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 - ENGINEERING
THURSDAY, JUNE 16, 2022 – 2:00 P.M.

PUBLIC PARTICIPATION

Public participation is welcome and encouraged. You may participate in the June 16, 2022, 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: 753 841 573
PASSCODE: 3802020

https://sbvmwd.zoom.us/j/753841573

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, June 15, 2022. 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 - ENGINEERING

AGENDA

2:00 PM Thursday, June 16, 2022

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

1) INTRODUCTIONS

2) PUBLIC COMMENT
Any person may address the Board on matters within its jurisdiction.

3) SUMMARY OF PREVIOUS MEETING

3.1 Board of Directors' Workshop - Engineering - May 10, 2022 (Page 3)
Summary Notes BOD Workshop - Engineering 051022

4) DISCUSSION ITEMS

4.1 Update on the Upper Santa Ana River Habitat Conservation Plan (Page 11)
Staff Memo - Update on the Upper Santa Ana River Habitat Conservation Plan

4.2 Consider the 2022 Cathodic Testing Survey Program of District Pipelines (Page 15)
Staff Memo - 2022 Cathodic Testing Survey Program of District Pipelines

4.3 Consider Scope of Services with Scheevel Engineering for Professional Engineering Services and Engineering Staff Augmentation (Page 17)
Staff Memo - Consider Scope of Services with Scheevel Engineering for Professional Engineering Services and Engineering Staff Augmentation
Scope for Professional Engineering Consulting & Project Management Services by Scheevel Engineering dated June 7, 2022

4.4 Discuss Tres Lagos Property Master Plan and Real Property Goals and Objectives (Page 33)
Staff Memo - Discuss Tres Lagos Property Master Plan and Real Property Goals and

Objectives

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.

SAN BERNARDINO Valley MUNICIPAL WATER DISTRICT

DATE: June 16, 2022

TO: Board of Directors Workshop – Engineering

FROM: Staff

SUBJECT: Summary of May 10, 2022, Board of Directors Workshop – Engineering

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The Engineering Workshop convened on May 10, 2022. Director Harrison chaired the meeting via Zoom video-teleconference.

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
Joanna Gibson, MS – Executive Director Upper SAR Habitat Conservation Program
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

Michael Esquer – Senior Project Manager
Kristeen Farlow, MPA – Strategic Communications Manager
Anthony Flordelis – Business Systems Analyst
Adekunle Ojo, MPA – Water Resources Manager
Karen Resendez – Human Resources / Risk Manager

Olivia Ramirez – SBVMWD Intern

Members of the Public Present:

Joyce McIntire, Yucaipa Valley Water District
Nyles O'Harra, Yucaipa Valley Water District
Joseph Zoba, Yucaipa Valley Water District
Lora Carpenter, Fieldman, Rolapp & Associates
Robert Porr, Fieldman, Rolapp & Associates
Tarlan Talikhanzadeh, Fieldman, Rolapp & Associates
Melody McDonald, San Bernardino Valley Water Conservation District

Douglas Brown, Stradling Yocca Carlson & Rauth
George Hanson, Bear Valley Mutual Water Company
Sam Fuller, Bear Valley Mutual Water Company
James Morales, East Valley Water District
Brian Dickinson, City of Colton
Amelia Erika Velarde

1. Introductions

There were none.

2. Public Comment

Chair Harrison invited public comment. There was none.

3. Summary of Previous Meeting

The meeting notes from the April 12, 2022, Board of Directors Workshop - Engineering were accepted with no corrections.

4.1 Consider In-Person meetings or alternatively Resolution No. 1153 authorizing the San Bernardino Valley Municipal Water District to conduct remote meetings for the period May 10, 2022, through June 8, 2022

Chief Executive Officer / General Manager Heather Dyer reminded the Board about the teleconferencing requirements. Vice President Hayes asked about the current COVID-19 status. Ms. Dyer advised that cases are increasing, and noted the attendees at last week's ACWA conference were alerted about exposure.

Vice President Hayes said it is important not to go back and forth and recommended staying with remote meetings. Director Longville and Director Harrison concurred.

Action Item(s): The Board of Directors adopted Resolution No. 1153 authorizing the San Bernardino Valley Municipal Water District to conduct remote meetings for the period May 10, 2022, through June 8, 2022 by the following roll-call vote:

Moved: Hayes	Second: Longville	APPROVED: 5-0
AYES:	Botello, Harrison, Hayes, Kielhold, Longville	
NOES:	None	
ABSTAIN:	None	
ABSENT:	None	

RESOLUTION NO. 1153

A RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT PROCLAIMING A LOCAL EMERGENCY, RATIFYING THE PROCLAMATION OF A STATE OF EMERGENCY BY GOVERNOR GAVIN NEWSOM ON MARCH 4, 2020, AND AUTHORIZING REMOTE TELECONFERENCE MEETINGS OF THE LEGISLATIVE BODIES OF SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT FOR THE PERIOD MAY 10, 2022, THROUGH JUNE 8, 2022, PURSUANT TO BROWN ACT PROVISIONS.

(See Resolution Book)

4.2 Consider the District's Watershed Connect Phase 1 Long Range Financial Plan and the Resolution Authorizing Submission of WIFIA Loan Application

Chief Executive Officer / General Manager Heather Dyer explained that this is the culmination of the work of a large team on the Water Infrastructure Finance and Innovation Act (WIFIA) loan application. She pointed out the draft resolution which includes the installment purchase agreement and authorization of a $100,000 application fee to the Environmental Protection Agency (EPA), which will be split 50/50 with loan partner Yucaipa Valley Water District (YVWD).

Ms. Dyer provided background information. She explained that all local water projects are built with general fund money, and most property tax revenue is restricted for funding the State Water Project (SWP) investment. In order to be resilient, the District needs to build a significant amount of local water infrastructure but is confined to using general fund money for those projects. Staff has worked to maximize investments in order to stretch the general fund to build as many local water supply projects as possible. This application is the culmination of years of integrated planning with District partners, the completion of the Habitat Conservation Plan (HCP), and it is now at the place where funding needs to be determined, Ms. Dyer stated.

Ms. Dyer advised the District’s general fund cash reserve balance as of May 1, 2022, totaled $80.6 million. She listed several large projects on which the District spent about $81.2 million so far this fiscal year. She estimated a fiscal year ending balance of $49.3 million in cash reserves due to a significant payment of about $31.4 million on the Weaver Basins plus expected cash flow and operational expenses. Staff believes the estimated balance leaves the District in good shape, she said.

