



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

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

BOARD OF DIRECTORS WORKSHOP - RESOURCES **THURSDAY, OCTOBER 7, 2021 – 2:00 P.M.**

PUBLIC PARTICIPATION

Public participation is welcome and encouraged. You may participate in the October 7, 2021, meeting of the San Bernardino Valley Municipal Water District online and by telephone as follows:

Dial-in Info: (877) 853 5247 US Toll-free

Meeting ID: 979 215 700

PASSCODE: 3802020

<https://sbvmwd.zoom.us/j/979215700>

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

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



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

BOARD OF DIRECTORS WORKSHOP - RESOURCES

AGENDA

2:00 PM Thursday, October 7, 2021

CALL TO ORDER

Chairperson: Director Hayes

Vice-Chair: Director Harrison

1) INTRODUCTIONS

2) PUBLIC COMMENT

3) SUMMARY OF PREVIOUS MEETING

3.1 September 2, 2021, Meeting (Page 3)

[Summary Notes BOD Workshop - Resources 090221](#)

4) DISCUSSION ITEMS

4.1 Consider Agreement to Allow Inclusion of Sites Reservoir Costs on the State Water Project Statement of Charges (Page 9)

[Staff Memo - Consider Agreement to Allow Inclusion of Sites Reservoir Costs on the State Water Project Statement of Charges](#)

[Letter agreement with the Department of Water Resources to place Valley District Sites Reservoir Project Amendment 3 costs on the State Water Project Statement of Charges \(SWPAO #21034\)](#)

4.2 Presentation of the Results from the Study to Determine Whether Spills from the Big Bear Valley Water Sustainability Project Can Be Captured by the Enhanced Recharge Project (Page 25)

[Staff Memo - Presentation of the Results from the Study to Determine Whether Spills from the Big Bear Valley Water Sustainability Project Can Be Captured by the Enhanced Recharge Project](#)

[Executive Summary from Evaluate Spills from Big Bear Lake Summary Report](#)

4.3 Discuss CSDA Committee Participation (Page 39)

Staff Memo- Discuss CSDA Committee Participation
CSDA Committee Overview

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.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: October 7, 2021
TO: Board of Directors Workshop - Resources
FROM: Staff
SUBJECT: Summary of September 2, 2021 Board of Directors Workshop – Resources

The Resources Workshop convened on September 2, 2021. Vice President Hayes chaired the meeting via video conference.

Directors Present: President Paul R. Kielhold, Vice President June Hayes, Director Gil J. Botello, Director T. Milford Harrison, and Director Susan Longville.

Staff Present:

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

Anthony Flordelis – Business Systems Analyst
Matthew E. Howard, MS – Water Resources Senior Planner
Chris Jones, MESM – Preserve System Program Manager
Adekunle Ojo, MPA – Manager of Water Resources

Members of the Public Present:

Kelly Malloy, East Valley Water District
Lonni Granlund, Yucaipa Valley Water District
Melody McDonald, San Bernardino Valley Water Conservation District

Pursuant to the provisions of Executive Order N-29-20 issued by Governor Gavin Newsom on March 19, 2020 this meeting will be conducted by teleconference only.

2. Public Comment

Chair Hayes invited public comment. There was none.

3. Summary of Previous Meeting

The meeting notes from the August 5, 2021 Board of Directors Workshop - Resources were accepted with no comments.

4.1 Consider Required 20-year Water Quality Modeling Projections for the Recharge of State Water Project Water

Water Resources Manager Adekunle Ojo reminded the Board that this project is to perform modeling for imported water. The action is related to a cooperative agreement with the Regional Water Quality Control Board to maintain water quality in the basin. The action is a requirement of the agreement with a deadline at the end of the calendar year, he advised. A Request for Proposal (RFP) generated only one proposal from Geoscience, which has a history of performing work related to this agreement, Ojo stated. The total project cost would be \$63,650, and Valley District would be responsible for \$33,065, as 70 percent of the effort is in the District's service area. It is anticipated that the modeling work will take two months, and this action would be on track to get this submitted to the Regional Board before the end of the year.

In response to Director Longville, Mr. Ojo confirmed the Salt and Nutrient Management Plan process is being led by WSC and Matt Howard is the project manager.

Director Longville expressed concern that the smaller Riverside and Arlington basins are paying almost half of the cost. Deputy General Manager / Chief Water Resources Officer Bob Tincher responded that he will ask Geoscience for a breakdown.

Director Botello asked about the RFP. Mr. Ojo assured that it was posted on the website. Director Botello asked if there were any other area consultants who could perform the work. Mr. Ojo indicated this is a unique area of expertise and the time frame is limited. Other consultants are capable, but it is up to them to submit a proposal, he said. Director Botello pointed out that the District's pattern has been to do business with consultants with whom the District is comfortable and asked if the work was unique enough to require sole source.

Mr. Tincher replied that the modeling takes two months and time is short. He stated that the RFP noted that the model was available for use by other consultants, as it is owned by Valley District. The decision was made on a business basis, he assured.

President Kielhold asked how many contracts the District currently has with Geoscience. Mr. Ojo responded that he is aware of active contracts for the Integrated Regional Water Quality

Model, and the Cactus Basin recharge modeling. Mr. Tincher added that Geoscience is a sub-consultant on the Salt and Nutrient Management Plan.

In response to Vice President Hayes, Mr. Tincher stated that under the agreement, 20-year projections were required every six years, but the Board approved a recent amendment to space them every 10 years. Once this report is done, it may not have to be done again, he explained.

Vice President Hayes inquired about cost increases due to inclusion of additional basins. Director Longville said she was aware this may be the last time to complete this before going into a much more beneficial and useful way of managing.

Action Item(s): By a unanimous roll-call vote, the Board directed staff to place a consulting services agreement with Geoscience on the next regular Board of Directors meeting for consideration.

4.2 Discuss Resolution No.1126 to Submit a Grant Application to the Wildlife Conservation Board Public Access Program

Preserve System Program Manager Chris Jones reminded the Board of a previous application to the Wildlife Conservation Board (WCB) Riparian Habitat Conservation Program and advised that the District has been invited to submit the full application to the Public Access Program, due September 16, 2021. He explained the use of the planning and design funds and noted that the goal is to produce a bid package that is ready to go to begin implementing some of the activities, while providing a project overview.

Mr. Jones said the fiscal impact for the planning effort is expected to be \$1.5 million over three years, of which the District's grant request is 25 percent (approximately \$358,000) for the public access component, with a match of approximately \$1.1 million.

Public Access and Riparian grants together would provide about \$750,000 to \$800,000 to cover planning alone, Jones noted. A WCB decision notice is expected between February and May of 2022. In response to Director Longville, Mr. Jones noted that 60 percent would be coming from the Habitat Conservation Plan (HCP) partners and the split is not yet completely worked out. He noted that other sources are being sought to provide the required matching funds. Director Longville stated concern as this moves forward into an operational perspective with public access activities.

A resolution is required to authorize staff to submit an application for funding which certifies that the District will comply with rules and regulations, commit to terms and conditions of the agreement, and appoint a designated representative, Mr. Jones said.

