SPECIAL NOTICE REGARDING CORONAVIRUS DISEASE 2019 (COVID-19) AND PARTICIPATION IN PUBLIC MEETINGS

On March 4, 2020, Governor Newsom declared a State of Emergency resulting from the threat of COVID-19. On September 16, 2021, Governor Newsom signed Assembly Bill No. 361 into law. Assembly Bill No. 361 amends Government Code section 54953(e) by adding provisions for remote teleconferencing participation in meetings by members of a legislative body, without the requirements of Government Code section 54953(b)(3), subject to the existence of certain conditions. The San Bernardino Valley Municipal Water District adopted a resolution determining, by majority vote, that, as a result of the declared State of Emergency, a meeting in person would present imminent risks to the health or safety of attendees. Accordingly, it has been determined that all Board and Workshop meetings of the San Bernardino Valley Municipal Water District will be held pursuant to the Brown Act and will be conducted via teleconference. There will be no public access to the meeting venue.

BOARD OF DIRECTORS WORKSHOP - RESOURCES
THURSDAY, DECEMBER 16, 2021 – 2:00 P.M.

PUBLIC PARTICIPATION

Public participation is welcome and encouraged. You may participate in the December 16, 2021, meeting of the San Bernardino Valley Municipal Water District online and by telephone as follows:

Dial-in Info: (877) 853 5247 US Toll-free
Meeting ID: 979 215 700
PASSCODE: 3802020
https://sbvmwd.zoom.us/j/979215700

If you are unable to participate online or by telephone, you may also submit your comments and questions in writing for the District's consideration by sending them to comments@sbvmwd.com with the subject line "Public Comment Item #" (insert the agenda item number relevant to your comment) or "Public Comment Non-Agenda Item". Submit your written comments by 6:00 p.m. on Wednesday, December 15, 2021. All public comments will be provided to the Chair and may be read into the record or compiled as part of the record.

IMPORTANT PRIVACY NOTE: Participation in the meeting via the Zoom app is strongly encouraged. Online participants MUST log in with a Zoom account. The Zoom app is a free download.
Please keep in mind: (1) This is a public meeting; as such, the virtual meeting information is published on the World Wide Web and available to everyone. (2) Should you participate remotely via telephone, your telephone number will be your "identifier" during the meeting and available to all meeting participants; there is no way to protect your privacy if you elect to call in to the meeting.

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT
380 E. Vanderbilt Way, San Bernardino, CA 92408

BOARD OF DIRECTORS WORKSHOP - RESOURCES

AGENDA

2:00 PM Thursday, December 16, 2021

CALL TO ORDER
Chairperson: Director Hayes
Vice-Chair: Director Harrison

1) INTRODUCTIONS

2) PUBLIC COMMENT

3) SUMMARY OF PREVIOUS MEETING

3.1 November 4, 2021, Meeting (Page 3)
Summary Notes BOD Workshop - Resources 110421

4) DISCUSSION ITEMS

4.1 Consider Developing an Agreement with Metropolitan Water District of Southern California to Improve Management of State Water Project Supplies(Page 11)
Staff Memo - Consider Developing an Agreement with Metropolitan Water District of Southern California to Improve Management of State Water Project Supplies
Metropolitan and San Bernardino Valley Municipal Water District Terms - Agreement to Improve Management of State Water Project Supplies

4.2 Consider a Consulting Agreement with Scheevel Engineering to Design and Construct Native Fish Habitat Enhancement Structures in the Santa Ana River(Page 16)
Staff Memo - Consider a Consulting Agreement with Scheevel Engineering to Design and Construct Native Fish Habitat Enhancement Structures in the Santa Ana River
Proposal for the Native Fish Habitat Enhancement Project

4.3 Consider Contract with Innovative Federal Strategies for Consulting and Strategic Advocacy Services(Page 25)
Staff Memo - Consider Contract with Innovative Federal Strategies for Consulting and

Strategic Advocacy Services
IFS Renewal Letter of Retainer

4.4 Discuss Opportunity to Host the Association of San Bernardino County Special Districts Dinner in 2022(Page 29)
Staff Memo - Discuss Opportunity to Host the Association of San Bernardino County Special Districts Dinner in 2022

4.5 Evaluation of Rain Barrels as a Component of the District's Water Conservation Program (Page 31)
Staff Memo - Evaluation of Rain Barrels as a Component of the District's Water Conservation Program
Extracts on Rain Barrels from the Water Use Efficiency Assessment and Plan

5) FUTURE BUSINESS

6) ADJOURNMENT

PLEASE NOTE:
Materials related to an item on this Agenda submitted to the Board after distribution of the agenda packet are available for public inspection in the District's office located at 380 E. Vanderbilt Way, San Bernardino, during normal business hours. Also, such documents are available on the District's website at www.sbvmwd.com subject to staff's ability to post the documents before the meeting. The District recognizes its obligation to provide equal access to those individuals with disabilities. Please contact Melissa Zoba at (909) 387-9228 two working days prior to the meeting with any special requests for reasonable accommodation.

DATE: December 16, 2021

TO: Board of Directors Workshop - Resources

FROM: Staff

SUBJECT: Summary of November 4, 2021, Board of Directors Workshop – Resources

The Resources Workshop convened on November 4, 2021. Vice President Hayes chaired the meeting via video conference.

Directors Present: President Kielhold, Vice President Hayes, Director Botello, Director Harrison and Director Longville.

Staff Present:

Heather Dyer, MS, MBA - Chief Executive Officer/General Manager
Wen Huang, PE, MS – Deputy General Manager/Chief Engineer
Jose Macedo, ML, CPT-P (USA Retired) – Chief of Staff/Clerk of the Board
Cindy Saks, CPA – Deputy General Manager/Chief Financial Officer
Bob Tincher, PE, MS – Deputy General Manager/Chief Water Resources Officer
Melissa Zoba, MBA, MPA – Chief Information Officer

Kristeen Farlow, MPA - Strategic Communications Manager
Anthony Flordelis – Business Systems Analyst
Matthew E. Howard, MS – Water Resources Senior Planner
Chris Jones, MESM – Preserve System Program Manager
Adekunle Ojo, MPA – Manager of Water Resources
Shavonne Turner, MPA – Water Conservation Program Manager

Members of the Public Present:

Nyles O'Harra, Yucaipa Valley Water District
Brian Dickinson, City of Colton
Melody McDonald, San Bernardino Valley Water Conservation District
David E. Raley, San Bernardino Valley Water Conservation District
Amy Stevens, WSC
Haili Matsukawa, WSC
Jeff Szytel, WSC

2. Public Comment

Chair Hayes invited public comment. There was none.

Chair Hayes announced Melody McDonald of the San Bernardino Valley Water Conservation District is now the Vice President of the Association of California Water Agencies Joint Powers Insurance Authority (JPIA).

3. Summary of Previous Meeting

The meeting notes from the October 7, 2021, Board of Directors Workshop - Resources were accepted with no comments.

4.1 Strategic Communications and Engagement Plan Status Update

Strategic Communications Manager Kristeen Farlow reminded the Board the District contracted with Water Systems Consulting, Inc. (WSC) in June to complete the Strategic Communications and Engagement Plan. The result of the October 18 Brand Refresh Workshop was the Board's requesting a scope for the completion of a full District rebrand.

