

**SACRAMENTO GROUNDWATER AUTHORITY**  
**REGULAR MEETING OF THE BOARD OF DIRECTORS**

**Thursday, October 10, 2019; 9:00 a.m.**

5620 Birdcage Street, Suite 110

Citrus Heights, CA 95610

(916) 967-7692

**Agenda**

The Board will discuss all items on this agenda, and may take action on any of those items, including information items and continued items. The Board may also discuss other items that do not appear on this agenda, but will not act on those items unless action is urgent, and a resolution is passed by a two-thirds (2/3) vote declaring that the need for action arose after posting of this agenda.

The public shall have the opportunity to directly address the Board on any item of interest before or during the Board's consideration of that item. Public comment on items within the jurisdiction of the Board is welcomed, subject to reasonable time limitations for each speaker. Public documents relating to any open session item listed on this agenda that are distributed to all or a majority of the members of the Board of Directors less than 72 hours before the meeting are available for public inspection in the customer service area of the Authority's Administrative Office at the address listed above. In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting, please contact the Executive Director of the Authority at (916) 967-7692. Requests must be made as early as possible, and at least one full business day before the start of the meeting. The Board of Directors may consider any agenda item at any time during the meeting.

**1. CALL TO ORDER AND ROLL CALL**

**2. PUBLIC COMMENT:** Members of the public who wish to address the Board may do so at this time. Please keep your comments to less than three minutes.

**3. CONSENT CALENDAR**

Minutes of August 8, 2019 meeting

**Action: Approve August 8, 2019 meeting minutes**

**4. SUSTAINABLE GROUNDWATER MANAGEMENT ACT AND GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT UPDATE**

Information Update: Rob Swartz, Manager of Technical Services

**5. SACRAMENTO REGIONAL WATER BANK**

Information Presentation: Rob Swartz, Manager of Technical Services

**Action Item: Authorize the Executive Director to enter into a Water Management Options Pilot Memorandum of Agreement with the Regional Water Authority and United States Bureau of Reclamation**

**6. EXECUTIVE DIRECTOR'S REPORT**

**7. DIRECTORS' COMMENTS**

**ADJOURNMENT**

**Next SGA Board of Director's Meeting** – December 12, 2019, 9:00 a.m. at the RWA/SGA office, 5620 Birdcage Street, Ste. 110, Citrus Heights.

Notification will be emailed when the SGA electronic packet is complete and posted on the SGA website at <http://www.sgah2o.org/meetings/board-meetings/>

Sacramento Groundwater Authority Board Meeting  
October 10, 2019

**AGENDA ITEM 3: CONSENT CALENDAR**

**STAFF RECOMMENDATION:**

**Action: Approve August 8, 2019 meeting minutes**



## **1. CALL TO ORDER**

Chair Tobin called the meeting of the Board of Directors to order at 9:00 a.m. at the Regional Water Authority/Sacramento Groundwater Authority office. Individuals in attendance are listed below:

### Board Members

Caryl Sheehan, Citrus Heights Water District  
Marcus Yasutake, City of Folsom  
Brett Ewart, City of Sacramento  
Linda Dorn, County of Sacramento  
Robert Matteoli, Del Paso Manor Water District  
Randy Marx, Fair Oaks Water District  
Paul Schubert, Golden State Water Company  
John Wingerter, Orange Vale Water Company  
Mary Harris, Rio Linda/Elverta Community Water District  
Dave Jones, Sacramento Suburban Water District  
Pam Tobin, San Juan Water District  
Mike DeWit, Agriculture

### Staff Members

Jim Peifer, Rob Swartz, Nancy Marrier, Cecilia Partridge, Monica Garcia and Chris Sanders, legal counsel

### Others in Attendance

Dan York, Joe Duran, Kevin Kennedy, Richard Shatz, Tom Gray, José Ramirez, Matti Siltanen, Susan Talwar and N.C. Doyel

## **2. PUBLIC COMMENT**

None.

## **3. CONSENT CALENDAR**

The minutes of the June 13, 2019 meeting

Motion/Second/Carried (M/S/C) Ms. Harris moved, with a second by Mr. Schubert, to approve the June 13, 2019 Sacramento Groundwater Authority (SGA) Board minutes. The motion carried by the unanimous voice vote of all directors present, with the exception of Ms. Harris who abstained.

#### **4. SUSTAINABLE GROUNDWATER MANAGEMENT ACT AND GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT UPDATE**

Rob Swartz, Manager of Technical Services, reported that on July 17, 2019 the Department of Water Resources (DWR) released its recommendations and reviews for 15 Alternatives to Groundwater Sustainability Plans (GSPs) that were submitted prior to January 1, 2017. DWR recommended approval of nine of the plans. With the recommendations, DWR released detailed reviews of the Alternative GSPs. Staff expects to review these to gain insight on the expectations of our own GSP.

Progress continues on activities related to developing a GSP for the North American Subbasin (NASb). A summary table of activities related to the scope of work for the NASb relative to the DWR Proposition Sustainable Groundwater Planning (SGWP) grant was included in the packet. Also included was a summary of the budget with respect to the NASb SGWP grant activities. Mr. Swartz will meet with the new DWR SGWP grant manager that has been assigned in the near future.

There were two deep monitoring wells constructed in Placer and Sutter Counties. Mr. Swartz described the differences found when testing the wells. One of the wells required a special cap seal as the well water contains methane gas. The wells will be monitored and the data will provide useful information. Construction is expected to begin on four shallow monitoring wells mainly along the Bear and Feather Rivers. Under SGMA, we are required to address the relationship between the surface water systems and the groundwater systems. A draft model grid has been completed. There is an opportunity through RWA to get the funding together to also develop the model for the South American Subbasin. Mr. Swartz reported that a better model will result when both models are developed at the same time.

Mr. Swartz gave an overview of the Prop 1 SGWP Budget. SGA has made their full contribution of \$262,700 to the effort. The first grant reimbursement has been received from DWR in the amount of \$50,912. Total funds collected to date are \$475,791. After expenses the current cash balance is \$114,555.

#### **5: GROUNDWATER MANAGEMENT PROGRAM UPDATE**

Mr. Swartz said that staff is continuing to monitor groundwater elevations on a monthly basis in several monitoring wells. He provided a PowerPoint presentation update on the Groundwater Management Program including groundwater level monitoring and groundwater quality issues. He said that data indicates that groundwater continues recovering since the most recent drought. He provided information and data on various wells through the region showing water levels, drawdown and recovery.

The SGA Regional Contamination Issues Committee met on July 25, 2019. Issues discussed included an update on the hexavalent chromium (CrVI) maximum contaminant level (MCL) setting process. The committee was formed in 2004 in response to additional discovery of Aerojet contamination north of the American River. There are claims by McClellan that recovery of groundwater levels due to conjunctive use were interfering with the remediation timetable. The committee

includes representatives of impacted water suppliers, regulators overseeing sites and responsible parties. The intent of the committee is to find areas of common interest to improve efficiency for all participants and to identify emerging regional water quality concerns as early as possible.

Mr. Swartz reported that at a July 19, 2019 State Water Board (SWB) Division of Drinking Water Advisory Group meeting on hexavalent chromium, it was reported that an economic feasibility white paper and public workshops are expected in October or November. Informal rulemaking on maximum contaminant level is expected in late 2019 or early 2020 with formal rulemaking in late 2020 or early 2021.

Mr. Swartz reported that an MCL for 1,2,3 Trichloropropane (TCP) was established by the SWB in December 2017. As a result of the MCL, sampling was required of public water systems through 2018. The results indicate that there are two occurrences of MCL exceedances in the SGA area, and there are two exceedances to the south of the SGA.

