



EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

Board of Directors Meeting

AGENDA

Wednesday, November 14, 2018

11:00 a.m. – 12:00 p.m.

San Joaquin County – Robert J. Cabral Agricultural Center
2101 E. Earhart Avenue – Assembly Room #1, Stockton, California

- I. **Call to Order/Pledge of Allegiance & Safety Announcement/Roll Call**
- II. **SCHEDULED ITEMS – *Presentation materials to be posted on ESJGroundwater.org and emailed prior to the meeting. Copies of presentation materials will be available at the meeting.***
 - A. **Discussion/Action Items:**
 1. Approval of Minutes of October 10, 2018 (See Attached)
 2. Roadmap Update and Project Schedule
 3. Outreach & Groundwater Sustainability Workgroup Update (See Attached)
 4. GSP Action Update: Projects and Management Actions
 5. Approval to Submit Technical Support Services (TSS) Well Drilling Application
 6. December Agenda Items
 - B. **Informational Items (see attached):**
 1. October 13, 2018, recordnet.com, “Acampo Vineyard Flooded in Experiment to Recharge Aquifer”
 2. October 26, 2018, goldrushcam.com, “Central Valley Projects Evaluate Recharge on Cropland”
 3. November 6, 2018, letter to Chairwoman Felicia Marcus, State Water Resources Control Board, “Scheduled Action on Proposal to Amend the Bay Delta Water Quality Control Plan”

(Continued on next page)

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

Board of Directors Meeting

AGENDA

(Continued)

- III. Public Comment (non-agendized items)
- IV. Directors' Comments
- V. Future Agenda Items
- VI. Adjournment

Next Regular Meeting

December 12, 2018 at 11:00 a.m.

San Joaquin County - Robert J. Cabral Agricultural Center
2101 E. Earhart Ave., Assembly Rm. #1, Stockton, California

Action may be taken on any item

Agendas and Minutes may also be found at <http://www.ESJGroundwater.org>

Note: If you need disability-related modification or accommodation in order to participate in this meeting, please contact San Joaquin County Public Works Water Resources Staff at (209) 468-3089 at least 48 hours prior to the start of the meeting.

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY
Board Meeting Minutes
October 10, 2018

I. Call to Order/Pledge of Allegiance & Safety Announcement/Roll Call

The Eastern San Joaquin Groundwater Authority (GWA) Board meeting was convened by Chair Chuck Winn at 11:09 a.m., on October 10, 2018, at the Robert J. Cabral Agricultural Center, 2101 E. Earhart Ave. Stockton, CA. Following the Pledge of Allegiance, a representative of the San Joaquin County Office of Emergency Services provided the required safety information.

In attendance were Chair Chuck Winn, Vice-Chair Mel Panizza, Directors John Freeman, Stephen Salvatore, Alan Nakanishi, Elbert Holman, Russ Thomas, David Fletcher, Mike Henry, Tom Flinn, Eric Thorburn, Dale Kuil, Alternate Directors Dante Nomellini, Reid Roberts, Dennis Mills, and Doug Heberle.

II. SCHEDULED ITEMS

A. Discussion/Action Items:

1. Approval of Minutes of September 12, 2018

Motion: Mr. Dale Kuil moved and Mr. Russ Thomas seconded the approval of the September 12 minutes.

2. Roadmap Update and Project Schedule

Ms. Alyson Watson gave a summary of project progress.

3. Outreach & Groundwater Sustainability Workgroup Update

Outreach materials were noted to be helpful and used by two Groundwater Sustainability Agencies (GSAs) (Lockeford Community Services District and Oakdale Irrigation District).

4. Groundwater Sustainability Plan (GSP) Action Update: Projects and Management Actions

a. Project Descriptions

Chair Chuck Winn asked about capital cost and indicated there should be no discussion of projects if the decision to fund them has already been made. He noted that the volume of water does not indicate who the project benefits and asked to distinguish between if there is a wider regional benefit or if the benefit is localized to a specific GSA. Chair Winn also noted that cost-benefit should be evaluated.

Project 1: Farmington Dam Repurpose Project

Mr. Thomas indicated that the footprint of reservoir is within Eastside GSA and noted that if there is any ancillary benefit that can be derived to the GSA because water can be stored there, it should be considered.

Project 2: Lake Groupe In-Lieu Groundwater Recharge Project

It was noted that the size of the project is approximately 20,000 AFY, and currently 6,000 acres are on groundwater. Mr. Tom Flinn asked whose water is being diverted, and if it is not being diverted, where it is going. Ms. Cathy Lee indicated that this project is in partnership with landowners and that there is already an existing diversion that needs to be upsized.

Project 4: SW Implementation Expansion

There were no questions.

Project 5: Expansion of SW Treatment Facility and Delivery Pipeline

The projected cost is \$4M for the equipment and supplies. This projected cost excludes the annual operation and maintenance cost of \$710,000. Mr. Alan Nakanishi asked if there is additional funding available to fund this project. Ms. Watson clarified the ask was for GSAs to submit beneficial projects. Mr. Nakanishi asked if it was beneficial to submit as many projects as possible, and Ms. Watson responded that at this stage, it is beneficial to identify all of the potential projects; however, only a selected list of projects will move forward and be committed to within the GSP.

Project 6: White Slough WPCF

There were no questions.

Project 7: City of Manteca RW Transfer to Agriculture

There were no questions.

Project 9: Water Transfers to Stockton East Water District (SEWD) and Central San Joaquin Water Conservation District (CSJWCD)

Chair Winn questioned how the water will be transferred to SEWD and CSJWCD. Mr. Peter Rietkerk responded that the SEWD tunnel will be used for transferring water and that facilities are already in place. Chair Winn also asked about savings from the South San Joaquin Irrigation District (SSJID) pressurization project and Mr. Rietkerk noted that the savings from full pressurization are still being evaluated.

Project 11: Escalon WW Reuse

There were no questions.

Project 12: SSJ Stormwater Reuse

There were clarification questions on the conceptual projects. Mr. Flinn asked about the costs and benefits of the SSJID Stormwater Reuse project as well as the unit cost. Mr. Kris Balaji noted that the projects are conceptual at this stage, but that projects adopted in the plan will be realistic and implementable.

Project 13: Pressurization of SSJID Facilities

There were no questions.

Project 14: BNSF Intermodal Facility Recharge Pond

There were no questions.

Project 15: CSJWCD Capital Improvement Program

There were no questions.

Project 17: LAS-3 Percolation Basin (Lathrop)

There were no questions.

Project 22: City of Ripon SW Supply Project

There were no questions.

North San Joaquin Water Conservation District (NSJWCD) noted that projects submitted on October 10, 2018 will be included in the next round of project evaluation.

b. Assessment Criteria

There were no comments. Mr. Eric Thorburn noted that funding should be the most important component of the assessment criteria. Mr. Thorburn also stated that the project list currently looks like a wish list and

questioned who will commit to the projects in the plan. Ms. Watson clarified that for now, no entity is committing to any projects. The GSP guidelines require an implementation list with a projects list, and the GSAs – through the JPA – will approve the projects that are included in the project list. Mr. Thorburn asked if there is a backup plan in the event that projects cannot be funded.

Mr. Flinn indicated that some of the projects provide a local benefit and that some provide a basin-wide benefit. Mr. Flinn noted that the NSJWCD demonstration project with EBMUD would bring new water supply to the area beyond the NSJWCD district. Geographically, the NSJWCD issue to the north of the Mokelumne River is different because the cone of depression to the north of the County line influences the north side of the River. Mr. Flinn stated that it is important to identify the project location to track who and where are the beneficiaries. Mr. Kris Balaji clarified that the Joint Powers Authority serves as a backstop but that it is the GSAs who are committing to the projects in the GSP.

