



BOARD OF DIRECTORS WORKSHOP -

RESOURCES/ENGINEERING

TUESDAY, FEBRUARY 14, 2023 - 2:00 P.M.

PUBLIC PARTICIPATION

Public participation is welcome and encouraged. You may participate in the February 14, 2023, meeting of the San Bernardino Valley Municipal Water District in-person, or online and by telephone as follows:

**Dial-in Info: (877) 853 5247 US Toll-free
Meeting ID: 824 9230 9440
PASSCODE: 3802020**

<https://sbvmwd.zoom.us/j/82492309440>

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 Monday, February 13, 2023. 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/ENGINEERING

AGENDA

2:00 PM Tuesday, February 14, 2023

CALL TO ORDER

Chairperson: Director Hayes

Vice-Chair: Director Harrison

1) INTRODUCTIONS

2) PUBLIC COMMENT

Members of the public may address the Board regarding any item within the subject matter jurisdiction of the Board; however, no action may be taken on off-agenda items except as authorized by law. Each speaker is limited to a maximum of three (3) minutes.

3) DISCUSSION ITEMS

3.1 Consider the proposal from WSC to facilitate a Framework for a San Bernardino Basin Optimization Plan (20 min) - Page 3

[Staff Memo - for San Bernardino Basin Optimization Plan Framework Facilitation](#)
[WSC Proposal for San Bernardino Basin Optimization Plan Framework Facilitation](#)

3.2 Consider Memorandum of Understanding, Cost Share Agreement, and Professional Services Contract with Rincon Consultants, Inc. related to Mitigation of Salt Loading in the Bunker Hill-B Basin Management Zone (30 min) - Page 13

[Staff Memo - Consider Memorandum of Understanding, Cost Share Agreement, and Professional Services Contract with Rincon Consultants, Inc. related to Mitigation of Salt Loading in the Bunker Hill-B Basin Management Zone](#)
[Regional Recycled Water Facilities Map](#)
[MOU for the Mitigation of Salt Loading](#)
[Proposal for the Recycled Water Coalition by Rincon Consultants, Inc.](#)
[Cost Share Agreement for the FS, Facilitation Services and Grant Applications](#)

3.3 Consider Additional Costs for Construction of the Regional Recycled Water System (30 min) - Page 31
[Staff Memo - Consider Additional Costs for Construction of the Regional Recycled Water](#)

System
Updated Regional Recycled Water Facilities Map, February 2023

4) **FUTURE BUSINESS**

5) **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.sbvmd.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: February 14, 2023

TO: Board of Directors' Workshop – Resources/Engineering

FROM: Heather Dyer, CEO/General Manager
Wen Huang, Chief Engineer/Deputy General Manager
Adekunle Ojo, Manager of Water Resources

SUBJECT: Consider the proposal from WSC to facilitate a Framework for a San Bernardino Basin Optimization Plan

Staff Recommendation

Staff recommends the Board of Directors consider the scope of work by WSC, and direct staff to place a consulting services agreement with WSC and a cost sharing agreement for the project with Western Water on a future regular Board agenda.

Summary

San Bernardino Valley Municipal Water District (“San Bernardino Valley”) and Western Municipal Water District (“Western Water”) are the Court-appointed Watermasters in the 1969 Judgement that adjudicated local groundwater basins, including the San Bernardino Basin Area, a large aquifer that provides water for communities stretching from Rialto to Redlands, and from San Bernardino to Colton. The Watermasters have collaborated for more than 50 years to ensure the sustainability of the Basin. In this latest effort, the Watermasters look forward to a cooperative and collaborative effort that clearly defines the current and future Basin management challenges and explores opportunities and win-win solutions for all parties within the spirit of the Judgement, but with a modern and forward-looking approach.

The Watermasters desire to contract with a joint consulting team of WSC and Dopudja & Wells – WSC through a contract with San Bernardino Valley as the lead facilitator and Dopudja & Wells, through a contract with Western Water, to provide technical advisory services of Mr. Paul Jones, formerly of Eastern Municipal Water District. WSC has a successful history of working with Basin stakeholders, cultivating collaboration, and producing innovative results within this Watershed. Its regional project portfolio includes the 2016 Regional Recycled Water Concept Study, the 2020 Upper Santa Ana River Integrated Regional Urban Water Management Plan, and the Salt and Nutrient Management Plan, which is currently in progress. WSC has also recently supported San

Bernardino Valley on our Strategic Plan and Strategic Communications Plan, just to mention a few. If approved, the project is expected to start in late February/early March 2023 and be completed by October/November 2023. The overall cost will be shared evenly between the two agencies, or \$118,000 each, towards the project.

Background

San Bernardino Valley and Western Water have collaborated for five decades through changes in Watermasters and agency staffs. The San Bernardino Basin Area has experienced long-term drought since 1998, leading to discussions in recent years to learn from creative tools used in other adjudicated or managed basins and exploring new Basin management tools to address current and future water management challenges that are compatible with the 1969 Judgment. In 2022, a Basin Technical Advisory Committee (BTAC) Engineering Working Group went through a process to evaluate the development of storage and operating ranges, and recommended the Watermasters conduct a phased Basin Optimization Plan as follows:

- **Phase 1 (Current Proposal):** Develop a shared framework for the future. The framework process will include data gathering to better articulate the current state of the basin, four (4) listening sessions to engage all stakeholders, and three (3) workshops on collaborative problem-solving. The product of this phase is a Framework with a clear purpose, desired outcomes, goals, success metrics, priorities and elements that will guide the actual development of the Plan in Phase 2.
- Phase 2 (Future): Development of the Basin Optimization Plan.
- Phase 3 (Implementation)

The consulting team for the first phase will not be given preference nor excluded for excluded from performing the subsequent phases.

District Strategic Plan Application

The proposed work is consistent with the Mission Statement to work collaboratively to provide a reliable and sustainable water supply to support the changing need of our region's people and environment, specifically through driving science-based decision making, proactive risk management, and effective communication and engagement.

Fiscal Impact

The total project cost will be split evenly between San Bernardino Valley and Western Water through a cost sharing agreement for a net cost of \$118,000 per agency. Due to the novel nature of this effort, staff included a 15% contingency to be used at the Watermasters' discretion if unforeseen changes are encountered during the project.

Item	Cost (Rounded Up)
WSC	\$160,000
Dopudja & Wells	\$45,000
Subtotal	<u>\$205,000</u>
15% Contingency	\$31,000
TOTAL	<u>\$236,000</u>
50/50 Cost-Share	\$118,000

The net cost for San Bernardino Valley is within the \$150,000 budgeted for this project in the Consultants, 6360-line item of the approved FY 2022-2023 General Fund Budget.

Attachment

WSC Proposal for San Bernardino Basin Optimization Plan Framework Facilitation

The purpose of this project is to lead a collaborative process among the San Bernardino Basin (“Basin”) stakeholders to envision, scope, prepare, and implement an Optimization Plan (“Plan”) for the Basin. The Plan will be developed and implemented through three phases of work:

Phase 1 – Background, Goal Setting, and Basin Optimization Plan Elements (“Framework”)

Phase 2 – Development of the Basin Optimization Plan

Phase 3 – Implementation

This scope of work (“Scope”) includes tasks to complete Phase 1 only. Based on the outcome of Phase 1, the Scope for Phase 2 will be developed. Completion of the Plan in Phase 2 will inform the development of the Scope for Phase 3.

It is envisioned that Water Systems Consulting, Inc. (“WSC”) will be contracted by the San Bernardino Valley Municipal Water District (“Valley District”) to lead the first phase of work, collaborating with Mr. Paul Jones from Dopudja & Wells, contracted separately by Western Municipal Water District (“Western”). Together, WSC and Dopudja & Wells are referred to as the “Consultant Team.” The Consultant Team will not be given preference nor excluded from performing the subsequent phases by virtue of leading the first phase.

Task 0 Project and Data Management

0.1 Project Management

- Coordinate, facilitate and lead activities by the group of Valley District, Western and other identified Basin stakeholders (collectively referred to as “Stakeholders”) and Consultant Team, including managing communications, assigning resources, coordinating work efforts, planning, scheduling and facilitating workshops, developing and monitoring project schedule, and tracking and following up on action items.
- Prepare monthly invoices and progress reports
- Administer contract with Valley District

0.2 Data Management

- Establish a file management system to manage project documentation, deliverables, status, controls and reviews.
- This Scope assumes that Microsoft SharePoint (“SharePoint”) will be used as the file management and communication platform. Microsoft Teams can also be considered.