The projects listed were crucial to the strategy devised for the WIFIA loan program, Ms. Dyer continued. By leveraging the funds, three high-dollar projects were able to be included in the loan program: the Enhanced Recharge Project Phase 1B and Phase 1A Liner, and the Santa Ana River Sustainable Parks and Tributaries Water Re-use Project. Financing is advantageous as it gives the ability to build the cost of the projects into partners' rate structures over time, up to 40 years, which provides a lot of flexibility, she noted. In addition, there are two projects related to the SWP to try to get done this year, funding for which may use matching funds toward the WIFIA loan.

Ms. Dyer reminded the Board about the creation of the Upper Santa Ana River Watershed Infrastructure Financing Authority (USARWIFA), a joint powers authority (JPA) that would facilitate the flow of funds from the EPA to the project partners and loan recipients, and back from the agencies to the EPA over time. There are currently four members of the JPA: Valley District, YVWD, San Bernardino Valley Water Conservation District, and the San Bernardino Municipal Water Department. It is expected that Western Municipal Water District will join later this month, and Riverside Public Utilities is in the process, she added.

Ms. Dyer detailed the JPA organizational structure and reported that a positive meeting was held with the Standard and Poor's Credit Rating Agency. Everyone runs their own projects, and is responsible for paying back their own loan, she noted. Valley District is functioning as the fiscal agent and is splitting planning and administrative costs based on the proportional benefit received from the program.

Lora Carpenter, Vice President at Fieldman Rolapp Associates, explained how the installment purchase agreements will work and presented an overview of the WIFIA process. Approximately $61.8 million (49 percent) of projects will be funded from EPA loan proceeds, she noted.

Ms. Carpenter explained in detail the key benefits of the WIFIA program: the low, fixed interest rate and the flexible financial terms. The estimated Phase 1 projects total is $231.5 million for Valley District, she noted, and pointed to funding sources in addition to the WIFIA loan. She noted that staff is also working on outside funding sources such as grants. Deputy General Manager/Chief Financial Officer Cindy Saks shared forecasted financial data and highlighted estimated revenues and expenses for the next nine years. Net revenues range from $8.6 million to $13 million over the years. Current debt service is related to the baseline feeder and well rehab, and debt service coverage is very strong, as is the net cash, she advised. The model includes an assumption of a water rate increase keeping pace with inflation, and staff will be bringing a proposal to perform a cost-of-service

study early in the next fiscal year, she added. She also pointed out the expected land mitigation revenue. Ms. Saks further detailed the estimated cash reserve balance and assured that it is very strong.

Ms. Dyer addressed inflation and explained that reference to water rate considered an average of 2 to 2.5 percent. The water rate has not been raised in 20 years, she reminded, and costs have increased over time. She made the case for a cost-of-service study and discussion of water rate.

Ms. Dyer further detailed sources of matching funds. The JPA is envisioned to be a durable financing mechanism not just for Valley District but for the partners who need to build water projects, she stated. She advised that she is meeting with elected officials in pursuit of funding to offset local costs. She emphasized that a total of $436 million in local water and climate resilient projects would be built in the next three years.

Director Longville thanked directors and staff for their efforts. In response to Longville's request, Ms. Dyer explained that the Headwaters Resiliency Multipurpose Area referred to the purchase and development of a master plan for the Tres Lagos property. Director Longville also requested Ms. Saks review the forecast financial data with her.

Director Longville pointed to the installment agreement and asked about the rate stabilization fund. Ms. Carpenter emphasized that the document still needs to be reviewed by the EPA and is subject to negotiation. She explained that the objective is to identify a technique or a fund which Valley District can use legally for debt payment.

Director Harrison asked about interest rate. Ms. Carpenter acknowledged the volatility of the interest rate and the recent Fed fund rate increase. The WIFIA rate will be set on the loan closing date and will use the Treasury rates; it may be north of 3 percent, she stated.

Director Botello noted that this is what staff promised, acknowledged the effort, and expressed support for the Phase 1 projects. Putting water in the ground should be conversation number one, he said.

Director Botello advised that he toured the Santa Ana River Sustainable Parks and Tributaries Water Re-use Project and said it is well worth the effort and is a smart investment. He emphasized the importance of mitigation lands.

Director Harrison concurred and said the projects make sense and are defensible to the taxpayers, assuring that they and their grandchildren have water.

Director Harrison invited public comment. There was none.

Action Item(s): The Board voted to move this item forward for consideration to a regular Board of Directors 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

4.3 Consider a Proposed 2022 Water Supply Contingency Program to Meet the BVMWC In-Lieu Water Demand

Deputy General Manager / Chief Engineer Wen Huang noted this item came to the Board just a couple of months ago after reconciliation of the 2021 in-lieu program. Unfortunately, this is the second consecutive five percent SWP allocation year and there is not enough State Project Water to meet direct delivery or in-lieu demand, he cautioned.

Mr. Huang estimated availability of about 13,000 acre-feet (af) of supply and advised there were a lot of requests for delivery of SPW. The focus has been on direct delivery; there is no water slated for recharge, he noted. The water resources team reached out to retail agencies and asked them to revise their request to only what was absolutely needed. Bear Valley Mutual Water Company (BVMWC) has been allocated 2,567 af.

Mr. Huang explained the in-lieu program and reminded that through the partnership with BVMWC, East Valley Water District, and the City of Redlands, the District last year was able to pump 5,200 af of local groundwater to meet obligations. This year, only 500 af will be available, he advised.

Mr. Huang pointed out that the District participated in the rehabilitation of wells for BVMWC and those wells are now part of the in-lieu portfolio to help meet obligations.

The BVMWC can request up to 8,616 af, of which 82 percent is anticipated to be met by pumped groundwater due to the limited SPW at a cost of $1,040,000, Mr. Huang explained. In addition, BVMWC requests the District partner with them to share 50 percent of the cost of repairing and rehabbing the Nelson Well, estimated to be up to $210,000. He noted the request of BVMWC to credit their account to be used for future SWP purposes.

The total estimated cost for Board consideration is $1.25 million, Mr. Huang concluded. The source of revenue is payments collected by Valley District from Big Bear Municipal Water

District based on percentage of their assessed value, estimated this year to be about $1.7 million.

In response to Director Longville, Mr. Huang provided detail on the Nelson Well. It is owned by BVMWC and is located in the City of Redlands. He reminded the Board of a similar rehab transaction performed last year and confirmed that this well is part of a combination used to meet the in-lieu obligation.

Action Item(s): The Board voted to move this item forward for consideration to a regular Board of Directors 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	

4.4 Consider First Amendment of Easement for the Foothill Pipeline at 7415 Via Deldene in the City of Highland

Mr. Huang provided history on Valley District's Foothill Pipeline easement. As the area started to develop, city streets mostly aligned with the pipeline but there are areas through private property, he explained. The owners of the vacant land at 7415 Via Deldene recently approached the District to develop the property with a main house and accessory dwelling unit, Huang explained. He presented the plot plan and noted none of the buildings are encroaching into the easement, but there are three areas where the building overhang or patio covers encroach. Staff discussed with the property owner the need for access and the owner agreed that restoration of any building improvements within the easement would be the cost burden of the property owner.

