



EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY

Board of Directors Meeting

AGENDA

Wednesday, April 10, 2019

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 March 13, 2019 (See Attached)
 2. Roadmap Update and Deliverables
 3. Water Budget Planning Estimates
 4. Sustainability Indicators
 5. Monitoring, Measuring and Model Refinements
 6. Project Implementation
 7. Outreach & Groundwater Sustainability Workgroup Update
 8. DWR Update
 9. May Agenda Items
 - B. **Informational Items (see attached):**
 1. March 7, 2016, Handout from SWRCB, “Triggering State Intervention”
 2. February 1, 2019, westerncity.com, “California’s Public Trust Doctrine Draws Attention in the Courts”
 3. March 11, 2019, Email from Ara Marderosian, Responses to 13 March 2019 slides
 4. March 12, 2019, City of Lathrop Office of the City Manager, “City of Lathrop – Voluntary Withdrawal from the Eastern San Joaquin Groundwater Authority”
 5. March 25, 2019, Email from Ara Marderosian, “ESJ Groundwater Sustainability Workgroup – REPORT 89% of CV water flowing into San Francisco Bay was for salinity control to protect human uses of this water”

(Continued on next page)

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY
Board of Directors Meeting
AGENDA
(Continued)

6. March 27, 2019, mavensnotebook.com, "CA Water Law Symposium: Groundwater adjudication under SGMA"
7. April 1, 2019, CALmatters, "Gathering storm: What California must learn from the Midwest floods"

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

**The date of the May meeting is being rescheduled
per request of the JPA members.**

Action may be taken on any item

Agendas and Minutes may also be found at <http://www.EJGroundwater.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
March 13, 2019

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 A.M., on March 13, 2019, 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, George Biagi, Jr., Russ Thomas, David Fletcher, Mike Henry, Tom Flinn, Eric Thorburn, John Herrick, Dale Kuil, Alternate Directors Reid Roberts, Charlie Swimley, Dan Wright, and Doug Heberle, and Secretary Kris Balaji.

Alternative Director Walter Ward took Director Russ Thomas' place for the last third of the meeting. Others in attendance are on the sign in sheet.

II. SCHEDULED ITEMS

A. Discussion/Action Items:

1. Approval of Minutes of February 13, 2019

Motion:

Director David Fletcher moved, and Director Mel Panizza seconded, the approval of the February 13 minutes, and the motion passes unanimously.

2. Roadmap Update and Deliverables

Ms. Alyson Watson walked through the roadmap and revised deliverable review schedule and indicated which sections will be included in each deliverable bundle. She noted there will be time for discussion on areas of disagreement at the Board meetings as identified. This schedule incorporates an administrative review period.

Director Charles Swimley asked for clarification on when the chapters go public.

Chair Chuck Winn gave a schedule clarification from the Advisory Committee meeting. When meeting with agencies to discuss other items, he asked if they can discuss non-discussed items. Ms. Alyson Watson gave a summary to the Board on missing items. Chair Chuck Winn noted discussion could be had. Coordination with Advisory Committee members is encouraged to keep on track with schedule.

Director Tom Flinn requested clarification on the relationships between the Advisory Committee, the Board of Directors, and GSA Boards. He asked how information relates between groups. He asked whether there is adequate time to develop consensus between boards to reach a decision. He noted that he listened in on the Advisory Committee Meeting. He asked how responsibilities will be allocated between agencies. He stated that there is reluctance to do that, as some boards will have a hard time looking at issues on a basin-wide basis and need to understand GSA-level responsibilities. Chair Chuck Winn responded saying he hopes members are having discussions at Board meetings to bring them up to speed on these issues to know where the local GSAs stand. This information can then be brought back to the GWA Board. He indicated there is no intent for the Board of Directors to be an authoritarian body. Director Tom Flinn responded to

clarify, noting that the NSJ Board talks about the GSP development process every month, but there have not been substantial decisions. Chair Chuck Winn responded that if they need more information, let the consultants know.