Task 1 Background and Context

The purpose of this task is to compile and summarize relevant background information in a simplified and graphical format that will serve as a basis for development of the Plan. This will be a collaborative effort with Valley District staff to leverage existing knowledge, reports and presentation materials to limit the effort on this task, while compiling the scope of information necessary to fully inform the Plan development. WSC will lead this task and be responsible for producing all deliverables. We will collaborate with Dopudja & Wells prior to beginning this task to incorporate additional data and insight they may have and provide them with an opportunity to review and comment on all deliverables prior to submitting to Valley and Western.

1.1 Data Review and Compilation

- Compile and document stakeholders, forums, regulatory context, operating practices, tools, and currently available data including:
 - Water resource data (e.g. water source data, groundwater quantity and quality data, hydrologic data) from the 2020 Integrated Regional Urban Water Management Plan (IRUWMP), 2022 Change in Storage Report for San Bernardino, Rialto-Colton and Yucaipa Basins, San Bernardino Basin Precipitation Index, 2021 Western-San Bernardino Watermaster Report, Workshop materials from the Storage and Operating Ranges Process, and supplemented with any newer available information
 - Water production and demand data from the 2020 IRUWMP and 2021 Western San-Bernardino Watermaster Report
 - Regional facilities infrastructure/asset maps
 - Historic water levels based upon current management as compared with anticipated water levels based on storage amount that was developed by the USGS
- Summarize rules and limitations on creating an expanded storage and recovery program within the San Bernardino Basin from existing adjudications and agreements related to the following:
 - Multi-year storage
 - Allocation of usable storage space to each party to the Western Judgment
 - Allocation of usable storage space to entities who are not parties to the Western Judgment
 - Restrictions on exporting stored water out of the basin
 - Losses applied to stored water
 - Physical storage limitations such as hydraulic control, liquefaction zone management, etc.

1.2 Basin Context Summary Presentation and Linked Dataset

- Prepare a summary presentation using Microsoft PowerPoint that summarizes the key information from Task 1.1, including an analysis of data and process gaps, and a cross-walk that shows relationships between existing and upcoming plans, forums and regulatory compliance requirements. Organize reference data within SharePoint for use by the Stakeholders and provide links in the summary presentation. This summary presentation can be used in stakeholder workshops in Phase 1 and become an appendix to the Basin Optimization Plan.
- The Basin Context Summary Presentation will be posted on SharePoint for Stakeholder review and will be updated throughout Phase 1 as comments and additional information are received.

Task 2 Meetings and Workshops

WSC will lead this task and be responsible for producing all meeting materials and deliverables. We will collaborate with Dopudja & Wells during the workshop planning phase to incorporate their input and provide them with an opportunity to review and comment on all presentations and deliverables prior to submitting to Valley and Western. We anticipate that Dopudja & Wells will attend all workshops and may serve as a co-facilitator for some discussions, as appropriate.

2.1 Check-in Meetings – Valley District and Western

Schedule and facilitate up to twelve (12) as needed 1-hour virtual meetings with Valley District and Western to discuss project approach, data needs, kickoff and workshop planning and debrief, project progress and other topics as needed. Dopudja & Wells will be included in these meetings if requested by Western.

2.2 Kickoff Meeting

Schedule and facilitate a 2-hour virtual kickoff meeting with all Stakeholders to achieve the following:

- Review the purpose, goals, approach and desired outcome for the Project
- Discuss the expected timeline and Stakeholder time commitment

Deliverable: Meeting agenda and preparatory materials to Valley District/Western at least 1 week before the meeting and to the entire meeting group at least 2 days prior to the meeting. Meeting report-out at most 1 week following the meeting. Deliverables will be transmitted via email in electronic format.

2.3 Workshop #1 – State of the Basin: “Where We Are Today”

- Schedule and facilitate a 3-hour in-person State of the Basin Workshop with the Stakeholders to achieve the following:
 - Present the Basin Context Summary Presentation

- Discuss data gaps and establish processes for filling those gaps
- Prepare a SWOT (strengths, weaknesses, opportunities, threats) analysis or similar exercise

Deliverable: Workshop agenda and preparatory materials to Valley District/Western at least 1 week before the workshop and to the entire workshop invitation list at least 2 days prior to the workshop. Workshop report-out at most 2 weeks following the meeting. Deliverables will be transmitted via email in electronic format.

2.4 Listening Sessions

Schedule and facilitate four (4) virtual 2-hour listening sessions to identify specific goals, strategies, and concerns from each stakeholder group to inform refinements to the Basin Context Summary Presentation and the preliminary SWOT analysis. For scoping purposes, the listening sessions are assumed to be held in small groups of 3-5 stakeholders per session, but the consultant team will work with Western and Valley District to establish the appropriate small groups and topics to optimize Stakeholder input.

Deliverable: PowerPoint slides providing a high-level summary of the key findings from the listening sessions, identifying common themes and gaps

2.5 Workshop #2 – Purpose, Desired Outcomes, Success Metrics, and Goal Setting

Schedule and facilitate a 3-hour in-person Purpose, Desired Outcomes, Success Metrics, and Goal Setting Workshop with the Stakeholders to achieve the following:

- Present any revisions to the Basin Context Summary Presentation made following the Workshop #1 and the Listening Sessions
- Present key takeaways from Listening Sessions including updated SWOT Analysis
- Establish the purpose, desired outcomes, success metrics, and goals of the Basin Optimization Plan
- Evaluate goals for alignment with the 2020 IRUWMP, statewide funding opportunities, and federal funding opportunities
- Discuss whether goals will achieve the project purpose, desired outcomes, and success metrics

Deliverable: Workshop agenda and preparatory materials to Valley District/Western at least 1 week before the workshop and to the entire workshop invitation list at least 2 days prior to the workshop. Workshop report-out at most 1 week following the meeting. Deliverables will be transmitted via email in electronic format.

2.6 Workshop #3 – Basin Optimization Plan Priorities and Elements

Schedule and facilitate a 3-hour in-person Basin Optimization Plan Priorities & Elements Workshop with the Stakeholders to achieve the following:

- Present the draft purpose, desired outcomes, success metrics, and goals of the Basin Optimization Plan, based on discussion from Workshop #2
- Define and document key Basin Optimization Plan elements – brainstorm, grouping, prioritization, screening

<p>Deliverable: Workshop agenda and preparatory materials to Valley District/Western at least 1 week before the workshop and to the entire workshop invitation list at least 2 days prior to the workshop. Workshop report-out at most 1 week following the meeting. Deliverables will be transmitted via email in electronic format.</p>
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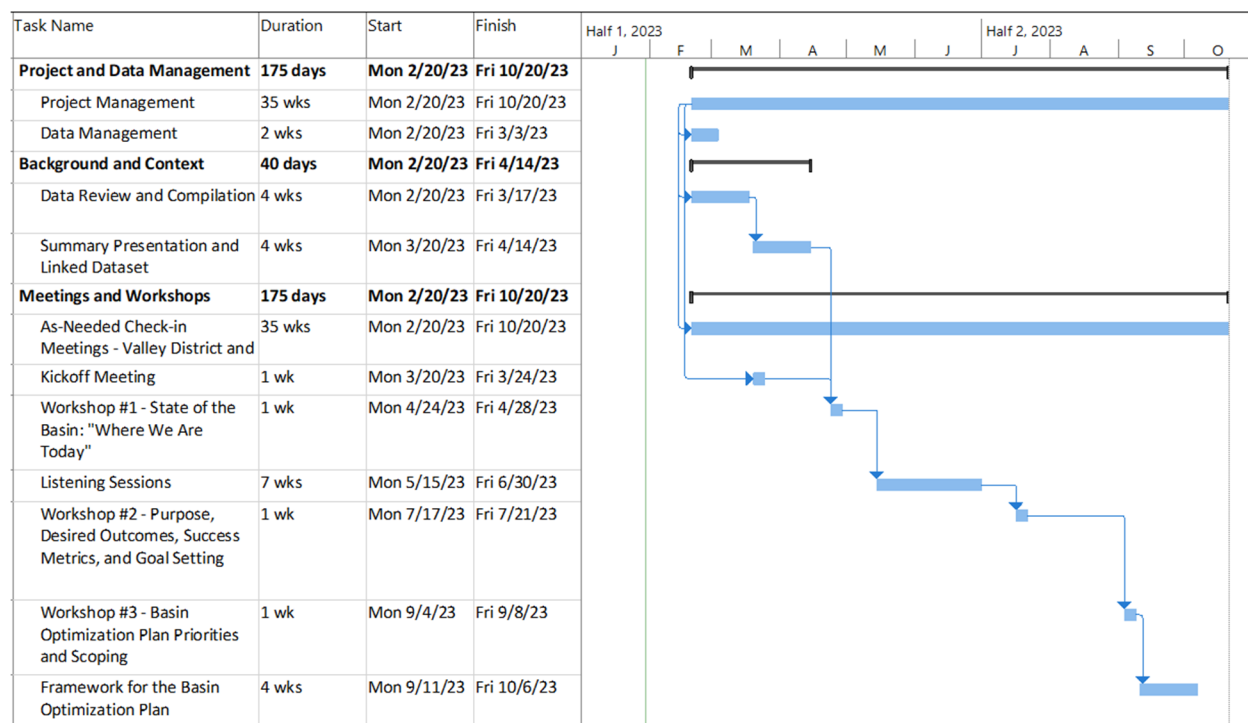
2.7 Framework for the Basin Optimization Plan