Mr. Kuil asked if the best place for recharge had been identified. Mr. Brandon Nakagawa indicated that a previous study identified the best location for recharge is in the Linden area and in the North and Central San Joaquin area. Mr. Flinn noted that certain projects that provide area-wide benefits may qualify for funding beyond the GSA. Ms. Watson indicated that the proposed criterion does not consider if the projects include multiple GSAs, but that this is an important consideration and there might be potential criteria for assessing projects that include GSAs collaboration. Chair Winn identified the need to have realistic discussions on funding considering each GSA's funding capability. Chair Winn predicts there will probably be project partnerships within and outside basin.

5. Department of Water Resources Update

Ms. Watson provided updates.

6. Schedule Recap

- Break for Lunch –

7. Projects and Management Actions Workshop 12:30-2:30pm

a. Polling Activity

B. Informational Items:

III. Public Comment (non-agendized items):

Ms. Mary Elizabeth requested the results of the tracking sheet concept be presented for each GSA during the November Board meeting. Ms. Elizabeth encouraged the City of Stockton to actively reach out to customers and to provide information regarding the Water Advisory Meetings. This allows all Board members to remain informed and provides an opportunity for public members to convey concerns and comments.

Chair Winn reinforced the importance of public outreach and documentation of these outreach efforts.

IV. Directors' Comments:

V. Future Agenda Items:

Projects and management actions will be discussed next month.

WORKSHOP AND POLLING ACTIVITY

Attendees completed a 9-question survey using phones, computers, and paper.

Discussion on Question 1: This is a preliminary list of projects, and the GSP implementation plan will only include a subset of these projects, in addition to other projects needed to achieve sustainability, prevent undesirable results, and address future monitoring and reporting needs. Is this project list complete, as a starting point for developing the GSP implementation plan?

The polling results show the majority of participants responded “somewhat”. Mr. Dennis Mills noted that the list is not complete because the area of overdraft is not adequately addressed, and that projects are in the area of the Delta. Chair Winn indicated that all GSAs may want to explore collaborating on projects. Mr. Flinn noted that the problem has yet to be classified adequately and that the process is missing a step. Mr. Greg Gibson asked how much progress the projects will make toward achieving sustainability and if this is enough to meet the needs. Ms. Watson noted that there are enough projects listed to meet the needs. Ms. Elizabeth noted that she did not see any innovative conservation projects, that most of the projects are already included in the baseline, and that it is difficult to say if all projects are represented. Mr. Reitkerk noted that project planning has been done in silos and that there is a need for coordination to meet the needs of the Basin. Mr. Flinn indicated that the volume of projects is enough but questioned whether there are enough water rights for these projects. Mr. Mills noted that the SED would change the dynamic of the reservoirs and water availability in the reservoirs upstream. It should also be considered whether unimpaired flow regulations will change the solutions. Mr. Flinn asked if operation of upstream reservoirs should be discussed in this forum.

Discussion on Question 2: Does this list reflect a wide-enough range of project types?

The polling results indicated that most people said “yes”, and half indicated “somewhat” or “no”. Mr. Flinn noted the need to include discussion of operation of rivers. Chair Winn asked if the water balance has to consider location. In regard to this exercise, when we talk about projects, we are affected by counties to the east and unimpaired flows. Ms. Watson clarified that we need to address overdraft at the basin scale, and prevent undesirable results.

Mr. Balaji was pleased to see water conservation as part of the solution portfolio and indicated he hopes that the overall magnitude will solve the supply and demand problem. Conservation education can have a positive impact on groundwater users because it can change the public’s perspective on water long term. Mr. Mills noted that the counties have a role since they influence land use policies over decades. Mr. Balaji called for thinking of solutions outside the basin. Mr. Mills noted that the General Plan update will be completed next year. Mr. Gibson stated that there are not many projects addressing water quality and that these should be considered for addition to the list. Mr. Flinn asked if land use is discussed as part of the GSP, and Ms. Watson clarified that management actions can be related to land use as is being done for salinity. Mr. Flinn identified the need to investigate the many trees currently brought in to eastside. Mr. Mills noted that the group can create some policy statements to contribute to or to slow the whole process as well as to direct policy. Mr. Mills noted currently there is no need for agricultural permits to drill wells in Calaveras County. Chair Winn noted recent presentations on affordable housing and to use all options available, but in particular adding new supply such as storing water in Folsom Lake.

Discussion on Question 3: Are the projects in the preliminary list consistent with regional groundwater values?

The polling results indicated a tie between “yes” and “somewhat”, with a few “no” responses. Mr. Mills indicated that providing more water supply speaks to the interconnected elements and that the group

needs to decide what other storage methods can be maximized. Ms. Elizabeth noted that when she looked at list of 12 values, almost all the projects with brief descriptions primarily addressed two values but that there was nothing related to climate change or minimizing impacts.

Discussion on Question 4: Are there any sustainability indicators that are not addressed through the list?

45% of respondents said “no”, and approximately 55% indicated either “yes” or “somewhat”. Mr. Gibson indicated that the water quality sustainability indicator was not adequately addressed. Ms. Elizabeth commented that depletion of interconnected surface water was also not addressed.

Discussion on Question 5: Which is more important to achieving sustainability, reducing total demand or increasing surface water supply to meet projected demand?

45% of respondents said “both”, 30% said “increasing surface water supply”, and 20% said “reducing total demand”. Mr. Mills noted his meeting with MET and Orange County, and stated that they have plots of ground in Stanislaus and can increase runoff of plots. Surface flows can be reduced by changing spacing of trees at no cost, as well as looking at field and forest management practices to reduce silt issues, improve runoff, and increase water supplies.

Chair Winn noted a meeting with Southern California forest management agencies and identified bark beetle impacts. San Diego is moving toward independence in water use. Chair Winn stated the need to consider all options, and eventually consider the costs as well. Ms. Elizabeth voted for reducing demand as a conservative approach to achieve sustainability and stated her appreciation for discussing policies. Ms. Elizabeth met a Linden cherry farmer and learned that once an orchard begins using drip irrigation, it continues using drip irrigation. If instead it uses flood irrigation, it cannot use drip irrigation successfully. Therefore, there is a disconnect when looking at cropping patterns and it would be beneficial to implement policies that decrease agricultural water demand. Ms. Yolanda Park agrees about reducing total demand and consumption.

Discussion on Question 6: Are there any projects in the preliminary list with which you have significant concerns?

30% of respondents said “yes”. Mr. Mills is concerned that many of the projects have high costs, with one project that is over \$10,000/AF. Mr. Mills questioned where the funding will come from and whether rate payers will support these projects. Mr. Mills suggested capping costs at \$400/AF. Mr. Flinn suggested looking at projects that are economically feasible and questioned where to look long-term at the economy to growers and the ripple effects of the economies. Chair Winn commented that placing burdens on farms will hurt the economy, and Mr. Thorburn stated that there is no incentive to take out of district waters, that there is some available.

Discussion on Question 7: Are there any projects on the preliminary list with “fatal flaws” you are aware of that would preclude them from being able to be implemented within the SGMA timeframe?

40% of respondents said “no”, 40% of respondents said “somewhat”, and 20% of respondents said “yes”. There were no comments from Directors and from the public.

Discussion on Question 8: Should the GSP implementation plan include a small number of large projects or a large number of small/medium sized projects?