Any costs incurred in the future such as access for an excavator should be minimal, Mr. Huang noted. The easement will have the building plans incorporated and recorded, so any future modifications will need to come to the District for review and approval, Huang advised.

Director Harrison opined it would be nice to accommodate the property owners if possible. Director Longville addressed the property owner, Amelia Erika Velarde and asked for clarification on the overhangs encroaching on the easement. Ms. Velarde assured there are no structures on the easement.

Mr. Huang added that the first amendment of the easement was drafted by house counsel, Varner & Brandt.

In response to President Kielhold, Mr. Huang reviewed the locations of the dwelling units on the plan and noted the house is mislabeled as “new garage.”

Ms. Velarde noted the necessity for creativity with the plan and thanked the Board for their consideration.

Action Item(s): The Board voted to move this item forward for consideration to a regular Board of Directors 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.

Ms. Dyer confirmed for Vice President Hayes that legal counsel will be present at Thursday’s meeting.

6. Adjournment.

Chair Harrison adjourned the meeting at 3:25 p.m.

Staff Recommendation

Receive and file.

DATE: June 16, 2022

TO: Board of Directors' Workshop - Engineering

FROM: Joanna Gibson, Executive Director, Upper SAR HCP Program

SUBJECT: Update on the Upper Santa Ana River Habitat Conservation Plan

Staff Recommendation

Receive and file.

Summary

Staff is providing a status update on the Upper Santa Ana River Habitat Conservation Plan, associated permits, and other related commitments.

Background

Due to numerous endangered and threatened species issues associated with water supply projects in the upper Santa Ana River watershed a habitat conservation plan (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 eleven funding partners, including Valley District, and is close to completion.

The Permittees to the HCP include:

San Bernardino Valley Municipal Water District,
City of Rialto,
East Valley Water District,
West Valley Water District,
Inland Empire Utilities Agency,
Riverside Public Utilities,
Western Municipal Water District,
San Bernardino Valley Water Conservation District,
City of San Bernardino Municipal Water District,
Orange County Water District, and
Metropolitan Water District of Southern California.

The Permittees will receive an Incidental Take Permit (ITP) issued from the U.S. Fish and Wildlife Service (USFWS), making them co-permittees. The 12th Permittee is Southern California Edison (SCE). SCE will receive a separate ITP that will cover impacts to listed species that are translocated into waters managed by SCE (Santa Ana sucker). In total, the ITP will allow for the capture and recharge of approximately 80,000 afy of local water supply through new stormflow diversions, dry weather (runoff) diversions, and recharge of treated wastewater (>100 projects).

The HCP is a valuable tool because it provides a mechanism for Partners, Wildlife Agencies, and other stakeholders to collaboratively address impacts to federally listed species on a regional scale and over the long term. Together, Permittees will be able to anticipate, discuss, and/or resolve controversies and conflicts during the HCP planning process that may result from project implementation or compensatory mitigation.

To fully capitalize on the value of HCP planning efforts and our extensive mitigation needs, the scope of the HCP expanded into an environmental compliance program (Program). Components of this Program include:

- *Upper Santa Ana River Habitat Conservation Plan* – The HCP provides federal Endangered Species Act (ESA) Incidental Take Coverage that will allow Permittees to construct, operate, and maintain water infrastructure projects and other facilities for 50 years, which can be extended. Twenty-two species are covered (Covered Species) by the HCP including the Santa Ana sucker, San Bernardino kangaroo rat, Santa Ana River woolly-star, and Least Bell's vireo, to name a few.

- *California Environmental Quality Act* (CEQA) / *National Environmental Policy Act* (NEPA) – CEQA and NEPA are typically developed simultaneously, however because of changes to the NEPA process in 2020 (imposition of page limits [150 pages], and timelines [one year]), the documents were separated. Though separate, it is important that they are consistent.

- *Multi-Project 2081 Permit(s)* – A Multi-project Incidental Take Permit application was submitted to the California Department of Fish and Wildlife (CDFW) for species listed as threatened and endangered under the California Endangered Species Act (CESA). Eight of the HCP Covered Species are State-listed under the California Endangered Species Act (7 endangered, 1 threatened).

- *Programmatic Aquatic Resources Permits* – Programmatic permits are being pursued to satisfy regulatory requirements for impacts to jurisdictional waters of the U.S. (U.S. Army Corps of Engineers (404, 408)) and/or waters of the State (Santa Ana Regional Water Quality Control Board (401), and California Department of Fish and Wildlife (Fish and Game Code Section 1602 Streambed Alteration Agreement)). Programmatic permits will outline the process for project-specific notification and streamlined review that will be used by Partners and regulators as Permittees are ready to build projects. The notification process will involve an essentially "templated" project-specific submission to each regulatory agency, followed by an expedited agency review and concurrence.

- *Compensatory Mitigation Reserve Program* - The primary objective of the HCP conservation activities is to increase the amount, distribution, and quality of habitat for Covered Species within the HCP Planning Area in a manner that replaces the environmental values lost or degraded with the implementation of Covered Activities. Recent land acquisitions have significantly contributed to the HCP Program's ability to fulfill these requirements.

- *Tributaries Restoration Projects* – These projects are a component of the HCP Program. Four tributaries along the Santa Ana River in Riverside are proposed for restoration through the Santa Ana River Conservation and Conjunctive Use Project (SARCCUP). The SAWPA member agencies received $4M in grant money and will provide $6M in local matching funds towards restoration of four tributaries to the SAR.

- *Up-Front Mitigation* - In addition to the SARCCUP projects, early habitat acquisition and uplift (habitat improvement) strategies are being implemented at some of our alluvial fan mitigation sites to ensure that the HCP Program can "stay-ahead" of impacts. If mitigation were to follow impacts, there would be a temporal loss of available habitat for Covered Species. This temporal loss would require additional mitigation and expense to the Permittees.

- *Santa Ana sucker* – Multiple mitigation and conservation strategies are being pursued, developed, and implemented to satisfy commitments identified in existing permits/agreements (e.g., Sterling Natural Resource Center).

- *Upper Santa Ana River Sustainable Resources Alliance* – The HCP Program will be implemented by the Upper Santa Ana River Sustainable Resources Alliance, a joint powers authority.

