FOWD/SJWD AD HOC COMMITTEE
Representatives of the Board of Directors of
Fair Oaks Water District and San Juan Water District

FAIR OAKS WATER DISTRICT
Michael McRae, President
Chris Petersen, Vice President

SAN JUAN WATER DISTRICT
Dan Rich, President
Ted Costa, Director

AGENDA

July 25, 2023
6:00 p.m.
at
San Juan Water District
9935 Auburn Folsom Road
Granite Bay, California

To attend via videoconference, please use the following link:

Please join the meeting from your computer, tablet or smartphone.
https://meet.goto.com/245724141

You can also dial in using your phone.
United States: +1 (872) 240-3212

Access Code: 245-724-141

Please mute your line.

A. Call to Order

B. Old Business

1. Tasks Necessary to Establish a Groundwater Banking Partnership
2. Discussion of Environmental Review Documents for Roseville ASR Program
3. Discussion of SJWD Groundwater Recovery Needs

C. Agenda Items for Next Meeting

D. Public Comment

E. Adjournment

FOWD-SJWD 2x2 Ad Hoc Committee Meeting Minutes
San Juan Water District
June 19, 2023
6:00 p.m.

Committee Members: Mike McRae, FOWD Member
Chris Petersen, FOWD Member
Dan Rich, SJWD Member
Ted Costa, SJWD Member

Staff: Tom Gray, FOWD General Manager
Paul Helliker, SJWD General Manager
Greg Zlotnick, SJWD Water Resources Manager
Tony Barela, SJWD Director of Operations

Topics: Report Back on FOWD proposed Wholesale Water Delivery Agreement Amendments by SJWD
Report Back on Voluntary Agreement Discussions – Deadlines for Participation
Develop Bullet Point Framework for an SJWD and FOWD ASR Project - FOWD New York Well
Agenda Items for Next Meeting
Public Comment

1. **Report Back on FOWD proposed Wholesale Water Delivery Agreement Amendments by SJWD**
   General Manager Tom Gray reported that he had requested Rob Donlan, legal counsel to FOWD, to work with SJWD staff (Water Resources Manager Greg Zlotnick) to discuss potential revisions to the Wholesale Water Supply Agreement. Mr. Zlotnick reported that he had discussed various topics with Mr. Donlan, and that he is awaiting a written proposal from Mr. Donlan.

2. **Report Back on Voluntary Agreement Discussions – Deadlines for Participation**
   Mr. Gray mentioned that the regional groundwater substitution group had met that day, and that he had requested to know what San Juan needed in an agreement to implement the groundwater substitution program, both for the Voluntary Agreement, and in the non-VA scenario. General Manager Paul Helliker stated that San Juan's request is that the wholesale budget be kept whole - e.g., that the loss in revenue from delivering surface water downstream rather than to the Wholesale Customer Agencies be addressed. Director Chris Petersen supported resolution of this issue.

3. **Develop Bullet Point Framework for an SJWD and FOWD ASR Project - FOWD New York Well**
   Director Petersen provided a powerpoint presentation concerning his work on aquifer storage and recovery programs, with specific information from the Roseville program.

4. **Agenda Items for Next Meeting**
   The committee decided to continue to focus at its next meeting (July 25 at 6 p.m.) on the elements of a project-specific partnership between FOWD and SJWD.

5. **Public Comment**
   There were no public comments.

The meeting was adjourned at 8:25 p.m.

Groundwater Banking – SGA Eastern Area
Program Components/Tasks – Specific Well Projects – 12-10-21

Development of Facilities: Production Well

1. Identify location and purchase property
2. Determine aquifer characteristics – depth to groundwater, water quality, transmissivity
3. Design well and secure permits and approvals
4. Install well and production facilities

Additional Tasks – ASR Well

1. Determine aquifer characteristics – chemistry of blended water, fate of injected water, etc.
2. Conduct any necessary pilot testing
3. Secure any necessary additional approvals (such as Regional Water Quality Control Board approval)

Management of Facilities

1. Define and implement operational plans and protocols
2. Develop and adopt any agreements for partnerships, including ownership and allocation of produced water
3. Allocate necessary staffing, equipment, supplies and budget
4. Monitor and report on operations to oversight organizations and partners

Additional Tasks – ASR Well

1. Develop an accounting protocol to define amount of banked water
2. Identify surface water supplies and develop agreement with provider of these supplies
3. Adopt agreements with any partners for ownership of banked water

Financing of Facilities

1. Manage expenses and budget/revenues during design, construction and operation of facilities
2. Adopt agreements for any financial partnerships between well owner and other project participants

Summary of Roseville ASR Environmental Documentation

In 2002 Roseville issued a Mitigated Negative Declaration for its Diamond Creek Well and Pump Station project, which was needed for a Phase 1 of a pilot study to assess suitability of potential future ASR activities. The mitigations were typical ones associated with construction impacts and halting work if cultural resources or human remains were discovered during the project.