90% of respondents said the GSP implementation plan should include a large number of small/medium sized projects. Mr. Flinn stated that successful plan implementation will require more than a couple of little projects because small projects do not address the true problem. Chair Winn responded that the group should not be predisposed either way and that GSP implementation will be a combination of both projects. Mr. Andrew Watkins suggested adding an “other” option. Ms. Cathy Lee commented that some of the large

projects can be broken down into smaller phases or projects. Ms. Elizabeth stated that the rationale for implementing small projects is to build trust that a project can be reasonably accomplished, and that larger projects can move forward during the 5-year update. Mr. Mike Henry stated that there are long-term projects available that should be acknowledged for future implementation.

Discussion on Question 9: Should the implementation plan include projects targeting DAC benefits even if they are not the most cost-effective options for overall regional sustainability?

Approximately 60% of respondents said “yes”, and 40% of respondents said “no”. Mr. Mills noted that majority of the Calaveras County is DAC, which makes infrastructure projects difficult to implement. Mr. Balaji indicated his belief that there will be overwhelming support for projects targeting DAC benefits if the grants are successfully awarded. Ms. Elizabeth stated that Jay Lund from the University of California, Davis, released a white paper on equity last Spring. If it is costlier for a farmer to stop pumping than it is to drill a deeper well, overall it is more cost-effective for the farmer to fund the deepening of the well rather than to not pump. With respect to cost-effectiveness, there needs to be more open and innovative solutions that protect the DACs. There are DACs within the Cal Water service area, and urban farms provide an important contribution to urban communities.

Mr. Nakagawa noted that there are opportunities for DAC specific projects under Proposition 1 and the new water bond on the ballot. There are currently active DAC contacts and grant money available, but the challenge is to create projects to fit in the GSP. Mr. Mills asked what an acceptable way for those projects is to develop and generate. Chair Winn expressed desire to help DACs. Ms. Park agreed that there are grants available, and that implementation of the projects should take into consideration those communities and not unduly burden DACs. Mr. Mills stated that it is great to think about DAC grants, but to also consider the terms and conditions as these could cause payers to pay more.

Final Questions –

Mr. Flinn asked what will be done with the information and how will it move forward. Chair Winn noted he expects that we look at how the submitted projects address the problem areas, and what can be afforded with the available funding since funding can be a limiting factor for project progress. Mr. Flinn expressed interest in knowing the results and conclusions so he can present it to his Board. Chair Winn stated that this meeting was helpful for highlighting projects and wants to identify what is viable in the project list. Mr. Kuil agrees with the above comments and with further defining projects. Chair Winn asked the GSAs to determine the funding that could be raised. A City of Lathrop representative noted they have a project on the list that is already complete. He also identified the need to determine the target and how it can be attained with various project combinations. Mr. Mills congratulated the group for politely engaging in public discourse and noted an article on state mandates as it relates to rate payers.

VI. Adjournment:

The meeting was closed at 2:33 pm.

Next Regular Meeting: November 14, 2018 at 11:00 a.m.

San Joaquin County - Robert J. Cabral Agricultural Center, 2101 E. Earhart Ave., Assembly Rm. #1, Stockton, CA



OTHER INTERSTED PARTIES - SIGN-IN SHEET

Location: SJ COUNTY ROBERT J. CABRAL AG CENTER Date: 10/10/18 Time: 11:00 AM

INITIAL	Member's Name	Organization	Phone	Email
AW	Alyson Watson	Woodard+Curran	415-321-3400	awatson@woodardcurran.com
AT	Ali Taghavi	" "	916-999-8700	ataghavi@woodardcurran.com
UGS	Greg Gibson	City of Lathrop	209 941-7442	ggibson@ci.lathrop.ca.us
ML	Noel Limer	City of Lodi		
JZ	JOE ZITLES	Klemfelder	916 366 1701	jzittles@klemfelder.com
EM	Elba Mjyang	City of Manteca		
GS	Grace Su	EBMUD		
FR	Fritz Buchman	SJC		
ME	Mary Elizabeth	Sienna Club		
AS	Schwartz	EBMUD		
AS	Donna Lewis	EKT		akons@ekiconsult.com
JTS	Jane Wagner-Tyack	Independent Consultant (SJ County)	209-642-5105	JaneTyack@mac.com
DM	DEONNIS MILLS	CAVARENAS COUNTY		
JP	Yolande Park	Catholic Churches		ypark@ccstockton.org



Joint Exercise of Powers Board of Directors Meeting

MEMBER SIGN-IN SHEET

Location: SJ COUNTY ROBERT J. CABRAL AG CENTER Date: 10/10/18 Time: 11:00 AM

INITIAL	Member's Name	GSA	Phone	Email
JF	John Freeman	Cal Water Member	209-547-7900	jfreeman@calwater.com
SC	Steve Cavallini	Cal Water Alternate	209-464-8311	scavallini@calwater.com
GB	George Biagi, Jr.	Central Delta Water Agency Member	209-481-5201	gbiagi@deltabluegrass.com
DN	Dante Nomellini	Central Delta Water Agency Alternate	209-465-5883	ngmplcs@pacbell.net
GT	Grant Thompson	Central San Joaquin Water Conservation District Member	209-639-1580	gtom@velociter.net
RR	Reid Roberts	Central San Joaquin Water Conservation District Alternate	209-941-8714	reidwroberts@gmail.com
SS	Stephen Salavatore	City of Lathrop Member	209-941-7430	ssalvatore@ci.lathrop.ca.us
		City of Lathrop Alternate		
AN	Alan Nakanishi	City of Lodi Member	209-333-6702	anakanishi@lodi.gov
CS	Charlie Swimley	City of Lodi Alternate	209-333-6706	cswimley@lodi.gov
RS	Rich Silverman	City of Manteca Member	209-456-8017	rsilverman@ci.manteca.ca.us
MH	Mark Houghton	City of Manteca Alternate	209-456-8416	mhoughton@ci.manteca.ca.us
EH	Elbert Holman	City of Stockton Member	209-937-8244	hoytjr63@yahoo.com
ML	Mel Lytle	City of Stockton Alternate	209-937-5614	mel.lytle@stocktonca.gov

INITIAL	Member's Name	GSA	Phone	Email
RT	Russ Thomas	Eastside San Joaquin GSA Member	209-480-8968	rthomasccwd@hotmail.com
WPN	Walter Ward	Eastside San Joaquin GSA Alternate	209-525-6710	wward@envres.org
DF	David Fletcher	Linden County Water District Member	209-887-3202	dqfpe@comcast.net
	Paul Brennan	Linden County Water District Alternate	209-403-1537	ptbrennan@verizon.net
MA	Mike Henry	Lockeford Community Services District Member	209-712-4014	midot@att.net
	Joseph Salzman	Lockeford Community Services District Alternate	209-727-5035	lcsd@softcom.net
ES	Eric Schmid	Lockeford Community Services District Alternate	209-727-5035	lcsd@softcom.net
	Tom Flinn	North San Joaquin Water Conservation District Member	209-663-8760	tomflinn2@me.com
	Joe Valente	North San Joaquin Water Conservation District Alternate	209-334-4786	jcvalente@softcom.net
ECT	Eric Thorburn, P.E.	Oakdale Irrigation District Member	209-840-5525	ethorburn@oakdaleirrigation.com
		Oakdale Irrigation District Alternate		
W	Chuck Winn	San Joaquin County Member	209-953-1160	cwinn@sigov.org
	Kathy Miller	San Joaquin County Alternate	209-953-1161	kmiller@sigov.org
	John Herrick, Esq.	South Delta Water Agency Member	209-956-0150	jherrlaw@aol.com
	Jerry Robinson	South Delta Water Agency Alternate	209-471-4025	N/A
DK	Dale Kuil	South San Joaquin GSA Member	209-670-5829	dkuil@ssjid.com
	Robert Holmes	South San Joaquin GSA Alternate	209-484-7678	rholmes@ssjid.com
MP	Melvin Panizza	Stockton East Water District Member	209-948-0333	melpanizza@aol.com
	Andrew Watkins	Stockton East Water District Alternate	209-948-0333	watkins.andrew@verizon.net
	Anders Christensen	Woodbridge Irrigation District Member	209-625-8438	widirrigation@gmail.com
DGH	Doug Heberle	Woodbridge Irrigation District Alternate	209-625-8438	heberlewid@gmail.com