- Other – Grants:
    1. Wildlife Conservation Board, Riparian Restoration Grant: Sunnyslope Creek Riparian Restoration Planning. Awarded May 26, 2022, $392,500.
    2. Traditional Section 6: Development of alternative sampling methodologies for year-round Santa Ana sucker monitoring. $117,937.
    3. Recovery Land Acquisition: Acquisition of approximately 30 acres adjacent to Lytle Creek. Total estimated cost: $4,517,800 (Section 6 funding: $3,343,172, Wildlife Conservation Board funding: $1,174,628).

At this workshop, staff will present an overview and update on progress towards completion of the HCP and other associated permitting efforts.

District Strategic Plan Application

Development and completion of the HCP is a goal of Valley District's Strategic Plan.

Fiscal Impacts

Informational update.

Attachments

None.

SAN BERNARDINO Valley MUNICIPAL WATER DISTRICT

DATE: June 16, 2022

TO: Board of Directors' Workshop - Engineering

FROM: Wen Huang, Chief Engineer/Deputy General Manager
Brent Adair, Project Manager II

SUBJECT: Consider the 2022 Cathodic Testing Survey Program of District Pipelines

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Recommendation:

Staff recommends that the 2022 Cathodic Testing Survey Program (CTSP) of the District Pipelines with an estimated cost of $63,272 be forwarded to the next Board of Directors' Meeting for consideration.

Summary:

This Memorandum provides background information regarding the CTSP of the buried pipelines owned by the District and the associated fees for consideration by the Board of Directors.

Background:

Staff is planning to conduct the CTSP for the District's buried pipeline facilities as part of our annual inspections in 2022. The cathodic testing is a non-destructive and non-intrusive way of inspecting buried pipelines for potential corrosion by comparing the original impedance values of an electric current passed through the pipeline when it was first installed to the current impedance values.

Valley District owns and operates approximately 40 miles of buried pipelines that are scheduled to be inspected and evaluated each year for corrosion. V&A Consulting has been providing this service for Valley District over the last 12 years and is familiar with the testing protocol. The pipelines that will be tested and inspected for corrosion this year include the Foothill Pipeline, Santa Ana River Crossing (SARC) Pipeline, Greenspot Pipeline, Yucaipa Pipeline, Baseline

Feeder, Baseline Feeder Extension South Pipeline and the Central Feeder Pipeline. V&A Consulting has provided the District a quote for the testing services for an estimated cost of $63,272.

The cost for this inspection and survey will be shared among the agencies (San Gorgonio Pass Water Agency, West Valley Water District, the City of Rialto, and Riverside Highland Water Company) that are currently utilizing or have capacity rights in the facilities and therefore will reduce Valley District's overall costs. Staff estimates that approximately $12,864 of the $63,272 will be reimbursed by the other agencies. Therefore, Valley District's share for this work is estimated to be $50,408.

District Strategic Plan Application

The Cathodic Testing Survey Program demonstrates the District's mission, vision, values and strategies of working collaboratively to provide reliable and sustainable water supply, being innovative and driven, building trust by being a collaborative and resourceful partner, and maximizing the value of the region's water assets just to name a few key applications.

Fiscal Impact:

The total cost of $63,272 for the CTSP is included in the pending Fiscal Year 2022-23 General Fund Budget under Line item 6470, Maintenance and Repair. The fiscal impact of this activity is the District's share of the total, $50,408.

SAN BERNARDINO Valley MUNICIPAL WATER DISTRICT

DATE: June 16, 2022

TO: Board of Directors' Workshop - Engineering

FROM: Wen Huang, Chief Engineer/Deputy General Manager
Joanna Gibson, Executive Director Upper SAR HCP

SUBJECT: Consider Scope of Services with Scheevel Engineering for Professional Engineering Services and Engineering Staff Augmentation

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Staff Recommendation:

Consider forwarding a Professional Services Agreement with Scheevel Engineering for Engineering Consulting and Project Management Services up to an estimated fee of $250,000 to the next Board of Directors' meeting for consideration.

Summary:

Valley District has historically maintained a relatively small staff as compared to its geographic size and responsibilities. The District currently has a staff of 31 filled positions on our organizational chart. As Valley District's responsibilities have increased over the last decade, in addition to newly added positions that the Board authorized to respond to the workload, the District has also relied on hiring consultants from time to time as an extension of staff. Our Engineering staff is led by our Chief Engineer and includes two Project Managers and one Associate Engineer; additionally, in the last two fiscal years, the Board of Directors approved a staff augmentation contract with Scheevel Engineering to provide on-call consulting services for the Engineering and Environmental Teams, up to 1,000 hours each year. In order to continue to support the substantial engineering workload planned for this upcoming fiscal year, Staff recommends that the Board of Directors consider continuing to engage Scheevel Engineering to provide engineering consulting services and to work as an extension of staff for FY 22-23.

Background:

At the Board of Director's Workshop on June 14, 2022, the Board reviewed the proposed FY 22-23 General Fund Budget, which, among other things, included a budgetary expenditure of over $60 million for planned field improvements. After several years of planning and development and District's successful endeavor in securing the WIFIA Loan Program, many projects are scheduled to transition into construction phases in FY22-23, including the Enhanced Recharge Phase I-A Liner and Phase I-B Stormwater Capture Projects, Santa Ana River Tributary Restoration Projects, and Central Feeder and East Branch Extension Intertie Project, just to name a few. As the District has done historically, Engineering Staff will be handling the construction management in-house for most of the upcoming Projects, which are considered mid- and small-size projects (up to $10 million). Due to our small engineering staff and the number of projects proposed for construction, in-house staff resources will have limited capacity to focus on other projects that are not in the construction phase.

In order to address the anticipated shortfalls from limited staffing levels and keep projects moving forward, as the Board of Directors has done in the past, Staff recommends we consider engaging an engineering consultant to provide staff augmentation to assist in certain tasks/projects, such as engineering and design of the Cactus Basins Connector Project, feasibility study and planning of the Santa Ana River Tributaries Restoration Projects, preparation of specifications and inspection services for the Central Feeder and EBX Intertie Project, and review and coordination with the Conservation District for the Active Recharge Transfer Projects and other important projects. Staff has conducted a thorough review of potential consultant candidates with broader expertise and qualifications and recommends Scheevel Engineering for consideration by the Board.

Nate Scheevel, the principal of Scheevel Engineering, has been working with Valley District on many projects, including the preliminary design and feasibility studies for the Active Recharge Transfer Projects, evaluation of the Riverside North Aquifer Storage and Recovery Project (a.k.a., Rubber Dam Project), Santa Ana Sucker Habitat Pilot Study, and development of an operation and maintenance manual for the Enhanced Recharge Project. Given the types of upcoming projects for which we need assistance, Mr. Scheevel is a uniquely qualified and trusted entity to perform duties as an extension of staff and our engineering team. Staff recommends that the Board of Directors consider entering into a professional services agreement with Scheevel

Engineering for up to 1,000 hours, a not-to-exceed fee of $250,000. Mr. Scheevel's time will be tracked at the project level, consequently, a portion of his invoicing will be reimbursed by other project partners.

