacy Doolittle:

“Hello General Manager Johnson,

I am formally requesting placement of an agenda item at an upcoming Board meeting to consider adoption of a resolution (or proclamation) in support of the Association of California Water Agencies' Vision for Our Water Future.

This item would allow the Board to publicly affirm its support for the principles and priorities outlined in the Vision, and to align our agency with statewide efforts to advance a sustainable, resilient water future for California.

Please let me know if any additional information is needed to facilitate scheduling this item.

Regards,

Stacy Doolittle”

Additional Information:

- ACWA Vision for Our Water Future: <https://www.acwa.com/vision/>
- Sample Resolution Provided by ACWA

RESOLUTION NO. 26-1085

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE JOSHUA BASIN WATER DISTRICT
SUPPORTING VISION FOR OUR WATER FUTURE**

WHEREAS, in April 2026, the Association of California Water Agencies (ACWA) launched Vision for Our Water Future, a member-driven initiative to identify statewide water priorities to inform engagement with California’s next Administration; and

WHEREAS, the Vision for Our Water Future priorities are a set of recommendations for the next governor, emphasizing the importance of strong leadership, sustainable investment and coordinated action across all levels of government to secure California’s water future; and

WHEREAS, the first priority is to lead on water and elevate water as foundational to California’s economy, agriculture, communities, environment and climate resilience through sustained leadership and coordinated state action; and

WHEREAS, the second priority is to ensure safe and reliable water remains affordable through sustained and predictable funding partnerships and streamlined investment delivery; and

WHEREAS, the third priority is to strengthen and modernize California’s water infrastructure, including both built and natural systems, to improve reliability and resilience; and

WHEREAS, the fourth priority is to improve regulatory, operational, and scientific frameworks to enable efficient project delivery and adaptive water management; and

WHEREAS, local water agencies play a critical role in delivering safe and reliable water supplies and are essential partners in implementing statewide solutions; and

WHEREAS, supporting the Vision recommendations demonstrates a unified commitment to collaborative, science-based and practical policies that advance a secure and resilient water future for California’s communities, farms, economy and environment; now, therefore, be it

RESOLVED that the Joshua Basin Water District hereby expresses support for ACWA’s Vision for Our Water Future recommendations and affirms its commitment to working collaboratively to advance reliable, affordable and resilient water supplies.

PASSED AND ADOPTED this 20th day of May 2026, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Stacy Doolittle, President

Sarah Johnson, General Manager



AGENDA ITEM NO:	7F
MEETING DATE:	05.20.26

Staff Report

PRESENTED BY:	GENERAL MANAGER SARAH JOHNSON INTRODUCING PRESENTER: BOARD PRESIDENT DOOLITTLE
TOPIC:	CONSIDERATION OF ESTABLISHING A STANDING COMMITTEE ON WATER & GROWTH IMPACTS
RECOMMENDATION:	DISCUSS AND PROVIDE DIRECTION REGARDING THE POTENTIAL ESTABLISHMENT OF A STANDING COMMITTEE RELATED TO WATER SUPPLY, WASTEWATER/SEWER PLANNING, INFRASTRUCTURE CAPACITY, SERVICE DEMAND, FISCAL IMPACTS, AND RELATED COMMUNITY GROWTH TRENDS. POSSIBLE ACTIONS MAY INCLUDE: <ul style="list-style-type: none"> • Establishing a standing or ad hoc committee; • Providing direction regarding committee scope (Charter), composition, and purpose; • Referring the matter for additional review; or • Taking no action.

BACKGROUND

As directed by Board President Stacy Doolittle, this item has been placed on the agenda for Board discussion regarding the possible establishment of a committee focused on water supply, wastewater/sewer planning, infrastructure capacity, service demand, fiscal impacts, and related community growth trends.

If established, the committee's structure, membership, scope, meeting procedures, and applicable Brown Act requirements would be subject to Board direction, Admin Code policies, and review by legal counsel, as appropriate. For reference, the District's Administrative Code includes the following provisions regarding Board committees:

3.12 COMMITTEES

The President of the Board from time to time may establish committees to help carry out the Board's responsibilities. To preserve Board integrity, committees will be used sparingly, only when other methods have been deemed inadequate. Committees will be used to minimally and shall not interfere with the wholeness of the Board's job.