In 2005 Roseville issued a Negative Declaration for Phase 2 of its ASR Demonstration Project, to assess operations from November 2005 through June of 2007, using the new Diamond Creek well, and three pre-existing monitoring wells.

In December 2011 Roseville issued a 450-page Draft EIR for its then proposed citywide ASR Program, which would include operations of 13 ASR wells, six of which had been previously constructed and seven new wells. According to the document, discussions with the RWQCB regarding this project began in 2008.

The “areas of controversy” revolved only around potential water quality concerns related to utilizing more groundwater versus surface water, and concerns regarding potential growth inducing effects.

The Final EIR for the project was issued in March 2012, with revisions that were related to construction mitigation commitments. This is the document upon which the programmatic permit was based on.

In 2020 Roseville issued a 25-page Final Supplemental EIR based on the 2012 EIR for the ASR program. The 2020 document addresses eight ASR wells that were either partially or not covered in the 2012 ASR Program Final EIR. Two of those eight ASR wells were “back-up” sites to only be installed if other ASR well sites proved infeasible, so the document covered the construction of six additional wells.

No significant additional mitigation was required as the 2012 EIR provided umbrella coverage for the modifications to the program, i.e. the additional wells and different locations, described in the 2020 documents.

Scenarios for Groundwater Recovery and Use
July 25, 2023

Supplemental Drought Supply – San Juan Wholesale

Potential Production Need: 5.6-14.6 MGD (4,670 – 12,176 GPM)

While San Juan Wholesale ("San Juan") has never failed to have adequate surface water supplies to meet wholesale customer demands, its ability to receive deliveries from Folsom Reservoir could be reduced, should the storage level in the Reservoir fall below 110,000 AF. Below that level, San Juan and the City of Roseville would be forced to rely on, and share, the maximum 60 cubic feet per second (cfs), or 38.78 million gallons per day (MGD) capacity of an emergency pump operated by the Bureau of Reclamation. While this pumping capacity has not been formally allocated, given the relative typical water supply demands of San Juan and the City of Roseville, it is reasonable to expect that approximately 50% of this capacity would be available for San Juan's use, or 30 cfs (19.39 MGD). This capacity would be available until reservoir levels dropped below approximately 50,000 AF (approximately 5.2% of the capacity of Folsom Reservoir), at which point water supplies would have to be pumped from floating pump stations deployed upstream of the dam into the power penstocks, on which Reclamation's emergency pump is situated. The capacity of such floating pump stations has not been determined, but if the floating pump stations that would be serving the City of Folsom (Folsom) during such a situation are any indicator, it would be a maximum of 30 cfs total (19.39 MGD).

San Juan's water rights allow for diversion of up to 75 cfs (48.47 MGD) during the peak summer months, and its diversions of supplies from the Placer County Water Agency (PCWA) and its CVP water add to this total amount. Since 2016, San Juan deliveries have reached a daily peak of 131.05 cfs (84.7 MGD), with the 2023 peak daily wholesale demand being 116.13 cfs (75.06 MGD), but this 2023 amount included approximately 20 MGD of deliveries to Sacramento Suburban Water District (SSWD). Monthly average wholesale demands during this period reached a maximum of 117.13 cfs (75.7 MGD). Since 2016, minimum deliveries have ranged from 5.89 cfs (3.17 MGD) to 22.30 cfs (12 MGD), with the most recent minimum deliveries in the winter of 2022-23 being 18.58 cfs (10 MGD).

Given these figures, San Juan could face the prospect of only having available 19.39 MGD of supplies, to meet recent peak and average demands of 84.7 and 75.7 MGD, respectively (with appropriate recognition of the delivery amount to SSWD). As noted in the draft Wholesale Master Plan, an intertie with PCWA could provide 2.9 MGD. So, under critically dry hydrology in which Folsom Reservoir levels drop below 110,000 AF, San Juan could be short of water supply capacity by 33-42 MGD (assuming SSWD would not be receiving surface water supplies). This range of shortage in water supply capacity, compared to the peak demands since 2016 and in 2023 noted above (equal to 64.7 MGD and 55.06 MGD, respectively, with the 20 MGD of typical deliveries to SSWD not included), would be on the order of 59-65%.

Fair Oaks Water District (FOWD) and Citrus Heights Water District (CHWD) currently own and operate 5.4 and 6 MGD of reliable yield of groundwater production, respectively, and Orangevale Water Company (OVWC) will be installing a treatment system that will allow them to bring approximately 1.5 MGD of groundwater production capacity online. If all of these resources were brought to bear by providing supplies in the wholesale system, there would still be a shortage of 20-29 MGD of supplies, to meet peak demand in the situation with the power penstock pump providing surface water supplies.