Haili Matsukawa of WSC briefed the Board on progress.

Interviews with staff and Board members provided feedback as to current communication with the public, stakeholders, regional partners, and customers; perception of the District; and challenges, Ms. Matsukawa reported. The next steps will be obtaining community input via the Social PinPoint online tool, determining where the District wants to be, and setting goals of the plan; ultimately developing strategies, and targeting stakeholders, she explained.

Ms. Matsukawa briefed the Board on findings related to audience prioritization and accepted input from Director Botello and Director Longville.

Ms. Farlow continued the presentation and shared the list of interview questions posed to Board members. Ms. Matsukawa described the common themes encountered by the Board when interacting with the public. Overall, she said, the Board would like to increase awareness of Valley District's role in the watershed.

She added, Board members also discussed areas where the District is communicating well and those topics where there is opportunity for improvement and more messaging.

After discussion, based on inquiry by Director Botello, the Board requested WSC explore the clarity of language regarding the terms “ratepayers” and “taxpayers” and agendize for further discussion.

Director Longville suggested highlighting that Valley District is the only agency in the valley that will address the impacts of climate change. Director Botello requested the term be “climate change / equity.”

A third component of the program will be direct feedback from the community, Ms. Matsukawa continued. She introduced Social PinPoint, an online engagement tool to facilitate input from the public. She presented a web page draft and shared a video of instructions for the engagement page. Director Longville pointed out that the District began social media engagement only recently and has increased expenditures and efforts on it. She noted social media is growing, but questioned the number of followers at this stage. CEO / General Manager Heather Dyer stated the message must go out via all possible avenues, and Ms. Farlow added there will be a more active call to action. Ms. Matsukawa advised that social media will be paired with the active advertising and marketing strategy, leveraging both print and digital media. It will need the Board’s support, she cautioned, as there is an investment to be made. Ms. Matsukawa then described a sampling of the brief survey for stakeholders to get at core feedback.

Chair Hayes suggested a “more information” button be added for clarification of certain questions, and Director Botello suggested the questions refer to Valley District by its formal name. Director Harrison agreed.

Director Longville requested a copy of the questions to review, pointing out a person’s interest is defined by what they know. Chief Executive Officer/General Manager Dyer clarified this presentation is regarding the concept of public engagement and obtaining feedback. Director Longville noted WSC has been hired as the best qualified to perform the engagement and create the plan.

Ms. Matsukawa explained this sampling of questions shows only the nature of the questions and that they will be refined. Chair Hayes requested questions be included in the staff report so they might be previewed before feedback is needed.

Director Botello commented the Social PinPoint tool is a perfect vehicle for a starting point.

Ms. Matsukawa continued the presentation and discussed stakeholder input benefits. She briefed the Board on the marketing plan and the strategy to get the survey into the hands of

the public. Ms. Farlow advised there is a variety of ways to promote the campaign in order to gain the participation and engagement of the public.

The next step, Ms. Farlow continued, will be to develop community personas of the target audience with the feedback from the campaign. Chair Hayes cautioned about use of industry jargon with the public.

The public input and Social PinPoint phase, Farlow advised, would be implemented November through January. As information is collected, communication goals and audience messaging are developed, she said. Communication strategies and finalization of the Strategic Communication and Engagement plan are expected in January 2022, she explained. In February, staff anticipates beginning the one-year Implementation Plan, identifying cost estimates, templates, and brand assets through May 2022.

Director Longville suggested leveraging other public meetings as well and pointed out that the timeline provided for initial feedback is not long enough.

Ms. Farlow explained input gathering would begin to develop those community personas, and key messaging would begin while keeping the Social PinPoint open.

Ms. Matsukawa concurred it is an aggressive schedule, but stated there will be targeted outreach and the plan is to hasten publishing of digital and print along with Ms. Farlow's interaction with community groups. She advised that WSC is open to reviewing the timeline based on delivering on its contract.

President Kielhold suggested adding 30 days to the initial feedback period. He requested a copy of the stakeholder mapping for the Board and expressed support for the online survey.

Chair Hayes pointed out the November and December are the holiday season, and most people are focused on holiday / family mode and are not thinking about water.

Director Botello agreed with concerns about the timeline and opined the rollout should continue into spring due to the upcoming holidays. He also suggested a pilot program of the survey through retailers' staffs or environmental science students before implementation and releasing the introductory message through retailer flyers.

4.2 Consider Amendment No. 1 to the Proposition 84 Implementation Grant Funding Sub-Grantee Agreement for the Santa Ana River Conservation and Conjunctive Use Program (SARCCUP)

Deputy General Manager / Chief Water Resources Officer Bob Tincher advised the Board this is a follow up to the January 9, 2018, Board Workshop where proposed changes to the SARCCUP program were presented. Those changes included removal of the proposed connection between San Bernardino Basin (SBB) and the Chino Basin, he explained.

Mr. Tincher provided a detailed overview of SARCCUP. He described it as a joint project with four of the five Santa Ana Watershed Project Authority (SAWPA) member agencies and administrated by Project Agreement (PA) 23. SAWPA has a grant contract with the Department of Water Resources (DWR) and passes along the requirements to the participants, he noted.

Mr. Tincher provided background on SARCCUP and said the goal is to work as a region, to develop a program on a larger scale with a larger benefit that requires the grant funding for completion. He listed SARCCUP's three elements:

- Habitat Improvement including Arundo removal and the Santa Ana Sucker fish habitat restoration
- Water Use Efficiency through conservation-based rates and landscaping design
- Groundwater bank

Mr. Tincher advised the SARCCUP is a $160 million total project, with $55 million coming from Proposition 84. The groundwater bank is the largest portion of SARCCUP, he noted. He discussed benefits to the member agencies.

Valley District has eight million acre-feet (af) of storage and does not need a local groundwater bank, but this project makes storage space and surplus water available to neighbors, Mr. Tincher explained. SARCCUP also helps Valley District meet four Integrated Regional Urban Water Management Plan (IRUWMP) goals, he said.

Each project area has a lead agency, and the Valley District contract covers only habitat restoration, as it is the lead on the Habitat Conservation Plan (HCP), Mr. Tincher continued. Valley District is also the lead on obtaining surplus water, he added. No facilities or infrastructure are needed in this area for the groundwater bank and are not included in this amendment. The only item is habitat restoration and there has been no change in the grant amount for that area, he said.

Mr. Tincher detailed the structure and governance of the organization under PA 23 and added that PA 22 oversees the water use efficiency because it already administers grant funds under the drought round of Proposition 84.

After the groundwater bank is completed, the investing agencies would operate the bank via an operations committee deciding when to buy water, where to store it, and when to extract it and do exchanges. The agreement has not yet been developed, he added.

Mr. Tincher detailed the operation and emphasized the importance of the groundwater bank, the primary source for which is Valley District's surplus State Water Project (SWP) water. The recently signed Metropolitan Water District (MWD) agreement provides for Valley District to sell surplus water to MWD which then makes half of that water available to SARCCUP, he explained.