3.12.01 Committees Not to Represent Board

Board Committees may not speak or act for the Board except when formally given such authority for specific and time-limited purposes. Such authority will be carefully stated in order not to conflict with authority delegated to the General Manager.

3.12.02 Committees to Develop Policy

Board Committees are to help the Board do its job, not to help the staff do its job. Committees will assist the Board chiefly by preparing policy alternatives and implications for Board deliberation. Board Committees are not to be created by the Board to advise staff.

3.12.03 Committees to be Non-Interfering

Board Committees shall not exercise any authority over staff, and in keeping with the Board's focus on the future, Board committees will ordinarily have no direct dealings with staff operations. Further, the Board will not impede its direct delegation to the General Manager by requiring approval of a Board Committee before any Board Action.

NEXT STEPS

Should the Board choose to proceed with establishment of the committee, potential next steps may include:

- Determining the committee's scope, composition, and purpose;
- Appointing Board members to serve on the committee (less than a quorum);
- Determining whether the committee will function as a standing committee or an ad hoc committee;
 - An ad hoc committee is a temporary committee comprised solely of less than a majority of the Board created without a fixed schedule to address a specific issue, project, or task. Once the assignment is completed, the committee is dissolved. Example: a committee formed to oversee a one-time facility renovation project.
 - A standing committee is a permanent committee established to handle ongoing or recurring responsibilities, or any committee established with a meeting schedule fixed by charter, ordinance, resolution, or formal action of the Board. It continues to exist indefinitely and typically meets regularly. Example: a finance committee or personnel committee that reviews matters throughout the year.
- If established as a standing committee, establishing a regular meeting date and time in accordance with applicable Brown Act requirements;
- Providing direction regarding meeting frequency, staffing support, and reporting procedures;
- Developing a committee charter or framework document outlining responsibilities and expectations; and
- Referring legal or procedural questions to District Counsel as appropriate.

ATTACHMENTS

Background information provided by President Doolittle is attached for Board consideration and can be used as guidance for discussion.

- Attachment 1 - Board President Doolittle committee email request
 - Attachment 2 - Board President Doolittle proposed committee charter
-

STRATEGIC PLAN

TBD

FISCAL IMPACT

If established, the committee would result in ongoing administrative costs associated with meeting preparation, staff support, agenda development, and compliance with applicable public meeting requirements. Director meeting stipends are \$200 per meeting each for two participating Board members, in addition to associated staff time.

ATTACHMENT 1

DIRECTOR REQUEST / SUPPORTING INFORMATION

Sent: Tuesday, May 5, 2026, 6:05 PM

The following request was submitted by Director Stacy Doolittle:

Dear General Manager Johnson,

Pursuant to the JBWD Administrative Code provisions governing agenda preparation and placement of items requested by a Board member/Board President, I request that the following item be placed on the agenda for the May 20, 2026 regular Board meeting.

Agenda Item Title

Consideration of Establishing a Standing Committee on Water, Wastewater/Sewer & Growth Impacts

Requested Description

To review and discuss matters affecting District water supply, wastewater/sewer planning, infrastructure capacity, service demand, fiscal impacts, and related community growth trends, and to make recommendations to the Board.

Please include any recommended action you deem appropriate, along with relevant Administrative Code or Brown Act considerations regarding committee structure, membership, and meeting procedures.

I am providing the background below to support Board consideration in lieu of a staff report, or to supplement any materials staff may include. Please advise if additional information is needed.

Background

President Doolittle attended the Mojave Water Agency Board meeting on April 23, 2026, and observed that the agency integrates land use and growth into its planning by aligning projected development with sustainable water supply. Through regional planning, MWA uses population and land use data from local jurisdictions to forecast demand, guide infrastructure needs, and support groundwater sustainability. This approach recognizes that land use decisions directly affect water demand and basin health.

President Doolittle recommends this integrated model as a framework for District governance considerations.

The District continues to address long-range water reliability, infrastructure planning, evolving service demands, fiscal sustainability, and emerging regional wastewater/sewer issues that may affect operations and customers.

Board committees provide an organized forum for early review of complex topics and development of recommendations for full Board consideration. Final policy direction would remain with the full Board in a public meeting.

The proposed committee would focus on matters within District authority, including utility planning and impacts related to community change.