Director Botello inquired whether the District had considered using local labor, such as the California Conservation Corps for trail restoration or other work. He suggested it may enhance the proposal.

Mr. Jones responded positively and reported a pending arrangement with Cal State students for the implementation phase.

Vice President Hayes reported that Sunshine Haven is close to opening.

Action Item(s): By a unanimous roll-call vote, the Board directed staff to place Resolution No. 1126 on the next Board of Directors regular meeting agenda for consideration.

4.3 Consideration of the USGS Data Collection Program for Fiscal Year 2021 - 2022

Water Resources Senior Planner Matthew Howard presented the annual United States Geological Survey (USGS) Data Collection Program for fiscal year 2021 – 2022. He described the current activities by USGS to measure changes in water levels including stream gauges, groundwater well measurements, and precipitation stations. The efforts provide a lot of data for vital projects of Valley District, he stated. Data is used in the annual Basin Technical Advisory Committee Regional Water Management Plan, the annual Change in Groundwater Storage Report, and in the Yucaipa Groundwater Sustainability Plan. Program elements are the Watermaster Data Collection Program, Groundwater Level Monitoring Program, and the Upper Santa Ana River Habitat Conservation Plan, he added.

Mr. Howard also said that USGS has a vested interest in and method of proactive maintenance of the wells which utilizes cameras going down into the wells.

The total cost of the program is \$1,124,370, of which USGS contributes \$159,000 in federal matching funds, Mr. Howard explained. There is a reimbursement from the Watermaster parties of \$222,265. The Valley District's net cost comes to \$743,105 and was included in this fiscal year budget, Mr. Howard advised.

Deputy General Manager / Chief Water Resources Officer Bob Tincher added that the data collected is also crucial for groundwater flow models and the Precipitation Index.

Director Longville expressed a desire to see the Agreement cost for a few prior years, which Mr. Howard agreed to include in the Board presentation. He added the cost was less than a 1 percent increase over 2019 for the cooperators for the Valley District.

President Kielhold inquired about other work USGS is doing for the District besides this and Biology. Mr. Howard added the Studies Program, which assists with groundwater flow modeling and tracking the environmental data for the HCP.

Director Botello asked whether a COVID-19 shutdown would impact USGS' work. Howard reported there has been no lapse over the last year due to COVID.

Action Item(s): By a roll-call vote, the Board forwarded the Joint Funding Agreement to the next Board of Directors' meeting for consideration.

4.4 Consider Entering into an Agreement with ESRI for Development of a Real Time GIS Environment Configuration

Chief Information Officer Melissa Zoba explained that the current practice of maintaining data in various file formats creates data entry errors and duplication of work. Ms. Zoba proposed to utilize the District's current relationship with its partner ESRI to leverage the existing GIS Department to enable more effective collection, processing, and output. She described how the data coming in from SCADA is created into a conduit to disseminate the information in the user's required manner. This plan should eliminate a server, reduce staff time, and be utilized for future projects, Ms. Zoba said

Ms. Zoba described the two elements of the plan to be completed by the end of 2021 and reminded the Board that this item was approved in the 2021 - 2022 General Fund Budget, Line Item 6360. The fiscal impact is not to exceed \$34,515.

Director Longville indicated support.

Action Item(s): By unanimous roll-call vote, the Board directed staff to place the proposed Professional Services Agreement for the Development of a Real Time GIS Environment Configuration on the next Board of Directors' meeting for consideration.

4.5 Consider ESRI Enterprise Advantage Program for FY 2021-22

Chief Information Officer Melissa Zoba introduced ESRI's Enterprise Advantage Program, which is designed to help organizations identify their goals and objectives and tie them into the appropriate technology.

She described the annual subscription plan's function as maximizing the value of the ArcGIS program with access to a team of ESRI experts for assistance with upcoming events and for the long term, and with prioritizing initiatives. Each will be brought back to the Board to initiate the cycle.

Ms. Zoba narrated the scope of work and reminded the Board that this item was approved in the 2021 – 2022 General Fund Budget, Line Item 6360. The total annual cost is \$52,100. This is a strategic technology plan for the District, she indicated, and recommended continuing the program for two to three years.

Director Harrison said he appreciated moving in this direction and the District will benefit. Director Botello pointed out this could be an expenditure of \$150,000 over the next three years for strategic planning and asked for detail on value. Ms. Zoba explained the process and the benefit of ESRI. There is no commitment or expectation that ESRI will be contracted with to develop any program or product defined in the technical plan, she said.

Vice President Hayes posited that this integrates well with the strategic plan. Ms. Zoba assured her cyber security is included in the plan.

Action Item(s): By unanimous roll-call vote, the Board directed staff to place the proposed ESRI Enterprise Advantage Program contract for FY 2021-22 on the next Board of Directors meeting for consideration.

5. Future Business

- U.S. Census data / redistricting
- Report of current contractors and projects to be posted on website

6. Adjournment

Staff Recommendation

Receive and file.



DATE: October 7, 2021

TO: Board of Directors Workshop - Resources

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

SUBJECT: Consider Agreement to Allow Inclusion of Sites Reservoir Costs on the State Water Project Statement of Charges

Staff is recommending an agreement that would enable the Department of Water Resources (DWR) to include Valley District's proposed Sites Reservoir Amendment 3 costs, which is still in development and will be presented to the Board at a subsequent workshop, on Valley District's State Water Project (SWP) Annual Statement of Charges (SOC) along with Valley District's other SWP costs. The Agreement only establishes a funding mechanism for DWR to bill Valley District for these costs and, in no way, obligates Valley District to continued participation in the project. Valley District special legal counsel participated in the development of this agreement.

Background:

As a result of a series of flow restrictions intended to protect endangered species in the Sacramento - San Joaquin Delta, the average water delivery for the State Water Project has been reduced by approximately 20% (20,000 acre-feet per year reduction for Valley District) since 2007 with possible future reductions likely due to ongoing fish population issues. To help overcome these reductions, the California Department of Water Resources (DWR), along with Valley District and many other State Water Contractors, are promoting the Delta Conveyance Project (Delta Conveyance) which will restore some of this lost supply. In addition to Delta Conveyance, Valley District continues to investigate possible, additional supplies both locally and in other parts of the State to help ensure that we can reliably meet supplemental water demands long into the future. Conjunctive use in the San Bernardino Basin through programs like the Santa Ana River Conservation and Conjunctive Use Project (SARCCUP) will rely on supplemental water supplies like those from the Sites Reservoir Project. In addition, securing additional supplies, like Sites Reservoir, helps

Valley District mitigate any potential risks of further cutbacks on the State Water Project and other uncertainties.

The Sites Reservoir has been anticipated for more than 30 years. It was originally envisioned as part of, what was then referred to, as Stage II of the State Water Project which was administered by DWR until 2010 when the Sites Reservoir Authority took over. The project was originally envisioned as an off-stream reservoir with 1.3 to 1.8 million acre-feet of storage capacity that would be filled from several diversions off the Sacramento River.