Given Valley District's existing eight million af of storage, Mr. Tincher explained SARCCUP as insurance from a water supply portfolio standpoint. The only water going into SARCCUP is surplus to Valley District's need. He continued explaining the 137,000 af of storage in SARCCUP does not benefit the agencies already pumping from wells in the San Bernardino Basin, it benefits agencies outside the Basin and provides opportunity for others to store water in the Basin. Valley District benefits from bringing in some value for its taxpayers / ratepayers, he continued. The connection to the SWP with the groundwater bank allows Valley District to offer water at a reasonable price to its neighbors. That savings can be used to benefit the ratepayers, but the real benefit for the retail agencies inside the Basin is in higher water levels.

Mr. Tincher reminded the Board of discussion about the Bunker Hill Conjunctive Use Program (BHCUP) and explained that the agencies in the San Bernardino Basin do not need the SARCCUP storage, so it is available to agencies in BHCUP through SARCCUP. This storage should be used before adding another storage program as they are overlapped, he advised.

The agencies to benefit most from San Bernardino Basin (Basin) storage are Yucaipa Valley Water District (YVWD), Western Heights Water Company, South Mesa Mutual Water Company, and the San Gorgonio Pass Water Agency (SGPWA), Mr. Tincher stated. Valley District has been working on an agreement with YVWD and SGPWA to store water in the San Bernardino Basin.

Approval will be needed for SARCCUP storage in the San Bernardino Basin, Mr. Tincher noted, and reminded the Board that Valley District does not own the Basin. As a Watermaster, Valley District administrates the Judgment which is among the agencies pumping water from the Basin who really own the space.

SARCCUP is essentially implementing the paragraph in the Judgment that references Valley District and Western Municipal Water District (WMWD) entering into agreements for

additional imported water would be stored in the Basin and allow WMWD to pump additional water out of the Basin equal to the amount they store. There is no compliance issue with the judgment as concerns SARCCUP, but Valley District is bringing others from outside the judgment into the Basin and must satisfy the pumpers in the region that using the Basin for this purpose will not harm them, he advised.

Agencies are aware of SARCCUP, Mr. Tincher assured, and said a proposal will need to be submitted to the Basin Technical Advisory Committee (BTAC) with some modeling and without the SARCCUP program and addressing challenges. BTAC will then make a recommendation which will come back to Valley District as a Watermaster agency. The region as a whole will evaluate this before making a recommendation, he stated.

Mr. Tincher addressed the water use efficiency element of the program. He said that conservation-based rates have been recommended to retailers. He pointed to the Large Landscape Water Reduction Program, recently presented by Water Conservation Program Manager Shavonne Turner, and added that the Smartscape Program which includes landscape design, care of low water use plants, and more will be offered.

To save 2,400 af of water per year, the non-native, water insatiable weed, Arundo, has been nearly eradicated from the watershed thanks to the efforts overseen by SAWPA, Mr. Tincher noted. This is a long-term commitment, he stressed, and noted there are 600 acres of Arundo left to remove from the Basin. He added Valley District is the lead on the Santa Ana Sucker Habitat project.

Mr. Tincher advised there is no change in the amount of grant funding from the first contract to this amendment; the only change is the elimination of the water facilities. He shared the SARCCUP schedule showing everything currently in process and indicated that the goal is to have the SARCCUP program in place by 2023.

He recapped SARCCUP accomplishments and pointed out the work remaining, including approval of the agreement amendment, the SARCCUP operating agreement, Western-San Bernardino Watermaster approval to use the San Bernardino Basin in the SARCCUP groundwater bank, and construction of facilities.

Director Longville announced that Eastern Municipal Water District's facility is complete.

Director Harrison, Chair Hayes, and CEO / General Manager Heather Dyer complimented and thanked Mr. Tincher for his work.

Action Item(s): The Board voted to move forward this item to the full Board of Directors at a future meeting by the following roll-call vote:

There was no motion or second.		APPROVED: 5-0
AYES:	Botello, Harrison, Hayes, Kielhold, Longville	
NOES:	None	
ABSTAIN:	None	
ABSENT:	None	

5. Future Business

Director Botello announced that at 7 p.m. the San Bernardino Historical Society will present San Bernardino County historian, educator, and author Tom Atchley.

6. Adjournment

Chair Hayes adjourned the meeting at 3:50 p.m.

Staff Recommendation

Receive and file.

DATE: December 16, 2021

TO: Board of Directors Workshop - Resources

FROM: Bob Tincher, Chief Water Resources Officer/Deputy General Manager

SUBJECT: Consider Developing an Agreement with Metropolitan Water District of Southern California to Improve Management of State Water Project Supplies

Staff is recommending the development of an agreement with the Metropolitan Water District of Southern California (Metropolitan) to facilitate mutual aid and exchanges of water. A draft term sheet (attached) has been developed and staff is requesting authorization to develop an agreement based upon these terms for the Board's consideration.

BACKGROUND

In June of this year, Valley District and Metropolitan executed a Coordinated Operating Agreement (COA) which encourages coordinated use of facilities, where practical, mutual aid and allows Metropolitan to purchase Valley District's surplus SWP supplies. The COA provides a framework but does not include specific terms for exchanges of supplies or for the payment of costs. This proposed agreement, and the necessary companion agreement with the California Department of Water Resources (DWR), enhances the COA by providing:

1. Exchange guidelines
    a. SWP supplies
    b. Local water supplies
    c. Limiting the exchange ratio for exchanges completed in the same calendar year to 1:1
    d. Limiting the exchange ratio for exchanges completed over multiple calendar years to 2:1

2. The option for Metropolitan to provide a financial incentive for Valley District to shift from SWP supply to stored groundwater in exchange for a like amount of Valley District's SWP supply.
3. The option for Metropolitan to deliver SWP water stored in its Diamond Valley Lake to Valley District in exchange for a like amount of Valley District's SWP supply.
4. Reimbursement of operating costs

Exchanging water supplies provides both agencies an additional "tool" that can be used during drought or catastrophic failure. Under the proposed agreement, Valley District could offer a same-year exchange of its SWP carryover to assist Metropolitan. In this case, Metropolitan would receive Valley District's water early in the calendar year when the SWP allocation is low and then return SWP water to Valley District later in the year. Both agencies retain discretion on whether to participate in any proposed exchange.

Another optional term in the agreement allows Metropolitan to provide a financial incentive to Valley District to shift from SWP supply to stored groundwater in exchange for a like amount of Valley District's SWP supplies. Under this term, Metropolitan would essentially reimburse Valley District up to $300/AF to cover the additional cost for Valley District's retail water agencies to produce groundwater for delivery to Metropolitan or for use in Valley District's service area as compared with their cost for imported water from the SWP. The payment will be based on an estimate of the actual costs incurred or, upon further agreement, the cost of any new facilities that may be required. Staff estimates that around 1,000 AF per month of groundwater could be provided to Metropolitan.

Under the proposed terms, Metropolitan could choose to provide Valley District some of its Diamond Valley Lake supply in exchange for a like amount of Valley District SWP supply. In this case, Metropolitan would reimburse Valley District for any cost incurred by Valley District to receive the Diamond Valley Lake supply. The agreement would also provide the same type of reimbursement to Metropolitan should Valley District need Metropolitan's Diamond Valley Lake supplies during an emergency, or outage.

Should the Board wish to proceed with this agreement, a companion agreement will also be required with DWR since the proposed exchanges would involve SWP water and SWP facilities.

The term of the agreements is proposed to be limited to ten years, or December 31, 2031, to allow both parties an opportunity to revisit the terms of the agreement.