Eastern San Joaquin Groundwater Authority Staff & Support

INITIAL	Member's Name	Organization	Phone	Email
<i>KB</i>	Kris Balaji	San Joaquin County	468-3100	kbalani@sigov.org
<i>Present</i>	Fritz Buchman	San Joaquin County	468-3034	fbuchman@sigov.org
<i>BN</i>	Brandon Nakagawa	San Joaquin County	468-3089	bnakagawa@sigov.org
<i>MC</i>	Mike Callahan	San Joaquin County	468-9360	mcallahan@sigov.org
	Alicia Connelly	San Joaquin County	468-3531	aconnelly@sigov.org
<i>KV</i>	Kelly Villalpando	San Joaquin County	468-3073	krvillalpando@sigov.org
<i>DB</i>	Danielle Barney	San Joaquin County	468-3089	dbarney@sigov.org
<i>AN</i>	Andy Nguyen	San Joaquin County	953-7948	aynguyen@sigov.org
<i>AD</i>	Anthony Diaz	San Joaquin County	468-3060	anthonydiaz@sigov.org
	Rod Attebery	Neumiller & Beardslee / Legal Counsel	948-8200	rattebery@neumiller.com
<i>MS</i>	Monica Streeter	Neumiller & Beardslee / Legal Counsel	948-8200	mstreeter@neumiller.com

ATTACHMENT II
A.3.

**Eastern San Joaquin Groundwater Authority
GSA Outreach Activities - October 2018**

Agency Name	Update Website	Use Outreach Slides	Post to Social Media	Other
Cal Water	Post Notice of SGMA Public Outreach Meeting 11/14			
Central Delta Water Agency				
Central San Joaquin Water Conservation District				
City of Lathrop	Post Notice of ESJ Outreach Meeting in Manteca on 11/7/18			
City of Lodi				
City of Manteca			Facebook Posts on Informational Meeting, 10/19, 10/24, 10/30	
City of Stockton				
Eastside San Joaquin GSA		California Board of Realtors Marketing Meeting, Oakdale, CA		
Linden County Water District		Public meeting, 7pm Oct. 25 - at Linden County Water District Offices		
Lockeford Community Services District				Advertized Public Hearing on Oct.24 Via Local Newspaper
North San Joaquin Water Conservation District				
Oakdale Irrigation District				Posted ESJ Info Mtg Flyers in front office & incorporated them into OID's 10/16/18 Board agenda packet
San Joaquin County				
South Delta Water Agency				
South San Joaquin GSA				
Stockton East Water District				
Woodbridge Irrigation District GSA				Standing Agenda Item at the Monthly WID Board Meeting

Please indicate which of the above outreach activities your GSA has planned for the upcoming month. Please approximate date of completion.

**Eastern San Joaquin Groundwater Authority
GSA Outreach Activities - November 2018**

Agency Name	Update Website	Use Outreach Slides	Post to Social Media	Other
Cal Water				SGMA Outreach Meeting 11/14
Central Delta Water Agency				
Central San Joaquin Water Conservation District				
City of Lathrop	Post Notice of ESJ Outreach Meeting in Manteca on 11/7/18			Attend ESJ Outreach Mtg. in Manteca on 11/7
City of Lodi				
City of Manteca			Facebook Post on Informational Meeting, 11/7	Manteca Council Agenda Item 11/20
City of Stockton				
Eastside San Joaquin GSA				
Linden County Water District				
Lockeford Community Services District				
North San Joaquin Water Conservation District				
Oakdale Irrigation District	Updated 11/1/18	Added to OID's Website 11/1/18		Posted ESJ Info Mtg Flyers in front office
San Joaquin County				Ag Commission Pesticide Application Meetings
South Delta Water Agency				
South San Joaquin GSA				
Stockton East Water District				
Woodbridge Irrigation District GSA				

Please indicate which of the above outreach activities your GSA has planned for the upcoming month. Please approximate date of completion.

Villalpando, Kelly

From: Ara Marderosian <ara@sequoiaforestkeeper.org>
Sent: Tuesday, October 09, 2018 10:19 AM
To: info@esjgroundwater.org; Connelly, Alicia; Nakagawa, Brandon; Barney, Danielle; Villalpando, Kelly; Linda Turkatte [EH]; Callahan, Michael; 'Ara Marderosian'; awatson@woodardcurran.com; barbara@Restorethedelta.org; blancapaloma@msn.com; cindy@lucycompanypr.com; 'Christy Kennedy'; daryllpq@gmail.com; Dfries.audubon@gmail.com; gbigler@puentesca.org; 'Robert Dean'; gvhlaw@gmail.com; Hildfarm@gmail.com; janetyack@me.com; jennifer@mccv.org; jgiordano@thewinegroup.com; kensvogel@yahoo.com; 'Lindsay Martien'; lucy@lucycompanypr.com; machadofamilyfarms@gmail.com; mebeth@outlook.com; michael.machado@ymail.com; mike@springcreekcc.com; Mooovers@aol.com; Paul.Wells@water.ca.gov; ryan.mock@simplot.com; twells@tfewines.com; wprice@pacific.edu; ypark@ccstockton.org; Todd Shuman
Subject: RE: Reminder: Board Meeting on October 10
Attachments: 9 October 2018 slide presentation Eastern SJV Groundwater working group.docx

In advance of the October Stakeholder Committee meeting, attached is a file containing my comments, concerns, and observations regarding the slide presentation for the meeting. Due to a pressing commitment, I will be unable to attend.

Ara

From: info@esjgroundwater.org [mailto:info@esjgroundwater.org]
Sent: Tuesday, October 2, 2018 11:52 AM
To: Ara Marderosian <ara@sequoiaforestkeeper.org>
Subject: Re: Reminder: Board Meeting on October 10

Hi Ara -

You are correct.

Thanks, Cindy

From: Ara Marderosian <ara@sequoiaforestkeeper.org>
Sent: Tuesday, October 2, 2018 9:39 AM
To: info@esjgroundwater.org
Subject: RE: Reminder: Board Meeting on October 10

Do I understand correctly that the stakeholder working group meeting is Tuesday, 9 October 2018 4 pm to 5:30 pm and the Board meeting is Wednesday, 10 October 2018 11 am to 2:30 pm?

Ara

From: info@esjgroundwater.org [mailto:info@esjgroundwater.org]
Sent: Tuesday, October 2, 2018 8:51 AM
To: info@esjgroundwater.org
Subject: Reminder: Board Meeting on October 10

Good morning all -

A friendly reminder that the Board meeting on Wednesday, October 10 at 11:00 AM will be an extended meeting to accommodate a workshop on projects and management actions (scheduled from 12:30-2:30).