The Valley District Board initially decided to participate in Phase 1 of the Project for 30,000 acre-feet per with 15,000 AF for Valley District and the remaining 15,000 AF being provided for Santa Ana River Watershed (Watershed) projects like the Santa Ana River Conservation and Conjunctive Use Project (SARCCUP). Subsequently, the SARCCUP agencies informally chose not to participate in the remaining 15,000 AF so the Board chose to reduce Valley District's total participation amount to its "Class 1" water amount, or 21,400 acre-feet per year.

A value planning study evaluated the size of the reservoir based upon the number of participants and the need for certain project features. This resulted in a "right sized" project at 1.5 million acre-feet which is currently estimated to cost about \$3.93 billion. Valley District's portion of the total construction cost is about \$374 million (assuming cash financing). The current estimated cost per acre foot from the Project is about \$625 delivered north of the Delta. After considering Delta losses and power costs to deliver to Valley District, the total, cost could be as high as \$800. This cost is considered very reasonable for a new water supply in the State of California. What makes the project cost reasonable is that it uses existing SWP facilities to deliver the water. To the State Water Contractor participants, the Sites Reservoir project is an extension of the SWP. It is also worth noting that the Sites Reservoir Project complements Delta Conveyance by providing more water in dry and critically dry years while Delta Conveyance provides more water in wet years. If the Sites Reservoir was in place this year, Valley District would have received between 30,000 and 42,000 acre-feet of water, enough to meet our direct delivery needs and provide some recharge.

Fiscal Impact:

None

Staff Recommendation:

Authorize staff to place this agreement on an upcoming Board of Directors agenda for consideration.

Attachments:

Letter agreement with the Department of Water Resources to place Valley District Sites Reservoir Project Amendment 3 costs on the State Water Project Statement of Charges (SWPAO #21034)

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Proposition 1, adopted by the California voters in 2014, dedicated funds for investments in water storage projects that improve the operation of the state water system and California Water Plan. The California Water Commission is administering the Water Storage Investment Program (WSIP) to fund the public benefits associated with these projects. SPA is a project participant in the WSIP, and the Sites Reservoir Project would provide public benefits of flood control, recreation, and ecosystem improvements. Sites Reservoir Project would also augment the supplies of water in the Sacramento-San Joaquin Delta and is expedient for the accomplishment of the purposes of the State Water Resources Development System. Through Proposition 1 and Water Code Section 79759, DWR is an ex officio member of the SPA. DWR is willing to facilitate the planning of the Sites Reservoir Project and is willing to provide for the Sites Reservoir Project Planning Costs in the Agencies' SOC under the WSC between each Agency and DWR.

The Agencies and SPA are preparing Amendment 3 to Sites Reservoir Planning Agreement (Amendment 3) that provides for the SPA to be reimbursed for the Sites Reservoir Planning Costs (A3 Planning Costs) based on each Agency's allocation of Sites Reservoir Project. To facilitate the reimbursement to SPA, the Agencies are requesting that the A3 Planning Costs be included in each Agency's SOC for calendar years 2022-2024.

The purpose of this Agreement is to establish a funding mechanism for the planning costs for the Sites Reservoir Project that are the responsibility of the Agencies. This Agreement does not represent a commitment by DWR, SPA or the Agencies to approve the Sites Reservoir Project under the California Environmental Quality Act.

DWR approves the inclusion of Agency's allocation of A3 Planning Costs in each Agency's SOC beginning in January 2022 subject to the following terms and conditions:

TERM

1. This Agreement addresses the inclusion of A3 Planning Costs in the SOC for calendar years 2022, 2023, and 2024. This Agreement shall become effective upon execution by all Parties and shall terminate on December 31, 2024, or upon final payment to SPA of all costs attributable to this Agreement, whichever occurs later. The term of this Agreement may be extended by mutual agreement by DWR, SPA, and one or more of the Agencies.

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APPROVALS

2. This Agreement is contingent upon the approval of Amendment 3 between the SPA and each Agency.

UNIQUENESS OF AGREEMENT

3. DWR's approval under this Agreement is unique and shall not be considered a precedent for future agreements or DWR activities.

PAYMENTS THROUGH SOC AND PAYMENTS TO SPA

4. Payments to DWR through the SOC are scheduled to start in January 2022, or upon execution of Amendment 3 between the SPA and each Agency for A3 Planning Costs, whichever comes last.
5. SPA shall send to DWR, for each of the years included in this Agreement, projected total annual charges under A3 Planning Costs for each Agency by February of the previous year to cover A3 Planning Costs for the following calendar year.
6. DWR shall include projected A3 Planning Costs from SPA as a charge under the Transportation Minimum Operations, Maintenance, Power & Replacement Component in each Agency's SOC pursuant to Articles 25 and 29 of the WSC. Notwithstanding the typical method of collection of Minimum Component charges pursuant to Article 29(g) of the WSC, each Agency shall pay DWR one or two lump sum payments each year for the total annual A3 Planning Costs as shown in the SOC during the term of this Agreement.
7. DWR recently received projected A3 Planning Costs from SPA for 2022. Because DWR received these costs after the 2022 SOC's were already sent to SWP contractors, DWR shall send a revised 2022 SOC to each Agency that includes 2022 A3 Planning Costs and 2023 A3 Planning Costs. The 2022 A3 Planning Costs payment from each Agency to DWR will be due in January of 2022. If Amendment 3 between the SPA and the Agency is not executed in 2021, but will be executed in 2022, the payment to DWR from the Agency shall be due within 30 days upon execution of Amendment 3. The 2023 A3 Planning Costs from each Agency to DWR will be due in October of 2022.
8. After DWR receives payment from the Agencies, DWR will transmit the payment amounts to SPA within 60 days from the date of the last payment received from the Agencies.

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9. All charges under this Agreement are subject to redetermination (true-up). This true-up process is common to other charges included in the SOC. The need for a true-up under this Agreement would likely come from, though not limited to, an update of total annual A3 Planning Costs from SPA to DWR.

INVOICES, NOTICES, OR OTHER COMMUNICATIONS

10. All invoices, notices, or other communications required under this Agreement shall be in writing, and will be deemed to have been duly given upon the date of service, if: (i) served personally on the Party to whom notice is to be given; (ii) sent by electronic mail, and the Party to whom notice is to be given confirms receipt; or (iii) on the third day after mailing, if mailed to the Party to whom invoice, notice or other communication is directed, by first-class mail, postage prepaid, and properly addressed to the designated representative(s) of the Parties set forth below.

Department of Water Resources
Division of Fiscal Services
715 P Street, 6th Floor
Post Office Box 942836
Sacramento, California 94236-0001

Sites Project Authority
Mr. Jerry Brown, Executive Director
Sites Project Authority
122 Old Highway 99 West
Maxwell, California 95955

Mr. Mark Krause, General Manager
Desert Water Agency
Post Office Box 1710
Palm Springs, California 92263-1710

Mr. Jim Barrett, General Manager
Coachella Valley Water District
Post Office Box 1058
Coachella, California 92236-1058

Ms. Heather Dyer, General Manager
San Bernardino Valley Municipal Water District
380 East Vanderbilt Way
San Bernardino, California 92408-3593

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Mr. Lance Eckhart, General Manager
San Gorgonio Pass Water Agency
1210 Beaumont Avenue
Beaumont, California 92223-1506

STATUS OF SITES RESERVOIR PROJECT AND FUNDS

11. Each Agency recognizes that Sites Reservoir Project may not proceed to construction. No reimbursements of money advanced or contributed to DWR pursuant to this Agreement will occur, except for unspent funds as determined by SPA pursuant to the separate agreement between the SPA and each Agency for the SPA Planning Costs.