- Prepare draft and final Framework for the San Bernardino Basin Optimization Plan

San Bernardino Basin Optimization Plan



Meeting / Workshop	Assumed Duration	Schedule	Format	Attendees
As-Needed Check-in Meetings	1 hour	Duration of Project	Virtual	Consultant Team, Valley District, Western
Kickoff Meeting	2 hours	Week of 3/20	Virtual	Consultant Team, Stakeholders
Workshop #1 – State of the Basin	3 hours	Week of 4/24	In-person	Consultant Team, Stakeholders
Listening Sessions (4)	2 hours (each)	5/15 to 6/30	Virtual	Consultant Team, Stakeholders
Workshop #2 – Purpose, Desired Outcomes, Success Metrics, and Goal Setting	3 hours	Week of 7/17	In-person	Consultant Team, Stakeholders
Workshop #3 – Basin Optimization Plan Priorities and Scoping	3 hours	Week of 9/24	In-person	Consultant Team, Stakeholders



San Bernardino Basin Optimization Plan

Task No.	Task Description	WSC										
		Project Director	Project Manager	Senior Hydrogeologist	Workshop Design	Graphics Support	Technical Support	Administration	WSC Labor Hours	WSC Labor Fee	Expenses	WSC Fee
		Jeffery Szytel	Laine Carlson	Michael Cruikshank	Haili Matsukawa	Nina Thoming	Aaron Morland	Kay Merrill				
	<i>Billing rates, \$/hr</i>	\$365	\$320	\$280		\$170	\$175	\$160				
0	Project and Data Management											
0.1	Project Management		18				18	12	48	\$ 10,830	\$ -	\$ 10,830
0.2	Data Management		2				6		8	\$ 1,690	\$ -	\$ 1,690
	SUBTOTAL	0	20	0	0	0	24	12	56	\$ 12,520	\$ -	\$ 12,520
1	Background and Context											
1.1	Data Review and Compilation		4	2			12		18	\$ 3,940	\$ -	\$ 3,940
1.2	Summary Presentation and Linked Dataset	7	16	12	6	24	48		113	\$ 23,515	\$ -	\$ 23,515
	SUBTOTAL	7	20	14	6	24	60	0	131	\$ 27,455	\$ -	\$ 27,455
2	Meetings and Workshops											
2.1	Monthly Check-in Meetings - Valley District and Western	12	12	6			12		42	\$ 12,000	\$ -	\$ 12,000
2.2	Kickoff Meeting	8	10	6	4	4	8		40	\$ 9,880	\$ -	\$ 9,880
2.3	Workshop #1 - State of the Basin: "Where We Are Today"	16	18	14	6	10	20		84	\$ 20,720	\$ 2,000	\$ 22,720
2.4	Listening Sessions	14	18	10			18		60	\$ 16,820	\$ -	\$ 16,820
2.5	Workshop #2 - Purpose, Desired Outcomes, Success Metrics, and Goal Setting	16	18	14	8	10	32		98	\$ 22,820	\$ 2,000	\$ 24,820
2.6	Workshop #3 - Basin Optimization Plan Priorities and Scoping	16	18	20	8	10	32		104	\$ 24,500	\$ 2,000	\$ 26,500
2.7	Scope of Work Outline for the Basin Optimization Plan	4	6	8		2	6		26	\$ 7,010	\$ -	\$ 7,010
	SUBTOTAL	86	100	78	26	36	128	0	454	\$ 113,750	\$ 6,000	\$ 119,750
	COLUMN TOTALS	93	140	92	32	60	212	12	641	\$ 153,725	\$ 6,000	\$ 159,725

10% mark-up on direct expenses; 15% mark-up for sub-contracted services
 Standard mileage rate \$0.625 per mile (or current Federal Mileage Reimbursement Rate)
 Rates are subject to revision as of January 1 each year.



DATE: February 14, 2023

TO: Board of Directors' Workshop – Resources/Engineering

FROM: Wen Huang, Chief Engineer/Deputy General Manager
Leo Ferrando, Assistant Chief Engineer

SUBJECT: Consider Memorandum of Understanding, Cost Share Agreement, and Professional Services Contract with Rincon Consultants, Inc. related to Mitigation of Salt Loading in the Bunker Hill-B Basin Management Zone

Staff Recommendation

Staff recommends that the Board of Directors forward a Memorandum of Understanding (MOU) and a Cost Sharing Agreement (Agreement) with East Valley Water District (EVWD), the City of San Bernardino Municipal Water Department (SBMWD), and the City of Redlands, and a professional service contract with Rincon Consultants, Inc. to a future Board of Directors meeting for consideration.

Summary

To facilitate the permitting process with the Regional Board and to meet its recycled water policy, Valley District, as a regional water agency, has worked collaboratively with the recycled water agencies (collectively “Parties”) and developed an MOU with the intent to continue collaborating toward the goal for consideration by their respective governing boards. The MOU is for establishing the framework for the mitigation of total dissolved solids (TDS, salt) loading in the Bunker Hill-B management zone. Under the MOU, among other things, the Parties also agree to work together in developing a feasibility study with an estimated cost of between \$250,000 and \$350,000.

Additionally, the Parties are interested in engaging Rincon Consultants for the facilitation services throughout the development of the feasibility study with a not-to-exceed fee of \$99,962, and pursuing grant opportunities for a budget of up to \$50,000. Based on the concept of sharing the costs equally (25% each) for the work associated with developing the feasibility study, facilitation services, and grant application assistance, the attached Cost Share Agreement was developed for consideration. The total fees for these three items are estimated to range from about \$400,000 to \$500,000.

Background

In 2016, Valley District worked collaboratively with local agencies to conduct a Regional Recycled Water Concept Study (Study), which identified and evaluated potential projects that provide a new supply of recycled water for the Valley District service area and the Bunker Hill basin. At the conclusion of the Study, among other projects, EVWD's Sterling Natural Resource Center (SNRC) and SBMWD's Tertiary Treatment Plant (TTS) were identified as projects that should be further developed.

Additionally, following the completion of the Study, Valley District began the development of a regional recycled water system (RRWS), which generally consisted of a recycled water conveyance pipeline, the Weaver basins, and other associated appurtenances. This RRWS is a significant infrastructure system that supports Valley District's Local Resource Investment Program (LRIP), which incentivizes our local partners to develop new water resources for the region, such as recycled water or stormwater capture projects. Staff has been working with the respective retail agencies that have immediate plans for developing their recycled water projects and have formulated a roadmap for developing the RRWS.

Since then, EVWD has completed the SNRC facility that will recycle wastewater from EVWD's service area and recharge it via the Weaver Basins into the Bunker Hill basin. SBMWD is developing the TTS, which will produce recycled water from the San Bernardino Water Reclamation Plant to first meet its non-potable in-plant uses and to recharge via the Weaver Basins at a later time. Moreover, the City of Redlands is planning to expand its Redlands Wastewater Reclamation Facility Phase 2 that will increase recycled water discharges via Redlands Basins into the Bunker Hill basin. These recycled water agencies have been individually and/or collectively coordinated with the Regional Water Quality Control Board (Regional Board) for their respective permitting needs.

The Regional Board requires evaluation and management of salt and nutrient loading to groundwater based on basin-wide recycled water uses for irrigation and/or recharge. Groundwater recharge project proponents are required to participate in applicable salt and nutrient management planning efforts. Regional Board's Recycled Water Policy also requires an antidegradation analysis to determine how much assimilative capacity is available for projected salt and nutrient loading. The abovementioned recycled water agencies, together with several other agencies, are currently working to develop a collaborative regional plan – the Upper Santa Ana River Watershed Salt & Nutrient Management Plan (SNMP) – that supports increasing the use of recycled water for groundwater replenishment in the basin. However, the SNMP is a multi-year effort and may not be in place before the agencies begin recharging recycled water in the basin.