The meeting will be located at the Robert J. Cabral Agricultural Center, Assembly Room 1.

Thanks,

9 October 2018 slide presentation Eastern SJV Groundwater working group Concerns

Slide 5 of the 9 October 2018 slide presentation, indicates with an asterisk a “potential use for livestock feed” of the various crops listed. The crop of Almonds has no asterisk, but we know that more than 50% of the water used to grow almonds goes into the almond hulls, which are sold as feed for livestock. <https://www.westernfarmpress.com/tree-nuts/almond-hulls-low-prices-call-expanded-markets>

“The hull was percentually the heaviest part (average 52.7 %) of all fresh fruit parts, followed by shell (average 32.8 %) and kernel (average 14.5%).”
<http://om.ciheam.org/om/pdf/s08/CI010788.pdf>

According to these reports, it takes nearly one gallon of water to produce one almond
<https://fas.org/sgp/crs/misc/R44093.pdf>

Water applied to almond orchards results in three commodities that are sold each year. Roughly half of the cumulative mass of all those almond-related commodities that get sold and which result from that application of water are almond hulls, a crop almost exclusively sold to the dairy and livestock industries as a nutritional feed input. *In short, half of the water applied to almond orchards results in a livestock feed crop commodity mass that is ultimately sold to dairies and fed to dairy cows and then partially converted into methane that is then emitted into the atmosphere.* That is a fact that must be factored into an analysis of the ultimate social and environmental utility of almond kernel production – and the applied water that gives rise to the almond-orchard-related commodities ultimately sold.

Methane produced by the so-called beneficial use of growing livestock feed crops must be considered and questioned in light of the very recent IPCC (International Panel on Climate Change) Report discussed in the New York Times.
<https://www.nytimes.com/2018/10/07/climate/ipcc-climate-report-2040.html> The [NY Times article](#) describes the report in detail and provides a link to [the report itself](#).
<http://www.ipcc.ch/report/sr15/>

IPCC Report Bottom line: countries around the world will need to take emergency action to keep temperatures within 1.5 degrees C, or even below 2 degrees. The consequences of overshooting amount to \$trillions of additional damage on top of \$trillions at 2 degrees, drought and mass displacement of people.

It is time for decisionmakers to sit down and objectively consider what to do in terms of allowing—or not, so-called beneficial uses of California’s water to continue producing GHG’s, in light of the IPCC Report, the Public Trust Doctrine, and the California Constitution.

Slide 5 also indicates the acres used for particular crops, but it does not break down the mystery designations of “Field Crops” and “Truck Crops” into actual vegetation species. Please

demystify, into actual vegetable crops, these two mysterious categories into actual vegetable crops, which continue to be referred to throughout the 9 October 2018 slide presentation.

Ara

Mr. Ara Marderosian
Sequoia ForestKeeper®
P.O. Box 2134
Kernville, CA 93238
[\(760\) 376-4434](tel:(760)376-4434)
www.sequoiaforestkeeper.org
www.facebook.com/SequoiaForestKeeper
<http://www.youtube.com/c/SequoiaForestkeeper>

Juma, Hanan

From: Villalpando, Kelly
Sent: Wednesday, November 07, 2018 2:11 PM
To: Juma, Hanan
Subject: FW: Will a Court Decision Tip the Scales Against More California Groundwater Pumping?
Attachments: California Leans Heavily on Groundwater
WillCourtDecisionTipScalesAgainstMorePumping.docx

From: Ara Marderosian <ara@sequoiaforestkeeper.org>
Sent: Friday, October 19, 2018 9:42 AM
To: 'Judie Talbot' <talbot.judie@gmail.com>; 'Mary Elizabeth' <mebeth@outlook.com>; goldrushdean@yahoo.com; kensvogel@yahoo.com; twells@tfewines.com; wprice@pacific.edu; ypark@ccstockton.org; daryllpq@gmail.com; Linda Turkatte [EH] <LTurkatte@sjgov.org>; 'Restore the Delta' <barbara@restorededelta.org>; Dfries.audubon@gmail.com; 'George Hartmann' <gvhlaw@gmail.com>; 'Mary Hildebrand' <hildfarm@gmail.com>; jennifer@mccv.org; jgiordano@thewinegroup.com; ryan.mock@simplot.com; Mooovers@aol.com; michael.machado@ymail.com; colin@ejcw.org; mike@springcreekcc.com; machadofamilyfarms@gmail.com; 'Christy Kennedy' <cskennedy@woodardcurran.com>; 'Lucy Eidam Crocker' <Lucy@crockercrocker.com>; 'Lindsay Martien' <LMartien@woodardcurran.com>; Nakagawa, Brandon <bnakagawa@sjgov.org>; ESJGroundwater <ESJGroundwater@sjgov.org>; awatson@woodardcurran.com; Todd Shuman <tshublu@yahoo.com>
Subject: Will a Court Decision Tip the Scales Against More California Groundwater Pumping?

Please see the attached analysis on More California Groundwater Pumping. <https://www.watereducation.org/western-water/california-leans-heavily-its-groundwater-will-court-decision-tip-scales-against-more>

Ara

Mr. Ara Marderosian,
Executive Director
Sequoia ForestKeeper®
P.O. Box 2134
Kernville, CA 93238
(760) 376-4434
www.sequoiaforestkeeper.org
www.facebook.com/SequoiaForestKeeper
<http://www.youtube.com/c/SequoiaForestkeeper>



Western Water | October 19, 2018 | Gary Pitzer

CALIFORNIA LEANS HEAVILY ON ITS GROUNDWATER, BUT WILL A COURT DECISION TIP THE SCALES AGAINST MORE PUMPING?

WESTERN WATER NOTEBOOK: PUMPING NEAR THE SCOTT RIVER IN SISKIYOU COUNTY SPARKS APPELLATE COURT RULING EXTENDING PUBLIC TRUST DOCTRINE TO GROUNDWATER CONNECTED TO RIVERS

In 1983, a landmark California Supreme Court ruling extended the public trust doctrine to tributary creeks that feed Mono Lake, which is a navigable water body even though the creeks themselves were not. The ruling marked a dramatic shift in water law and forced Los Angeles to cut back its take of water from those creeks in the Eastern Sierra to preserve the lake.

Now, a state appellate court has for the first time extended that same public trust doctrine to groundwater that feeds a navigable river, in this case the Scott River flowing through a picturesque valley of farms and alfalfa in Siskiyou County in the northern reaches of California.

Yet in an era when local agencies around the state already are drafting plans to protect groundwater basins from being over pumped, the impact of this appellate ruling depends on who you ask.

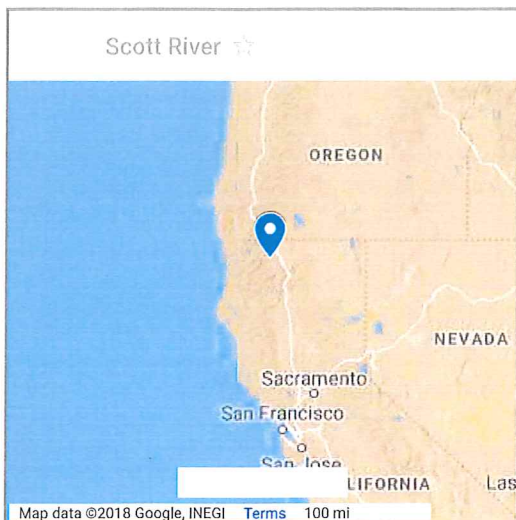
In the Scott River case, *Environmental Law Foundation v. State Water Resources Control Board*, California's Third District Court of Appeal concluded that counties are obligated to consider the public trust before authorizing new groundwater wells whose extractions might have an adverse impact on trust resources, such as water in a navigable river. Siskiyou County, which was a defendant in the case, has filed a petition for review with the California Supreme Court.