Fiscal Impact

Valley District legal counsel will be needed to help draft the proposed agreement.

Staff Recommendation

Direct staff to work with Metropolitan Water District of Southern California to develop the proposed agreements with Metropolitan and DWR based upon the attached terms and to bring the agreements back to the Board for consideration.

Attachment

Metropolitan and San Bernardino Valley Municipal Water District Terms – Agreement to Improve Management of State Water Project Supplies

Metropolitan and
San Bernardino Valley Municipal Water District
Terms
Agreements to Improve Management of State Water Project Supplies

Exchange

Metropolitan Initiated Exchange

- Ratio 1:1: For every acre-foot Metropolitan receives, Metropolitan will return one acre-foot in the calendar year.
- Exchange schedule by mutual agreement. Metropolitan anticipates needing the supply early in calendar year and will return the water to meet Valley District's State Water Project (SWP) supply needs later in the calendar year.
- Metropolitan will backstop the exchange, should its SWP supplies be insufficient, with a combination of its supplies stored in Diamond Valley Reservoir or its other various SWP Storage Programs at Metropolitan's cost.
- Valley District, at its sole discretion may agree to an unbalanced exchange ratio should Metropolitan want to return water in a subsequent calendar year. The parties may negotiate a ratio, up to 2:1, for any exchange beyond the same calendar year.

Valley District Initiated Exchange

- Ratio 1:1: For every acre-foot Valley District receives, Metropolitan will return one acre-foot.
- Exchange schedule by mutual agreement.
- Metropolitan, at its sole discretion may agree to an unbalanced exchange ratio should Valley District want to return water in a subsequent calendar year. The parties may negotiate a ratio, up to 2:1, for any exchange beyond the same calendar year.

Enhanced Valley District Local Production Capability for Metropolitan

Valley District pumps groundwater into the Inland Feeder or Valley District's Distribution System

- Metropolitan will pay Valley District the energy, operations and maintenance costs, to pump groundwater into the Inland Feeder or Valley District's distribution system for Metropolitan. The parties will meet and confer on these costs prior to any delivery.
- For every one acre-foot provided to Metropolitan, Metropolitan will return one acre-foot to Valley District in the same calendar year.
- Valley District, at its sole discretion may agree to an unbalanced exchange ratio should Metropolitan want to return water in a subsequent calendar year. The parties may negotiate a ratio, up to 2:1, for any exchange beyond the same calendar year.

Valley District retail agencies shift from SWP water to stored groundwater

- Metropolitan will pay Valley District a mutually agreed upon sum, up to $300/AF, for its retail agencies to shift off of SWP water and onto groundwater. The payment will reflect an estimate of the actual cost incurred by retail agencies to reduce direct deliveries of SWP water or a portion of the cost of any new facilities that may be required.
- The amount of production shifted off of SWP water and onto groundwater will be quantified using the actual meter data for the well(s) pumped in lieu of SWP water direct deliveries.
- The SWP water preserved by shifting to stored groundwater would be provided for exchange with Metropolitan.

Diamond Valley Lake Operation

Metropolitan provides Valley District water from Diamond Valley Lake in exchange for Valley District's SWP supplies

- Metropolitan will pay the energy, operations, and maintenance costs to deliver water from Diamond Valley Lake to Valley District in-lieu of Valley District using SWP water when initiated by Metropolitan. For every acre-foot provided to Valley District, Metropolitan will receive an acre-foot in return water during the same calendar year. Metropolitan, at its sole discretion may agree to an unbalanced exchange ratio should Valley District want to return water in a subsequent calendar year. The parties may negotiate a different ratio, up to 2:1, for any exchange beyond the same calendar year.
- Valley District will pay the energy, operations, and maintenance costs to deliver water from Diamond Valley Lake to Valley District when initiated by Valley District. For every acre-foot provided to Valley District, Metropolitan will receive an acre-foot in return during the same calendar year. Valley District, at its sole discretion may agree to an unbalanced exchange ratio should Metropolitan want to return water in a subsequent calendar year. The parties may negotiate a ratio, up to 2:1, for any exchange beyond the same calendar year.

Metropolitan moves Diamond Valley Lake supplies to Devil Canyon Afterbay/Rialto Pipeline

- Metropolitan will pay the energy, operations, and maintenance costs to deliver water from Diamond Valley Lake to Devil Canyon Afterbay/Rialto Pipeline.

Term

- Through December 31, 2031.

SAN BERNARDINO Valley MUNICIPAL WATER DISTRICT

DATE: December 16, 2021

TO: Board of Directors Workshop - Resources

FROM: Kai Palenscar, Environmental Compliance and Permitting Program Manager

SUBJECT: Consider a Consulting Agreement with Scheevel Engineering to Design and Construct Native Fish Habitat Enhancement Structures in the Santa Ana River

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SUMMARY

This item is related to habitat restoration projects associated with the Upper Santa Ana River Habitat Conservation Plan (HCP) as well as measures required for the operation of the Sterling Natural Resource Center (SNRC). Staff is requesting that the Board consider a proposal from Scheevel Engineering for the "Santa Ana River Native Fish Habitat Restoration Project" that will fulfill various mitigation obligations for both the HCP and SNRC.

For your consideration today is a proposal to complete full design, implementation and monitoring of at least 1.5 acres of habitat enhancement features (habitat nodes or stream bifurcation) along the Santa Ana River (Figure 1). Staff is also requesting authorization to submit environmental permit applications and encroachment permit applications to conduct this work on behalf of the District. If approved, this project will move through planning and permitting process from winter 2021 through summer 2022 and project construction is anticipated to initiate fall 2022.

BACKGROUND

Due to numerous endangered and threatened species issues associated with water supply projects in the upper Santa Ana River watershed an HCP is being collaboratively developed

by staffs from Valley District and other agencies in our region with projects needing endangered and threatened species permit coverage. On April 15, 2014, the Board of Directors authorized Valley District's participation and role as lead agency for the development of the HCP. The HCP currently has twelve funding partners, including Valley District, and is close to completion.

HCP Advanced Mitigation

Due to the poor conditions for the Santa Ana sucker in the Santa Ana River, HCP planners believe it is necessary to implement mitigation activities before the HCP is finalized. We (HCP Permittees) are completing our compensatory mitigation for Santa Ana sucker impacts in advance so the ecological value of those activities will be counted in the "Baseline Conditions" upon which our project is measured against for the jeopardy standard test required under the Endangered Species Act (projects must not jeopardize the future existence of a species).

Early implementation of our conservation measures will provide multiple benefits including: 1) increasing the likelihood of receiving a non-jeopardy Biological Opinion for the HCP because we have increased the abundance of sucker, reduced risks, and increased the quantity and distribution of habitat and, 2) providing assurance to the USFWS staff reviewing our HCP that our conservation measures are biologically sound, can be implemented, and show species benefit. The primary objective of our conservation activities is to increase Santa Ana sucker habitat and population security, which in our case means enhancing potential habitat in the mainstem river as well as tributary streams for spawning and refugia during the hot summer months.