Fiscal Impact:

The estimated cost for the scope of services is up to $250,000, which will be included in Line Item 6360 Consultants of the proposed FY 22-23 General Fund Budget for consideration by the Board. A portion of this amount will be reimbursed by project partners, based on the specific projects worked on during the year.

Attachment:

Scope for Professional Engineering Consulting & Project Management Services by Scheevel Engineering dated June 7, 2022

June 7, 2022

San Bernardino Valley Municipal Water District
Attn: Wen Huang, P.E., Manager of Engineering
380 East Vanderbilt Way
San Bernardino, CA 92408

RE: Professional Engineering Consulting, Staff Augmentation & Project Management Services Proposal

Dear Mr. Huang:

Scheevel Engineering is pleased to present this proposal to you for professional engineering consulting and project management services to augment San Bernardino Valley Municipal Water District's (Valley District) staff. Scheevel Engineering provides a wide variety of consulting and field services unique to water resource projects. These services include project management, field inspection, feasibility analysis, operation and maintenance optimization, preliminary design, 3D CFD modeling, final design, construction management, water quality analysis, environmental restoration and performance enhancement consulting for water resources and groundwater recharge system projects.

Scheevel Engineering has prepared this proposal to provide professional engineering consulting services and assist Valley District staff with engineering, consulting, project management, field services and other technical services for current and future projects as directed by Valley District. The specialized services offered by Scheevel Engineering will include the tasks outlined below in Table 1: Scope of Work.

Scheevel Engineering will provide staff augmentation services on a wide variety of projects. The projects may include, but not be limited to Waterman Basin, Devil & Sweetwater Basins, Weaver Basin, Oak Creek Basins, Active Recharge, Enhanced Recharge, Redlands Pump Station, Central Feeder – EBX Intertie, Cactus Basin Connector, Recycled & Potable Water De-Chlorination, SAR Tributaries Restoration and Hidden Valley Wetlands. The schedule for each project is independent and expected to vary, and Scheevel will make every reasonable effort to accommodate the project schedules as they change.

Table 1: Scope of Work

Scope Item Description
Project Management, Technical & Consulting Services – Provide engineering, technical support and project management services for field testing, planning, designing, bidding, construction and monitoring of multiple Valley District projects. Scheevel Engineering has identified Mr. Nate Scheevel for this engagement. Mr. Scheevel is a registered PE in CA with extensive field testing, planning, design, bidding, construction and monitoring experience. His experience can be found in the attached resume. Scheevel will provide its own vehicle, cell phone, laptop, general office supplies, computer software, flow measurement, pump monitoring and water quality monitoring equipment.

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

Upon your review of the above scope of work please let me know if you would like any additions or subtractions. Scheevel Engineering provides all services at an hourly rate of $250.00. Scheevel Engineering proposes to provide up to 1,000 hours of consulting services on a time and materials bases for a not to exceed fee of $250,000. Scheevel's 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 **$250,000.00 (two hundred fifty thousand dollars)**. A breakdown of the fees associated with the proposed scope of work is illustrated in Table 2: Schedule of Fees.

Table 2: Schedule of Fees

Scope Item Description	Hours	Rate	Fee
Scope Items			
1) Project Management, Staff Augmentation & Consulting Services	1,000	$250/hr	$ 250,000.00
Total	**1,000**		**$ 250,000.00**

This proposal is valid for 30 days. Scheevel Engineering is prepared to start work on projects 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**

NATE SCHEEVEL

P.O. Box 28745, Anaheim, CA 92809
(714) 470-9045, nathanscheevel@yahoo.com

Professional Civil Engineer: CA# C80056, CO# 46839, MN# 50556
NCEES Model Law Engineer: Record Number 50504

EDUCATION:

2006 to 2008 — *University of California at Berkeley*, Berkeley, CA
Bachelor of Science Degree - Civil Engineering

1994 to 1996 — *Dakota County Technical College*, Rosemount, MN
Diploma - Heavy Construction Equipment Mechanics

EXPERIENCE:

July 2012 to Present — *Scheevel Engineering,* Anaheim, CA
President/Principal

Provide professional civil engineering consulting services for private and public sector clients in California and Minnesota. Provide design services for water resource projects and heavy civil commercial projects. Provide specialty field testing/investigation, feasibility analysis, risk management, preliminary design, final design, project management, construction management and extension of staff services for recycled water, imported water and storm water resource projects. Provide design review, quality assurance, quality control for various groundwater recharge, recycled water, imported water and storm water capture and water resource projects. Provide groundwater recharge operation and maintenance modeling, optimization and consulting. Provide structural inspection, analysis and design. Provide surface water and sediment transport field data collection, analysis and computer modeling. Provide 1-D and 3-D CFD hydraulic modeling. Provide environmental restoration/enhancement analysis, design services and construction phase services.

January 2009 to April 2014 — *Orange County Water District*, Fountain Valley, CA
Senior Engineer/Engineer

Project manager for multiple water resource and groundwater recharge enhancement projects, including capital improvement and rehabilitation/replacement projects. Managed all phases of projects including pre-design, design, bid, construction and operation/maintenance support. Simultaneously managed multiple consultants and contractors. Drafted requests for proposals, public works contract provisions and technical specifications. Developed O&M procedures for recharge basins and facilities. Drafted board agenda item submittals and presentations. Reviewed design submittals and technical specifications. Developed and assured adherence to project budgets and schedules. Coordinated with local, state and federal agencies for permits and regulatory compliance. Performed project

outreach to area stakeholders. Managed construction projects including submittal review, RFI responses, change order negotiations and field inspections. Collaborated with engineers, scientists, planners and managers to enhance groundwater recharge operations. Performed design calculations and data analysis for pipelines, pump stations, structures and water conveyance and groundwater recharge facilities. Participated in OCWD's Recharge Enhancement Working Group (REWG).

May 2008 to August 2008

Shimmick Construction Company Inc., Oakland, CA

Project Engineer

Assisted with the construction of the West Dublin-Pleasanton BART Station Project. Duties and responsibilities included: verified field measurements; updated as-builts; responded to requests for information; prepared and reviewed submittals; scheduled and coordinated work with subcontractors; ordered and supervised concrete pours, pile driving and excavations; supervised night construction on Interstate 580; developed contingency plans; and performed small design projects.