Director Eric Thorburn of OID suggested that everyone look at the management actions discussion.

Motion

There was a motion to accept the revised GSP development and deliverable review schedule, and the motion was approved unanimously.

3. Outreach & Groundwater Sustainability Workgroup Update

Ms. Alyson Watson gave an overview of the Groundwater Sustainability Workgroup activities from their February 13th meeting, which focused on financing. She indicated the Workgroup meeting schedule for that evening would be focused on Groundwater Dependent Ecosystems. Ms. Alyson Watson read the input provided by the Workgroup about financing.

Chair Chuck Winn asked a question about the sales tax discussion in Workgroup. He asked if there was any discussion of what it would generate or how it would be structured. Ms. Alyson Watson answered no, it was a conceptual discussion.

Director Russ Thomas indicated that there is discussion within their GSA to have Calaveras County take on a larger role. He noted that it will likely be his last meeting. He stated that Alternate Director Walt Ward in attendance as Director Thomas had to leave early.

4. DWR Update

Mr. Paul Wells gave an update from DWR. He noted that he is working with the GWA on an invoice and grant agreement amendment. He additionally stated that there is remaining work for the basin boundary modification for the City of Lathrop. The GSA is to make sure the current boundary is reflected in the JPA. He gave a reminder that the GSA Forum in West Sacramento is next week and noted it will cover stakeholder engagement and how GSAs are forming a GSP together. He addressed what happens if a GSA withdraws, noting that the SWRCB has a handout on what happens in the intervention process or if an interim plan is required. The document provides the fees. Chair Chuck Winn asked whether the State intervenes for just that area or for the entire basin if a GSA disbands. Mr. Paul Wells responded that they could require extraction reports in the area that is no longer covered. Whether or not the whole basin would not be in compliance is not clear. Mr. Paul Wells gave the example of Kern County, where legal counsel spoke to the Water Board to answer these questions. Ms. Valerie Kincaid stated that there is a provision to have a "carve-out" if a basin goes probationary called a "good actor provision," but it is untested.

5. April Agenda Items

Ms. Alyson Watson indicated that a poll will be sent out to reschedule the May 8th meeting due to conflict with ACWA. She noted that the April agenda items listed on the slide will be supplemented with the items that were discussed by the Advisory Committee in March. Director Eric Thorburn added that the group is behind schedule on projects and management actions and the implementation plan, and that tougher discussions need to be had to move the schedule along in the next meeting.

B. Informational Items:

1. February 23, 2019, Email from Ara Marderosian, "Analysis Says to End Valley's Groundwater Overdraft, Farmland Must be Retired"
2. February 28, 2019, Email Notification From Department of Water Resources, "SGMO News: February Newsletter"
3. February 28, 2019, ppic.org, "Video: Water and the Future of the San Joaquin Valley"
4. March 1, 2019, mercurynews.com, "Sierra Nevada Snowpack through February Fifth Largest in 40 Years"
5. March 4, 2019, waterinthewest.stanford.edu, "Measuring Success in Groundwater Management"
6. March 5, 2019, popsci.com, "Why California's Droughts and Floods Will Only Get Worse"

III. Public Comment (non-agendized items):

Ms. Mary Elizabeth addressed the Woodbridge Irrigation District withdrawal letter. She was looking for information on how Woodbridge Irrigation District's area would be divided up, noting that Central Delta Water Agency prior to June 2017 expressed interest in areas. She hoped they will be included in that discussion.

IV. Directors' Comments:

Chair Chuck Winn stated that if you travel south of San Joaquin County, water priorities change focus on Temperance Flat and Friant (Senegal). He discussed the article in a recent newspaper discussing rainfall in February. He indicated that this is roughly 55MAF, which is equivalent to household use enough for 10.5 years for 3 persons per household with a 39 million population. He stated that the real challenge is atmospheric rivers and we have not prepared for that. He suggested that what we do in the interim is important.

V. Future Agenda Items:

The agenda items for the April meeting will include the policy items discussed by the Advisory Committee meeting in March.