GENERAL PROVISIONS

12. This Agreement may be amended or modified only by a subsequent written agreement approved and executed by the Parties. However, the Term may be extended as described in Paragraph 1 of this Agreement.
13. This Agreement does not amend, abridge, or modify each Agency's respective WSC in any way.
14. This Agreement constitutes the sole, final, complete, exclusive and integrated expression and statement of the terms of this Agreement among the Parties concerning the subject matter, and supersedes all prior negotiations, representations or agreement, either oral or written, that may be related to the subject matter of this Agreement, except as to those other agreements that are expressly referred to in this Agreement.
15. The Agencies agree to defend and hold DWR, its officers, employees, and agents harmless from any direct or indirect loss, liability, lawsuits, cause of action, judgment or claim, and shall indemnify DWR, its officers, employees, and agents from all lawsuits, costs, damages, judgments, attorneys' fees, and liabilities that DWR, its officers, employees and agents incur as a result of DWR approving this Agreement or providing services under this Agreement, except to the extent resulting from the sole negligence or willful misconduct of DWR, its officers, employees, and agents.
16. This Agreement shall not be administered or interpreted in any way that would cause financial harm to other contractors not participating in this Agreement. The Agencies shall be responsible, jointly and severally, as determined by DWR, for any demonstrable increase in costs to the other contractors that may result from the implementation of this Agreement.

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17. The Parties agree that this Agreement will be executed using DocuSign by electronic signature, which shall be considered an original signature for all purposes and shall have the same force and effect as an original signature. The Agreement shall take effect as soon as all Parties have signed.
18. All Parties will receive an executed copy of this Agreement via DocuSign after all Parties have signed.
19. If Agency requires a Board of Directors' approval of this Agreement, it shall send an electronic file of the board approval to DWR.

If the terms and conditions in this Agreement are acceptable, please sign and date using DocuSign.

Sincerely,



Ted Craddock
Deputy Director
State Water Project

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ACCEPTED:

SITES PROJECT AUTHORITY

Signature

Title

Date

COACHELLA VALLEY WATER DISTRICT

Signature

General Manager

Title

Date

SAN BERNARDINO VALLEY MUNICIPAL WATER DISTRICT

Signature

CEO/General Manager

Title

Date

DESERT WATER AGENCY

Signature

Title

Date

SAN GORGONIO PASS WATER AGENCY

Signature

Title

Date

Certificate Of Completion

Envelope Id: 9CB5C85C82824C0D86ACA2C50029A167	Status: Sent
Subject: Please DocuSign: Sites Letter Agreement for Planning Charges in SOC - Final.docx	
Source Envelope:	
Document Pages: 7	Signatures: 1
Certificate Pages: 6	Initials: 0
AutoNav: Enabled	Envelope Originator:
Envelopeld Stamping: Enabled	WOEM WOEM Support Staff
Time Zone: (UTC-08:00) Pacific Time (US & Canada)	1416 9th Street
	Sacramento, CA 95814
	woemadmin@water.ca.gov
	IP Address: 136.200.53.23


Record Tracking

Status: Original	Holder: WOEM WOEM Support Staff	Location: DocuSign
9/8/2021 12:14:08 PM	woemadmin@water.ca.gov	
Security Appliance Status: Connected	Pool: StateLocal	
Storage Appliance Status: Connected	Pool: Department of Water Resources	Location: DocuSign

Signer Events

Signature	Timestamp
Brian "BG" Heiland brian.heiland@water.ca.gov Principal Engr, WR Department of Water Resources Security Level: Email, Account Authentication (None)	Sent: 9/8/2021 1:55:07 PM Viewed: 9/8/2021 1:55:46 PM Signed: 9/8/2021 2:16:59 PM
Electronic Record and Signature Disclosure: Not Offered via DocuSign	

Olivia Virgadamo olivia.virgadamo@water.ca.gov Supervising Engineer Department of Water Resources Security Level: Email, Account Authentication (None)	Completed Using IP Address: 136.200.53.25	Sent: 9/8/2021 1:55:08 PM Viewed: 9/8/2021 2:26:14 PM Signed: 9/8/2021 2:26:31 PM
Electronic Record and Signature Disclosure: Not Offered via DocuSign		

Ted Craddock ted.craddock@water.ca.gov Deputy Director, State Water Project Department of Water Resources Security Level: Email, Account Authentication (None)	 Signature Adoption: Uploaded Signature Image Using IP Address: 136.200.53.21	Sent: 9/8/2021 2:26:32 PM Viewed: 9/8/2021 4:36:07 PM Signed: 9/8/2021 4:36:37 PM
Electronic Record and Signature Disclosure: Not Offered via DocuSign		

Heather Dyer heatherd@sbvmwd.com CEO/General Manager Security Level: Email, Account Authentication (None)		Sent: 9/8/2021 4:36:40 PM Viewed: 9/9/2021 9:36:35 AM
Electronic Record and Signature Disclosure: Accepted: 9/9/2021 9:36:35 AM ID: 26182afa-49d5-4954-955e-b580a9a1f1ee		

Jerry Brown jbrown@sitesproject.org Security Level: Email, Account Authentication (None)		Sent: 9/8/2021 4:36:39 PM Viewed: 9/8/2021 5:20:49 PM
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Signer Events	Signature	Timestamp
Electronic Record and Signature Disclosure: Accepted: 9/8/2021 5:20:49 PM ID: 407178bc-7d35-4340-aa70-673eeca374f9		
Jim Barrett jbarrett@cvwd.org General Manager Security Level: Email, Account Authentication (None)		Sent: 9/8/2021 4:36:40 PM Viewed: 9/8/2021 5:17:40 PM
Electronic Record and Signature Disclosure: Accepted: 9/8/2021 5:17:40 PM ID: 4c35378c-baa2-4680-bac7-4c8cbfec7a4f		
Lance Eckhart leckhart@sgpwa.com General Manager Security Level: Email, Account Authentication (None)		Sent: 9/8/2021 4:36:40 PM
Electronic Record and Signature Disclosure: Accepted: 6/8/2021 9:01:12 AM ID: 976bccce-bccf-4dab-8189-043bfc272394		
Mark Krause mkrause@dwa.org Security Level: Email, Account Authentication (None)		Sent: 9/8/2021 4:36:39 PM
Electronic Record and Signature Disclosure: Not Offered via DocuSign		

In Person Signer Events	Signature	Timestamp
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Browsers (for SIGNERS):	Internet Explorer 6.0?, Mozilla FireFox 1.0, NetScape 7.2 (or above)
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DATE: October 7, 2021

TO: Board of Directors

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

SUBJECT: Presentation of the Results from the Study to Determine Whether Spills from the Big Bear Valley Water Sustainability Project Can Be Captured by the Enhanced Recharge Project

This study was authorized by Board of Directors in February 2019 to estimate the benefit, if any, of the Big Bear Valley Water Sustainability Project (Project) to the Valley District service area. At this workshop, staff will present the results from this study.