The SWB has ordered additional sampling for PFAS in water systems that have had previous detections of PFAS or are near potential source activities. This included 32 wells in Sacramento County. While there is no MCL for PFAS, the State Water Board is considering lowering the notification levels and action levels for certain PFAS compounds, which could have ramifications in the region. Several thousand PFAS compounds exist and are used to make materials resistant to stains, water-proof and non-stick items and are contained in fire-fighting foam. The compounds are extremely persistent and resistant to typical environmental breakdown accumulating in the air, soil and water as well as in the human body.

Mr. DeWit exited the meeting.

PFASs that are of current concern include Perfluorooctanoic acid (PFOA) and Perfluorooctanesulfonic acid (PFOS). There is no current drinking water standard but US EPA established a lifetime Health Advisory Level (HAL) for PFOA and PFOS of 70 nanograms/liter (or parts per trillion). The SWB adopted the US EPA HAL as the California Response Level (RL). When the RL is exceeded, and concentrations cannot be reduced below the RL, DDW recommends removing the source from service.

The SWB established Notification Levels for PFOA and PFOS in 2018. When NLs are exceeded, the Division of Drinking Water (DDW) recommends the source be removed from service and treated. SWB has ordered additional sampling for drinking water wells within two miles of an airport, one mile of a municipal landfill or one mile of a well with a UCMR3 detection. Thirty-two wells in Sacramento County were ordered to test with results expected within the next few months.

Mr. Peifer added that we don't want regulatory action that punishes the water purveyors for PFAS. Other states are making progress to make sure regulatory and any legal efforts that come up punish the makers of PFAS and help to offset the costs to water agencies.

Chair Tobin said that she has been in meetings with Mr. Swartz and Mr. Peifer to discuss the direction for SGA to continue improving the effectiveness of the organization. It was suggested that a workshop be held to familiarize new members with the history and future goals of SGA. Mr. Peifer said that a workshop would provide historical context of the SGA and future potential, to build members understanding of the SGA. Regulatory and technical issues would also be addressed. Members were asked to email any topics or clarification on issues that they would like to see covered at a workshop to Chair Tobin, Mr. Peifer or Ms. Partridge.

## 6. EXECUTIVE DIRECTOR'S REPORT

**Finance and Administrative Services Manager Recruitment** – Staff is advertising for a Finance and Administrative Services Manager to fill the vacancy when Nancy Marrier retires. Ms. Marrier will be retiring from public service on December 3, 2019. There will be an overlap time so the new candidate has an opportunity to learn the functions of the position.

**SGA Outreach** – Mr. Swartz will present to the Groundwater Resources Association of California's Second Annual Groundwater Congress, which will take place September 17-19, 2019 in Sacramento. He will speak on expanding conjunctive use through creation of the Sacramento Regional Water Bank.

**Legislative Update** – Funding for safe drinking water has been resolved through SB 200 (Monning). The solution provides for \$130 million annually and comes primarily from Greenhouse Gas Reduction Funds (GGRF) with a backstop from the General Fund.

With the passage of SB 200, much of the work on implementation will shift over to the State Water Board and the regulatory realm. The State Water Board had previously begun work on a safe drinking water needs assessment and water affordability. Regional Water Authority (RWA) staff has been engaged in those processes and has submitted comment letters into both of those proceedings remaining engaged as they, and others work on safe drinking water.

**Water Resilience Portfolio Initiative** – On April 29, 2019, Governor Newsom signed an executive order directing his administration to develop a comprehensive strategy to build a climate-resilient water system. The order directs the secretaries of the California Natural Resources Agency, California Environmental Protection Agency and the California Department of Food and Agriculture to identify and assess a suite of complementary actions to ensure safe and resilient water supplies, flood protection and healthy waterways for the state's communities, economy and environment.

The RWA will be developing a set of recommendations to inform the Governor's Water Resilience Portfolio initiative, which will partly focus on successful groundwater management and future opportunities resulting from it, such as the Sacramento Regional Water Bank.

**Water Forum Update** – Water Forum staff continue to provide support to the Voluntary Agreement (VA) effort. The VAs would provide an alternative to the SWRCB staff proposed update to the Bay Delta Water Quality Control Plan, which would substantially modify flows into the Delta. The VAs will provide flow and habitat, and for this region, a version of the American River Flow Management Standard. The VA proposal is currently being evaluated by the SWRCB to determine if it provides equivalent benefits to the staff proposal.

Other efforts include facilitation of SGMA efforts in south Sacramento County and the planning/permitting of habitat projects.

**SGA Financial reports** – The financial reports for the period ending on June 30, 2019 were included in the packet.

## **7. DIRECTORS' COMMENTS**

Mr. Ewart reported that during a 2018 water transfer the City of Sacramento received groundwater from Sacramento Suburban Water District. The City is now transferring surface water back into Sacramento Suburban Water District's system.

Mr. Schubert said that Golden State Water will have their system online for fluoridation at their Arden facility by September.

Ms. Harris, Rio Linda/Elverta Community Water District, thanked Mr. Swartz for his Groundwater Management Program Update presentation.

Mr. Yasutake said that City of Folsom is close to finishing up their intertie project with Golden State Water Company under a drought grant. On August 27<sup>th</sup> the City of Folsom will be hosting a rate study public workshop. The city has received approval from the Bureau of Reclamation to expand their water place of use for their Central Valley Project water service contract. This allows the city to use water anywhere within the city limits.

Ms. Dorn, County of Sacramento, announced a public workshop on geophysical techniques hosted by the Consumnes Work Group on August 21<sup>st</sup> in the City of Galt. Additional information is available on the Water Forum website.

Ms. Sheehan, Citrus Heights Water District, said that with the Safe Drinking Water Act, the State Water Board Division of Drinking Water is developing an entire branch to handle this matter by hiring 26 new employees to work in the new branch. They are working on getting the program up and operational.

Mr. Gray said that the Fair Oaks Water District is in the process of planning for the construction of two new wells. The board will be considering one well as an ASR project. Their board acquired almost one acre for a new three-million-gallon water storage tank.

## Adjournment

With no further business to come before the board, Chair Tobin adjourned the meeting at 10:17 a.m.

By:

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Chairperson

Attest:

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Nancy Marrier, Finance and Administrative Services Manager

Sacramento Groundwater Authority Board Meeting  
October 10, 2019

**AGENDA ITEM 4: SUSTAINABLE GROUNDWATER MANAGEMENT ACT AND  
GROUNDWATER SUSTAINABILITY PLAN DEVELOPMENT UPDATE**

**BACKGROUND:**

Progress continues on activities related to developing a GSP for the North American Subbasin (NASb). A summary table of activities related to the scope of work for the NASb relative to the DWR Proposition Sustainable Groundwater Planning (SGWP) grant is enclosed. Also enclosed is a summary of the budget with respect to the NASb SGWP grant activities.