VI. Adjournment:

Motion

The March 13 meeting was closed at 11:57 am. The motion was approved unanimously.

Next Regular Meeting: The date of the May meeting is being rescheduled by request of the JPA members. Date and location will be posted in advance of the meeting.



Joint Exercise of Powers Board of Directors Meeting

MEMBER SIGN-IN SHEET

Location: SJ COUNTY ROBERT J. CABRAL AG CENTER Date: 03/13/19 Time: 11:00 AM

INITIAL	Member's Name	GSA	Phone	Email
	John Freeman	Cal Water Member	209-547-7900	jfreeman@calwater.com
	Steve Cavallini	Cal Water Alternate	209-464-8311	scavallini@calwater.com
	George Biagi, Jr.	Central Delta Water Agency Member	209-481-5201	gbiagi@deltabluegrass.com
	Dante Nomellini	Central Delta Water Agency Alternate	209-465-5883	ngmplcs@pacbell.net
	Grant Thompson	Central San Joaquin Water Conservation District Member	209-639-1580	gtom@velociter.net
	Reid Roberts	Central San Joaquin Water Conservation District Alternate	209-941-8714	reidwroberts@gmail.com
	Stephen Salvatore	City of Lathrop Member	209-941-7430	ssalvatore@ci.lathrop.ca.us
		City of Lathrop Alternate		
	Alan Nakanishi	City of Lodi Member	209-333-6702	anakanishi@lodi.gov
	Charlie Swimley	City of Lodi Alternate	209-333-6706	cswimley@lodi.gov
	David Breitenbucher	City of Manteca Member	209-456-8017	dbreitenbucher@ci.manteca.ca.us
	Mark Houghton	City of Manteca Alternate	209-456-8416	mhoughton@ci.manteca.ca.us
	Jesús Andrade	City of Stockton Member	209-937-8244	Jesus.Andrade@stocktonca.gov
	Dan Wright	City of Stockton Alternate	209-937-5614	Dan.Wright@stocktonca.gov

INITIAL	Member's Name	GSA	Phone	Email
RTS	Russ Thomas	Eastside San Joaquin GSA Member	209-480-8968	rthomascwd@hotmail.com
WW	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
MH	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
ET	Eric Thorburn, P.E.	Oakdale Irrigation District Member	209-840-5525	ethorburn@oakdaleirrigation.com
		Oakdale Irrigation District Alternate		
CW	Chuck Winn	San Joaquin County Member	209-953-1160	cwinn@sigov.org
	Kathy Miller	San Joaquin County Alternate	209-953-1161	kmiller@sigov.org
JH	John Herrick, Esq.	South Delta Water Agency Member	209-224-5854	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
AW	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
DA	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
Present	Kris Balaji	San Joaquin County	468-3100	kbalani@sigov.org
	Fritz Buchman	San Joaquin County	468-3034	fbuchman@sigov.org
BN	Brandon Nakagawa	San Joaquin County	468-3089	bnakagawa@sigov.org
MC	Mike Callahan	San Joaquin County	468-9360	mcallahan@sigov.org
	Alicia Connelly	San Joaquin County	468-3531	aconnelly@sigov.org
KV	Kelly Villalpando	San Joaquin County	468-3073	kvillalpando@sigov.org
	Nancy Tomlinson	San Joaquin County	468-3089	ntomlinson@sigov.org
AN	Andy Nguyen	San Joaquin County	953-7948	aynguyen@sigov.org
AD	Anthony Diaz	San Joaquin County (SJC)	468-3060	anthonydiaz@sigov.org
	Rod Attebery	Neumiller & Beardslee / Legal Counsel	948-8200	rattebery@neumiller.com
	Monica Streeter	Neumiller & Beardslee / Legal Counsel	948-8200	mstreeter@neumiller.com

GLENN
PRASAD

SJC.