While the District's Urban Water Management Plan projects population growth and evaluates long-term water supply reliability, it is a periodic, water-focused planning document. It does not provide an ongoing forum to evaluate real-time growth impacts across water, wastewater/sewer, infrastructure capacity, and fiscal considerations. The proposed committee would complement—not duplicate—the UWMP by providing continuous Board-level review, interagency coordination, and policy development related to growth and its impacts on District operations.

Proposed Committee Title

Integrated Water & Growth Committee

Proposed Purpose

To review and discuss matters affecting District water supply, wastewater/sewer planning, infrastructure capacity, service demand, fiscal impacts, and related community growth trends, and to make recommendations to the Board.

Possible Scope of Work

- Water supply reliability and demand trends
- Infrastructure capacity and capital planning
- Wastewater/sewer proposals and plans affecting the District
- Service area growth impacts on facilities and finance
- Ratepayer fiscal considerations
- Coordination with outside agencies
- Long-range planning relevant to District operations

Governance Considerations

If established as a standing committee, meetings may be subject to applicable open meeting laws, including agenda posting and public access requirements. The committee would serve in an advisory capacity only and would not exercise independent authority unless specifically delegated by the Board.

Fiscal Impact

Minimal direct cost for meeting administration and staff support. Any future studies or consultant work would require separate Board authorization.

Strategic Plan

Supports the District's Strategic Plan goals related to water supply reliability, infrastructure planning, financial sustainability, wastewater, and effective governance.

ATTACHMENT 2

DIRECTOR REQUEST / SUPPORTING INFORMATION

Sent: Tuesday, May 5, 2026, 6:05 PM

Proposed Charter

Water & Growth Standing Committee

Joshua Basin Water District

1. Purpose

The purpose of the Water & Growth Standing Committee (“Committee”) is to provide a public forum for review, discussion, and recommendations regarding the impacts of regional growth and development on District water supply, infrastructure capacity, operational resiliency, and long-term planning.

The Committee is intended to support informed Board deliberation concerning infrastructure planning, wastewater and sewer-related planning efforts affecting the District, and related strategic considerations necessary to help ensure the District remains prepared to meet future service demands while maintaining long-term water reliability and resiliency.

The Board recognizes that the pace and variety of development activity occurring within and around the District may create increasing demands on infrastructure, operational planning, and long-term resource management. The Committee is intended to support clear, informed, and forward-looking evaluation of those impacts as the District plans for future service needs and water resiliency.

2. Scope of Review

The Committee may review, discuss, and develop recommendations regarding:

- The impacts of growth and development on District infrastructure, operations, and long-term planning
- Wastewater, sewer, septic-to-sewer, and related planning efforts affecting the District
- Infrastructure capacity and service demand considerations associated with projected regional growth
- Regional projects, studies, or governmental actions that may affect District infrastructure, water resources, or future service responsibilities
- Strategic planning considerations related to long-term water reliability and operational resiliency

3. Authority

The Committee is advisory only and shall not exercise independent decision-making authority on behalf of the Board of Directors or the District.

The Committee may:

- Review information and receive presentations
- Discuss infrastructure, operational, and strategic considerations
- Identify issues requiring further Board review
- Develop recommendations for presentation to the Board of Directors

The Committee shall not:

- Direct District staff except through Board-authorized processes
- Commit District resources without Board approval
- Establish District policy independently
- Act inconsistent with Board direction, District policy, or applicable law

4. Membership

The Committee shall consist of fewer than a quorum of the Board of Directors appointed in accordance with applicable law and District policy.

District staff may participate as designated by the General Manager.

The Committee may invite subject matter experts, agency representatives, or community stakeholders to provide informational or advisory input as appropriate to Committee discussions.

5. Meetings

The Committee shall meet on an as-needed basis at publicly noticed meetings conducted in accordance with the Ralph M. Brown Act and applicable District policies governing standing committees.

Public comment opportunities shall be provided consistent with applicable law and District policy.

6. Reporting

The Committee shall periodically report its discussions and recommendations to the Board of Directors during regular public meetings.

Any recommendations developed by the Committee shall be advisory in nature and subject to full Board review, discussion, and possible action.

7. Duration

The Committee shall remain in existence until modified or dissolved by action of the Board of Directors.