Background

Wastewater in the Big Bear Lake area is currently treated and discharged north to the high desert where it is used for farming in the Mojave watershed. The Big Bear water agencies (agencies) are planning to construct the Project, an enhanced wastewater treatment process, that will allow up to 2,000 acre feet of the product water to be delivered directly into Big Bear Lake (Lake). Not only will the Project provide a new water supply for the Lake, but it could also provide an additional water supply downstream of the Lake, in the Valley District service area, in the form of more frequent spills/releases from the Lake. The additional spills/releases from the Lake could be diverted by the Enhanced Recharge Project for recharge into the San Bernardino Basin.

The goal of this study was to model the increase in spills/releases due to the Project and quantify the amount of those spills/releases that could be captured by the Enhanced Recharge Project downstream. The evaluation took into consideration the current and future operational criteria for Big Bear Dam and Seven Oaks Dam; the current diversion capability of San Bernardino Valley Water Conservation District facilities downstream of Seven Oaks Dam, about 200 cubic feet per second (cfs); and the projected diversion amount of the Enhanced Recharge Project, about 500 cfs. The scope of work also included a task to optimize the operating criteria for Big Bear Dam to maximize downstream capture. Table 1 – 3 in the attached Executive Summary provides the most favorable capture scenarios given current operating criteria for Big Bear Dam. Table 1-5 in

the attached Executive Summary provides the most favorable capture scenarios for the optimized model runs.

Fiscal Impact

The total cost of this study was about \$144,000.

Staff Recommendation

Receive and file

Attachment

Executive Summary from *Evaluate Spills from Big Bear Lake Summary Report*

Evaluate Spills from Big Bear Lake

Summary Report

Prepared for:

San Bernardino Valley Municipal Water District

June 30, 2021

GEOSCIENCE

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620 Arrow Highway, Suite 2000, La Verne, CA 91750 | Mailing: P.O. Box 220, Claremont, CA 91711

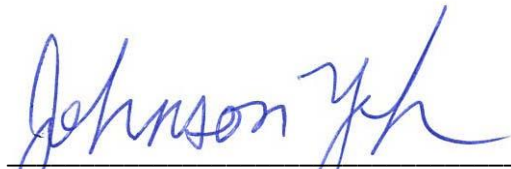
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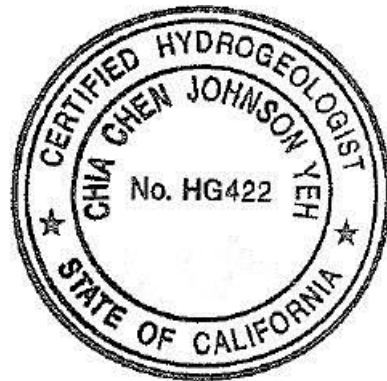
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Senior Modeler



Johnson Yeh, Ph.D, PG, CHG
Principal/Lead Modeler
CHG No. 422



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EVALUATE SPILLS FROM BIG BEAR LAKE

SUMMARY REPORT

1.0 EXECUTIVE SUMMARY

1.1 Purpose and Scope

The San Bernardino Valley Municipal Water District (Valley District) retained Geoscience Support Services, Inc. (Geoscience) to estimate the impact of the Replenish Big Bear Project on spills/releases from Big Bear Lake (Project) and to quantify any changes in the Lake Release Schedule in order to capture all additional spills downstream at the Enhanced Recharge Project. A suite of models will be used for this project to simulate the system from Big Bear Lake to the proposed North Riverside Rubber Dam. These models include the Big Bear Lake Model, Seven Oaks Watershed Model (developed here), Seven Oaks Reservoir Model (i.e., OPMODEL), San Bernardino Basin Area (SBBA) Watershed Model, and Riverside North Rubber Dam Model.

The scope of work for evaluating spills from Big Bear Lake includes:

- Task 1 — Develop Seven Oaks Watershed Model
- Task 2 — Estimate Lake Release and Enhanced Recharge Project Capture Amounts without Project
- Task 3 — Can the Enhanced Recharge Project Capture the Additional Release Amounts with Project?
- Task 4 — If All Spills are not Captured, develop a Lake Release Schedule That Would Enable Enhanced Recharge Project to Capture All of the Spills Due to the Project
- Task 5 — Prepare Final Report
- Task 6 — Project Management and Meetings

During the project, Tasks 1 through 3 were summarized in individual technical memorandums (TMs; Geoscience 2019 and 2020a-b). Each draft TM was submitted for comment and review. This summary report satisfies Task 5 and incorporates the material from the previous three TMs and comments.

1.2 Predictive Scenario Assumptions

In order to estimate releases from Big Bear Lake with and without Replenish Big Bear Project as well as how much of these releases could be captured, two baseline scenarios under No Project Conditions and eight project scenarios using four Replenish Big Bear Project alternatives – Alternative 1 (P1), Alternative 2 (P2), Alternative 3B (P3) and Alternative 4 (P4) were conducted. No Project Conditions (NP) and the four Replenish Big Bear Project alternatives (P1, P2, P3 and P4) were simulated under Current Conditions (Scenario NP-C, P1-C, P2-C, P3-C and P4-C) and Projected Conditions (Scenario NP-P, P1-P, P2-P, P3-P and P4-P). The difference between Current Conditions and Projected Conditions is whether the Enhanced Santa Ana River (SAR) Project and Riverside North Aquifer Storage and Recovery (RNASR) Project are considered implemented. Major model assumptions are summarized in Table 1-1 below.

Table 1-1. Major Assumptions for Predictive Scenarios

Model Scenario	Replenish Big Bear Project ¹	Enhanced Santa Ana River (SAR) Project ²	Riverside North Aquifer Storage and Recovery Project	Hydrologic Period
Scenario NP-C (No Project, Current Conditions)	No Project • Current Lake Operating Rules	No	No	1977-2018
Scenario NP-P (No Project, Projected Conditions)	No Project • Current Lake Operating Rules	Yes	Yes	1977-2018
Scenario P1-C (Project Alternative 1, Current Conditions)	Project Alternative 1 • Current Lake Operating Rules • 2,000 AFY reclaimed water into the Lake	No	No	1977-2018
Scenario P1-P (Project Alternative 1, Projected Conditions)	Project Alternative 1 • Current Lake Operating Rules • 2,000 AFY reclaimed water into the Lake	Yes	Yes	1977-2018
Scenario P2-C (Project Alternative 2, Current Conditions)	Project Alternative 2 • Current Lake Operating Rules • 2,000 AFY reclaimed water into the Lake • 120 AFY lake withdrawals as indirect recharge	No	No	1977-2018