April 2004 to June 2006

Orange County Water District, Anaheim, CA

Basin Cleaning Vehicle (BCV) Operations Supervisor/Operator

Responsible for all operational aspects of BCV program including, budgets, hiring, performance appraisals, data analysis and design modifications. Supervised 4 employees and oversaw all operations. Collaborated with engineers, geologists, scientists and other water industry professionals to enhance the performance of the BCVs. Responsible for research and development of new technologies to enhance the performance of groundwater recharge basins. Assisted with operation and maintenance of groundwater recharge system. Assumed responsibilities of the Department Safety Officer. Developed operational procedures, designed and implemented modifications to BCV systems. Managed outside consultants on BCV design modification projects. Purchased supplies and equipment. Operated, maintained, repaired and modified BCVs. Maintained and adjusted Delta V process management computer program.

April 2002 to April 2004

Orange County Water District, Anaheim, CA

Heavy Construction Equipment Operator

Operated and hauled a variety of heavy construction equipment. Proficient operator of bulldozers, excavators, scrapers, backhoe loaders, wheel loaders, motor graders, compactors, dump trucks, water trucks etc. Assisted with repairs and updates on Basin Cleaning Vehicle (BCV3). Applied pesticides utilizing customized spray truck.

June 1996 to March 2002

Scheevel & Sons, Inc., Preston, MN

Owner/Operator/Mechanic

Co-owner and operator of a small, diversified excavating company. Experienced in residential, commercial, demolition, water/sewer and

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agricultural projects. Developed excavation and site design plans to accommodate customers' needs. Prepared bids and estimates. Interpreted construction drawings, specifications and checked grades. Supervised a 7-member crew at job sites as well as in the shop. Coordinated projects with engineers, subcontractors, utility companies and state agencies, such as the Minnesota Pollution Control Agency, MNDOT and the DNR. Repaired, maintained and operated bulldozers, excavators, scrapers, backhoe loaders and dump trucks on a daily basis.

October 1995 to May 1996 — *Trenchers Plus, Inc.,* Minneapolis, MN

Mechanic

Diagnosed and repaired trenching and directional boring equipment. Performed field service work. Developed repair estimates for customers.

March 1992 to September 1995 — *Scheevel & Sons, Inc*., Preston, MN

Owner/Operator/Mechanic

Repaired, maintained and operated various heavy construction equipment. Developed preventative maintenance plan for fleet of heavy construction equipment.

OTHER:

Proficient in: Microsoft Word, Excel, PowerPoint, Outlook, MS Project, Sketch-Up, HEC-RAS, EPANET, RISA, AutoCAD; Possess California Class A Driver's License (Combination, Airbrakes, HAZMAT, Tank and Doubles/Triples); Completed Delta V Factory Training; OSHA Certified as Competent Person in Trenching Safety and Confined Space; Experienced welder; Extensive experience in heavy equipment transporting; Possess MN Boiler Operator Special Engineer License; Developed and taught course in steel fabrication at UC Berkeley.

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Scheevel Engineering / Nate Scheevel
Project Experience:

Below is a partial list of projects that Mr. Scheevel has been involved with. Scheevel Engineering would be happy to provide more information on any of the projects listed below:

1) Prado SMDP Sediment Transport and WQ Monitoring & Analysis (OCWD) – Provide field data collection and analysis in Prado Basin and the Santa Ana River to determine the effects of sediment removal from Prado Basin. The focus of the monitoring and analysis is on geomorphology, sediment transport and water quality to restore native fish habitat in the Santa Ana River.

2) Santa Ana River Tributaries Recycled Water Dechlorinating Project (SBVMWD) – Provide field data collection and analysis for passively dechlorinating recycled water to restore flow to tributaries of the Santa Ana River and enhance native fish habitat.

3) Riverside North Aquifer Storage and Recovery Project (SBVMWD/WMWD) – Consultant to Valley District and Western to provide design review, value engineering, cost estimating, infiltration rate determinations and operations and maintenance modeling and recommendations for a new Santa Ana River rubber dam diversion and recharge basin system.

4) Santa Ana River Sediment Monitoring Program (OCWD) – Consultant to OCWD to perform a detailed sediment transport study of the Santa Ana River from San Bernardino/Riverside County to Orange County. Scope of work includes the collection of field data (suspended sediment concentration, bedload, bed material, stream flow measurements and cross section surveys) and analysis to compare field data to sediment transport models for the Santa Ana River. Includes a full scale sediment removal field project with field data collection and design performed by Scheevel.

5) Prado Basin Sediment Management Demonstration Project (OCWD) – Project Manager for the planning and design of a demonstration project to remove up to 500,000 cy yd of sediment from Prado Flood Control Basin and re-entrain it into the Lower Santa Ana River to replenish sediments in the River and enhance groundwater recharge in Orange County.

6) Prado Basin Ecosystem Restoration Feasibility Study (OCWD) – Consultant to OCWD to provide engineering and technical analysis services to support a U.S. Army Corp Ecosystem Restoration Feasibility Study to increase water conservation, ecosystem restoration and sediment management for Prado Basin and the Lower Santa Ana River. Includes engineering analysis, environmental

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restoration design, cost estimating, sediment transport analysis, scheduling and implementation planning.

7) Santa Ana Sucker Protection and Beneficial Use Enhancement Project (SAWPA) – Consultant to SAWPA for the field modeling, analysis, design, bid document preparation, construction and monitoring phase services for Sucker fish habitat features in the Santa Ana River.

8) Santa Ana River Stream Bifurcation Pilot Project (SBVMWD) – Consultant to Valley District for the preliminary design, design, construction and monitoring of a native fish habitat enhancement project in the Santa Ana River.

9) Five Coves Basin Freshwater Marsh Project (OCWD) – Designed and managed/directed the construction of a new freshwater marsh habitat area in a groundwater recharge basin.

10) Conrock Riparian Stream Project (OCWD) - Designed and managed/directed the construction of a new riparian stream adjacent to/within a groundwater recharge basin.

11) Weir Pond Rehabilitation Project (OCWD) – Project Manager for the pre-design and final design to reconfigure 3 de-silting basins used to remove fine-grained sediments from storm water. Design included CFD model analysis and review.

12) Ammonia Tank Basin Seismic Evaluation (Mesa Water) – Provide field inspections and a seismic risk analysis for a 2,000 gallon ammonia tank. Present analysis and finding in a report to satisfy California Accidental Release Prevention (CalARP) requirements.

13) Admin Hallway Structural Design (OCWD) – Performed structural inspection, analysis and final design of new hallway walls/doors for administration building improvements.

14) OCWD/City of Santa Ana Reservoir Wall (OCWD) – Consultant to OCWD to perform final design services and develop bid/construction documents for a new CMU wall around an existing reservoir site in the City of Santa Ana.

15) Dry Chem 2nd Floor Addition (TVMWD) – Consultant to Three Valleys Municipal Water District for the structural design of a 2nd story floor addition to an existing dry chemical building.