Habitat Node Habitat Enhancement Project (proposed project)

Valley District has an obligation to provide compensatory mitigation to offset impacts imposed by the Sterling Natural Resource Project because Valley District was the lead on the project at the time the CEQA Environmental Impact Report was adopted and the Biological Opinion was issued by the U.S. Fish and Wildlife Service. Since that time, East Valley Water District has become the project lead. However, because of the interconnectedness of the SNRC mitigation measures with the Upper SAR HCP Conservation Strategy and due to our staff's expertise on environmental issues, we continue to serve as the project manager for all

biological requirements and mitigation measures, but we pass the costs for these activities on to EVWD.

As required by CEQA and the Biological Opinion for SNRC, the objective of this proposed project is to create at least 6 habitat enhancements (habitat nodes) in the mainstem Santa Ana River in order to maintain at least 1.5 acres of improved habitat for the Santa Ana sucker. A pilot project was completed in spring 2021 which tested one potential method to enhance habitat for native fish: stream diversion. The goal of stream diversion was to “re-wet” a previously dry stream channel along the river. The intent and working hypothesis was that if the diversion was created in a manner that caused clean water (sediment-free) to be diverted out of the stream, the streambed of the newly wetted channel would coarsen as fine sediment was winnowed away and transported downstream. Valuable data were collected during the pilot project in order to inform and improve future projects (Figure 2). Specifically, in-stream placement of large wooden stakes provided a sustained improvement (increase in streambed coarse substrate) of the mainstem river for Santa Ana sucker (October 2020 to April 2021).

Figure 1. Location of the Native Fish Habitat Enhancement Project

Figure 2. In-stream pilot project indicating coarse sediment downstream of flow diversion.

The location where we are proposing to conduct these habitat enhancements is between Lake Evans and Hidden Valley Wildlife Area (Figure 1), outside of the portion of the river with Corps levees and within the portion of the river occupied by Santa Ana sucker.

Timing for project implementation is crucial as it is required to occur before the SNRC begins recycling its water for groundwater recharge. Once water recycling initiates, a portion of the current wastewater being discharged into the Santa Ana River will be reduced and thereby impacts to Santa Ana sucker habitat will occur which need to be offset. A Biological Opinion issued in 2015 for the SNRC project requires 6 habitat nodes be constructed prior to any streamflow reduction at RIX. If approved, we plan to complete construction of at least 6 habitat nodes during fall 2022, outside of the spawning/nesting (reproduction) seasons for native wildlife (between Sept. 15 and Feb. 15).

Staff is requesting that the Board consider a proposal submitted by Scheevel Engineering to “Design and Construct Native Fish Habitat Enhancement Structures in the Santa Ana River” that will serve to fulfill mitigation obligations for the SNRC. Scheevel Engineering was selected to do this work due to former work on the pilot project and other habitat enhancement projects throughout the River. In addition, staff is requesting authorization to

submit and pay for environmental permit applications (LSAA, 401, 404) and encroachment permit applications (e.g., Riverside County Regional Parks & Open Space District, Riverside County Flood Control and Water Conservation District, the City of Riverside, and other potential landowners) to conduct this work. If approved, this project will move through planning and permitting from winter 2021 through summer 2022 and project construction is anticipated to initiate fall 2022.

For your consideration today is a proposal to complete full design and creation of at least 6 habitat enhancements (habitat nodes) in the mainstem Santa Ana River in order to maintain at least 1.5 acres of improved habitat for the Santa Ana sucker. If supported by the Board, this work will begin immediately upon approval at the next regular Board of Directors meeting.

Fiscal Impact

The fiscal impacts of this activity will total $267,200 (Appendix A). This was approved in the 2021-2022 budget in line item 6280 (HCP SAS MICROHABITAT CONSTRUCTION) and the Permits line item 6360 (SAR MICROHABITAT CEQA/PERMITTING) to cover the proposed costs. Valley District will invoice the East Valley Water District for these expenses since these mitigation measures are requirements for the Sterling Natural Resource Center project.

Recommendation

Staff recommends that the Board direct staff to place the agreement with Scheevel Engineering in the amount of not to exceed $267,200, and to prepare and submit the appropriate environmental permit applications listed above, on a future regular Board of Directors meeting for consideration.

Attachments

1. Proposal for the Native Fish Habitat Enhancement Project

May 24, 2021

San Bernardino Valley Municipal Water District
Attn: Kai Palenscar Ph.D., Project Manager II
380 East Vanderbilt Way
San Bernardino, CA 92408

RE: Professional Engineering Consulting Services Proposal:
Santa Ana River Native Fish Habitat Restoration Project

Dear Mr. Palenscar,

Scheevel Engineering is pleased to present this proposal to the San Bernardino Valley Municipal Water District (Valley District) for professional engineering consulting services for the Santa Ana River Native Fish Habitat Restoration Project (Project). The Project scope includes services to select site(s), design, support construction and post-project monitoring for the Project. Scheevel Engineering provides a wide variety of consulting and field services unique to habitat restoration projects. These services include pilot field testing, field data collection, streamflow measurements, water quality monitoring, sediment transport sampling and analysis, hydraulic analysis, 3D CFD modeling, preliminary design, final design, construction phase assistance, extension of staff, construction support and operations and maintenance support services.

Scheevel Engineering has prepared this proposal to provide Valley District with engineering, consulting and field services for the Project. The specialized services offered by Scheevel Engineering will include the tasks outlined below in Table 1: Scope of Work.

Table 1: Scope of Work

Scope Item Description
1) Meetings & Coordination a. Meetings – Attend meetings as requested by Valley District. Meetings may include, but will not be limited to, office meetings, field meetings, stakeholder meetings and meetings with regulatory/permitting agencies. b. Coordination – Includes time to communicate and discuss issues related to the Project with Valley District staff and Project stakeholders. Includes time for emails, texts and phone calls as needed.
2) Site Selection Phase a. Site Identification – Perform desktop study and review of potential Project sites for the restoration of native fish habitat. Identify and evaluate approximately 3 sites and perform a screening analysis to aid in the reduction of the number of sites for final design. This will include an evaluation of existing Lidar/survey data, Riverwalk data as well as a review of available aerial imagery and historic flow rates. b. Field Assessment – Perform field inspection of 3 sites to assess the suitability and pros & cons of each site. Collect initial data for riverbed invert elevations, bed material gradations and flow velocities. Visually observe and document access constraints, construction considerations and other factors that may affect the implementation and success of habit enhancement efforts.

Scheevel Engineering ● P.O. Box 28745 ● Anaheim, CA 92809 ● Phone: (714) 470-9045 ● Email: nathanscheevel@yahoo.com

c. Site Selection – Analyze and summarize all data from tasks 2a and 2b above. Perform initial engineering calculations and analysis to determine the areas of impact, size of features and construction quantities for 3 sites. Collaborate with Valley District staff, and other Project stakeholders, to develop a ranking system for potential sites. Perform final analysis to select 2 sites for Project implementation. Provide a draft tech memo for Valley District's review and comment, revise and finalize the tech memo based on comments and provide a final tech memo in electronic pdf format.