Model Scenario	Replenish Big Bear Project ¹	Enhanced Santa Ana River (SAR) Project ²	Riverside North Aquifer Storage and Recovery Project	Hydrologic Period
Scenario P2-P (Project Alternative 2, Projected Conditions)	Project Alternative 2 <ul style="list-style-type: none"> • Current Lake Operating Rules • 2,000 AFY reclaimed water into the Lake • 120 AFY lake withdrawals as indirect recharge 	Yes	Yes	1977-2018
Scenario P3-C (Project Alternative 3B, Current Conditions)	Project Alternative 3B <ul style="list-style-type: none"> • Current Lake Operating Rules • 80 AFY reclaimed water to the Stickleback Pond • 1,920 AFY reclaimed water into the Lake • 120 AFY lake withdrawals as indirect recharge 	No	No	1977-2018
Scenario P3-P (Project Alternative 3B, Projected Conditions)	Project Alternative 3B <ul style="list-style-type: none"> • Current Lake Operating Rules • 80 AFY reclaimed water to the Stickleback Pond • 1,920 AFY reclaimed water into the Lake • 120 AFY lake withdrawals as indirect recharge 	Yes	Yes	1977-2018
Scenario P4-C (Project Alternative 4, Current Conditions)	Project Alternative 4 <ul style="list-style-type: none"> • Revised Lake Operating Rules • 80 AFY reclaimed water to the Stickleback Pond • 1,920 AFY reclaimed water into the Lake • 120 AFY lake withdrawals as indirect recharge 	No	No	1977-2018
Scenario P4-P (Project Alternative 4, Projected Conditions)	Project Alternative 4 <ul style="list-style-type: none"> • Revised Lake Operating Rules • 80 AFY reclaimed water to the Stickleback Pond • 1,920 AFY reclaimed water into the Lake • 120 AFY lake withdrawals as indirect recharge 	Yes	Yes	1977-2018

¹ The revised lake operating rules applied to Project Alternative 4 includes the revision on Flood Control Releases and Mutual Releases. The revised Flood Control Releases do not have the January, February and March one-foot drawdown requirement in Dry and Below Normal hydrologic conditions. The revised Mutual Releases have Releases for Mutual when Big Bear Lake level is within the top four feet for all months and the releases are limited to 12 cfs. Details of Replenish Big Bear Project Alternatives will be discussed in Section 7.2.

² Under no Enhanced SAR Project conditions (i.e., Current Conditions), Valley District and Western currently have the ability to divert an average of approximately 200 cubic feet per second (cfs) of water downstream from Seven Oaks Dam. Under Enhanced SAR Project conditions (i.e., Projected Conditions), Valley District and Western have the ability to divert an average of approximately 500 cfs of water downstream from Seven Oaks Dam.

1.3 Predictive Scenario Results

- Under Current Conditions (No Enhanced SAR Project), Cuttle Weir averaged 11,078 acre-ft per year of projected diversion into the SAR SG under the baseline scenario NP-C. Project Scenario P1-C, P2-C, P3-C and P4-C diverted flow at the Cuttle Weir averaged at 11,183 acre-ft per year, 11,178 acre-ft per year, 11,176 acre-ft per year, and 11,187 acre-ft per year, respectively. Compared to No Project conditions, the additional lake releases available for groundwater recharge ranged from 891 acre-ft per year to 1,021 acre-ft per year. The corresponding increase in Cuttle Weir Diversion ranged from 99 acre-ft per year to 109 acre-ft per year, which is approximately 10% – 11% of the additional lake releases available for groundwater recharge. Limited additional recharge is due to the annual maximum SAR SG spreading capacity being reached when additional lake releases for groundwater recharge are available under Current Conditions.
- Under Projected Conditions (Enhanced SAR Project), Cuttle Weir averaged 15,371 acre-ft per year of projected diversion into the SAR SG under the baseline scenario NP-P. Project Scenario P1-P, P2-P, P3-P and P4-P diverted flow at the Cuttle Weir averaged at 15,593 acre-ft per year, 15,575 acre-ft per year, 15,560 acre-ft per year, and 15,589 acre-ft per year, respectively. Compared to No Project conditions, the additional lake releases available for groundwater recharge ranged from 891 acre-ft per year to 1,021 acre-ft per year. The corresponding increase in Cuttle Weir Diversion ranged from 189 acre-ft per year to 223 acre-ft per year, which is approximately 21% – 22% of the additional lake releases available for groundwater recharge. Limited additional recharge is due to the annual maximum SAR SG spreading capacity being reached when additional lake releases for groundwater recharge are available under Projected Conditions.
- The baseline average annual projected recharge in the SBBA for the 42-yr predictive period was 18,059 acre-ft per year under Current Conditions (Scenario NP-C). Compared to the baseline scenario NP-C, the increase of projected recharge ranged from 126 acre-ft per year to 169 acre-ft per year.
- The baseline average annual projected recharge in the SBBA for the 42-yr predictive period was 16,531 acre-ft per year under Projected Conditions (Scenario NP-P). Compared to the baseline scenario NP-P, the increase of projected recharge ranged from 142 acre-ft per year to 171 acre-ft per year.
- During the 42-year period of analysis, the RNASR Project averaged 6,566 acre-ft per year of total recharge under the baseline scenario NP-P as well as all Project scenarios (Scenario NP-P, P1-P, P2-P, P3-P and P4-P). This is due to the RNASR recharge capacity at the impoundment area and recharge basins reaching its maximum when additional inflow into the RNASR Project is available.

In this case, the additional inflow will not result in additional recharge at the RNASR Project but will return to SAR as un-captured flow.

1.4 Allocation of Potential Benefits from Additional Lake Releases Available for Groundwater Recharge

Water use allocation of potential benefits from additional Lake Releases compared to No Project conditions has been analyzed under Current Conditions – No Enhanced SAR Project or RNASR Project (Table 1-2). During the 42-year period, additional streambed percolation and evapotranspiration loss between Bear Valley Dam and Seven Oaks Dam, which is an environmental benefit for the watershed, ranged from 133 acre-ft per year to 182 acre-ft per year. Valley District/ Western Use of additional lake releases, including decrease in Mutual's In Lieu Water Needs from Valley District, ranged from 372 acre-ft per year to 588 acre-ft per year. Additional Un-Captured Flow past the Proposed RNASR Project (flow out of Valley District) ranged from 496 acre-ft per year to 577 acre-ft per year. Additional evapotranspiration at Seven Oaks Dam and SBBA is negligible.