gprasad@sigov.org



OTHER INTERESTED PARTIES - SIGN-IN SHEET

Location: SJ COUNTY ROBERT J. CABRAL AG CENTER Date: 3/13/19 Time: 11:00 AM

INITIAL	Member's Name	Organization	Phone	Email
JP	Jonathan Pruitt	Catholic Chemists	209-396-6934	jpruitt@construction.org
DM	Dennis Miles	CLATSOP COUNTY	209-286-9050	
LO	Cathleen Olson	Grower	209 969 0755	olson.cathleen@gmail.com
ae	Alice Amelty	SSC		
CSK	Christy Kennedy	Woodard & Curran	650-283-5716	cskennedy@woodardcurran.com
LM	Lindsay Martien	Woodard & Curran		lmartien@woodardcurran.com
JM	Janice Magdich	City of Lodi	(209) 333-6701	jmagdich@lodigov
PW	Paul Wells	DWR	916 376-9656	paul.wells@pwr.state.ca.us
JC	James Connor	DWR	(916) 376-9625	James.Connor@state.ca.gov
BB	Bill Brewster	DWR		
SM	Sarah Miller	Woodard and Curran	916-999-8769	smiller@woodardcurran.com
JW	Janice Wagner	Independent consultant		
GS	Grace Su	ESMUD		

Staff Report for April 10, 2019: ESJ GWA Board Meeting

Agenda Items #3: Water Budget Planning Estimates, #4: Sustainability Indicators, #5: Monitoring, Measuring and Model Refinements, and #6: Project Implementation.

Submitted by: Woodard & Curran

Meeting Agenda

1. **Approval of March Meeting Minutes** (No accompanying staff report)
2. **Roadmap Update and Deliverables** (No accompanying staff report)
3. **Water Budget Planning Estimates**
4. **Sustainability Indicators**
5. **Monitoring, Measuring and Model Refinements**
6. **Project Implementation**
7. **Outreach & Groundwater Sustainability Workgroup Update** (No accompanying staff report)
8. **DWR Update** (No accompanying staff report)
9. **May Agenda Items** (No accompanying staff report)

AGENDA ITEM #3: Water Budget Planning Estimates

ISSUE SUMMARY

The Eastern San Joaquin Water Resources (ESJWR) model is used to evaluate the projected basin conditions at buildout level of development. Based on the GSP regulations, the projections will need to reflect a 50-year hydrologic period. There are uncertainties associated with this projection primarily due to sequence of hydrologic period, population projections, future cropping patterns, and irrigation practices and technologies, as well as uncertainties inherent in representation of the physical groundwater and surface water system by the model. Therefore, to account for these uncertainties, a range of assumptions (from use of high-end estimates to low-end estimates) are used to determine the water budget estimates and resulting long-term average groundwater storage balance under the buildout conditions and range of conditions which would result in sustainable groundwater management. The range of assumptions along with the resulting water budgets are presented in this report to support the GWA Board for a policy recommendation.

Long-term Average Balance Definition – The difference between long-term projected inflows to and projected outflows from the groundwater basin.

Which model input data impact estimation of projected Long-term Average Balance?

Projected agricultural acreage, cropping patterns, and irrigation practices
Urban acreage (projected at build out)
Urban population (projected at buildout)
Projected urban per-capita water use
Projected surface water deliveries

Sustainable Yield Definition – The maximum quantity of water, calculated over a base period representative of long-term conditions in the basin and including any temporary surplus, that can be withdrawn annually from a groundwater supply without causing an undesirable result.

Which model input data impact estimation of Sustainable Conditions?

Urban water use
Agricultural acreage

Estimate of Pumping Offset Needed to Meet Sustainable Conditions (Estimate used depends on assumptions) – DRAFT

High-End Estimate:	93,400 AFY (Ag: 76,200 AFY, Urban: 17,200 AFY)
Average:	85,600 AFY (Ag: 69,800 AFY, Urban: 15,800 AFY)
Low-End Estimate:	78,000 AFY (Ag: 64,000 AFY, Urban: 14,000 AFY): Rounded to 80,000 AFY (Ag: 65,000 AFY, Urban: 15,000 AFY)

QUESTION FOR CONSIDERATION: Which planning assumptions should be made in determining long-term average deficit and estimated offsets in groundwater use needed to meet sustainability conditions?