**STAFF RECOMMENDATION:**

Information Update: Rob Swartz, Manager of Technical Services

**North American Subbasin Groundwater Sustainability Plan Development Activity Status  
October 3, 2019**

<b>Project Administration</b>	
	<b><i>Grant Administration</i></b>
	First modification of grant agreement with DWR completed, which reduced local cost share by eliminating grant application preparation expenses. First progress report approved and first invoice paid by DWR. Second and third progress reports and reimbursement requests approved by DWR; reimbursement checks are being processed by DWR. Met with new DWR grant manager on September 6, 2019. Staff working on fourth progress report and invoice to cover through September 30, 2019 to be submitted by end of October 2019.
<b>Water Data Needs</b>	
	<b><i>Deep Monitoring Well Construction</i></b>
	Construction complete. Well header complete, ready for install at WPMW-11B, because methane gas encountered in well. Contract in process to survey elevations.
	<b><i>Shallow Monitoring Well Construction</i></b>
	Construction complete. Elevations to be surveyed.
	<b><i>Monitoring Well Transducer Installation</i></b>
	Installations complete into six existing wells and collecting measurements. Transducers purchased and installed into new monitoring wells, except into WPMW-11B (gassy well). Download of installed transducers planned for October.
	<b><i>Water Quality Sampling</i></b>
	Sampling complete at 42 out of 45 monitoring wells, last samples to be collected on October 7.
	<b><i>Surface Water Inflow/Outflow Monitoring</i></b>
	Transducers installed at all four locations. A temporary transducer at Raccoon Creek was replaced in May 2019 with the permanent transducer. Data downloaded from all transducers. Initial flow measurements were performed in June 2019 to assist with verifying/developing rating tables for each site. Next flow measurements are scheduled for October.
<b>Groundwater Management Tool Needs</b>	
	<b><i>Regional Data Management System</i></b>
	Data management system coding in progress. Creating upload Excel templates. Meeting scheduled with SGA, Placer Co and Roseville to review Data Management Plan.
	<b><i>Regional Groundwater Model</i></b>
	SGA met with consultant team on March 5 to discuss required data and how to best send out data request. Woodard & Curran updated GSA Coordination Committee on second set of data needs on May 6 and last set of data needs on June 10. Model grid has been developed and reviewed.
<b>GSP Development</b>	
	Historic reports incorporated into GSP. Draft release schedule prepared. Draft Chapters 1 through 3 in progress and to be completed by November for review by GSAs.
<b>Public Notification and Communications</b>	
	Initial notification complete. NASb website complete. Currently considering adding to NASb website a module to receive public input on draft GSP as it is released. West Placer, SGA, South Sutter WD, RD 1001, and Sutter County communications plans complete.
<b>GSA Coordination</b>	
	<b><i>Intrabasin GSA Coordination</i></b>
	2019 meetings on February 4, April 8, May 6, and June 10, September 9, and October 7. Next meeting scheduled for November 4.
	<b><i>Interbasin GSA Coordination</i></b>
	West Placer GSA attending Yuba Subbasin stakeholder meetings. Need to schedule additional meetings with adjacent subbasins.

## Prop 1 Sustainable Groundwater Management Grant Program Budget

As of October 3, 2019

### Funds to Date

SGA GSA Full Contributions	\$	262,700.00
RD 1001 GSA Year 1 Contribution	\$	26,268.00
Sutter GSA Year 1 Contribution (paid by NCMWC)	\$	29,536.00
NCMWC Portion of Sutter GSA Yrs 2 & 3	\$	5,838.70
Sutter County Portion of Sutter GSA Yrs 2 & 3	\$	6,819.30
South Sutter Water District GSA Year 1 Contribution	\$	43,631.00
West Placer GSA Year 1 Contribution	\$	50,086.00
West Placer GSA Year 2 Contribution	\$	8,604.00
DWR Grant Reimbursements	\$	50,912.35
	\$	<u>484,395.35</u>

### Expenses to Date

3-fold (website initial development)	\$	7,500.00
GEI (MBK sub)	\$	256,233.81
Woodard & Curran	\$	119,181.25
	\$	<u>382,915.06</u>

**Cash Balance** **\$ 101,480.29**

**Payable from DWR** **\$ 181,835.36**

**Net Program Balance** **\$ 283,315.65**

Notes: This is an accounting of only the funds being managed through SGA.

Other GSA partners are tracking their own direct expenses for certain tasks.

This does not account for in-kind staff contributions.

RD1001, South Sutter, and West Placer GSAs were assessed Year 2 contributions in August, 2019.

## **AGENDA ITEM 5: SACRAMENTO REGIONAL WATER BANK**

### **BACKGROUND:**

In July 2019, the Regional Water Authority (RWA) adopted a Regional Water Reliability Plan (RWRP). Among the recommendations of the RWRP was to develop the Sacramento Regional Water Bank (Water Bank) as a means of expanding conjunctive use operations in the region to improve water supply reliability. A copy of the RWRP is available at <https://rwah2o.org/regional-water-reliability-and-drought-contingency-plan/>. Staff will provide an overview of how the proposed Water Bank would work and the remaining planning needed to have an operational Water Bank by 2022.

Related to planning for the Water Bank, RWA successfully applied for funding assistance through the United Bureau of Reclamation's Basin Study – Water Management Options Pilot Program. RWA has been awarded \$650,400 that will be used to conduct operations modeling with Reclamation to ensure that the Water Bank does not impact Central Valley Project operations. The operations model is of surface water operations related to reservoirs and rivers, and it would need to be linked to the regional integrated water flow model (IWFM) groundwater model currently being developed in the region to evaluate the Water Bank. The IWFM model development is being used to meet the local cost share requirement for the Reclamation funding support. Because SGA is managing the development of the IWFM model for the North American Subbasin (NASb), SGA would need to be a part of the Memorandum of Agreement (MOA) currently being developed between RWA and Reclamation. This would allow the funds being used for the NASb IWFM to be counted as local cost share. Staff is requesting that the Board authorize the Executive Director to enter into the MOA with RWA and Reclamation upon its completion. A copy of the MOA template is included in the packet.

### **STAFF RECOMMENDATION:**

Information Update: Rob Swartz, Manager of Technical Services

**Action Item: Authorize the Executive Director to enter into a Water Management Options Pilot Memorandum of Agreement with the Regional Water Authority and United States Bureau of Reclamation**

**Department of Interior  
Bureau of Reclamation**

*INSERT Pilot NAME*

MEMORANDUM OF AGREEMENT

The United States Department of Interior, Bureau of Reclamation (Reclamation) and *Insert non-Federal partner Name(s)* agree to work collaboratively to perform the *Insert Pilot Name* as part of the WaterSMART Basin Study Program. This Memorandum of Agreement establishes the terms that will guide the performance of the Pilot.

**ARTICLES**

I. Definitions

- A. Reclamation means the United States Department of the Interior, Bureau of Reclamation.
- B. Non-Federal Partner(s) means *[xyz]*.
- C. Parties means Reclamation and Non-Federal Partner(s).
- D. Agreement means this Memorandum of Agreement.
- E. Contributed Funds Agreement means a legal agreement used to receive “all moneys ... from any State, municipality, corporation, association, firm, district, or individual for investigations, surveys, construction work, or any other development work incident thereto involving operations similar to those provided for by the reclamation law, are covered into the reclamation fund and shall be available for expenditure for the purposes for which contributed in like manner as if said sums had been specifically appropriated for said purposes,” 43 USC 395.
- F. Cost-Share means a specific percentage (%) of identified charges that are allocated to specific entities or Non-Federal Partner(s).
- G. In-kind Services means services provided by a non-Federal entity that substantially contribute to the completion of the work task or task identified.
- H. Confidential Information means trade secrets or commercial or financial information that is privileged or confidential under the meaning of 5 USC 552(b)(4).
- I. Intellectual Property means any invention that is legally protected through patents, copyrights, trademarks, and trade secrets or otherwise protectable under Title 35 of the United States Code, under 7 USC 2321, et seq., or under the patent laws of a foreign country.
- J. Key personnel means *identify the key team members involved in the administration, management, or performance of the study.*

- K. Subject Invention means any invention or other intellectual property conceived or first reduced to practice under this Agreement which is patentable or otherwise protectable under Title 35 of the United States Code, under 7 USC 2321, et seq., or under the patent laws of a foreign country.
- L. Scope of Agreement means those activities set forth in Appendix 1.
- M. Term of Agreement means that period set forth under the Section IV, Article 9, Term of this Agreement.