Still, Environmental Law Foundation President James Wheaton sees the ruling as a harbinger, even if its reach is limited to groundwater connected to surface waters and not deep aquifers.

"This opinion, to paraphrase the court, is the public trust case for the 21st century — a monumental decision bringing public trust principles to today's water issues," he said. "California's water future is underground. That is where the real fight is and will continue to be. And this decision brings one of the most powerful legal rules — the public trust doctrine — to that fight."



[The Scott River in Siskiyou County, the focal point of an appellate case over whether the public trust doctrine extends to groundwater connected to rivers. \(Source: North Coast Regional Water Quality Control Board\)](#)



Chris Scheuring, senior counsel with the California Farm Bureau Federation, believes the impact is likely to be more limited. The Farm Bureau filed a friend of the court brief in support of Siskiyou County.

Scheuring does not believe the ruling puts everyone on the cusp of a sea change in groundwater management, adding that the emphasis remains on the state's Sustainable Groundwater Management Act (SGMA), the 2014 law aimed at putting the state's hardest-hit aquifers on a path toward sustainability.

"To bring the public trust to bear all around the state requires either a bunch of lawsuits or having administrative agencies or the State Water Board step in ... and that is unwieldy, inefficient and probably overcome by the SGMA process anyway," Scheuring said.

Some legal experts agree that the public trust doctrine is just part of the story.

Jennifer Harder, a professor specializing in water law at McGeorge School of Law in Sacramento, said she was not sure the outcome would be different if other laws are properly applied.

"A properly done SGMA analysis and a properly done reasonable use analysis must assess long-term environmental sustainability," she said, "Reasonable use and the public interest require consideration of impacts to common public resources, or the analysis is flawed."



[Jennifer Harder, a law professor specializing in water law at McGeorge School of Law in Sacramento, says public agencies should "embrace the public trust analysis because doing it allows them to consider environmental impacts and the economic the feasibility of addressing them."](#)

Historic Mono Lake decision

Known to most people as the basis for the historic 1983 Mono Lake decision that limited Los Angeles' water diversions, the public trust doctrine requires the State Water Resources Control Board (State Water Board) to consider the potential for water diversions to affect the public value of navigable waters and to protect that value where feasible, even if the diversions are from non-navigable tributaries. The feasibility standard requires the State Water Board and courts to balance environmental harm with economic and other considerations.

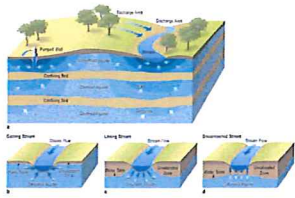
With origins tracing to Roman law, the public trust doctrine centers on the principle that natural resources such as water are preserved for public use, and that the government owns and must protect and maintain these resources for the public's use. In a seminal article published in 1970, the celebrated University of California, Berkeley law professor Joe Sax wrote that "Of all the concepts known to American law, only the public trust doctrine seems to have the breadth and substantive content which might make it useful as a tool of general application for citizens seeking to develop a comprehensive legal approach to resource management problems."

The doctrine gained notoriety in the 1983 landmark *National Audubon Society v. Superior Court* decision in which the California Supreme Court held that the public trust doctrine applied to the city of Los Angeles' rights to divert water from several streams flowing into Mono Lake. The decision stated that, "whenever feasible," state agencies and courts were obliged to consider and protect public trust resources when allocating water.

Linking groundwater and surface water

Scientists have long understood that surface water and groundwater are connected — that water seeps into groundwater from streams, and that groundwater can contribute to streams and wetlands. Thus, the argument has been made that the

connection between groundwater and surface water needs to be solidified as decisions about water use in California are made.



[A stream or river can gain water from a high water table, or lose it when the water table recedes.](#)
(Source: California Department of Water Resources)

The Scott River is a major tributary to the lower Klamath River that is home to steelhead trout, Chinook salmon and the threatened coho salmon. The river flows through Scott Valley, where groundwater pumping for agricultural irrigation has reduced the amount of cooler groundwater contributing to the Scott River's baseflow, according to a March 2018 report by the University of California, Berkeley's Wheeler Water Institute.

"This has reduced late summer and fall streamflow and raised surface water temperatures, which in turn has affected fish habitat," said the report, *Navigating Groundwater-Surface Water Interactions under the Sustainable Groundwater Management Act*.

In 2010, Environmental Law Foundation (ELF) and others filed suit against the State Water Board and Siskiyou County, alleging that permitted wells near the Scott River were partly responsible for decreased surface flows, which in turn harmed fish populations and made the river less suitable for boating and other recreational activities. Environmental Law Foundation is an Oakland-based environmental and social justice law organization.

University of California, Davis law professor Richard Frank, who served as co-counsel for ELF in the case, noted that local farmers and ranchers in recent years have drilled numerous groundwater wells and pumped ever-increasing amounts of groundwater from those aquifers.

"As a direct result, the surface flows of the Scott River have been reduced, at times dramatically," he wrote Aug. 29 in *Legal Planet.org*. "Indeed, in the summer and early fall months, the Scott River has in some years been completely dewatered due to the nearby groundwater pumping. The adverse effects on both the Scott River's salmon fishery and recreational use of the river have been devastating."

ELF and the Pacific Coast Federation of Fishermen's Associations initially petitioned the State Water Board to administratively limit groundwater pumping in the Scott River watershed, but the board declined, leading to the lawsuit.

The ruling from the trial court in Sacramento held that while groundwater itself is not protected by the public trust doctrine, the doctrine nevertheless "protects navigable waters from harm caused by extraction of groundwater, where the groundwater is so connected to the navigable water that its extraction adversely affects public trust uses."

"This opinion, to paraphrase the court, is the public trust case for the 21st century — a monumental decision bringing public trust principles to today's water issues."
~ *Environmental Law Foundation President James Wheaton*

Citing the California Supreme Court's decision in *National Audubon*, the trial court said the doctrine extends to diversions from non-navigable streams because those diversions result in adverse effects on the public trust values of navigable waters. In the case of *National Audubon*, that turned on "scenic beauty" and "ecological values" of Mono Lake.

The trial court also held that because the administration of the public trust primarily rests with the state, the county, as a subdivision of the state, "shares responsibility for administering the public trust."

How the public trust and SGMA intersect

The county appealed to the Third District Court of Appeal in Sacramento. Of particular importance in the appellate court's discussion was the intersection between the public trust doctrine and SGMA.

The three-judge panel rejected Siskiyou County's claim that SGMA supersedes a county's obligation to consider the public trust, noting in their ruling that "We can evince no legislative intent to eviscerate the public trust in navigable waters in the text or scope of SGMA."

"We conclude the enactment of SGMA does not ... occupy the field, replace or fulfill public trust duties, or scuttle decades of decisions upholding, defending, and expanding the public trust doctrine."

"As a practical matter, we know that the public trust doctrine applies and that it's not supplanted or superseded by SGMA."

~Chris Scheuring, attorney with California Farm Bureau Federation

Harder with McGeorge School of Law praised the appellate court's ruling, calling it "well written and well-reasoned."

"The outcome on the question of applicability of the public trust to interconnected surface water and groundwater was pretty straightforward," she said. "It's a natural application of *National Audubon*, which itself addressed application of the public trust to non-navigable waters that flow into navigable waters."