CONSULTANT RECOMMENDATION

It is the consultant recommendation to use the low-end estimate of long-term average groundwater pumping reductions needed to meet sustainable yield as the basis for developing an initial implementation plan. The initial implementation plan will include projects and management actions aimed at using non-groundwater supplies in lieu of groundwater, reductions in total water demand, and / or increasing recharge to the groundwater basin to achieve sustainable yield by 2020. Using the lower end estimate for the 2020 GSP will prevent over-planning projects in the 2020-2025 timeframe, while data is being collected and analyzed to further refine and verify sustainable yield estimates.

- **Estimate of Pumping Offset Needed to Meet Sustainable Yield**
Low-End Estimate: 78,000 AFY (Ag: 64,000 AFY, Urban: 14,000 AFY)
Rounded to 80,000 AFY (Ag: 65,000 AFY, Urban: 15,000 AFY)

ADVISORY COMMITTEE RECOMMENDATION

Topic presented to the Advisory Committee on March 13, 2019; Advisory Committee to make recommendation April 10, 2019

BOARD RECOMMENDATION

Board to consider on April 10, 2019

AGENDA ITEM #4: Sustainability Indicators

ISSUE SUMMARY

SGMA requires the GSP to address six sustainability indicators:

- Chronic Lowering of Groundwater Levels
- Reduction in Groundwater Storage
- Seawater Intrusion
- Degraded Water Quality
- Land Subsidence
- Depletion of Interconnected Surface Water

SGMA allows basins to not fully address an indicator if the sustainability indicator is not applicable to their basin. To do this, GSAs must provide evidence that the indicator does not exist and could not occur.

QUESTION FOR CONSIDERATION: Which sustainability indicators should be fully addressed in the GSP and which are not applicable?

CONSULTANT RECOMMENDATION

The consultant recommendation, consistent with the Advisory Committee recommendation made at the March 13, 2019 meeting, is to fully address all six sustainability indicators with minimum thresholds and measurable objectives. Where applicable, minimum thresholds and measurable objectives for groundwater levels can be used as a proxy for other sustainability indicators in accordance with DWR guidance.

ADVISORY COMMITTEE RECOMMENDATION

Advisory Committee recommendation made on March 13, 2019

BOARD RECOMMENDATION

Board to consider on April 10, 2019

AGENDA ITEM #5: Monitoring, Measuring and Model Refinements

ISSUE SUMMARY

Following GSP approval, SGMA compliance will require basin-scale monitoring and reporting, as well as model validation and verification at the Subbasin scale. The following activities are expected to be required.

- Monitoring and reporting
- Data collection and analysis
- Administrative actions
- 5-year update
- DMS updates
- Public outreach
- Website maintenance
- Legal support (potentially)
- Grant writing

QUESTION FOR CONSIDERATION: Should monitoring, measuring, and modeling be conducted at the basin scale subject to a financing plan that will be developed after the GSP is approved?

CONSULTANT RECOMMENDATION

The consultant recommendation, consistent with the Advisory Committee recommendation made at the March 13, 2019 meeting, is for measuring, reporting, and model verification and refinement activities be completed at the basin scale, as opposed to at the local GSA scale, subject to a financing plan with appropriate cost share allocations to be developed following GSP adoption.

ADVISORY COMMITTEE RECOMMENDATION

Advisory Committee recommendation made on March 13, 2019

BOARD RECOMMENDATION

Board to consider on April 10, 2019

AGENDA ITEM #6: Project Implementation

ISSUE SUMMARY

SGMA projects that go into the GSP Implementation Plan can be developed and implemented at the GSA level, at a regional level, or the Subbasin level. The level at which projects are implemented could have implications for project implementation, authority, control, and cost.

QUESTION FOR CONSIDERATION: At what level should projects in the GSP Implementation Plan be developed and implemented?