## II. Authorities and Financial Obligations

1. Authorities: Nothing in this Agreement alters the statutory authorities or any other authorities of the Non-Federal Partner(s) or Reclamation. This Agreement is intended to facilitate cooperative efforts for mutual provision of services and support, and technical assistance by both Parties in the conduct of meeting the objectives and scope of this Agreement. This Agreement does not supersede or void existing agreements between the Non-Federal Partner(s) and Reclamation.

Reclamation's authority to enter into this Agreement:

1. Reclamation Act of June 17, 1902 (ch. 1093, 32 Stat. 388; 43 U.S.C. 372, et seq.) and acts amendatory thereof and supplementary thereto.
2. Title IX of the Omnibus Public Land Management Act of 2009 (P.L. 111-11, 123 Stat. 991).

### Non-Federal Partner's authority to enter into this Agreement:

2. Cost Sharing: The costs of the Pilot will be shared between Reclamation and the Non-Federal Partner(s), with Reclamation providing \$\_\_\_ and the Non-Federal Partner(s) providing \$\_\_\_. The Non-Federal Partner(s) financial contribution will be in the form of \_\_\_\_\_ (identify in-kind or cash and identify specific amounts if both). Reclamation's financial contribution to the Pilot shall not exceed 50% of the total cost. All or part of the Non-Federal Partner's's share may be provided as in-kind services. Valuation of in-kind services shall be in accordance with 2 CFR Part 225, Cost Principles for State, Local, and Indian Tribal Governments (OMB Circular A-87).

3. Financial Obligations: This Agreement is not a funding document and does not authorize the obligation or transfer of funds. If a subsequently identified activity or project is identified that may require Reclamation to receive or expend funds received from the Non-Federal Partner(s) for investigations, surveys, construction work, or any other development work incident thereto involving operations similar to those provided for by the Reclamation law, a supplemental Contributed Funds Agreement, pursuant to the Sundry Civil Expenses Appropriations Act for 1922 (43 USC 395), will be executed. Funds contributed by Non-Federal Partner(s) will only be used to pay for costs incurred by Reclamation associated with completing the tasks described in this Agreement or modifications to this Agreement.

4. Anti-Deficiency Act: All activities, responsibilities, and commitments made under or pursuant to this Agreement (including any Contributed Funds Agreement under this Agreement) are subject to the

availability of appropriated funds and each Agency's budget priorities, as determined by each Agency, and neither the Non-Federal Partner(s) nor Reclamation are obligated in any way under this Agreement to expend appropriations or to enter into any contract, assistance agreement, Contributed Funds agreement, or other financial obligation. No provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. 1341.

### III. Publications, Reports, and Confidentiality

5. Publications: The parties understand and agree that this Agreement may be disclosed to the public in accordance with the Freedom of Information Act. Subject to the requirements of confidentiality and preservation of rights in Subject Inventions, either party may publish the results of this Agreement, PROVIDED:

- a. The other party is allowed to review the manuscript at least sixty (60) days prior to submission for publication by submission to the Authorized Agent.
- b. The publication shall acknowledge this Agreement and the contributions of each party's personnel.
- c. The final decision as to the publication content rests with the party that writes the publication.

6. Reports: The results of this Agreement and science, engineering, and technology data that are collected, compiled, and evaluated under this Agreement shall be shared and mutually interchanged by Non-Federal Partner(s) and Reclamation. A final report summarizing all data shall be submitted to Reclamation and the Non-Federal Partner(s) through the key contacts identified in Sections V.15.A and B within the performance period of this Agreement, as defined in Section IV.10. The final report will be in the public domain, and will be published on Reclamation's website.

7. Confidentiality: Any confidential information used in this Agreement shall be clearly marked confidential or proprietary by the submitter and shall not be disclosed by the Recipient without permission of the owner. To the extent either party orally submits its Confidential Information to the other party, the submitting party will prepare a document marked "CONFIDENTIAL" embodying or identifying in reasonable detail such orally submitted Confidential Information and provide the document to the other party within thirty (30) days of disclosure.

Neither party shall be bound by confidentiality if the Confidential Information received from the other party:

- a. Already is available to the public or known to the recipient;
- b. Becomes available to the public through no fault of the recipient; or
- c. Is nonconfidentially received from another party legally entitled to it.

It shall not be a breach of this Agreement if the Non-Federal Partner(a) are required to disclose the Confidential Information by a valid order of a court or other government body, or as otherwise

required by law, or as necessary to establish the rights of either party under this Agreement; PROVIDED THAT the Non-Federal Partner(s) shall provide prompt prior notice thereof to Reclamation to enable Reclamation to seek a protective order or otherwise prevent such disclosure, and PROVIDED FURTHER THAT the Confidential Information otherwise shall continue to be confidential.

8. Intellectual Property: Unless otherwise agreed by the Agencies, custody and administration of inventions made as a consequence of, or in direct relation to, the performance of activities under this Agreement shall remain with the respective inventing Party. In the event that an invention is made jointly by employees of the Parties or an employee of an Agency's contractor, the Parties shall consult and agree as to future actions toward establishment of patent protection for the invention.

#### IV. Term and Termination

9. Term: This Agreement shall take effect upon the approval of the Parties and, unless terminated per Section IV, Article 11, Termination, will expire three years from the date of the last signature to this Agreement. All Contributed Funds Agreement under this Agreement will be limited to an initial period of performance not to exceed the term of this Agreement, although they may be renewed for additional periods of performance not to exceed the term of this Agreement for any renewal period.

10. Amendment: If either party desires a modification in this Agreement, the parties shall confer in good faith to determine the desirability of such modification. Such modification shall not be effective until a written amendment is signed, and dated by the undersigned representative(s) of both parties.

11. Termination: Either Party may terminate this Agreement prior to its expiration at any time, with or without cause, and without incurring any liability or obligation to the other parties, by giving the other parties at least ninety (90) calendar days prior written notice of termination.

#### V. General

12. Liability: It is understood and agreed that neither party to this Agreement shall be responsible for any damages or injuries arising out of the conduct of activities governed by this Agreement, except to the extent that such damages and/or injuries were caused by the negligent or wrongful acts or omissions of its employees, agents or officers. Reclamation's liability shall be limited by the Federal Tort Claims Act, 28 USC 2671, *et seq.*

13. Limitations: This Agreement sets out the Parties' intentions and objectives and does not direct or apply to any person outside the Non-Federal Partner(s) and Reclamation. This Agreement is not intended to, and does not create, any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity, by anyone against the United States, its agencies, its officers, or any person.

14. Notices and Key Personnel: Notices between the parties and copies of correspondence among the scientific and/or technical representatives of each party that interpret or may have a bearing on the legal effect of this Agreement's terms and conditions shall be sent to the key personnel below. Reclamation's key personnel is authorized to perform scientific and/or technical activities falling

within the Scope of this Agreement. The key personnel is not authorized to change or interpret with authority the terms and conditions of this Agreement.

**A. Partner(s): Name**

Title  
Agency, Department  
Address  
Telephone No.

**B. Reclamation:**

Name  
Title  
Bureau of Reclamation  
Address  
Telephone

15. Subcontracting Approval: A party hereto desiring to obtain and use the services of a third party via contract or otherwise shall give prior notice to the other party, including details of the contract or other arrangement. This requirement is to assure that confidentiality is not breached and rights in Subject Inventions are not compromised.