Table 1-2. 42-Year Average Annual Water Use Allocation of Additional Lake Releases under Current Conditions – Replenish Big Bear Project Alternative 1 to 4

Water Use Allocation	Model Scenario under Current Conditions			
	P1-C - Project Alternative 1	P2-C - Project Alternative 2	P3-C - Project Alternative 3B	P4-C - Project Alternative 4
Total Additional Lake Releases [acre-ft/yr]	1,335	1,259	1,199	1,084
Additional Streambed Percolation and Evapotranspiration Loss Above Seven Oaks Dam [acre-ft/yr]	182	172	168	133
Additional Valley District/ Western Use [acre-ft/yr]	588	557	533	372
Flow Out of Valley District [acre-ft/yr]	561	527	496	577
Additional Evapotranspiration Loss [acre-ft/yr]	3	2	2	2

Under Current Conditions, additional streambed percolation and evapotranspiration loss between Bear Valley Dam and Seven Oaks Dam takes up 12% to 14% of the additional Lake Releases. Valley District/ Western Use of additional lake releases ranged from 34% to 44% and flow out of Valley District ranged from 41% to 53%. Additional evapotranspiration at Seven Oaks Dam and SBBA is below 1%.

Water use allocation of potential benefits from additional Lake Releases compared to No Project conditions has also been analyzed under Projected Conditions – with Enhanced SAR Project and RNASR Project (Table 1-3). During the 42-year period, additional streambed percolation and evapotranspiration loss between Bear Valley Dam and Seven Oaks Dam, which is an environmental benefit for the watershed, ranged from 133 acre-ft per year to 182 acre-ft per year. Valley District/ Western Use of additional lake releases, including decrease in Mutual's In Lieu Water Needs from Valley District, ranged from 474 acre-ft per year to 708 acre-ft per year. Additional Un-Captured Flow past the Proposed RNASR Project (flow out of Valley District) ranged from 389 acre-ft per year to 475 acre-ft per year. Additional evapotranspiration at Seven Oaks Dam and SBBA is negligible.

Table 1-3. 42-Year Average Annual Water Use Allocation of Additional Lake Releases under Projected Conditions – Replenish Big Bear Project Alternative 1 to 4

Water Use Allocation	Model Scenario under Current Conditions			
	P1-P Project Alternative 1	P2-P Project Alternative 2	P3-P Project Alternative 3B	P4-P Project Alternative 4
Total Additional Lake Releases [acre-ft/yr]	1,335	1,259	1,199	1,084
Additional Streambed Percolation and Evapotranspiration Loss Above Seven Oaks Dam [acre-ft/yr]	182	172	168	133
Additional Valley District/ Western Use [acre-ft/yr]	708	675	639	474
Flow Out of Valley District [acre-ft/yr]	443	410	389	475
Additional Evapotranspiration Loss [acre-ft/yr]	2	2	3	3

Under Projected Conditions, additional streambed percolation and evapotranspiration loss between Bear Valley Dam and Seven Oaks Dam takes up 12% to 14% of the additional Lake Releases. Valley District/ Western Use of additional lake releases ranged from 44% to 54% and flow out of Valley District ranged from 32% to 44%. Additional evapotranspiration at Seven Oaks Dam and SBBA is below 1%.

1.5 Task 4 Alternatives: Optimizing Valley District/Western’s Capture of Additional Big Bear Lake Releases

Task 4 Alternatives optimized Valley District/Western Capture of additional Lake Releases by shifting releases to drier hydrologic years when annual spreading capacity was not reached at Valley District/Western facilities. The optimization task was undertaken following a review of the results of Alternatives 1-4 to improve downstream capture of additional releases by Valley District/Western.

Spreading capacity at the SAR SG was reached during wet years. Additional Big Bear Lake Releases made during wet years when spreading capacity was already reached were not able to be captured. Alternatives 5 -13 altered Big Bear Lake Release strategies to shift these releases to drier hydrologic years when additional spreading capacity would be available at spreading grounds.

Water use allocation of potential benefits from additional Lake Releases compared to No Project conditions has been analyzed under Current Conditions – No Enhanced SAR Project or RNASR Project (Table 1-4). During the 42-year period, additional streambed percolation and evapotranspiration loss between Bear Valley Dam and Seven Oaks Dam, which is an environmental benefit for the watershed, ranged from 131 acre-ft per year to 407 acre-ft per year. Valley District/ Western Use of additional lake releases, including decrease in Mutual's In Lieu Water Needs from Valley District, ranged from 350 acre-ft per year to 1,588 acre-ft per year. Additional Un-Captured Flow past the Proposed RNASR Project (flow out of Valley District) ranged from 100 acre-ft per year to 427 acre-ft per year. Additional evapotranspiration at Seven Oaks Dam and SBBA is negligible.

Table 1-4. 42-Year Average Annual Water Use Allocation of Additional Lake Releases under Current Conditions – Replenish Big Bear Project Alternative 5 to 13

Water Use Allocation	Model Scenario under Current Conditions								
	P5-C Project Alt 5	P6-C Project Alt 6	P7-C Project Alt 7	P8-C Project Alt 8	P9-C Project Alt 9	P10-C Project Alt 10	P11-C Project Alt 11	P12-C Project Alt 12	P13-C Project Alt 13
Total Additional Lake Releases [acre-ft/yr]	1,084	1,084	1,201	1,452	1,668	1,982	1,982	1,982	1,982
Additional Streambed Percolation and Evapotranspiration Loss Above Seven Oaks Dam [acre-ft/yr]	307	171	212	249	359	407	187	156	131
Additional Valley District/ Western Use [acre-ft/yr]	350	483	559	770	1,199	1,405	1,588	1,503	1,511
Additional Evapotranspiration Loss [acre-ft/yr]	1	4	7	6	10	12	14	14	14
Flow Out of Valley District [acre-ft/yr]	425	427	423	426	100	158	193	308	326
Percentage of Additional Total Lake Releases Beneficial to Valley District/Western	32%	45%	47%	53%	72%	71%	80%	76%	76%

Under Current Conditions, additional streambed percolation and evapotranspiration loss between Bear Valley Dam and Seven Oaks Dam takes up 7% to 28% of the additional Lake Releases. Valley District/ Western Use of additional lake releases ranged from 32% to 80% and flow out of Valley District ranged from 6% to 39%. Additional evapotranspiration at Seven Oaks Dam and SBBA is below 1%.

Water use allocation of potential benefits from additional Lake Releases compared to No Project conditions has also been analyzed under Projected Conditions – with Enhanced SAR Project and RNASR Project (Table 1-5). During the 42-year period, additional streambed percolation and evapotranspiration loss between Bear Valley Dam and Seven Oaks Dam, which is an environmental benefit for the watershed, ranged from 131 acre-ft per year to 407 acre-ft per year. Valley District/ Western Use of additional lake

releases, including decrease in Mutual's In Lieu Water Needs from Valley District, ranged from 447 acre-ft per year to 1,807 acre-ft per year. Additional Un-Captured Flow past the Proposed RNASR Project (flow out of Valley District) ranged from -21 acre-ft per year to 342 acre-ft per year. Additional evapotranspiration at Seven Oaks Dam and SBBA is negligible.