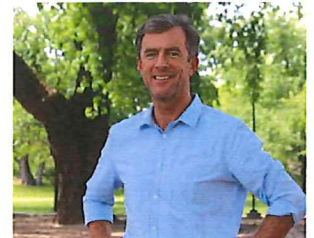
The ruling raises questions about the data, information and the resources needed on the part of local agencies to assess impacts to surface water resources, Harder said.

"All of those complexities existed prior to this decision and this decision underscores the need to address those concerns," she said. "The local agencies that are implementing SGMA have limited resources and that reality needs to be addressed so that we can make good decisions about environmental impacts, including those to surface water."

A 'narrow' or 'far-reaching' ruling?

Scheuring, the Farm Bureau attorney, said the ruling "is not good from our perspective ... but [is] a very narrow ruling."

"As a practical matter, we know that the public trust doctrine applies and that it's not supplanted or superseded by SGMA, but whether [it] is going to be deployed by the court in this case or by any administrative agencies ... in advance of SGMA's implementation is questionable," he said. "SGMA has a broader ambit than the public trust does, so my sense is that my members are still looking toward SGMA as the framework that's going to govern groundwater extractions in the future and not the public trust doctrine."



Chris Scheuring, an attorney with the California Farm Bureau Federation, said he believes the appellate court ruling "is not good from our perspective ... but [is] a very narrow ruling."

David Orth, a Fresno water resources consultant and former member of the California Water Commission, said there won't be a "broad-brush impact" from the ruling on groundwater pumping in the San Joaquin Valley, where many aquifers are isolated from surface water by geography or heavy use.

"It's generally accepted that there's not a broad interconnection in surface-groundwater that creates the same condition in most of the San Joaquin Valley as it does in places like the Cosumnes River [near Sacramento] or on the Scott River," he said. "Nonetheless, the groundwater sustainability agencies in the San Joaquin Valley will need to consider the application of public trust issues as groundwater sustainability plans are prepared and implemented."

Other opponents of the ruling believe the decision could have far-reaching implications.

Downey Brand, a Sacramento law firm that filed a friend of the court brief on behalf of Siskiyou County and has been retained to pursue the county's petition for state Supreme Court review, said in a Sept. 7 legal alert that the ruling "marks a significant extension" of the public trust doctrine "and has opened the door to a new frontier for litigation over groundwater administration in California."

The opinion "strays into a number of issues well beyond the core questions in the case, including how ... SGMA interrelates with the public trust," Downey Brand said. "While the opinion professes to be 'extraordinarily narrow,' that contention belies the opinion's broad implications."

"The environment is best protected if agencies build trust

What happens next to the wells near the Scott River is unclear. Whether pumping will change depends on whether there are future proceedings in court or at the State Water Board, and what the outcome is.

considerations into decisions instead of wasting public resources in endless legal challenges.”

~Jennifer Harder, professor at McGeorge School of Law

“This is a legal ruling, it’s not the end of the line,” Scheuring said. “Is it going to change the way that one or more folks are pumping water in the Scott River? I don’t know. That remains to be seen. This ruling it not, ‘everybody stop pumping’ or anything like that.”

Harder acknowledged the ruling’s potential effects on the legal landscape.

“Does this decision provide options to potential challengers [elsewhere]? Certainly,” she said. “A public trust suit is relatively easy to bring and resonates with the public and courts.”

Harder said it behooves local agencies to be thorough in their responsibilities for their own benefit.

“There is a sense on the part of local agencies that invocation of the public trust doctrine is a death knell,” she said. “I would encourage local agencies to think differently and embrace the public trust analysis because doing it allows them to consider environmental impacts and the economic the feasibility of addressing them.

“Agencies should care about long-term sustainability, and they have the facts,” Harder said. “And the environment is best protected if agencies build trust considerations into decisions instead of wasting public resources in endless legal challenges.”

Further reading and resources from the Water Education Foundation

Aquapedia: [Public Trust Doctrine](#)

Aquapedia: [Mono Lake](#)

Western Water: Now Comes the Hard Part: Building Sustainable Groundwater Management in California [Summer 2017](#)

Western Water: Preservation and Restoration: Salmon in Northern California [Winter 2017](#)

Western Water: Novel Effort to Aid Groundwater on California’s Central Coast Could Help Other Depleted Basins [May 2018](#)

Western Water: Does California’s Environment Deserve its Own Water Right? [February 2018](#)

The 2014 Sustainable Groundwater Management Act: A Handbook to Understanding and Implementing the Law [October 2015](#)

Reach Gary Pitzer: gpitzer@watereducation.org, Twitter: [@gary_wef](#)

Know someone else who wants to stay connected with water in the West? Encourage them to [sign up](#) for Western Water, and follow us on [Facebook](#) and [Twitter](#).

ATTACHMENT II
B.1-3.

Acampo vineyard flooded in experiment to recharge aquifer

By Roger Phillips
Record Staff Writer

@rphillipsblog

Posted Oct 13, 2018 at 4:54 PM

Updated Oct 13, 2018 at 4:54 PM

ACAMPO — The setting was a 14-acre grape vineyard, but the mismatched background noise was that of a babbling brook.

The roots of some of the old-vine Zinfandel plants were submerged in foot-deep water pumped in from the Mokelumne River, a half-mile away. Other old-vine Zinfandel plants were bone dry.

A science experiment being conducted by the nonprofit Sustainable Conservation is taking place on land owned by 81-year-old farmer Al Costa, an enthusiastic participant.

 Al Costa's farm

The goals of the effort are twofold:

- To see if water pumped from the Mokelumne River onto farmland could help recharge depleted groundwater levels on agricultural land.
- To learn the effect on crops if vast amounts of water are pumped onto them, the first step on the water's path to the ultimate goal of recharging aquifers.

On Costa's farm, the farmer said the effect on crops — in this case old-vine Zinfandel grapes — appears so far to be nonexistent. Costa said his grapes have been doing equally well whether wet or dry.

As for whether the pumped water will recharge the aquifer and raise the water table, Costa knows what he is hoping will be the answer.

"I'd like to put all the water we can in the water table," Costa said. "We need it. We sure do. We need the water, instead of letting it go down the river, out in the ocean."

This is the second year the research is being conducted. Joe Choperena, the senior project manager for Sustainable Conservation, said the results of a smaller 2017 effort were promising. The flooded vines and the dry vines did equally well, he said.

“Just recently we compared the yield of the recharged plot with the (9-acre) plot that did not receive a lot of water,” Choperena said. “The yields were the same. After putting that much water onto this vineyard there were no effects in the following year’s yield.”

Choperena said grapes are an ideal crop for this sort of research, and that Costa’s 14-acre flooded plot is perfect for receiving 145 acre-feet of river water in a 12-day span.

“This piece of ground, this vineyard, takes an amazing amount of water,” Choperena said. “It’s basically beach sand, and when water is applied it basically goes straight down.”

Al Costa's farm experiment

According to Sustainable Conservation, the need for such research is great:

- The winegrape-growing region within San Joaquin County is overdrafted by 100,000 acre-feet of water a year. That means 100,000 more acre-feet come out of the ground than go in during an average year.
- The wine industry is reliant on groundwater for drip irrigation.
- If the flooding method proves to be supported by evidence and subsequently used on a widespread basis, it could solve up to 10 percent of the region’s overdraft issue.