3) Design Phase

a. Preliminary Design – Analyze each of the 2 sites and provide design concepts for each site. Provide Valley District with plan view maps and concept sketches for each concept. Provide refined areas of impact, construction quantities, construction cost estimates and pros and cons for each concept. Refine the preferred alternative for each of the 2 sites based on Valley District and stakeholder feedback.
b. Final Design – Perform necessary analysis and calculations to finalize the design of the selected alternatives and produce concept drawings and notes for in-house/project partner construction. Provide all submittals in electronic pdf format.
c. O&M Plan Development – Develop a draft O&M plan for the long-term care, maintenance and repair of each site. The O&M Plan can also be used to apply for regulatory permits. Submit a draft O&M Plan to Valley District in electronic pdf format. Receive comments on the draft O&M Plan, revise and submit a final O&M Plan in electronic pdf format.
d. Permitting Assistance – Provide assistance and engineering support to Valley District's other consultants and/or Valley District staff, as-needed, to obtain permits or otherwise satisfy regulatory agency requirements. Assist with developing maps and figures to quantify impacts.

4) Construction Phase

a. Procurement Support – Assist Valley District staff with obtaining, reviewing and selecting material and equipment proposals.
b. Construction Support – Provide Valley District staff with field assistance during construction. Provide field design services, construction staking, field supervision and specialty operation services throughout the construction phase. Assumes Scheevel is onsite an average of 3 days per week (4 weeks per site) for each of the 2 sites, or a total of 24 days.

5) Monitoring Phase

a. Field Data Collection – Perform field visits to collect feature performance data and make site assessments. Will include, but not be limited to, stream flow measurements, bed load sampling, suspended sediment sampling, bed material sampling, water quality analysis, site observations and riverbed invert elevation surveys. Assumes a total 7, one-day monitoring events at each of the 2 sites (1 pre-construction, 2 construction and 4 post-construction), for a total of 14 monitoring events.

Scheevel Engineering ● **P.O. Box 28745 ● Anaheim, CA 92809 ● Phone: (714) 470-9045 ● Email: nathanscheevel@yahoo.com**

b. Data Analysis – Perform data analysis and summarize field data. Includes all lab testing for SSC, bed material, bedload and water quality.
c. Reporting – Prepare a draft report summarizing all data and observations after the last monitoring event. Provide conclusions and recommendations for maintenance and future projects. Submit to Valley District and receive comments. Revise draft report and prepare final report. Please note, all submittals will be in electronic format. Hardcopies can be provided at additional cost.

Upon your review of the above scope of work please let me know if you would like any additions or subtractions. Scheevel Engineering provides its services at an hourly rate of $200.00. Travel time is free of charge and no additional fees or charges apply unless approved by Valley District. The fees associated with the above scope of work equals **$267,200.00 (two hundred sixty-seven thousand and two hundred dollars)**. A breakdown of the fees associated with the proposed scope of work is illustrated in Table 2: Schedule of Fees. Scope items listed in Table 2 without an hour value or without an hourly rate value are provided as lump sum items.

Table 2: Schedule of Fees

Scope Item Description	Hours	Rate	Fee
Scope Items			
1) Meetings & Coordination	**56**		**$ 11,200**
a. Meetings	18	$200/hr	$ 3,600
b. Coordination	38	$200/hr	$ 7,600
2) Site Selection Phase	**188**		**$ 37,600**
a. Site Identification	30	$200/hr	$ 6,000
b. Field Assessment	62	$200/hr	$ 12,400
c. Site Selection	96	$200/hr	$ 19,200
3) Design Phase	**368**		**$ 73,600**
a. Preliminary Design	146	$200/hr	$ 29,200
b. Final Design	110	$200/hr	$ 22,000
c. O&M Plan Development	72	$200/hr	$ 14,400
d. Permitting Assistance	40	$200/hr	$ 8,000
4) Construction Phase	**230**		**$ 46,000**
a. Procurement Support	38	$200/hr	$ 7,600
b. Construction Support	192	$200/hr	$ 38,400
5) Monitoring Phase	**324**		**$ 98,800**
a. Field Data Collection	140	$200/hr	$ 28,000
b. Data Analysis Labor	48	$200/hr	$ 9,600
b. Data Analysis Materials & Lab Costs	Lump Sum Cost		$ 34,000
c. Reporting	136	$200/hr	$ 27,200
Total	**1,166**		**$ 267,200**

Scheevel Engineering ● **P.O. Box 28745 ● Anaheim, CA 92809 ● Phone: (714) 470-9045 ● Email: nathanscheevel@yahoo.com**

This proposal is valid for 30 days. Scheevel Engineering is prepared to start work on the Project immediately and can modify the scope, proposed fees and schedule to meet Valley District's needs. Thank you for the opportunity to provide professional consulting services to San Bernardino Valley Municipal Water District.

Sincerely,
Scheevel Engineering

Nate Scheevel, P.E.
President/Principal

Scheevel Engineering ● **P.O. Box 28745 ● Anaheim, CA 92809 ● Phone: (714) 470-9045 ● Email: nathanscheevel@yahoo.com**

DATE: December 16, 2021

TO: Board of Directors' Workshop – Resources

FROM: Kristeen Farlow, Strategic Communications Manager

SUBJECT: Consider Contract with Innovative Federal Strategies for Consulting and Strategic Advocacy Services

The Board of Directors is asked to consider a contract with Innovative Federal Strategies for Consulting and Strategic Advocacy Services for calendar years 2022 and 2023.

Background

Valley District has contracted with Innovative Federal Strategies (IFS) for many years to support the District's federal legislative priorities and goals. IFS provides Valley District with updates and reports on relevant legislation and policy efforts in Congress, advocates for programs and policy positions that support our priorities, implements congressional outreach campaigns, supports robust engagement across the federal network, and coordinates with national interest groups on the District's behalf. In 2021, IFS assisted with meeting coordination with the Army Corps of Engineers as well as District site tours with federal legislators. They were also instrumental in obtaining the bipartisan letter of support from Congressman Aguilar and his colleagues for our Watershed Connect WIFIA program.

The Board is asked to consider continuing our contract with IFS for Consulting and Strategic Advocacy Services for calendars years 2022 and 2023 at a rate of $6,500 per month. During the term of the agreement, IFS will:

- Advocate for programs and positions that support the District's federal funding and policy priorities by:

    - Working with SBVMWD staff to develop legislative funding proposals for Community Project Funding/Congressionally Directed Spending.
    - Facilitating meetings with Members of Congress and their staff.
    - Coordinating with SBVMWD staff to host Members of Congress and their staff to see facilities and projects firsthand.
    - Developing strategies throughout the legislative process to address and advocate for the District's priorities.
    - Real-time tracking of legislation and amendments to legislation.
    - Identifying federal competitive grant funding opportunities through annual appropriations cand/or supplemental infrastructure funding bills.
- Support robust engagement across federal agencies as appropriate.
- Coordinate with other advocacy organizations on issues of importance to the District by:
    - Coordinating separate meetings with Congressional officials while Board Members and staff are in Washington, D.C.
    - Serving on the government relations committee of the National Habitat Conservation Plan Coalition to advocate for funding and policy positions that would have a positive impact on the Upper Santa Ana River Habitat Conservation Plan.

Fiscal Impact

The fiscal impact of the proposed contract is $6,500 per month for a two-year agreement. This amount is budgeted in the current fiscal year budget under the Consultants category (6360), line-item Federal Advocacy Services.

Recommended Action

Direct staff to place a contract with Innovative Federal Strategies in the amount of $6,500 per month for calendar years 2022 and 2023 on a future Board Meeting for consideration.