16. Assignment: Neither party has the right to assign this Agreement or any of its responsibilities hereunder.

17. Endorsement: The Non-Federal Partner(s) shall not in any way state or imply that this Agreement or the results of this Agreement is an endorsement by the Department of the Interior, Federal Government, or Reclamation of its organizational units, employees, products, or services except to the extent permission is granted by an authorized representative of Reclamation.

18. Regulatory Compliance: Both parties acknowledge and agree to comply with all applicable laws and regulations of the state, Federal, and local environmental and cultural and paleontological resource protection laws and regulations as applicable to the activities or projects for this Agreement. These regulatory compliance requirements may include but not limited to, the National Environmental Policy Act (NEPA) including the Council on Environmental Quality and Department of the Interior regulations implementing NEPA, the Clean Water Act, the Endangered Species Act, consultation with potentially affected Tribes, and consultation with the State Historic Preservation Office.

19. Disputes: Any dispute arising under this Agreement, which cannot be readily resolved, shall be submitted jointly to the key personnel officials, identified in Section V, Article 14, Notices and Key Personnel. Each party agrees to seek in good faith to resolve the issue through negotiation or other forms of nonbinding dispute resolution processes mutually acceptable to the parties. Pending the resolution of any dispute or claim pursuant to Section V, Article 19, the parties agree that performance of all obligations shall be pursued diligently.

20. Force Majeure: Neither party shall be liable for any unforeseeable event beyond its reasonable control not caused by the fault or negligence of such party:

- a. Which causes the party to be unable to perform its obligations under this Agreement;  
and
- b. Which it has been unable to overcome by the exercise of due diligence.
- c. This includes, but is not limited to, flood, drought, earthquake, storm, fire, pestilence, lightning and other natural catastrophes, epidemic, war, riot, civil disturbance or disobedience, strikes, labor dispute, failure or sabotage of either party's facilities or any order or injunction made by a court or public agency.

21. Relationship between the Parties: The parties are and shall remain independent contractors and nothing herein shall be construed to create a partnership, agency, joint venture, or teaming agreement between the parties.

22. Severability: The illegality or invalidity of any provision of this Agreement shall not impair, affect, or invalidate the other provisions of this Agreement.

23. Governing Law: The construction, validity, performance, and effect of this entire Agreement shall be governed by the laws applicable to the Government of the United States of America in accordance with applicable Federal Law as interpreted by Federal Courts.

24. Waiver: The failure of either party to enforce any term hereof shall not be deemed a waiver of any rights contained herein.

25. Invalid Provision: In the event any provision of this Agreement is determined to be invalid or unenforceable under any controlling law, the invalidity or unenforceability of that provision shall not in any way affect the validity or enforceability of the remaining provisions of this Agreement.

26. Entire Agreement: The terms and conditions contained in this MOA and its appendices or attachments constitute the entire agreement and understanding by and between the parties and shall supersede all other communications, negotiations, arrangements and agreements either oral or written, with respect to the subject matter herein.

27. Counterparts: This Agreement may be executed in duplicate and each original shall be equally effective.

## SCOPE OF WORK

I. Purpose

*Provide a general description and synopsis of the anticipated scope of the plan of study. Include a statement of why Reclamation and the Non-Federal Partner(s) are interested in collaborating, what each brings to the collaboration, and what results each expects.*

II. Geographic Area

*Describe in detail the geographic area that the Pilot will cover, include, or analyze.*

III. Tasks and Milestones

*Identify all tasks and milestones that will be part of the Pilot.*

IV. Responsibilities of the parties

*Identify and describe the responsibilities of the non-Federal partners and Reclamation.*

V. Budget

*Include a detailed budget by task that identifies who is responsible for each cost.*

VI. Schedule

*Include a detailed schedule for completion of the Pilot.*

### **For the Non-Federal Partner(s)**

\_\_\_\_\_  
Title  
Organization

\_\_\_\_\_  
Date

### **For Reclamation**

\_\_\_\_\_  
Regional Director

\_\_\_\_\_  
Date

Sacramento Groundwater Authority Board Meeting  
October 10, 2019

**AGENDA ITEM 6: EXECUTIVE DIRECTOR'S REPORT**

**OCTOBER 10, 2019**

**TO: SACRAMENTO GROUNDWATER AUTHORITY BOARD**

**FROM: JIM PEIFER**

**RE: EXECUTIVE DIRECTOR'S REPORT**

- a. **Finance and Administrative Services Manager Recruitment** – Ms. Josette Reina-Luken starts on October 8<sup>th</sup> as the new Finance and Administrative Services Manager.
- b. **SCGA Request** - The Sacramento Central Groundwater Authority (SCGA) recently adopted a strategic plan. A goal of the SCGA plan states the SCGA will “Determine the most appropriate governance structure that effectively represents the diverse stakeholders and executes the mission of the SCGA.”

Two objectives associated with this goal include: “...model SCGA after the Sacramento Groundwater Authority (SGA), or other measures to most effectively and efficiently govern” and “create new governance to foster independence, transparency, accountability, and cost efficiency as it relates to the long-term management of the basin.”

The RWA has received a request from the SCGA to brief the SCGA board on the RWA staffing relationship with the SGA and the feasibility of providing staff to SCGA in a similar method. SCGA has requested the RWA staff review the details and feasibility of providing staff to SCGA and present the findings to the SCGA at a future board meeting. A copy of the letter making the request is attached.

- c. **SGA Outreach** – Mr. Peifer submitted an application to serve on the Association of California Water Agencies' Groundwater Committee.

Mr. Peifer and Mr. Swartz met with Ms. Terrie Mitchell on October 3<sup>rd</sup> from the Sacramento Regional Sanitation District, Dave Richardson from Woodard & Curran, and Erik Ringleberg from the Freshwater Trust to discuss the Sacramento Regional Water Bank and the South County Ag Project.

Jim Peifer participated on a panel on Urban, Rural and Agricultural Supplies at the State Water Resources Control Board on September 23<sup>rd</sup>. The panel discussion was part of a larger drought panel discussion to inform the Water Resilience Portfolio Initiative.

Rob Swartz presented on the Sacramento Regional Water Bank to the Groundwater Resources Association of California's Western Groundwater Congress on September 19<sup>th</sup> and to the City of Sacramento Water Committee on September 24<sup>th</sup>.

- d. Water Resilience Portfolio Initiative** – On April 29, 2019, Governor Newsom signed an executive order directing his administration to develop a comprehensive strategy to build a climate-resilient water system. The order directs the secretaries of the California Natural Resources Agency, California Environmental Protection Agency and the California Department of Food and Agriculture to identify and assess a suite of complementary actions to ensure safe and resilient water supplies, flood protection and healthy waterways for the state’s communities, economy and environment.

The RWA has sent a comment letter with recommendations to inform the Governor’s Water Resilience Portfolio initiative, which will partly focus on successful groundwater management and future opportunities resulting from it, such as the Sacramento Regional Water Bank.

- e. Water Forum Update** – The Water Forum recently completed a 7.5 acre gravel spawning project near Sailor Bar on the American River. See attached press release and FAQ.

Water Forum staff continue to provide support to the Voluntary Agreement (VA) effort. The VAs would provide an alternative to the SWRCB staff proposed update to the Bay Delta Water Quality Control Plan which would substantially modify flows into the Delta. The VAs provide flow and habitat, and for this region, a version of the American River Flow Management Standard. The VA proposal is currently being evaluated by the SWRCB to determine if it provides equivalent benefits to the staff proposal.

Other efforts include facilitation of SGMA efforts south of the American River and the planning/permitting of habitat projects.