The Antelope Pump Station has a capacity of 14.4 MGD, but achieving that capacity of deliveries into the San Juan system would require that amount of reserve groundwater pumping capacity in SSWD's system, which they currently do not have. If adequate supplies and pumping capability were available from SSWD to allow the Antelope Pump Station to operate at full capacity, San Juan could still face a residual need of 5.6-14.6 MGD of water supply capacity.

Groundwater Substitution Transfers – Voluntary Agreement/DWR Agreement

Potential Production Need: 7,797 AF/yr (4,833 GPM)

The American River Voluntary Agreement (VA) includes a flow contribution of 30,000 AF of groundwater substitution transfers in up to three dry or critical years during the eight years of the VA or potentially out to 2036 if less than three calls for water are made in the initial 8-year period. This additional time allowance was a commitment the VA groundwater substitution transfer participants made as part of an agreement with the California Department of Water Resources and the Regional Water Authority to receive $55 million in grant funding.

San Juan expects to participate in these agreements with its groundwater production partners, in the following amounts (the amounts in columns 2 and 3 are after the application of the streamflow depletion factor):

Groundwater Partner	**Annual Amount (AF)**	**Annual Amount (GPM)**
Citrus Heights Water District	1,963	1,217
Fair Oaks Water District	1,374	852
Orangevale Water Company	460	285
Sacramento Suburban Water District	4,000	2,480

These annual production amounts can be distributed across 12 months, and the schedule for producing the groundwater to allow for these amounts of groundwater substitution transfers is completely within the discretion of the groundwater providers. The actual amount of daily production capacity would thus be defined by the production profile for the VA/DWR agreement "replenishment" actions.

Groundwater Substitution Transfers – Market Rate

Potential Production Need: 2-4,000 AF/provider over 4-5 months (3,017 - 7,543 GPM)

San Juan has partnered with CHWD and FOWD in the past to conduct market-based groundwater substitution transfers. The target amounts of those transfers were approximately 2,000 AF per groundwater provider, and the transfer window was expanded in 2019 to July through November. San Juan has also been transferring conserved surface water to SSWD since 2020, thus establishing a foundation for groundwater substitution transfers with them. 4-6,000 AF per year of such transfers to SSWD have been used for the potential production need noted in this section.

Supplemental Drought Supply – San Juan Retail

Potential Production Need: 1.5 – 4.7 MGD (972 – 3,264 GPM)

Related to the scenario described above concerning supplemental drought supply for San Juan, San Juan Retail could need supplemental drought supply. As noted on p. 1, in the event that Folsom Reservoir levels drop below 110,000 AF and San Juan has to rely on Reclamation's emergency pump station and the intertie with PCWA, the shortage in wholesale delivery capacity could range between 33 – 42 MGD (compared to recent peak demands). By allocating the available surface water supplies pursuant to the Wholesale Water Supply Agreement Shortage Policy, the shortage in delivery capacity just noted would be allocated as follows:

Wholesale Customer Agency	**Percentage Allocation**	**Allocation of Delivery Capacity Shortage (MGD)**
Citrus Heights Water District	28.52%	9.4-12.0
Fair Oaks Water District	20.71%	6.8-8.7
Folsom	3.39%	1.1-1.4
Orangevale Water Company	11.63%	3.8-4.9
San Juan Water District - retail	35.76%	11.8-15.0

Currently, San Juan Retail has no groundwater production facilities of its own that it operates, but it does own capacity in the Antelope Pump Station (APS), in conjunction with OVWC and Folsom. The respective amounts of the 10,000 GPM (14.4 MGD) capacity owned by San Juan Retail and its APS partners have not been apportioned, but the costs of the project were allocated among the three agencies in the following amounts:

Folsom: 11.1%
OVWC: 32.6%
San Juan -retail: 56.3%

Based on this distribution of ratios, San Juan-Retail would be allocated 5,630 GPM (8.11 MGD) of pumping capacity in the APS. If SSWD were to have adequate groundwater production capacity to be able to supply the APS with enough water to fill its pumping capacity, the residual need for San Juan-Retail would be 3.7 – 6.9 MGD (3,086 – 5,755 GPM).

All of these scenarios are based on the assumption that no demand management measures have been implemented, to address peak or average demands. However, the conditions under which Folsom Reservoir levels drop to or below 110,000 AF would be dire and unprecedented, and it is likely that San Juan and all of the WCAs would invoke increasingly greater shortage response actions in accordance with their respective Water Shortage Contingency Plans, as the conditions in Folsom Reservoir approached this scenario. If these actions are successful, average demands could be reduced by 10%, 25%, 50% or even more than 50%, and peak demands could be reduced in even greater percentages. The 33 – 42 MGD shortage in delivery capacity noted above for San Juan compared to the peak demands since 2016 and in 2023 noted on page 1 (equal to 64.7 MGD and 55.06 MGD, respectively, with the 20 MGD of typical deliveries to SSWD not included), constitute shortages of between 59-65%.