To facilitate the permitting process with the Regional Board and to meet Regional Board's recycled water policy, Valley District, as a regional water agency, has worked collaboratively with the recycled water agencies (collectively "Parties") and developed the attached MOU for consideration by their respective governing boards with the intent to continue collaborating toward the goal. The MOU is intended to establish the framework and implement salt mitigation commitments for the Parties. Among other things, this MOU contemplates a feasibility study (including conceptual design and engineering, alternative salt mitigation strategies, benefits analysis, economic modeling for cost share) for a regional desalter and the assignment of responsibility for salt mitigation to be based on mass loading of salts to the basin by the Parties. An estimated cost for the feasibility study is expected to range from \$250,000 to \$350,000.

Additionally, Rincon Consultants' principal, Rosalyn Prickett, has extensive experience in negotiations with Regional Board for permitting recycled water systems and is familiar with both SNRC and TTS projects. At the request of the Parties, Rincon Consultants prepared the attached scope of services for the facilitation services for consideration by the Parties. The scope includes the facilitation services and program management support for the first two years through the completion of the feasibility study for the anticipated salt mitigation project, with a not-to-exceed fee of up to \$99,962.

The Parties desire to pursue grant opportunities throughout the planning and feasibility study stages and agree, in concept, to share the costs for professional services for grant application assistance evenly. It is expected that the cost associated with this effort is up to a total of \$50,000.

Based on the concept of sharing the costs equally (25% each) for the work associated with developing the feasibility study, facilitation services, and grant application assistance, the attached Cost Share Agreement was developed by Valley District counsel, Downey Brand, to formalize this arrangement and is being reviewed by the agencies. The total fees for these three items are estimated to range from about \$400,000 to \$500,000 and will be shared equally by the parties at 25% each.

These items were generally discussed and considered by the Regional Recycled Water Ad-Hoc Committee at their meeting on January 31, 2023. There was a consensus among the Committee members to bring these items to their respective Boards and City Council for further discussion and consideration.

District Strategic Plan Application

The proposed work is consistent with the Mission Statement to work collaboratively to provide a reliable and sustainable water supply to support the changing need of our region's people and environment, specifically through driving science-based decision making, proactive risk management, and effective communication and engagement.

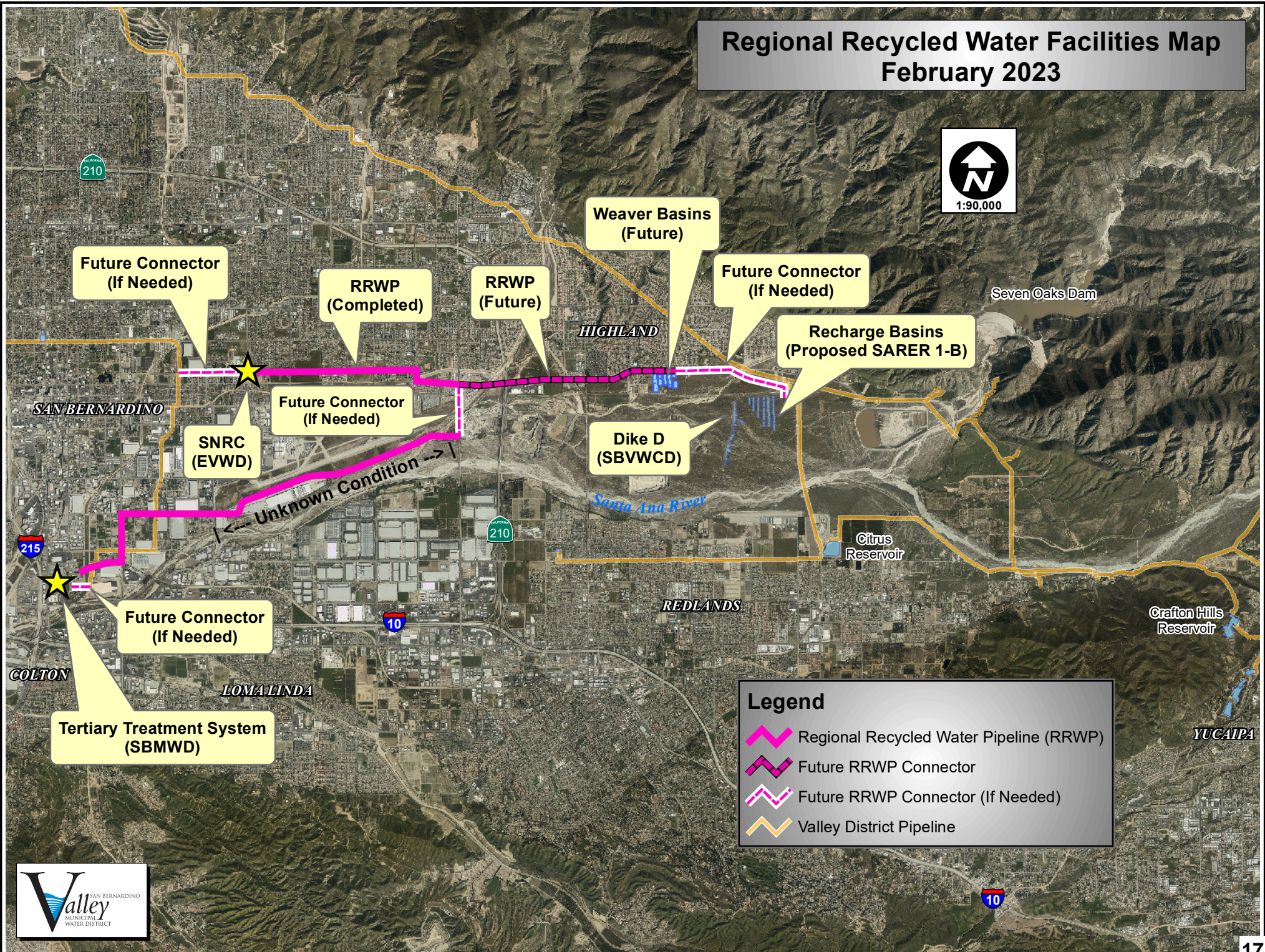
Fiscal Impact

Under this Cost Share Agreement, the estimated cost of the project proposal to Valley District is between \$100,000 to \$125,000. Funds for these services are available in the Consultants, 6360 line item of the approved FY 2022-2023 General Fund Budget.

Attachments

1. Regional Recycled Water Facilities Map
2. MOU for the Mitigation of Salt Loading
3. Cost Share Agreement for the Feasibility Study, Facilitation Services, and Grant Applications
4. Proposal for the Recycled Water Coalition by Rincon Consultants, Inc.

Regional Recycled Water Facilities Map February 2023



Legend

- Regional Recycled Water Pipeline (RRWP)
- Future RRWP Connector
- Future RRWP Connector (If Needed)
- Valley District Pipeline



MEMORANDUM OF UNDERSTANDING FOR THE
MITIGATION OF SALT LOADING IN THE BUNKER HILL-B MANAGEMENT ZONE
BY AND BETWEEN
SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT, EAST VALLEY WATER DISTRICT,
CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT, AND CITY OF REDLANDS

This Memorandum of Understanding (MOU) for the Mitigation of Total Dissolved Solids (TDS, Salt) Loading in the Bunker Hill-B Management Zone is entered into and effective on the 25th day of January, 2023 among the following listed Signatories: San Bernardino Valley Municipal Water District ("Valley District"), East Valley Water District ("EVWD"), City of San Bernardino Municipal Water Department ("San Bernardino"), and City of Redlands ("Redlands"), collectively referred to as the "Parties".