**Sacramento Central Groundwater Authority**  
*Managing Groundwater Resources  
 in Central Sacramento County*

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 Sacramento, CA 95814

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Darrell K. Eck  
 Executive Director

California-American  
 Water Company

City of Elk Grove

City of Folsom

City of Rancho Cordova

City of Sacramento

County of Sacramento

Florin Resource Conservation  
 District/Elk Grove Water  
 Service

Golden State Water Company

Orochumne-Hartnell  
 Water District

Rancho Murieta Community  
 Services District

Sacramento Regional  
 County Sanitation District

Agricultural Representative

Agricultural-Residential  
 Representative

Commercial/Industrial  
 Representative

Conservation Landowners

Public Agencies/Self-  
 Supplied Representative

Regional Water Authority  
 5620 Birdcage Street, Suite 180  
 Citrus Heights, CA 95610  
 Attn: Executive Director, Jim Peifer

**Subject: Sacramento Central Groundwater Authority request for the Regional Water Authority to review the feasibility of Modelling SCGA after SGA.**

Mr. Peifer,

At the August 14, 2019 Sacramento Central Groundwater Authority (SCGA) Board meeting, the SCGA Board approved the Strategic Plan 2023+ mission, vision, core values, and goals. Goal #2 states that SCGA will, "Determine the most appropriate governance structure that effectively represents diverse stakeholders and executes the mission of the Sacramento Central Groundwater Authority."

Two objectives associated with this goal include, "... model SCGA after the Sacramento Groundwater Authority (SGA), or other measures to most effectively and efficiently govern" and "create new governance to foster independence, transparency, accountability, and cost efficiency as it relates to the long-term management of the basin."

Based on these objectives, the chair and vice-chair of the Board held a 2x2 meeting on August 22, 2019 with respective Board members from the Regional Water Authority (RWA) and SGA to preliminarily review the concept of modeling SCGA governance similar to SGA and to identify if there were any "fatal flaws". The consensus was that there was a regional benefit to exploring this concept and to move forward with the appropriate next steps.

On September 11, 2019, the SCGA board approved a motion to direct the SCGA chairman to request that Regional Water Authority brief the SCGA board on the RWA staffing relationship with SGA and the feasibility of providing staff to SCGA in a similar method. SCGA respectfully requests the RWA staff to review the details and feasibility of providing staff to SCGA and present the findings to the SCGA board at a future board meeting.

Sincerely,

Todd L. Eising  
 Chairman, SCGA



August 29, 2019

Nancy Vogel, Director of the Governor's Water Portfolio Program  
California Natural Resources Agency  
1416 Ninth Street, Suite 1311  
Sacramento, CA 95814

Sent via US Mail and email to: [input@waterresilience.ca.gov](mailto:input@waterresilience.ca.gov)

Dear Ms. Vogel,

The Regional Water Authority (RWA)/ Sacramento Groundwater Authority (SGA), and the Sacramento Water Forum (Water Forum) are pleased to submit comments on the Governor's Water Resilience Portfolio Initiative (Executive Order N-10-19). We appreciate the magnitude of the work going into the preparation of the water resilience portfolio and intend the following to be constructive comments that will improve all of our efforts to achieve greater certainty in the face of serious environmental, water supply, and flood risks presented by climate change.

For nearly three decades, our organizations have been bringing together water users and environmental interests to solve problems in the American River watershed. These partnerships are founded on and have advanced many of the Initiative Portfolio Principles for our region through multiple benefit approaches, use of natural infrastructure, regional approaches, integrated investments, and strong partnerships.

The Sacramento region has comprehensive plans for water resiliency projects. We define water resiliency as access to affordable water supplies in quantities and quality necessary for the economy and quality of life while still protecting the environment. Quality of life includes, among other things, maintaining the tree canopy, flood safety, and recreational opportunities within our region. Successful implementation of planned water resiliency projects is dependent on support from diverse stakeholders in the region.

Letter to Nancy Vogel, Director of the Governor's Water Portfolio Program  
Re: Comments on the Governor's Water Resilience Portfolio Initiative  
August 29, 2019  
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We are aggressively pursuing a future of more reliable water supplies, continued sustainable groundwater management, and greater habitat and species resiliency. We will reach these goals through partnerships and collective planning in our watershed. This will ensure that all elements of our goals will be comprehensively achieved and that none of the elements will progress at the expense of others. Our challenge is not determining what projects are most necessary; we've done that. Rather, our challenge is designing projects that meet all of our diverse needs. We believe the state can best advance resiliency by supporting existing regional planning, fostering local partnerships and funding projects that meet the state's standards.

The key to achieving our goals centers around watershed-wide conjunctive use that will more effectively manage abundant water in wet years and preserve more water for environmental needs in dry years, when it is most critical. This planning will be supported by continued water use efficiency efforts and ultimately through additional infrastructure that will enhance access to natural infrastructure and provide for flexibility of operations both within our watershed and in coordination with activities in other watersheds. We are particularly excited about our ongoing planning, which we believe can achieve results that will help the region adapt to climate change and create benefits for water resource needs beyond the region.

Each part of our state faces different impacts from climate change, and resiliency can only be achieved on a watershed scale. We define a watershed to be based on existing integrated regional water management planning areas. At the project level, resiliency will look different in each watershed. The state's role should be to direct funding to projects that provide resiliency across watersheds, foster local partnerships and support regions with federal relationships.

We believe that our region is a model of what successful planning and local partnership looks like. That is demonstrated specifically through the projects we are pursuing and most significantly through the fact that we are all signatories to this letter.

### **About Our Organizations**

RWA is a joint powers authority that was formed in 2001 to create a unified approach to regional water issues in Sacramento, Placer, El Dorado, Yolo and Sutter counties and assist its 26 water suppliers and associated agencies to protect and enhance the reliability, affordability and quality of water resources. RWA members serve some two million customers. RWA serves as the integrated regional water management (IRWM) planning entity for the American River Basin.

SGA is a joint powers authority that was formed in 1998 to collectively manage the groundwater basin within Sacramento County, north of the American River. In January 2016, SGA became the exclusive Groundwater Sustainability Agency (GSA) in conformance with the Sustainable Groundwater Management Act (SGMA).

Letter to Nancy Vogel, Director of the Governor's Water Portfolio Program  
Re: Comments on the Governor's Water Resilience Portfolio Initiative  
August 29, 2019  
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Formed in 1993, the Water Forum is a diverse group of business and agricultural leaders, citizen groups, environmentalists, water managers, and local governments working together to balance two co-equal objectives: to provide a reliable and safe water supply for the Sacramento region's long-term growth and economic health; and to preserve the fishery, wildlife, recreational, and aesthetic values of the lower American River.

### Our Comments

- 1. Develop a nuanced understanding of the scale of “watershed-level” planning across California.** Most of the state has comprehensive plans for the resiliency of total water supply (surface and groundwater) with specified projects. Suffice it to say, the state should understand and build off of those plans. We suggest reaching out to established Regional Water Management Groups to get an understanding of key regional stakeholders and the appropriate scale of “watershed-level” planning across California.
- 2. Define “watershed scale” in direct relationship to effective local water management.** Effective planning does not always happen in convenient units defined by where water flows naturally. Outreach to locals should be a collaborative dialogue that provides flexibility to allow locals to self-define where they can be successful.
- 3. Evaluate how local projects can provide additional net improvements to those systems.** Successful resilience planning will require partnerships at all levels of water management. Successful planning and community building efforts start at the local level and are most effective when supported by appropriate state and federal engagement. Notwithstanding this need for a local focus, a prevailing perspective in many areas is that statewide planning is too often limited to assessing how to protect the delivery capabilities of the State Water Project and the Central Valley Project, at the expense of valuing how local projects can provide additional net improvements to those systems. The reality is that the vast majority of projects and funding for water come from local agencies. As we move to an era where improved water supply certainty will be achieved through an accumulation of benefits from smaller projects, establishing equal partnerships with local agencies will enhance opportunities for success.
- 4. Work with locals to identify their resource needs for both planning and implementation of projects needed to improve resiliency.** Ultimately, this should result in enhanced utilization of natural infrastructure and construction of selected “leveraging” infrastructure. In some instances, there may be opportunities where local solutions can provide benefits beyond local needs and can contribute to other regions' solutions. For example, many

groundwater banks were established to help solve a local problem but have also provided benefits to external partners.