This year’s intentional flooding of Costa’s land began early this month and is scheduled to continue until Nov. 1, said associate engineer Daniel deGraaf of Provost & Pritchard Consulting Group.

deGraaf's goal is to monitor the groundwater levels in wells in a two-mile radius of Costa's land to determine if the aquifer is increasing and if water is taking the desired path by flowing northwest away from the Mokelumne River.

"We're going to be gathering data over the course of a year," deGraaf said. "I expect most of the critical data to be collected over the next six months."

 Al Costa's farm experiment

Initially, he said, the water levels will be monitored every two weeks. After two months, the water levels will be checked monthly.

"That'll give us a picture of how high the water gets in the aquifer and then as it spreads out and travels hopefully to the northwest, we'll be able to see wells further away rise up, as well," deGraaf said.

Contact reporter Roger Phillips at (209) 546-8299 or rphillips@recordnet.com. Follow him on Twitter [@rphillipsblog](https://twitter.com/rphillipsblog).

i Warning

RokSprocket needs the RokCommon Library and Plug-in installed and enabled. The RokCommon System Plug-in needs to be before the RokSprocket System Plug-in in the Plug-in Manager

RokGallery needs the RokCommon Library and Plug-in installed and enabled.

Central Valley Projects Evaluate Recharge On Cropland



North San Joaquin Valley Water Conservation Distri...



October 26, 2018 - By Christine Souza - Can water be spread onto active farmland to replenish underground aquifers without harming crops? That's the question under study in a variety of California locations on land holding vineyards, nut orchards, alfalfa and other crops.



(Left) At Costa Vineyards in Acampo, the farm's owner has teamed with his water district and a nonprofit organization to examine the impact of flooding this 14-acre vineyard to recharge groundwater. In similar projects around the state, farmers and groundwater experts want to learn how such recharge efforts affect both aquifers and crops. Photo/Christine Souza

These efforts, some of which have been ongoing for years, have become more important since the 2014 passage of the Sustainable Groundwater Management Act, which requires local agencies and groundwater users to develop plans to manage aquifers within their jurisdictions.

"Farmers and ranchers recognize that replenishing groundwater with on-farm recharge projects is one of the tools that we need to use to implement SGMA successfully," California Farm Bureau Federation Senior Counsel Jack Rice said.

One pilot project, at a zinfandel winegrape vineyard near Acampo, involves flooding 14 acres of the vineyard with up to 500 acre-feet of Mokelumne River water each year to recharge the underlying groundwater basin.

Landowner Al Costa is working with the North San Joaquin Water Conservation District and the nonprofit organization Sustainable Conservation on the project.

Costa's granddaughter, Tera Clark, said her family considers the vineyard a prime spot for groundwater recharge.

"My grandpa over the years was amazed at how fast the water would permeate the ground," Clark said. "He tried to contact some people to do a project because he said the water was needed and there was a good spot for the water to go straight down."

The current demonstration project on the Costa property, now in its second year, tests and promotes recharge in a district that receives little surface water and in which many farmers have converted crops to drip irrigation.

Dave Simpson, a director of the North San Joaquin Water Conservation District, said the district didn't deliver any surface water during the recent five years of drought, which led to increased groundwater use and to increased motivation for recharge.

Flooding the vineyard began in early October and is set to continue through early November.

Joe Choperena of Sustainable Conservation said the demonstration project aims to increase participation by other districts.

"Because this area and many other areas of California have critically overdrafted basins, this seems like a good way to maintain ag production but also utilize the landscape to recharge the aquifer," Choperena said. "This is one of six on-farm recharge monitoring sites, and the other monitoring sites are on almonds, other grapes—winegrapes and raisin grapes—walnuts and pistachios."

An early adopter of groundwater recharge, Don Cameron of Terranova Ranch in Fresno County, said he broke ground last week on a large-scale groundwater recharge project he has been pursuing for almost a decade through the state Department of Water Resources. Once completed, the project—a partnership among Terranova Ranch, Sustainable Conservation and the University of California, Davis—will add 30,000 acre-feet a month into the underground water system near the Kings River when floodwater is available.

In Northern California, professors from UC Davis are working on a small-scale study with the Scott Valley Irrigation District to recharge groundwater during winter months, in order to support added streamflow and fisheries, such as chinook salmon, during the summer.

"We're not looking at recharging in this valley for us to consume as agriculture, because we get pretty much a full recharge of water," said farmer and rancher Jim Morris of Yreka, president of the Scott Valley Irrigation District. "We're looking at slowing the water down and allowing it to get back for fisheries purposes later."

With no real surface storage in the region, Morris said, trying to keep the river running through the valley can be tricky, so groundwater recharge could be an option.

UC Davis professor Thomas Harter said the Scott Valley project examines storing winter runoff underground in order to support late-summer streamflow.

Morris said the project is also looking at how added water in the wintertime will affect alfalfa.

"Alfalfa doesn't like to have its feet wet when it's growing," he said, "but can we do this in January, February and March, before the alfalfa breaks dormancy, without causing any adverse effects?"

Harter said studies around the state will gauge the impact of groundwater recharge on crops.

"Is there an agronomic disadvantage to putting floodwaters in an orchard or a vineyard or a fallow field? Those are questions that we need to address," he said.

Sustainable Conservation will hold a workshop about the Costa Vineyards project on Nov. 5, from 9 a.m. until noon, at the Woodbridge Winery Old Barrel Warehouse, 5950 East Woodbridge Road in Acampo. RSVP to groundwater@suscon.org or 209-408-0612.

"We are definitely trying to work on reaching sustainable groundwater levels in a way that does not impact the agricultural economy and communities and agricultural business," Choperena said.

(Christine Souza is an assistant editor of Ag Alert. She may be contacted at csouza@cxbf.com.)

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EDMUND G. BROWN JR.
GOVERNOR



GAVIN NEWSOM
LIEUTENANT GOVERNOR

Chairwoman Felicia Marcus
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

November 6, 2018

Dear Chairwoman Marcus:

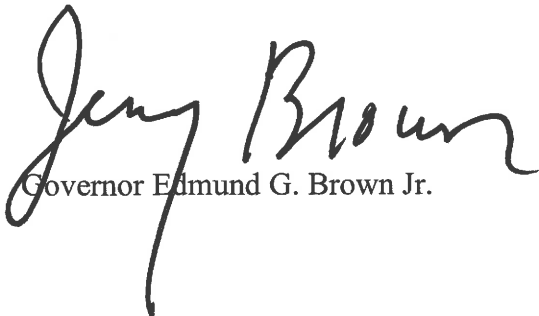
The Board is scheduled to take action tomorrow on a proposal to amend the Bay Delta Water Quality Control Plan, including changes to the minimum flow standards for the Lower San Joaquin River.

We respectfully request a postponement of this item until December 12, 2018.

For many months, state agencies, water districts and others have been working hard to achieve voluntary agreements that would meet the requirements of the amendment set for adoption. Significantly, these agreements would obligate water rights holders to improve stream flows and restore habitat.

A short extension will allow these negotiations to progress and could result in a faster, less contentious and more durable outcome. Voluntary agreements are preferable to a lengthy administrative process and the inevitable ensuing lawsuits. During this time, we pledge to actively and meaningfully engage to bring this vital matter to a successful closure.

We agree that the need to improve our aquatic ecosystems is urgent. A lasting and well-thought-out solution will benefit all Californians and our environment.



Governor Edmund G. Brown Jr.



Lieutenant Governor Gavin Newsom

cc: Vice Chair Steven Moore, Board Member Tam M. Doduc, Board Member Dorene D'Adamo and Board Member Joaquin Esquivel