Recitals

- A. In 2009, the State Water Resources Control Board adopted a Recycled Water Policy that encourages public agencies to recycle municipal wastewater as it becomes an increasingly valuable source of water for the State. The Recycled Water Policy was amended in 2018 to encourage development of groundwater recharge projects using recycled water.
- B. The Recycled Water Policy requires evaluation and management of salt and nutrient loading to groundwater as a result of basin-wide recycled water use for irrigation and/or recharge. Groundwater recharge project proponents are required to participate in applicable salt and nutrient management planning efforts.
- C. The Recycled Water Policy also requires Antidegradation Analysis (State Water Resources Control Board Resolution 68-16) for all groundwater recharge projects to determine if assimilative capacity is available for projected salt and nutrient loading. Individual projects are permitted to consume up to 10% of available assimilative capacity in a basin, while multiple projects may consume up to 20% of available assimilative capacity.
- D. Valley District is constructing the Regional Recycled Water Facilities which includes a recycled water conveyance system and a groundwater recharge facility known as the Weaver Basins. The conveyance system will allow recycled water to be conveyed from EVWD and San Bernardino facilities to the Weaver Basins.
- E. EVWD is constructing Sterling Natural Resource Center, a new water reclamation facility that will recycle wastewater from EVWD's service area and recharge it via Weaver Basins into Bunker Hill-B Groundwater Management Zone.
- F. San Bernardino is developing the Tertiary Treatment System, which will produce recycled water from the San Bernardino Water Reclamation Plant (WRP) with the intent of beneficially using in and around WRP for general plant use and irrigation. Valley District's recycled conveyance system will convey recycled water from the WRP and will also convey recycled water produced by EVWD via a future pipe connection to Valley District's conveyance system for recharge via Weaver Basins into Bunker Hill-B Groundwater Management Zone.

- G. Redlands has existing Waste Discharge Requirements for treatment and discharge of recycled water from its service area into Bunker Hill-B Groundwater Management Zone. Phase 2 expansion of its Redlands Wastewater Treatment Facility will increase recycled water discharges via Redlands Basins.
- H. The Parties believe that through their cooperative work, they can treat and discharge recycled water in a manner that will maximize benefits to the Bunker Hill-B Groundwater Management Zone, the Parties, and their ratepayers.
- I. Using recycled water to replenish the Bunker Hill-B Groundwater Management Zone provides a drought tolerant water supply that improves water supply reliability for the Parties and the region and also provides a drought buffer for those agencies in the event of a prolonged drought.
- J. The Parties, together with a number of other water agencies, are working together to develop a collaborative regional plan – the Upper Santa Ana River Watershed Salt & Nutrient Management Plan – that supports increasing the use of recycled water for groundwater replenishment and other purposes, while also managing groundwater quality to provide the maximum benefits to the people of the State.
- K. The Upper Santa Ana River Watershed Salt & Nutrient Management Plan is a multi-year effort and will not be complete before the Parties – namely EVWD’s Sterling Natural Resources Center, and potentially San Bernardino’s Tertiary Treatment System and Redlands’ Phase 2 expansion of its Redlands Wastewater Treatment Facility – require executed Waste Discharge Requirements for the recycled water discharge projects listed above. This MOU is intended to establish and implement salt mitigation commitments for the Parties, to be reflected in the Upper Santa Ana River Watershed Salt & Nutrient Management Plan. Salt mitigation commitments may include regional groundwater quality monitoring, brine line discharge for high-TDS industries, optimized chemical use at wastewater treatment/reclamation facilities, a regional recycled water desalter, and enhanced upstream recharge of low-TDS water.
- L. The Parties wish to establish and agree to a framework for their working collaboratively toward mitigation of salt loading that will occur due to all the Parties’ recycled water recharge operations within the Bunker Hill-B Groundwater Management Zone, prior to the implementation of the Upper Santa Ana River Watershed Salt & Nutrient Management Plan.

Agreements

- 1. The Parties agree that they will work together in good faith to develop and implement a regional approach to salt mitigation in Bunker Hill-B Groundwater Management Zone, prior to the implementation of the Upper Santa Ana River Watershed Salt & Nutrient Management Plan. This may include a regional recycled water desalter and associated brine line, enhanced upstream recharge of low-TDS water, or other regional project constructed via partnership between all Parties that contribute salt loading to the basin.
- 2. The Parties agree that assignment of responsibility for salt mitigation shall be based on mass loading of salts to the basin by the Parties’ recycled water contributions and overall benefit to the basin and its stakeholders, as calculated through a mutually agreeable Antidegradation Analysis or similar effort.

3. The Parties will continue to participate in the development of the Upper Santa Ana River Watershed Salt & Nutrient Management Plan to manage salt and nutrient loading in the broader San Bernardino Basin Area and will support mitigation strategies for Bunker Hill-B Groundwater Management Zone in accordance with the responsibility structure set forth in paragraph 2.
4. The Parties will conduct collaborative reporting and assessment to document the assimilative capacity that is consumed by the Parties' recycled water recharges. Annually, each Party shall provide total discharge volumes and TDS concentrations to a mutually agreeable third party who shall calculate mass loading by each Party and calculate use of available assimilative capacity, both individually and cumulatively.
5. The Parties will collaborate on a Feasibility Study (conceptual design and engineering, alternative salt mitigation strategies, benefits analysis, economic modeling for cost share) for a regional recycled water desalter, to be completed by December 2024. The regional recycled water desalter will be defined in this Feasibility Study to serve as supporting documentation for funding pursuits.
6. The Parties agree to develop and execute a Funding Agreement for cost share of the Feasibility Study in Item 5 by March 2023.
7. Wastewater that goes through advanced water treatment processes (reverse osmosis) and is recharged to the Bunker Hill basin has additional regional benefits by contributing to removal of multiple water quality constituents that may be of concern to the Parties. The Parties shall also consider these regional benefits in the design of the regional recycled water desalter or other salt mitigation strategy.
8. The Parties will collaborate on development of a Salt Mitigation Implementation Plan for Bunker Hill-B Groundwater Management Zone, to be completed and submitted to Santa Ana Regional Water Quality Control Board by June 2025, which defines the selected mitigation strategy, operations, roles and responsibilities, cost share, and schedule.
9. The Parties will use 285 mg/L ambient TDS concentration as an "action limit" – once 10% of available assimilative capacity (5 mg/L increase over 280 mg/L ambient condition¹) is used in Bunker Hill-B Groundwater Management Zone, based on the collaborative reporting and assessment completed annually, the Parties shall begin implementation (final design and construction) of the regional desalter. Based on current modeling results, with implementation of a regional desalter, the action limit is expected to be reached in year 2027.
10. The Parties will ensure that the salt mitigation measures are constructed and operational by the time 20% of available assimilative capacity (10 mg/L increase over 280 mg/L ambient condition²) is consumed. Based on current modeling results, prior to construction and start-up of the regional desalter, total allowable assimilative capacity is expected to be reached in 2031. Construction of

¹ Santa Ana Watershed Project Authority's 2020 Recomputation of Ambient Water Quality in Santa Ana River Watershed for the Period 1999-2018

² Ibid.

the regional recycled water desalter or other salt mitigation strategy will be completed by the end of 2031, with operation beginning in January 2032. With implementation of a regional recycled water desalter, cumulative TDS loading from the four regional partners will not exceed total allowable assimilative capacity within the model timeframe (60 years).

11. Should the Upper Santa Ana River Watershed Salt & Nutrient Management Plan analysis and findings be accepted by regulatory agencies in the future, and with consensus of the Regional Water Quality Control Board, the Parties may amend this MOU to revise the "mitigation strategies" in Paragraph 1 and/or "action limits" identified in Paragraphs 9 and 10 in order to be consistent with the Plan.
12. The Parties will collaborate via committee made up of the General Managers of each of the four Parties, or their designees. All decisions shall be made on a unanimous basis.
13. The Parties hereby authorize their respective General Managers or designees to develop administrative and operating rules and procedures that may be needed to implement the terms of this MOU.
14. All notices, requests, demands, or other communications required or permitted under this MOU shall be addressed as follows:

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT
Heather Dyer, General Manager
380 East Vanderbilt Way
San Bernardino, CA 92408
heatherd@sbumwd.com

EAST VALLEY WATER DISTRICT
Michael Moore, General Manager/CEO
31111 Greenspot Road
Highland, CA 92346
mmoore@eastvalley.org

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT
Miguel Guerrero, General Manager
PO Box 710
San Bernardino, CA 92402
Miguel.Guerrero@sbumwd.org

CITY OF REDLANDS
John Harris, Director, Municipal Utilities & Engineering Department
35 Cajon St Suite 15A
Redlands, Ca 92374

In witness whereof, the Parties have caused this MOU to become effective by their respective endorsements below:

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT

By: _____
Name:
Date:

EAST VALLEY WATER DISTRICT

By: _____
Name:
Date:

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

By: _____
Name:
Date:

CITY OF REDLANDS

By: _____
Name:
Date:



Rincon Consultants, Inc.