Attachments

IFS Renewal Letter of Retainer

INNOVATIVE FEDERAL STRATEGIES, LLC

Comprehensive Government Relations

December 6, 2021

Ms. Heather Dyer
General Manager
San Bernardino Valley Municipal Water District
380 East Vanderbilt Way
San Bernardino, CA 92408

Dear Heather,

In response to our recent conversation, I have prepared this renewal letter of retainer. We have been honored to represent the San Bernardino Valley Municipal Water District, and we look forward to continuing to work with the Board and staff to help you achieve your future goals. We are especially pleased that a number of Board members have made visiting Washington, DC a priority over the last several years in conjunction with national conferences where we've been able to schedule one-on-one meetings with Members of Congress and their staff.

Innovative Federal Strategies is well suited to continue assisting the San Bernardino Valley Municipal Water District in efforts to track and report on relevant legislation and policy efforts in Congress, advocate for programs and policy positions that support your priorities, implement congressional outreach campaigns, support robust engagement across the federal ecosystem, and coordinate with national groups like the Association of California Water Agencies and the National Habitat Conservation Plan Coalition.

With over 150 years of combined federal service, our team is able to offer consulting and strategic advocacy services to a broadly diverse set of clients. We maintain outstanding awareness across a wide-range of germane federal agencies, topics, issues, and programs. We understand the nuanced, complex federal planning, programming, budgeting, contracting, and regulatory processes used throughout the Executive Branch.

During the term of our agreement, IFS will:

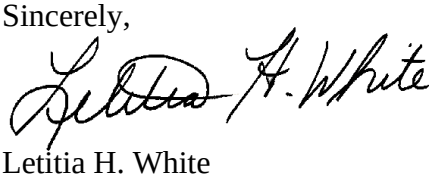
- Advocate for programs and positions that support SBVMWD's federal funding and policy priorities by:
    - Working with SBVMWD staff to develop legislative funding proposals for Community Project Funding/Congressionally Directed Spending (i.e. "earmarks");
    - Facilitating meetings with Members of Congress, their staff, and relevant professional staff;
    - Coordinating with SBVMWD staff to host Members of Congress and their staff to see facilities and projects firsthand;
    - Developing strategies throughout the legislative process to address and advocate for SBVMWD priorities;
    - Tracking in real-time legislation and amendments to legislation; and

    - Identifying federal competitive grant funding opportunities through annual appropriations and/or supplemental infrastructure funding bills.
- Support robust engagement across federal agencies as appropriate.
- Coordinate with other advocacy organizations on issues of importance to SBVMWD by:
    - Coordinating separate meetings with Congressional officials while Board members and staff are in Washington, DC; and
    - Serving on the government relations committee of the National Habitat Conservation Plan Coalition to advocate for funding and policy positions that would have a positive impact on the Upper Santa Ana River Habitat Conservation Plan.

The new term of our contract will begin January 1, 2022 and continue through December 31, 2023. Innovative Federal Strategies will continue to provide weekly updates and monthly progress reports. Innovative Federal Strategies proposes a monthly retainer of $6,500.00 and reimbursement for business related expenses, payable upon receipt of a monthly invoice. IFS will also comply with all relevant laws and regulations, including filing the required lobbying disclosure reports. Either party to this contract could terminate upon sixty days written notice.

If the foregoing terms and conditions accurately reflect your understanding of the relationship, please sign where indicated and return a copy to us. Again, Innovative Federal Strategies is honored to continue representing the San Bernardino Valley Municipal Water District and its interests.

Sincerely,



Letitia H. White
Principal

As an authorized agent of the San Bernardino Valley Municipal Water District, I agree to the terms laid out in the retainer agreement dated December 6, 2021. Under this retainer agreement, Innovative Federal Strategies will receive a monthly retainer of $6,500.00 payable NET30 upon receipt of a monthly invoice, and reimbursement for customary business expenses, beginning January 1, 2022 and continuing through December 31, 2023.

_____ _____

Signature Date

_____

Printed Name

DATE: December 16, 2021

TO: Board of Directors' Workshop – Resources

FROM: Kristeen Farlow, Strategic Communications Manager

SUBJECT: Discuss Opportunity to Host the Association of California Special Districts Dinner in 2022

The Board of Directors is asked to discuss the opportunity to host an Association of San Bernardino County Special Districts (ASBCSD) dinner in 2022.

Background

The District is a member of the ASBCSD, the local chapter of the California Special Districts Association. This chapter covers San Bernardino County. In the last two years, the District has hosted the ASBCSD dinner at Najwa's Mediterranean Cuisine in Loma Linda, both times in August. ASBCSD approached the District about hosting the dinner again in 2022. ASBCSD is currently seeking hosting agencies for the months of June, July, or August. Should the Board decide to host the dinner, staff would begin making arrangements for the dinner to be held in a restaurant or banquet room within our service area based on the following considerations:

- Space for an ASBCSD Board Meeting to occur prior to the dinner.
- Room for 50 people to comfortably attend the meeting.
- Equipment for a presentation, including screen or tv, computer and microphone (or enough space for the District to bring these in).

Fiscal Impact

The fiscal impact of hosting the ASBCSD Dinner once a year is approximately $250, for event supplies. This amount is budgeted in the current fiscal year budget under the External Affairs/ Strategic Communications category (6645), Special Event Coordination line-item.

Recommended Action

Decide if the Board would like to host an Association of San Bernardino County Special Districts (ASBCSD) dinner in 2022 and if so, direct staff to make necessary arrangements for the event.

SAN BERNARDINO Valley MUNICIPAL WATER DISTRICT

DATE: December 16, 2021

TO: Board of Directors Workshop - Resources

FROM: Bob Tincher, Chief Water Resources Officer/Deputy General Manager
Adekunle Ojo, Manager of Water Resources

SUBJECT: Evaluation of Rain Barrels as a Component of the District's Water Conservation Program

Background:

At the Board's request, staff has completed an evaluation of rain barrels as a potential component of our water conservation program that builds on the program update that was presented at the November 18, 2021, Policy Workshop. During that update, staff indicated that, from an actual water savings perspective, rain barrels are an expensive and less reliable strategy when compared to other strategies. Rain barrels are a water supply or demand offset strategy that involves collecting runoff from a roof and using it for non-potable and outdoor purposes. Because this region experiences intermittent rainfall averaging 15 inches per year (California average is 21.4 inches; national average is 30.28 inches), the effectiveness of rain barrels is reduced in comparison to other regions. Rain barrels tend to be more effective in regions with higher precipitation rates. However, due to the very low precipitation rates in our region, a rain barrel only saves approximately 620 gallons per year. Staff has calculated that it therefore would require approximately 6,000 rain barrels to save 1 AF of water during a measurable rain event. In addition, based upon the scientific studies conducted in our service area by the United States Geological Survey, most of our current runoff already ends up recharging our groundwater basins due to the unlined and highly permeable storm channel system within our area.

The quantifiable cost of the water saved by rain barrels is approximately $11,000 per acre-foot. Since rain barrels are not a cost-effective tool to reduce demand in our region, staff does not recommend the District invest in this strategy. Staff is currently developing a refined, comprehensive water conservation program that will be presented to the Board in the early spring so that it could be implemented beginning July 1, 2022. This new program will include the most

cost-effective strategies that produce the most water savings and will limit Valley District's investment to our actual monetary savings for an equivalent acre-foot of water saved, which is the variable cost of State Water Project water.