16) Carport Canopies Project (TVMWD) – Consultant to Three Valleys Municipal Water District for the structural design to replace two existing carport canopies.

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17) Confined Space Davit Arm Design (SCWD) – Consultant to SCWD to perform final design services to develop a standard design for a confined space davit arm anchorage.

18) Roof Beam Project Laguna Beach County Water District (LBCWD) – Consultant to LBCWD for the design of glulam beam roof design.

19) Timber Roof Beam Designs (Various) – Timber beam design for various small projects. Provided specialty structural analysis and design of timber beams and columns.

20) Upper to Lower Five Coves Transfer Structure (OCWD) – Designed and constructed a new surface transfer/flow measurement structure to provide data for infiltration rate testing.

21) LaJolla Rubber Dam Foundation Repairs (OCWD) – Project Manager for the investigation, design and repair implementation to remediate seepage underneath an inflatable rubber dam foundation located in a flood control channel. Performed the investigation, provided seepage analysis, designed repairs and supervised the repairs of the Project.

22) Grain Elevator Pit Structural Design (Meldahl Construction) - Consultant to Meldahl Construction, Inc. to design a reinforced concrete pit for a grain elevator.

23) Preston Dairy & Farm Agrichemical Facility (D&F) – Consultant to D&F to construct a new agrichemical facility campus. Project includes 5 new buildings with 3 new process systems. Responsible for preliminary design report, special structural design, site design and layout, utilities design, final design, contractor selection, scheduling, budgeting and accounting, construction management, inspection and regulatory agency coordination and permitting.

24) Harmony Agri Services Facility Enhancements (Harmony Agri) – Sub-Consultant to provide all structural analysis, design, construction document preparation and specialty field inspection for reinforced concrete foundations for buildings and a 65’ tall tank tower.

25) Hyperion Secondary Effluent Pump Station (West Basin) – Consultant to West Basin Municipal Water District to provide project management services for the construction of their secondary effluent pump station.

26) Recycled Water Project Management Assistance (West Basin) – Consultant to West Basin Municipal Water District to provide project management services for several recycled water projects including pump stations, flow EQ basin and Title 22 filter rehabilitation projects.

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27) Phase III Clearwell Rehabilitation Project (West Basin) – Consultant to West Basin Municipal Water District to provide project management services for pump, piping modifications and the rehabilitation of a microfiltration clearwell.

28) Chino Basin Program PDR (IEUA) – Subconsultant to IEUA for a preliminary design report for the development of up to three advanced water treatment facilities (AWTFs).

29) Burris Pump Station Project (OCWD) – Project Manager for the pre-design, permitting and final design of a new, 200 cfs storm water pump station. Managed construction of Phase I, which was awarded the ASCE Orange County Branch - Award for 2014 Flood Management Project of The Year.

30) Santiago Basin Floating Pump Station Project (OCWD) – Project Manager for a 50 cfs floating pump station and floating pipeline to transfer storm water between recharge basins.

31) Waterman Basin Emergency Maintenance (SBVMWD) – Consultant to Valley District for the emergency maintenance of a multipurpose (flood control and groundwater recharge) basin system. Services included developing and directing basin cleaning activities as well, assisted with permitting and performing a basin subsurface soils investigation.

32) Active Recharge Project (SBVMWD) – Consultant to Valley District for the preliminary design, diversion design, O&M modeling, cost estimating and benefit analysis of 9 new groundwater recharge basins and 4 existing flood control basins.

33) Santa Ana River Enhanced Recharge Phase 1B (SBVMWD) – Sub-consultant to Valley District for the final design of a series of recharge basins (> 200 acres) below Seven Oaks Dam. Provided field infiltration rate testing, O&M modeling and final design assistance for specialty groundwater recharge features for the project. Develop a comprehensive O&M Manual for the Enhanced Recharge System.

34) Chino Basin Program (IEUA) – Sub-consultant to IEUA for the development of a preliminary design study for an advanced water treatment facilities (AWTF) program for Chino Basin. Services include groundwater recharge systems consulting with a focus in issues specific to using AWTF water in recharge basins and injection wells.

35) Kansas Avenue Basin (RCFCWCD) – Consultant to Riverside County Flood Control & Water Conservation District for field infiltration rate pilot testing and preliminary design of groundwater recharge improvements for an existing flood control basin. Includes development of a preliminary design report. Performed pre-design, exploratory excavation and final design service for the pilot test project, as well as assistance with construction management, data collection and

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final performance reporting including final design recommendations. Design included 3 infiltration rate test cells and a temporary pipeline system.

36) RMPU Improvements Preliminary Design Project (IEUA) – Sub-Consultant to IEUA for the preliminary design of improvements for 9 groundwater recharge basins. Tasks include field investigations/testing, infiltration rate determinations, operation and maintenance analysis/recommendations, design review and operations modeling.

37) Wineville Basin Proof of Concept Project (IEUA) – Consultant to IEUA for pre-design, final design and implementation of an infiltration rate testing project. Scheevel Engineering performed pre-design, exploratory excavation and final design services, as well as assistance with construction management, data collection and final performance reporting including design recommendations. Design included 6 infiltration rate test cells and a temporary pipeline system.

38) San Sevaine Basin Improvements Project (IEUA) – Consultant to IEUA responsible for the subsurface investigation and the project development report (PDR), including pre-design concepts, calculations and analysis. The PDR presents analysis of several alternatives (including pump station and pipelines) to improve/increase groundwater recharge at San Sevaine Basins.

39) Lower Day Basin Improvements Project (IEUA) - Consultant to IEUA for preparation of a Preliminary Design Report (PDR), permitting assistance and final design assistance to develop design concepts and provide a basis of design for the Lower Day Basin Improvements Project. Perform 3D CFD modeling of Day Creek Channel diversion alternatives. The purpose of the Project is to increase the amount of storm water and supplemental water captured and recharged into the Chino Groundwater Basin.

40) RMPU Operations Plan (IEUA) – Consultant to IEUA for developing operations and maintenance plan for the RMPU Projects. The O&M Plan covers 8 groundwater recharge basins maintenance, pipelines, pump stations, rubber dams, spillway gates and other groundwater recharge related facilities and features.

41) Victoria Recharge Basin (WMWD) – Sub-Consultant to Western for infiltration rate field pilot testing, preliminary design, final design, construction management assistance and O&M manual development of a new groundwater recharge basin. Scheevel Engineering performed pre-design, exploratory excavation and final design service for the pilot test project, as well as assistance with construction management, data collection and final performance reporting including final

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design recommendations. Provided project management and construction management services during construction.