Table 1-5. 42-Year Average Annual Water Use Allocation of Additional Lake Releases under Projected Conditions – Replenish Big Bear Project Alternative 5 to 13

Water Use Allocation	Model Scenario under Current Conditions								
	P5-P Project Alt 5	P6-P Project Alt 6	P7-P Project Alt 7	P8-P Project Alt 8	P9-P Project Alt 9	P10-P Project Alt 10	P11-P Project Alt 11	P12-P Project Alt 12	P13-P Project Alt 13
Total Additional Lake Releases [acre-ft/yr]	1,084	1,084	1,201	1,452	1,668	1,982	1,982	1,982	1,982
Additional Streambed Percolation and Evapotranspiration Loss Above Seven Oaks Dam [acre-ft/yr]	307	171	212	249	359	407	187	156	131
Additional Valley District/ Western Use [acre-ft/yr]	447	583	641	861	1,320	1,532	1,751	1,782	1,807
Additional Evapotranspiration Loss [acre-ft/yr]	2	4	6	5	10	12	14	14	14
Flow Out of Valley District [acre-ft/yr]	327	327	342	336	-21	31	30	30	30
Percentage of Additional Total Lake Releases Beneficial to Valley District/Western	41%	54%	53%	59%	79%	77%	88%	90%	91%

Under Projected Conditions, additional streambed percolation and evapotranspiration loss between Bear Valley Dam and Seven Oaks Dam takes up 7% to 28% of the additional Lake Releases. Valley District/ Western Use of additional lake releases ranged from 41% to 91% and flow out of Valley District ranged from -1% to 30%. Additional evapotranspiration at Seven Oaks Dam and SBBA is below 1%.

Tables 32 and 33 provide a breakdown of water use allocation for all Alternatives. Water use allocation describes the breakdown of additional Big Bear Lake Releases between the various hydrologic end-points. Additional releases become additional streambed percolation, ET, or capture for spreading at facilities downstream. The breakdown shows where additional Big Bear Releases under Replenish Big Bear Project conditions go once released.

Replenish Big Bear Project Operational Alternative 10 reduces Alternative 1 project related early season FC Releases in wet years and allocates the flow into one or two dry years beforehand. A minimum of 2,000 acre-ft combined FC Releases and Dry Year Releases should be satisfied for each year. Dry Year Releases are distributed in April at 68 cfs if available, which is representative of historical Flood Control Release rates at the Bear Valley Dam. Scenario P10-P (i.e., Project Alternative 10, Projected Conditions) yields 1,532 acre-ft/yr of additional Valley District/ Western Use, which is 77% of the 1,982 acre-ft/yr additional lake releases. This scenario represents the maximum percentage that could be captured by Valley District/ Western using historical flood control release rates at Bear Valley Dam. Replenish Big Bear Project Operational Alternative 11 to 13 increased the release rate of the Dry Year Releases up to 1,008 cfs, to simulate how increased release rate could reduce streambed percolation losses and evapotranspiration losses above Seven Oaks Dam. Scenario P13-P (i.e., Project Alternative 13, Projected Conditions) yields 1,807 acre-ft/yr of additional Valley District/ Western Use, which is 91% of the 1,982 acre-ft/yr additional lake releases, providing the highest capture rate by Valley District/ Western amongst all the scenario investigated. However, the release rate of 1,008 cfs is beyond the observed historical release rate and may not be operationally feasible at Bear Valley Dam.

Table 34 details the alternative assumptions and results, along with the amount of Local Resource Investment Program (LRIP) funding for each Alternative, depending on Valley District/Western's capture amounts. Alternatives are ranked by LRIP funding amount from highest to lowest. Higher dry year release amounts and rates reduce streambed losses above Seven Oaks dam and reduce rejected recharge during wet years when the annual spreading capacity of the SAR SG are reached. Scenario 10-P, yielding 1,532 acre-ft/yr, represents the maximum Valley District/Western capture using historical flood control release rates at Bear Valley Dam.



DATE: October 7, 2021
TO: Board of Directors
FROM: Kristeen Farlow, Strategic Communications Manager
SUBJECT: Discuss CSDA Committee Participation

The Board of Directors is asked to discuss participation in the California Special Districts Association Committees and Expert Feedback Teams.

Background

The California Special Districts Association has a number of Committees and Expert Feedback Teams that enable member districts to get involved in the work of the Association. Committees are seeking dedicated people to provide expertise in directing the activities and policies of CSDA. Some travel to participate in the Committees may be required; CSDA does not reimburse for travel expenses. The Committees include:

- Audit: maintain and update internal controls;
- Elections & Bylaws: conduct annual elections and occasional bylaws reviews;
- Fiscal: oversee the financial direction of the organization
- Legislative*: develop CSDA's legislative agenda;
- Member Services: support member recruitment and retention efforts;
- Professional Development: provide direction for professional development events.

*If you are interested in serving on the Legislative Committee, you are asked to further define your interests in the following subcategories (rank your interests): Environment, Formation and

Reorganization, Governance, Human Resources and Personnel, Public Works and Facilities, and Revenue.

Expert Feedback Teams provide input to CSDA advocacy staff on specific areas of public policy facing the districts. Team members engage via email and will not be required to travel. Teams include Environment, Governance, Legal, Revenue, Formation and Reorganization, Human Resources and Personnel, and Public Works and Facilities.

Participation in the Committees and Teams begin January 2022 and lasts one year. If you are interested in serving on a Committee or Team, Staff will complete the required form and submit it online. Staff may reach out to you for additional requested information on the form. Committee interest forms must be submitted by October 8, 2021.

Fiscal Impact

There is no fiscal impact related to this item.

Recommended Action

Discuss the CSDA Committees and Expert Feedback Teams and consider which Committee(s), if any, the Directors are interested in serving on for the upcoming term. Direct Staff to submit the Committee Interest Form on behalf of the District as directed by the deadline.

Attachment

CSDA Committee Overview

Get Involved - California Special Districts Association

Get more out of membership by becoming more involved. Below are some ways you can support the strength and effectiveness of CSDA while growing relationships within the association. We encourage the participation from member agencies as well as Business Affiliates.

CSDA Committees play a key role in establishing the direction and priorities of the association. Committee involvement is crucial to the success of activities and the development of CSDA. Each committee requires certain [time commitments and attendance](#).

- Legislative Committee: Develops CSDA's legislative agenda.
- Professional Development Committee: Provides direction for professional development and events.
- Member Services Committee: Supports member recruitment and retention efforts.
- Audit Committee: Maintains and updates internal controls.
- Elections & Bylaws Committee: Conducts annual elections and occasional bylaws reviews.
- Fiscal Committee: Oversees the financial direction of the organization.

Expert Feedback Teams allow CSDA to quickly and effectively gauge the impact new laws may have on special districts. If you have firsthand experience in one or more of the areas below, please join a CSDA's Expert Feedback Team. Teams include: Environment, Revenue, Formation and Reorganization, Governance, Human Resources and Personnel, Public Works and Facilities, and Legal.

Legislative Distribution List are email correspondence sent to individuals where participants have the opportunity to provide feedback on issues before the Legislative Committee meets. This is a great way to stay informed of CSDA's legislative efforts without the time and travel commitment of serving as a member of the committee.

Magazine & eNews article ideas are always welcome from our members. Please send to CSDA Communications Specialist [Vanessa Gonzales](#).

Workshop & webinar proposals are collected year-round.

CSDA Chapters provide opportunities to get involved locally in [affiliated chapters](#).