8825 Aero Drive, Suite 120
San Diego, California 92123

info@rinconconsultants.com
www.rinconconsultants.com

January 27, 2022

Rincon Project No. 23-14083

Wen Huang, *Chief Engineer/Deputy General Manager*

San Bernardino Valley Municipal Water District

380 East Vanderbilt Way

San Bernardino, CA 92408

Via email: wenh@sbyvmwd.com

**Subject: Proposal for Facilitation of Bunker Hill-B Regional Recycled Water Coalition
San Bernardino, CA**

Dear Mr. Huang:

Rincon Consultants, Inc. (Rincon) is pleased to provide this proposal for facilitation of the Bunker Hill-B Regional Recycled Water Coalition (Coalition). Rincon's proposed facilitator, Rosalyn Prickett, has spent the last year gathering the four partner agencies together and drafting a Memorandum of Understanding (MOU) for collaborative development and implementation of salt mitigation strategies for Bunker Hill-B groundwater management zone (GMZ) of the San Bernardino Basin Area. The following scope of work includes facilitation and program management support for the first two years of MOU implementation – through completion of a Feasibility Study for the anticipated salt mitigation project, a regional recycled water desalter to offset TDS loading from the three wastewater and recycled water dischargers in the GMZ.

Scope of Work

Task 1 Coalition Governance

To effectively develop the salt mitigation strategy, the four partner agencies will need to establish a decision-making process that is based in consensus but allows for all voices to be heard and respected. Rincon will prepare a Partnership Agreement in collaboration with the agencies that outlines the decision-making process among the agencies, articulates guiding principles for their work products, describes how consultants will be managed, and explains how new partners are added.

Coalition governance will involve regularly scheduled progress meetings to share information and provide input on project materials. This scope of work assumes 60- to 90-minute monthly progress meetings to discuss topics relevant to the project (half of which will be in-person and half of which will be video calls). Rincon will manage the schedule and progress of both the facilitation activities and the overall program, including submittal of monthly invoices and progress reports.

Deliverables:

- Draft, revised draft, and final Partnership Agreement
- Monthly progress meetings (60 to 90 mins each; 10 in-person and 10 video calls)
- Program management, including monthly invoices and progress reports



Task 2 Outreach and Engagement

To ensure that all partner agency, elected, and regulatory agency staff have an opportunity to understand and buy in to the preferred salt mitigation strategy, coordinated outreach and engagement will be needed. Rincon will begin by developing an Outreach and Engagement Plan to guide communications throughout project development. This will describe how the Coalition will engage with the Regional Recycled Water Ad Hoc Committee, the individual partner agency boards, and the Regional Water Quality Control Board, as well as other water agencies and interested parties within the GMZ.

Based on the Outreach and Engagement Plan, Rincon will develop project materials (including, but not limited to, graphics, charts, and written text) and talking points for use during communications with external parties. At key milestones, Rincon will draft PowerPoint slides that can be used by the partner agencies to communicate Coalition and project benefits, concepts, and costs. Task 2 includes budget for attendance at up to four (4) Ad Hoc Regional Recycled Water Committee meetings and up to six (6) meetings with the Regional Board and/or other stakeholders to communicate information and receive feedback about the project concept.

Deliverables:

- Draft, revised draft, and final Outreach and Engagement Plan
- Project materials (including, but not limited to, graphics, charts, and written text)
- Up to three PowerPoint presentations at key milestones in project development
- Up to four meetings of Ad Hoc Regional Recycled Water Committee (60 mins; in-person)
- Up to six meetings with Regional Board and/or other stakeholders (60 mins; 2 in-person and 4 video calls)

Task 3 Support for Feasibility Study

Rincon will support preparation of a scope of work and request for proposals for development of a Feasibility Study (to be completed March/April 2023 – September/October 2024) on the regional recycled water desalter. The Feasibility Study scope of work shall include development of regional recycled water desalter concept plan, robust analysis of alternatives for salt mitigation, planning level cost estimates, and description of water supply and water quality benefits from project implementation. This effort shall also include development of economic analysis for the preferred alternative and monetization of alternatives.

Rincon will support the Coalition during development of the Feasibility Study with scheduling for progress check ins (see task 1), presentation materials (see Task 2), and review and feedback on deliverables produced by the selected consultant. Rincon can consolidate partner comments, as needed, and identify areas of non-alignment to discuss on progress calls. Rincon's role in facilitating the Feasibility Study process is to ensure that the target timeline for Feasibility Study completion included in the MOU is met.

Deliverables:

- Draft, revised draft, and final Feasibility Study Scope of Work
- Review comments on Feasibility Study materials and consolidation of partner comments
- Ongoing coordination with Coalition and Feasibility Study consultant to move process forward



Task 4 Cost Share Strategy

Rincon will facilitate development of a cost share strategy for the recommended project from the Feasibility Study. This includes update and use of the loading analysis completed for the Cumulative Antidegradation Analysis to identify potential cost share based on salt loading to the GMZ. As part of the cost share strategy, a funding and financing plan will be developed and integrated into the costs projected for each partner. Funding programs relevant to water reuse will be actively tracked so that the funding and financing plan outlines the best potential path forward for offset of project costs.

Deliverables:

- Draft, revised draft, and final Funding Program Matrix
- Draft, revised draft, and final Cost Share Strategy

Cost Estimate

As shown in Table 1 below, our estimated cost for facilitation of the Bunk Hill-B Regional Recycled Water Coalition. Rincon will bill on a time and materials basis, not to exceed \$99,692.

Table 1 Cost Summary

Task	Assumptions	Estimated Cost
Task 1 Coalition Governance	Partnership Agreement Monthly progress calls (10 in-person and 10 video calls)	\$38,919
Task 2 Outreach and Engagement	Outreach and Engagement Plan Project Materials; 3 PPTs; 4 Ad Hoc; 6 RWQCB/ Stakeholder Mtgs	\$35,081
Task 3 Support for Feasibility Study	Scope of Work Study Review/Consolidation	\$11,468
Task 4 Cost Share Strategy	Funding and Financing Plan Cost Share Strategy	\$14,494
Total		\$99,962

Thank you for your consideration and for this opportunity to support your project. If you have any questions regarding this proposal, please contact me at (760) 930-7671 (direct), (619) 861-2180 (cell), or rprickett@rinconconsultants.com.

Sincerely,
Rincon Consultants, Inc.

Rosalyn Prickett
Director, Water Resources Planning
Phone: (760) 930-7671
Email: rprickett@rinconconsultants.com

Authorized to contractually obligate and negotiate on behalf of Rincon Consultants, Inc.

**COST SHARE AGREEMENT FOR BUNKER HILL-B MANAGEMENT ZONE
FEASIBILITY STUDY**

This Cost Sharing Agreement for the preparation of a Feasibility Study related to the Mitigation of Total Dissolved Solids (TDS, Salt) Loading in the Bunker Hill-B Management Zone is entered into and effective on the _____ day of _____ 2023 among the following listed Signatories: San Bernardino Valley Municipal Water District (“Valley District”), East Valley Water District (“EVWD”), City of San Bernardino Municipal Water Department (“San Bernardino”), and City of Redlands (“Redlands”), collectively referred to as the “Parties”.

Recitals

WHEREAS, the State Water Resources Control Board’s Recycled Water Policy encourages public agencies to recycle municipal wastewater, including in the development of groundwater recharge projects, to enhance the State’s existing water supply; and

WHEREAS, the Parties, together with a number of other water agencies, are working together to develop a collaborative regional plan – the Upper Santa Ana River Watershed Salt & Nutrient Management Plan – that increases the use of recycled water for groundwater replenishment and other purposes, while also managing groundwater quality to provide the maximum benefits to the State; and

WHEREAS, the Parties believe that through their cooperative work, they can treat and discharge recycled water in a manner that will maximize benefits to the Bunker Hill-B Groundwater Management Zone, the Parties, and their ratepayers; and

WHEREAS, using recycled water to replenish the Bunker Hill-B Groundwater Management Zone provides a drought tolerant water supply that improves water supply reliability for the Parties and the region and also provides a drought buffer for those agencies in the event of a prolonged drought; and

WHEREAS, the Parties will collaborate on a Feasibility Study (conceptual design and engineering, benefits analysis, economic modeling for cost share) for a regional desalter, to be completed by September 2024; and

WHEREAS, the Parties believe that there is potential to pursue and apply for available and qualifying grants, such as the WaterSMART FY2023 Water Recycling and Desalination Planning Grant Program.

WHEREAS, the Feasibility Study is expected to serve as supporting documentation for future funding pursuits; and

WHEREAS, the Parties wish to establish and agree to a framework for sharing costs associated with the preparation of the Feasibility Study and related facilitation services.