42) San Antonio & Thompson Creek Spreading Grounds O&M Manual (PVPA) – Sub-Consultant to PVPA for the development of a spreading grounds operations and maintenance manual, includes spreading grounds improvements recommendations.

43) Alamitos Barrier Improvement Project (OCWD) – Project Manager for the permitting and final design of the civil infrastructure for 17 new recycled/imported water injection wells to prevent seawater intrusion into OCWD's groundwater basin.

44) La Sierra Pipeline & Sterling Reservoir & Pump Station Project (WMWD) – Consultant to Western to provide specialty construction management services for a new 30" pipeline and 30 cfs pump station.

45) Lower Five Coves Basin Infiltration Improvement Project (OCWD) – Designed and constructed a series of excavations to perforate a near surface confining layer in Lower Five Coves Basin to increase storm water recharge in the basin.

46) Peer review for alternative groundwater recharge methods:
    a. Aquifer Transfer Well – Uses existing well technologies to transfer perched groundwater from zones high in an aquifer to deeper zones in the aquifer;
    b. River-Bed Filtration Project – Uses shallow subsurface collection galleries to collect water filtered by the riverbed and then deliver the cleaner water to recharge basins;

47) Basin Cleaning Vehicle (BCV) Operations (OCWD) – Operations supervisor for a program to remove fine-grained sediments from groundwater recharge basins, while leaving the basins full of water and in service. Two primary technologies were used to achieve this objective: a fully submersible ROV system, and a floating barge system. Responsible for all operation and maintenance of the systems. A wide variety of operational data was gathered and analyzed for 4 basins to determine the effect of the BCVs on percolation rates. Full basin percolation rate testing was performed over an 8-year period.

48) Basin Cleaning Vehicle (BCV) Engineering (OCWD) – Responsible for designing and implementing modifications to the BCVs and recharge basins to increase effectiveness and efficiency. Designed and constructed basin modifications for infiltration rate testing. Collected, reduced and analyzed data. Prepared reports and presentations as to basin and BCV performance.

49) Alternative Basin Cleaning Technology Development (OCWD) – Responsible for developing and testing alternative basin cleaning methods. Methods tested

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included: beach cleaning technologies, sweeping/broom technologies, rock picking technologies and windrowing technologies.

50) Field Investigation Experience – Mr. Scheevel has personally performed field investigations, proof of concept projects and pilot test projects to help determine infiltration rates at the following basins/sites.
    c. Kansas Avenue Basin (RCFCWCD) – Exploratory excavations and infiltration test cells
    d. Waterman Basins (SBVMWD & SBCFCWCD) – Exploratory excavations and infiltration rate determination
    e. Wineville Basin (IEUA) – Exploratory excavations and infiltration test cells
    f. San Sevaine Basin (IEUA) – Exploratory excavations
    g. CSI Basin (IEUA) – Exploratory excavations
    h. RP3 Basins (IEUA) – Exploratory excavations
    i. Burris Basin (OCWD) – Exploratory excavations and infiltration test cells
    j. Victoria Basin (WMWD) – Exploratory excavations and infiltration test cells
    k. Kansas Avenue Basin – Exploratory excavations and infiltration test cells
    l. Lower Five Coves Basin (OCWD) – Exploratory excavations and basin perforations
    m. Upper Five Coves Basin (OCWD) – Exploratory excavations
    n. Weir Pond #3 (OCWD) – Exploratory excavations
    o. Miller Basin (OCWD) – Exploratory excavations
    p. Anaheim Lake (OCWD) – Exploratory excavations
    q. EVWD Plant 143 (SBVMWD) – Exploratory excavation and infiltration test cell

51) Five Coves and Lincoln Basins Bypass Pipeline Project (OCWD) – Project Manager for the pre-design, permitting and final design of a 66-inch diameter bypass pipeline to increase recharge basin performance and percolation data collection improvements.

52) Lakeview Transfer Project (OCWD) – Project Manager for the pre-design, design and construction of carbon fiber (FRP) lining of a 7’ x 7’ reinforced concrete box culvert.

53) Kraemer Basin Valve Vault (OCWD) – Project Manager for the pre-design, design and construction of 15’ x 40’ valve vault around a complex system of 72-inch, 48-inch and 36-inch piping and multiple flow control valves.

54) GWRS Pipeline Assessment and Inspections (OCWD) – Project Manager for the regular inspection and condition assessment of 14 miles of 72-inch – 60-inch recycled water pipeline. Developed inspection and testing protocols and personally entered and inspected the pipeline.

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55) Imperial Rubber Dam Replacement Project (OCWD) – Project Manager for the design, selection and replacement of OCWD's 7' x 320' inflatable rubber dam across the Santa Ana River, near Imperial Highway.

56) Imperial Headgates R&R Project (OCWD) – Project Manager for pre-design, permitting and design for the selection and replacement of a new trash rack system and diversion gate replacement.

57) Storm Water Detention Pond Investigation and Repairs (POET) – Consultant to POET Biorefinery to perform basin inlet repairs and investigate/repair a sinkhole in the berm of a storm water detention basin.

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SAN BERNARDINO Valley MUNICIPAL WATER DISTRICT

DATE: June 16, 2022

TO: Board of Directors Workshop - Engineering

FROM: Heather Dyer, Chief Executive Officer/General Manager

SUBJECT: Discuss Tres Lagos Property Master Plan and Real Property Goals and Objectives

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Staff Recommendation

Staff recommends the Board of Directors provide feedback regarding the specific goals and objectives related to real property ownership of the Tres Lagos Property parcels.

Summary

The District purchased 1,658 acres of unentitled land from the Orange County Flood Control District through a public auction for $32.5 million. Escrow officially closed on the property in late February 2022. In April 2022, the Board discussed opportunities for the site, project ideas, and potential partnerships. This workshop is an opportunity for the Board to further the discussion about the specific goals and objectives of District in relation to ownership of these parcels. Feedback from the Board will be incorporated into the Master Plan development process.

Background

Earlier this year, the District acquired through public auction, 1,658 acres of undeveloped land located at the base of the San Bernardino mountains, bordering the National Forest and Mill Creek in the City of Highland. The District identified the land purchase as financially and operationally advantageous based on the location of the land respective to future water district

infrastructure needs and the large amount of endangered species habitat present on the site, a large portion of which is required by federal and state permits to build our local water supply projects.

On April 21, 2022, the Directors held a workshop to discuss opportunities for the site, including the District's future water infrastructure needs, mitigation land needed to satisfy permit requirements for the Upper Santa Ana River Habitat Conservation Plan, opportunities for conserved open space and habitat preservation, and educational components for the site. At that time, the Board received valuable feedback from those in attendance.

Fiscal Impact

The future fiscal impact of this item is currently undetermined. Once the direction of the Board is determined, an estimate of the fiscal impact will be developed.