- 5. Prioritize projects that provide the greatest certainty for contributing to adaptation to the impacts of climate change on the environment, water supply, and flood risk reduction/management.** Recognize that some regions have more reliable water supplies than other regions – and this fact should inform the State's responses while cautioning against one-size-fits-all approaches. The State should seek local agencies' input on opportunities they have identified to increase integration with existing funding programs.

With respect to funding sources, they should include the general fund where clear public benefits are identified and State bond measures structured around needs identified through the Water Resilience Portfolio development process. Priority should be given to projects that can provide multi-regional benefits.

- 6. Have a plan to break down silos, which includes a position in state government that will assist in breaking down silos within state government.** This is a "two-way street" as the state can help break down silos that exist at the local level through facilitating enhanced local relationships as well. Multi-benefit projects invariably must work across diverse local interest and several state departments and agencies. Until there is a process to bring those parties together, multi-benefit projects will be challenging to implement.
- 7. Provide assistance to Regional Water Management Groups in the Form of Downscaling Climate Models with anticipated Hydrologic Estimates to the Watershed Level.** The State needs to undertake studies and modeling exercises to try to estimate changed snowpack conditions and related changes to hydrology. It will be helpful to regional water management groups to provide estimated hydrology on the watershed scale that will exist one, two and three generations hence, to better understand the intensified potential flood management, water supply, and ecosystem challenges the State will confront throughout the Central Valley, along with the resulting serious implications for statewide water supply reliability. We must assess what the problems will be on that scale, and over those future timeframes, so they can be ameliorated and adapted to through appropriate state, federal and local investments. Similar, more detailed analyses of the impacts of sea level rise are also necessary to better understand the future reality California will confront.

## **Conclusion**

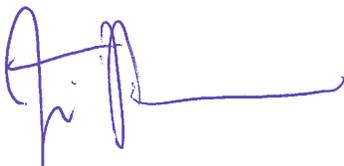
We appreciate the opportunity to submit comments. Our hope is that they serve to start an ongoing dialogue. We believe the success of this effort will be enhanced in innumerable ways through partnerships between state and local agencies. Ultimately, those working relationships

Letter to Nancy Vogel, Director of the Governor's Water Portfolio Program  
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will improve the ability to get support from the federal government. For your reference, we have included an appendix that will allow the Sacramento Region to become water supply resilient and adapt to climate change.

Thank you for advancing this initiative. We are available to answer any questions, and we are ready to assist in further development and implementation of the Water Resilience Portfolio.

Sincerely,



James Peifer  
Executive Director  
Regional Water Authority  
Sacramento Groundwater Authority



Tom Gohring  
Executive Director  
Water Forum

Enclosure

## Appendix

### Sacramento Region Focused on the Local Watershed

From a water supply and management standpoint the Sacramento region is hydrologically advantaged by being at the confluence of the Sacramento and American Rivers, and overlying an expansive groundwater basin. The construction of Folsom dam provides significant flood protection and water supply benefits, but has also allowed much of the water in the watershed to be moved outside of the watershed. Folsom dam is federally owned and Folsom Reservoir is operated as part of the Federal Central Valley Project (CVP). Today in an average year only about 8% of the water in the American River Watershed is diverted within the watershed, and much of that water is treated and returned to the river. Despite the region's limited access to the water flowing through the American River watershed it has improved resilience over recent decades and will continue to build resilience to changing conditions under climate change.

For decades, the Water Forum has worked to balance the goals of protecting and enhancing the environmental and recreational quality of the lower American River while ensuring reliable water supply in the Sacramento Region. In so doing, the Water Forum has maintained an accord between water suppliers and the environmental community in the Sacramento region. A centerpiece of the Water Forum's collaborative work is an adaptive resource management strategy to maintain flows and water temperature on the lower American River, particularly in dry years. This flow management standard is designed to protect fish species on the lower American River, contribute to the Delta's ecological health downstream, preserve water supply reliability by avoiding low levels and "dead pools" at Folsom Reservoir, and avoid redirected impacts to the Sacramento River fishery.

The Sacramento Region is among the fastest growing in the state and nation. Yet, since the turn of the century while experiencing population growth of greater than 25 percent, water use in the region has remained steady. That growth without additional water use has been achieved while advancing the work of the Water Forum and through RWA work to advance water use efficiency in the region. The region was a statewide leader in water saving during the historic drought of 2012-2016, producing 12 percent of total savings while making up only 5 percent of the statewide population.

The region has focused on sustainable groundwater management as a path to prepare for the "wetter wets" and "drier dries" that are expected as a result of climate change. Water providers have long been engaged in restoring groundwater levels in wet years, and have been able to store more than 300,000 acre-feet of water in the region's groundwater basins through in-lieu recharge since the mid-1990s. This work has only just begun and the sustained resilience of the region will depend on building on this work.

### Regional Initiatives

The State of California can help advance water resiliency for the American River watershed – and downstream users – through funding for innovative infrastructure projects that enhance our region's flexibility in managing supplies in all types of water years. Because these projects will provide added flexibility and benefits for water users in other communities and wildlife within and beyond the American River, particularly in dry years, it is appropriate that State funding support be provided to assist in their development and completion.

**Sacramento Regional Water Bank:** Governor Newsom's Executive Order N-10-19 mandates the use of natural infrastructure. We have seen in subsequent presentations that aquifers have been identified as natural infrastructure. We appreciate that inclusion and encourage that inclusion to be formalized.

Water providers in the Sacramento region are developing the Sacramento Regional Water Bank (Water Bank). The Water Bank is an innovative groundwater storage program that will improve regional water supply reliability in the near-term and into the future. The region's location north of the Sacramento-San Joaquin Delta provides potential opportunities to collaborate and develop solutions to benefit the environment and communities downstream after local needs are met.

The Water Bank could be operational with existing facilities as early as 2022. During a wet year, local water providers could store up to 60,000 acre-feet of water in the Water Bank using existing facilities. During a dry year, much of that stored groundwater could be recovered. Local water providers also have identified infrastructure improvements that, if implemented, would extend the Water Bank well beyond its initial capacity. Investments of \$288 million could increase both storage and recovery opportunities by more than 50 percent.

The Water Bank is a project that the State should support to expand its potential benefits beyond the Sacramento Region by taking the following actions:

- The Governor should sponsor the Water Bank as a state-led project for the purposes of federal legislation;
- Financial support should be provided to assist in the planning and development of water banks;
- Water transfer regulations should be revised to reduce constraints and enhance the role water markets can play in increasing statewide resilience.

**RiverArc:** The Sacramento region has developed in large part as a consequence of the development of Folsom Reservoir. Much of the region's surface water infrastructure depends on inflows to Folsom Reservoir. Intended to build upon the successful development of the Water Bank, RiverArc will be a transformative project to improve water supply reliability for communities north of the American River by connecting the region's conveyance, treatment and groundwater storage infrastructure to an existing diversion point on the Sacramento River.