Fiscal Impact:

None, this is an informational report.

Staff Recommendation:

Receive and File

Attachment:

Extracts on Rain Barrels from the Water Use Efficiency Assessment and Plan

General Rebates – Plumbing Fixtures, Appliances & Irrigation Equipment

Offer customer rebates for a menu of indoor and outdoor devices. Rebates are most applicable for larger and more expensive products and appliances such as toilets and clothes washers. Rebates can be offered for all products that meet a specific standard such as WaterSense certified.

POTENTIAL MEASURE	SECTOR	STANDARD INCENTIVE AMOUNT	COST PER AF
Laminar Flow Restrictor Rebate	Commercial	$ 12	$ 113
HE Sprinkler Nozzle Rebate (>Acre)	Irrigation - All Sectors	$ 5	$ 155
Smart Controller Rebate (>Acre)	Irrigation	$ 720	$ 198
Cooling Tower Conductivity Controllers Rebate	Commercial	$ 1,200	$ 220
Leak Detection Device Rebate	Single Family	$ 150	$ 329
HE Sprinkler Nozzle Rebate (SF)	Single Family	$ 5	$ 409
Smart Controller Rebate (SF)	Single Family	$ 160	$ 457
High Efficiency Clothes Washers Rebate (SF)	Single Family	$ 120	$ 521
High Efficiency Toilets Rebate (MF 1.0 gpf)	Multi Family	$ 120	$ 1,096
High Efficiency Toilets Rebate (SF 1.0 gpf)	Single Family	$ 120	$ 1,096
Drip Irrigation Rebate	Irrigation - All Sectors	$ 0.50	$ 1,375
High Efficiency Toilet Rebate (CII 1.0 gpf)	Commercial	$ 270	$ 2,465
Rain Barrels Rebate	Single Family	$ 100	$ 11,317

Program / Measure	Delivery Mechanism	Sector	Avg Annual Water Savings (GPY)	Measure Life (Years)	Cost Per Unit	Valley District Funding	Total Program Cost Per AF
Turf Replacement ($1.00/sf)	Rebate	Irrigation - All Sectors	44	20	$1	$1	$625
Smart Controller Direct Installation (SF)	Direct Installation	Single Family	13,490	10	$260	$195	$742
HE Sprinkler Nozzle Direct Installation (SF)	Direct Installation	Single Family	860	5	$10	$8	$817
Turf Replacement ($2.00/sf)	Rebate	Irrigation - All Sectors	44	20	$2	$2	$1,146
Drip Irrigation Rebate	Rebate	Irrigation - All Sectors	14	10	$1	$0	$1,375
Turf Replacement ($3.00/sf)	Rebate	Irrigation - All Sectors	44	20	$3	$2	$1,666
Rain Barrels Rebate	Rebate	Single Family	621	5	$100	$75	$11,317

Residential Indoor Programs

The first water conservation programs, starting in the 1980s, focused solely on indoor measures. In addition, national and state legislation has increased efficiency standards. As a result, there is a high saturation of water efficient devices in California homes. For this reason, there is less opportunity for indoor measures in today's market.

Leak detection devices and plumbing fixtures for specific target markets (i.e., high density housing) are still an opportunity.

Table 15 shows the potential indoor residential programs under consideration again listed from lowest-to-highest cost per acre-foot.

High Level Measure Potential Assessment

In order to select measures for further evaluation, it is necessary to understand the level of savings potential of specific measures within each market segment. Table 13 summarizes the assessment of potential savings for each measure. Within each sector, the table lists water efficiency measures, the market stage (early to late), and the range of potential savings (low to high). This broad overview acts as a guide in selecting measures for further consideration.

Table 13: Measure Potential Assessment

Sector, Measures, End Uses	Market Stage	Description of Market Potential	Market Potential Level
Residential Indoor			
Budget-Based Water Rates	Early	Savings impact all end uses – highest potential of all measures	High
Clothes Washers	Late	Medium saturation - many free riders	Mid
Faucets, Aerators, Flow Restrictors	Late	Small remaining potential	Low
Gray Water	Early	Limited savings for simple systems – expensive to install full system	Low
Leak Detection	Early	Savings have shown 10-18%, also new technologies provide disaggregated indoor/outdoor water use data	High
Pressure Regulating Valves	Pilot	Recent MWD/IEUA study shows minor savings	Low
Showerheads	Late	Very few high flow fixtures remaining – does provide some water savings for urban areas with limited outdoor irrigation	Low
Surveys, Education, Outreach	Ongoing	Gateway program	Low-Mid
Toilets	Late	Small number of 3.5gpf fixtures remain, ULF to HET less savings -– does provide some water savings for multi-family properties and urban areas with limited outdoor irrigation	Low

Sector, Measures, End Uses	Market Stage	Description of Market Potential	Market Potential Level
Landscape and Irrigation			
Artificial Turf	Early	Large technical potential; small economic potential – also environmental concerns.	High
Budget-Based Water Rates	Early	Savings impact all end uses – highest potential of all measures	High
Smart Controllers	Early	SF Residential large remaining potential	High
Drip Irrigation	Mid	Savings and cost vary dramatically, as a stand-alone measure savings are minimal	Low-Mid
Native / Low Water Use Plants	Early	Requires efficient or no irrigation to verify savings	Low-Mid
Pressure Regulating Spray Heads	Pilot	Savings are not yet validated	Low-Mid
Rain Barrels	Mid	Small savings – limited collection during irrigation seasons	Low
Rain Water Catchment	Early	Expensive to install full system	Low-Mid
Sprinkler Nozzles	Early	Large remaining potential	High
Surveys, Education, Outreach	Ongoing	Gateway program	Low-Mid
Turf Replacement, Low Water Plants	Early	Large technical potential: significant customer barriers from cost to design and installation	High
CII (Non-Landscape)			
Budget-Based Water Rates	Early	Savings impact all end uses – highest potential of all measures	High
Cooling	Mid	Limited number in region	Low-Mid
Faucets, Aerators, Flow Restrictors	Late	Small remaining potential	Low

Sector, Measures, End Uses	Market Stage	Description of Market Potential	Market Potential Level
Food Service Equipment	Mid	Limited number of food steamers	Low
Industrial Processes and Manufacturing	Mid	Limited number in region	Mid
Laminar Flow Restrictors	Mid	Niche market i.e., hospitals and medical facilities	Low
Laundry	Mid	Limited number in region	Low-Mid
Showerheads	Mid	Limited number - sports facilities and gyms could be target	Low
Surveys, Education, Outreach	Ongoing	Gateway program	Low-Mid
Toilets	Mid	Small number 3.5gpf fixtures remain, valve type expensive replacement	Mid
Toilet Leak Sensors	Early	Emerging technology – savings not verified	Mid
Urinals	Mid	Expensive retrofit - High traffic sites could be target	Mid

Opportunities by Measure

There are several water efficient technologies that high potential for water savings in Valley District's service area. Below is a description of the top measures.

High Efficiency Nozzles and Low Precipitation Systems

Most customers in the region, no matter their type, have some irrigated area within their property. These areas are typically irrigated by in-ground systems with inefficient nozzles (ex: pop-up spray heads). There are virtually millions of nozzles in the region. These irrigation systems can be easily retrofitted with high efficiency nozzles or micro or low precipitation systems. Market studies show that only around 20% of