Agreements

NOW, THEREFORE, the Parties agree as follows:

1. Term. This Agreement shall be effective on the date of the last signature to this agreement, and shall remain in effect until December 31, 2024, unless terminated earlier as provided herein. Termination or expiration of this Agreement will not excuse any Party from payment of costs incurred under this Agreement prior to the termination or expiration date.
2. Feasibility Study Steering Committee. The Parties will collaborate via committee made up of the General Managers of each of the four Parties, or their designees (“Steering Committee”), the purpose of which to be shall oversee and direct the selection of a consultant and preparation of the Feasibility Study. To support the work of the committee, the Parties intend to engage a consultant to provide facilitation services. The costs of the Feasibility Study preparation and of the associated facilitation services will be shared equally among the parties. All decisions shall be made on a unanimous basis.
3. Agreement to Share Costs. Each Party will be responsible for 25% of the invoiced costs associated with the development of the Feasibility Study, the associated facilitation services, and grant assistance services. Upon selection of final consultants for this work product, this Agreement will be amended to include as an exhibit the final scope of work and estimated budget for each of those consultant services.
4. Administering Agency: An Administering Agency will be appointed by the members of the Steering Committee by unanimous agreement of each Party’s designated representative. The Administering Agency will be responsible for day-to-day oversight of the consultant, invoicing of costs, and providing progress reports to the Steering Committee. Valley District will be the initial Administering Agency.
5. Contracting for Feasibility Study. The Administrating Agency shall, in cooperation with the Steering Committee, prepare a Request for Proposals, identify appropriate consultant(s), and enter into a contract for the preparation of the Feasibility Study.
6. Contracting for Grant Assistance. The Parties agree to pursue qualifying grants to assist with potential funding for planning, design, and future construction of the regional desalter project. The Parties agree to apply any potentially awarded grants towards the costs of the regional desalter project.
7. Invoicing and Payment of Costs. The Administering Agency will submit invoices to each of the Parties for work based on the cost-share percentages specified in Section 3 of this Agreement. Invoices will be provided to the Parties quarterly, and are payable within 30 days of receipt.
8. Amendment. This Agreement may be amended from time to time. No alteration, amendment, or variation of this Agreement shall be valid unless made in writing and signed by all Parties.
9. Notice. All notices, requests, demands, or other communications required or permitted under this Agreement shall be addressed as follows:

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT
Heather Dyer, General Manager
380 East Vanderbilt Way
San Bernardino, CA 92408
heatherd@sbumwd.com

EAST VALLEY WATER DISTRICT
Michael Moore, General Manager/CEO
31111 Greenspot Road
Highland, CA 92346
mmoore@eastvalley.org

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT
Miguel Guerrero, General Manager
PO Box 710
San Bernardino, CA 92402
Miguel.Guerrero@sbumwd.org

CITY OF REDLANDS
John Harris, Director, Municipal Utilities & Engineering Department
35 Cajon St Suite 15A
Redlands, Ca 92374

10. Attorneys' Fees. In the event of a civil action to enforce any obligation under this Agreement, the prevailing party shall be entitled to an award of reasonable attorneys' fees and costs (including but not limited to reasonable expert witness fees and costs) incurred in connection with such litigation.
11. Entire Agreement. This instrument constitutes the entire agreement and understanding between the Parties with respect to the subject matters hereof, and supersedes and replaces any prior agreements and understandings, whether oral or written, by and between them with respect to such matters.
12. Arms Length Negotiation. The Parties acknowledge and agree that this Agreement is the product of mutual arms-length negotiations and accordingly, the rule of construction, which provides that the ambiguities in a document shall be construed against the drafter of that document, shall have no application to the interpretation and enforcement of this Agreement.
13. Titles & Captions. Titles and captions are for convenience of reference only and do not define, describe or limit the scope of the intent of the Agreement or any of its terms. Reference to section numbers are to sections in the Agreement unless expressly stated otherwise.
14. No Third Party Beneficiary. Nothing contained in this Agreement shall be deemed or construed by the Parties or by any third person to create the relationship of principal and agent, or partnership or joint venture, or any association between the Parties, and none of the provisions contained in this Agreement or any act of the Parties shall be deemed to create any relationship other than as specified herein, nor shall this Agreement be construed, except as expressly provided herein, to authorize either Party to act as the agent for the other
15. Counterparts. This Memorandum may be executed in any number of counterparts, each of which shall be deemed to be an original instrument, but all of which together shall constitute one and the same instrument.
16. Authority to Execute. Each person executing this Agreement represents and warrants that he or she is duly authorized and has legal authority to execute and deliver this Agreement for or on behalf of the parties to this Agreement. Each Party represents and warrants to the other(s) that the execution and delivery of the Agreement and the performance of such Party's obligations hereunder have been duly authorized.

IN WITNESS WHEREOF, the parties hereto have entered into this instrument as of the Effective Date set forth above.

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT

By: _____
Name:
Date:

EAST VALLEY WATER DISTRICT

By: _____
Name:
Date:

CITY OF SAN BERNARDINO MUNICIPAL WATER DEPARTMENT

By: _____
Name:
Date:

CITY OF REDLANDS

By: _____
Name:
Date:



DATE: February 14, 2023

TO: Board of Directors' Workshop - Resources/Engineering

FROM: Wen Huang, Chief Engineer/Deputy General Manager
Leo Ferrando, Assistant Chief Engineer

SUBJECT: Consider Additional Costs for Construction of the Regional Recycled Water System

Staff Recommendation

Consider additional costs for construction of the Regional Recycled Water System and direct Staff to prepare and bring an amendment (Amendment No. 4) to the Reimbursement Agreement for consideration at the next regular Board of Directors meeting.

Summary

During the last few years, the Board of Directors received several updates regarding developing a regional recycled water system (RRWS), which generally consisted of a Regional Recycled Water Pipeline (RRWP) and the Weaver Basins. This RRWS is a significant infrastructure system that supports Valley District's Local Resource Investment Program (LRIP), which incentivizes our local partners to develop new water resources for the region, such as recycled water. Staff has been working with our retail agencies that have immediate plans for further expanding their recycled water projects and have formulated a roadmap for developing the system.

Between January 2019 and April 2021, the Board of Directors approved a reimbursement agreement and two amendments with East Valley Water District (EVWD) for the design of the RRWP and Weaver Basins and construction of RRWP west of Alabama Street. The agreement and amendments have been brought to the Board based on a series of milestones once the

required information and cost estimate for the next phase is sufficiently understood. Most recently, in January 2022, the Board approved the Amendment No. 3 of the Reimbursement Agreement for construction of the RRWP between Alabama Street and the Weaver Basins and construction of the Weaver Basins based on a 30% design package. Following the approval of the Amendment, due to associated cost escalation, delays, and construction constraints based on the permit conditions, an estimated cost in the amount of \$8,179,216 is required to complete the RRWP. Staff recommends that the Board consider using one-half of the remaining contingency, \$1.4M, to cover part of the additional costs, and requests an additional budgetary authority in the amount of \$6,779,216.

Background

In 2016, in order to promote efficient development of recycled water projects in the region and to create a new forum for ongoing cooperative management of recycled water for regional benefit, Valley District in collaboration with water and wastewater agencies in the region, developed a Regional Recycled Water Concept Study (Study) that identified and evaluated potential projects that provide a new supply of recycled water for the Valley District service area. At the conclusion of the Study, among other projects, EVWD's Sterling Natural Resource Center (SNRC) and the San Bernardino Municipal Water Department's (SBMWD) Tertiary Treatment System (TTS), were identified as projects that should be further developed.

Valley District has historically been responsible for the construction of regional infrastructure for conveying local and imported water supplies. The development of regional recycled water infrastructure by Valley District was suggested as an option for consideration in the Study to incentivize development of local recycled water. To carry out this vision and to continue its leadership role in regional water resource, the Board of Directors directed staff to develop District's own RRWS infrastructure in support of the SNRC and TTS projects. Through the partnership with EVWD, the Board of Directors approved a series of reimbursement agreement and amendments with EVWD for design and construction of the RRWS by EVWD's Contractor. It is essential to note that in this type of reimbursement agreement, amendments are based on and brought to the Board as a series of milestones once the required information and cost estimate for the next phase is sufficiently understood.

Following the approval of the Amendment No. 3 in January 2022, grading of the Weaver Basins has been substantially completed pending a few items, such as the electrical work and associated

control building, the pipeline connections to the basins, and the landscaping work along Greenspot Road. The pipeline is about 50% completed pending the bridge crossing on 5th Street and some reaches along Greenspot Road.