RiverArc enhances and protects groundwater sustainability and capacity through increased opportunities for conjunctive use, between agencies, and will assist with the full development of the Water Bank. It will offset demands on the American River and Folsom Reservoir with the integration of surplus Sacramento River water. As a result, it will allow for changed Folsom Reservoir operations to accommodate different needs like water temperature, quality and demand, thereby improving entire CVP yields.

An estimated 120 million of investment is required to develop the backbone infrastructure necessary to connect the Sacramento and American rivers and the region's groundwater basin.

We request the State provide support the RiverArc project in the following ways:

- Financial support should be provided to assist in the planning and development of the project.

***Investments in Ecosystem Health:*** The Sacramento Region, through the Water Forum has invested over \$9 million in local funds in fisheries protection and enhancement projects in the lower American River since 2000. These local funds have been matched with over \$11 million in federal, state, and private grant funds. These projects have included studies to determine optimal reservoir operations for fish (including optimal water temperature), monitoring of river and biological conditions, and construction of improved riverine habitat. In addition, the Water Forum convenes a number of stakeholder and science groups that seek to advance the collective knowledge and understanding of our local ecological resources.

We request the State provide support for ecosystem health improvements in the following ways:

- Financial support should be provided to assist in the planning and development of habitat and cold water infrastructure. The funding provision proposal in the American River Voluntary Agreement will be helpful for salmonid rearing habitat.
- Assist in streamlining permits for habitat construction.
- Assist in a partnership with the Federal Government

## FACT SHEET



# Lower American River Gravel Augmentation Project

## *Big Trucks for Baby Fish*

*September 27, 2019*

A new project to protect salmon and steelhead in the Lower American River is scheduled to begin in September at Sailor Bar across from the Nimbus Fish Hatchery. Over a four-week period, 14,000 cubic yards of gravel will be laid into the river as part of the Water Forum's work to promote spawning of native salmon and steelhead, which has been limited because of Nimbus and Folsom dams.

Fall-run Chinook Salmon migrate upstream as adults to spawn from October through December. In the egg-laying process, females create a "nest" in loose gravel in flowing water, depositing their eggs and then covering them up with more gravel. Gravel is carefully placed in the river before fall-run salmon are triggered by cooling temperatures to spawn, and after the high spring and summer flows.

Upper Sailor Bar has been a prime area for salmon and steelhead to spawn, but spawning beds degrade with time and high flows. The spawning gravels were restored about 10 years ago with great success. However, the site needs refurbishing to restore the spawning gravels and create new juvenile fish rearing habitat.

The project will be excavating a new side channel through the bar and lowering the floodplain, sorting excavated gravel and adding gravel to the river. Once finished, it will provide an ideal area for salmon and steelhead to spawn, as well as protected nursery areas for young fish to grow bigger.

This river restoration is made possible through a partnership with the U.S. Bureau of Reclamation, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, Sacramento Area Flood Control Agency and the Sacramento Water Forum. It will be our ninth project restoring fish spawning gravel beds and improving juvenile fish rearing habitat on the lower American River. Previous projects were built along Sacramento Bar, Sailor Bar, River Bend Park and Nimbus Shoals.

Construction is scheduled to begin in early September and completed by early October. Work will be scheduled Monday through Friday from 8 a.m. to 6 p.m.

If you have any questions, please contact Lilly Allen at [lallen@waterforum.org](mailto:lallen@waterforum.org), (916) 808-1997.

## FREQUENTLY ASKED QUESTIONS

### **Why is this project occurring in September—aren't salmon starting to arrive in the river?**

September is a "sweet spot" for working in the river safely and before fish begin spawning. Even though you might see fish in the river, they don't start spawning until the water temperature cools off later in the fall. And the seasonally lower September flows allow in-river work, rather than trying to bring equipment into the river during higher summer flows. September is also safer for recreationists by avoiding the busiest rafting and boating summer weeks. Timing avoids when eggs are in the gravel, which begins at the end of October and is triggered by low temperatures.

### **Will mud and other construction impact salmon migration in the river?**

We monitor turbidity and other parameters during construction and keep levels below standards required by the regional water quality control board. Turbidity also provides some cover for predators in natural settings. Adult salmon are least affected by turbidity and are able to avoid areas they find too turbid, whereas eggs cannot. This is another reason why we do work during September-October. It's also worth noting that the turbidity created by this project is less than during floods.

### **Is this project really necessary?**

Without this and other similar projects, the river would continue to scour, leading to an incised channel through time, spawning gravel would not be replenished for salmon along the river and adult salmon would not have the necessary spawning riffles they need to reproduce.

### **How does this and other gravel restoration projects benefit fisheries?**

The Water Forum continuously collects data to evaluate whether our efforts are making a positive difference. Our biologists have found that gravel restoration projects have provided significantly better outcomes for salmon. We are devoted to learning from each project and making sure to build the best projects using that knowledge. We do extensive monitoring to understand our impacts and are able to document the progress we're making. Salmon recovery is a multifaceted project, and spawning gravel is one important step of many. If you'd like to learn more about the Water Forum's habitat management on the lower American River, please visit <http://waterforum.org/the-river/habitat-management/>

### **Does water flow have a more significant impact than restoring gravel?**

Certainly flow is critical to healthy fisheries, and the Water Forum has been working for decades to develop a flow standards to preserve and protect salmon and steelhead. That said, ensuring adequate spawning beds is also important and is almost certainly critical given the way the river runs at a significant sediment deficit. If you'd like to learn more about the Water Forum's plan for managing flows in the lower American River, please visit <http://waterforum.org/the-river/flow-management-standard/>

### **Doesn't the gravel just wash away?**

The lower American is a living river, and gravel movement is part of a natural process. Since dams block new gravels from flowing into the lower river, and existing river gravels keep moving downstream, it's important to keep replenishing spawning gravels for fish. Projects like this one are important and ongoing.



### **How and when do you monitor the river to evaluate the overall health of the river and fishery?**

The Water Forum continuously monitors and collects data to evaluate the health of the river and fishery, including conducting a variety of studies such as long-term aerial redd surveys, on-the-ground redd surveys, lifecycle monitoring (otoliths), multi-generational monitoring (genetics), early life stage survival, sediment budget and more. You can learn more about the Water Forum's science and monitoring program at <https://www.waterforum.org/the-river/fish-conditions/>.

### **What kind of public outreach has been done for this project?**

Outreach to date has included:

- Briefings for the Sacramento County Regional Parks Recreation and Parks Commission and American River Parkway Advisory Committee
- Outreach related to environmental review process (NEPA and CEQA)
- Direct mail sent to neighbors within 500 feet of the project
- Outreach via social media (Facebook and Nextdoor)
- Signs on the American River Parkway
- Information posted to the Water Forum website at waterforum.org

### **What kind of environmental review has been done for this project?**

The project has undergone a CEQA and NEPA analysis. You can find environmental documentation at <https://www.waterforum.org/resources/resource-library/>.

### **What are you doing about addressing homeless impacts on the river?**

The homeless impacts are a serious issue on the parkway and in the river and unfortunately, there are no simple solutions. It is going to take a concerted effort of our entire community to tackle this one. The City and County of Sacramento are working on this issue (<http://tinyurl.com/y35yuk7f> & <http://tinyurl.com/y5mxn5su>) as well as the State Water Resources Control Board (<http://tinyurl.com/y26t25ar>). The Water Forum will be tracking these efforts and contributing where most appropriate.

### **Whom can I contact for more information?**

Please contact Lilly Allen with the Water Forum at [lallen@waterforum.org](mailto:lallen@waterforum.org), (916) 808-1997.

Sacramento Groundwater Authority Board Meeting  
October 10, 2019

**AGENDA ITEM 7: DIRECTORS' COMMENTS**