When the Amendment No. 3 was considered by the Board in January 2022, the construction estimate cost was based on a rough order of magnitude with 30% design plans. Through the design progression and permit requirements being stipulated, the construction of the RRWP has endured additional costs due to unexpected utility conflicts and cost increases with both labor wage increases, as well as material cost escalation. This project has also experienced delay costs in construction caused by certain permit conditions, including restrictions on working hours from only 9:00 am to 2:00 pm and traffic control constraints that caused the contractor to work on disjointed reaches rather than in the typical linear and successive fashion. This caused the contractor to incur additional mobilization and demobilization costs, which total an additional \$7,946,633. Additionally, EVWD also requested a reimbursement of previous expenditures related to the preparation of the Environmental Impact Report Addendum in support of construction of the RRWP and Weaver Basins, on behalf of Valley District, in the amount of \$232,583, for a total additional cost of \$8,179,216.

Of the contingency of \$3.35M authorized by the Board of Directors as part of the Amendment No. 3, approximately \$2.8M is still available to cover part of the additional costs as it is intended to. Staff recommends that the Board consider using one-half of the remaining contingency, or \$1.4M, resulting a total additional cost in the amount of \$6,779,216. Similar to the previous arrangements, an amendment (Amendment No. 4) to the reimbursement agreement to facilitate EVWD's contractor to complete construction of these facilities for Valley District is being drafted by District Counsel for consideration by the Board of Directors.

The completion of RRWS Phase I facilities to facilitate the recharge of recycled water is pending the conclusion of the Condition Assessment of the Alabama Street Pipeline and recommendations for necessary facilities for pipeline/connectors between TTS and RRWP. The cost of the necessary facilities is unknown at this time. As of today, in addition to the estimated cost for construction of the RRWP extension and Weaver Basins that is being considered, Valley District's investment in the RRWS is approximately \$71 million, consisting of the acquisition of the Weaver Basins (\$7 million) and the design and construction for the RRWP and the Weaver Basins (\$64

million) through the previously-approved reimbursement agreement and amendments (including Amendment No. 4), summarized below:

Agreement	Key Elements	Cost
Original Reimb. Agmt.	Design of the RRWP to Redlands Basins	\$453,125
Amendment No. 1	Construction of RRWP to Redlands Basins	\$16,428,342
Amendment No. 2	Design of Weaver Basins, RRWP, and Condition Assessment for the Alabama Street Pipeline	\$1,359,708
Amendment No. 3	Construction of Weaver Basins and RRWP to Weaver +10% Contingency	\$34,300,000 \$3,350,000
	Total Construction Cost Est. as of January 2023:	\$55,891,175
	Acquisitions of Weaver Basin Site	\$7,095,000
Change Order Requests	Cost Escalation, Delays, and Permit Requirements	\$7,946,633
	EIR for Weaver Basins and RRWP	\$232,583
	Total Requests:	\$8,179,216

The project’s benefits to our basin are substantial, as it will augment the local rainfall and imported state water project supplies year-round. Whereas rain and imported water are both highly vulnerable to drought conditions and the effects of climate change, the reliability of “drought-proof” treated wastewater as another source for groundwater recharge makes it an extremely valuable piece of our water resources portfolio. It is anticipated that the facility will recharge up to approximately 16,600 AFY when the SNRC and TTS are operated at their ultimate capacity. The average facility cost per acre-foot of this recycled water supply is estimated at roughly \$130 by conservatively using the initial recycled water generated by SNRC and TTS at 10 MGD a day for 50 years (expected service life of these facilities) with the acquisition and construction costs to-date for Phase I RRWP and Weaver Basins (excluding the cost for the pipeline/connectors between TTS and RRWP). This investment will mitigate the negative impacts on groundwater

levels that result from drought conditions in either Northern California, Southern California, or both for decades to come.

This item was generally discussed and considered by the Regional Recycled Water Ad-Hoc Committee at their meeting on January 31, 2023, and is being forward to the Board for consideration.

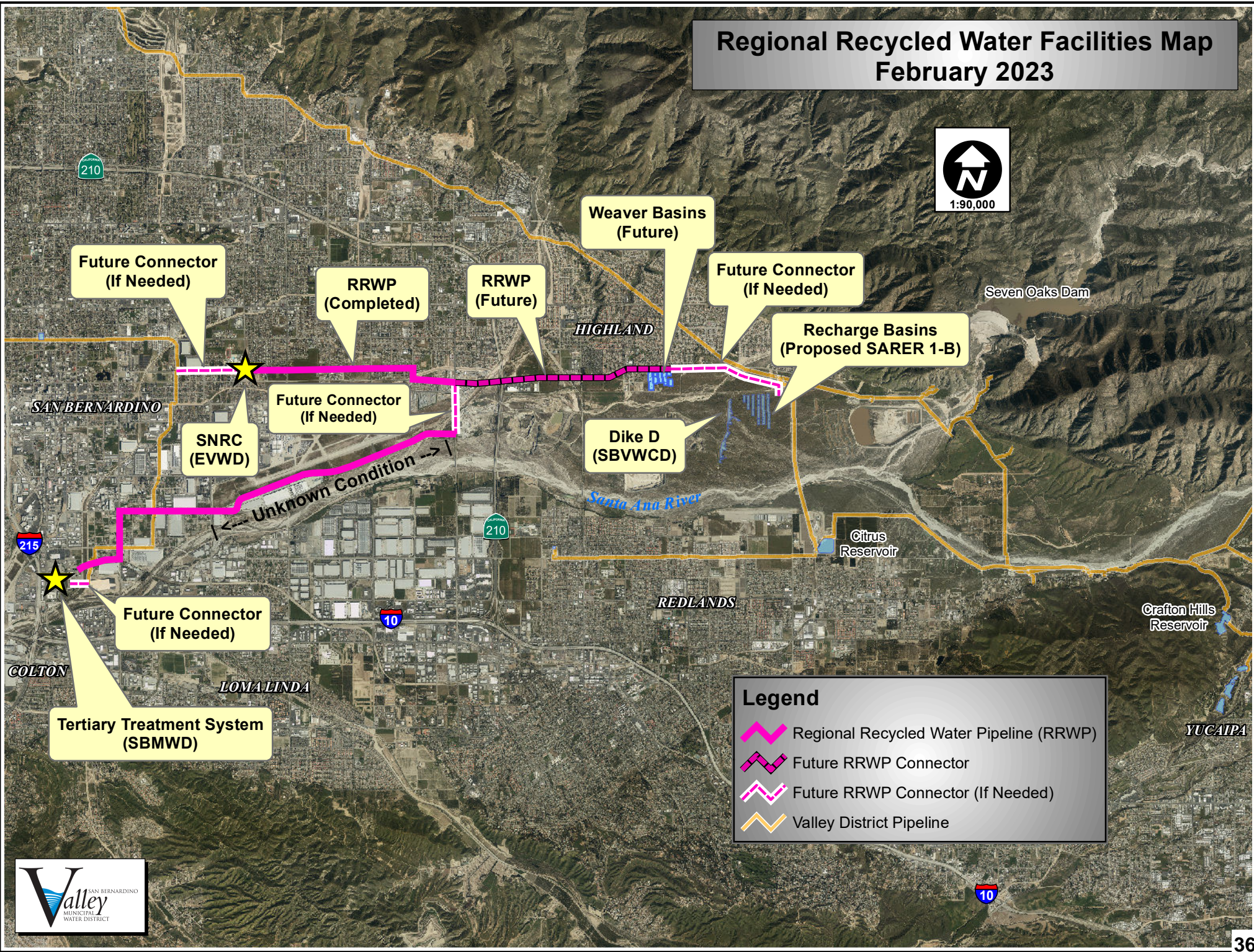
Fiscal Impact

The requested additional budgetary authority of \$6,779,216 for completing construction of the RRWP east of Alabama Street and the Weaver Basins is partly included in the approved FY23-23 fiscal year General Fund Budget under Line Item No. 6280 for the Regional Recycled Water Facilities. The balance of the cost will be included in the FY23-24 General Fund Budget for consideration by the Board of Directors in the future.

Attachment

Updated Regional Recycled Water Facilities Map, February 2023

Regional Recycled Water Facilities Map February 2023



Legend

- Regional Recycled Water Pipeline (RRWP)
- Future RRWP Connector
- Future RRWP Connector (If Needed)
- Valley District Pipeline