CONSULTANT RECOMMENDATION

The consultant recommendation, consistent with the Advisory Committee recommendation made at the March 13, 2019 meeting, is that projects in the GSP Implementation Plan be developed and implemented at the GSA level. This allows for GSAs to lead projects in their area and have full responsibility and authority regarding those projects as they typically do as an agency. GSAs with projects in the GSP may work with additional parties in the development of their projects, or may request that the JPA considers implementing projects on their behalf, at its sole discretion.

ADVISORY COMMITTEE RECOMMENDATION

Advisory Committee recommendation made on March 13, 2019

BOARD RECOMMENDATION

Board to consider on April 10, 2019

**Eastern San Joaquin Groundwater Authority
GSA Outreach Activities - April 2019**

Agency Name	Update Website	Use Outreach Slides	Post to Social Media	Other
Cal Water				
Central Delta Water Agency				
Central San Joaquin Water Conservation District				
City of Lathrop				
City of Lodi				
City of Manteca				
City of Stockton				
Eastside San Joaquin GSA				
Linden County Water District				
Lockeford Community Services District				Monthly bill and SGMA info
North San Joaquin Water Conservation District				
Oakdale Irrigation District				
San Joaquin County				Advisory Water Commission meeting 4/17/19
South Delta Water Agency				
South San Joaquin Groundwater Sustainability Agency				
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.

Eastern San Joaquin Groundwater Authority
 GSA Outreach Activities - May 2019

Agency Name	Update Website	Use Outreach Slides	Post to Social Media	Other
Cal Water				
Central Delta Water Agency				
Central San Joaquin Water Conservation District				
City of Lathrop				
City of Lodi				
City of Manteca				
City of Stockton				
Eastside San Joaquin GSA				
Linden County Water District				
Lockeford Community Services District				Monthly billing statement & info
North San Joaquin Water Conservation District				
Oakdale Irrigation District				
San Joaquin County				
South Delta Water Agency				
South San Joaquin Groundwater Sustainability Agency				
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.



**Eastern San Joaquin Groundwater Authority
Groundwater Sustainability Workgroup
February 13, 2019
4 – 5:30 p.m.
San Joaquin County Public Works Department
1810 E. Hazelton Ave., Stockton – Conference Room A**

Committee Members in Attendance

	Name	Organization
	Colin Bailey	The Environmental Justice Coalition for Water
	Barbara Barrigan-Parrilla	Restore the Delta
X	Gene E. Bigler	PUENTES
	Drew Cheney	Machado Family Farms
	Robert Dean	Calaveras County Resource Conservation District
X	Mary Elizabeth	Sierra Club
	David Fries	San Joaquin Audubon
X	Joey Giordano	The Wine Group
	Jack Hamm	Lima Ranch
	Mary Hildebrand	South Delta Water Agency
X	George V. Hartmann	The Hartmann Law Firm
	Michael Machado	Farmer
	Ara Marderosian	Sequoia ForestKeeper
	Ryan Mock	J.R. Simplot Company
X	Yolanda Park	Coop
X	Jonathan Pruitt	Catholic Charities of the Diocese of Stockton
X	Will Price	University of the Pacific & Vice Chair, SJ County Advisory Water Commission
X	Daryll Quaresma	2Q Farming, Inc.
	Jennifer Shipman	Manufacturers Council of the Central Valley
X	Chris Shutes	California Sportfishing Protection Alliance
	Michael F. Stieler	CGCS, Spring Creek Golf & Country Club
	Linda Turkatte	San Joaquin County Environmental Health Department
	Ken Vogel	San Joaquin Farm Bureau Federation
X	Ted Wells	Trincherro Family Estates and Sutter Home Winery
X	John Lambie	Safe Water for All
	General Public	
X	Jane Wagner-Tyack	League of Women Voters of SJ County
X	Paul Wells	Department of Water Resources
X	Andrew Watkins	Stockton East Water District
	Staff and Consultants	
X	Brandon Nakagawa	County ESJ GSP Project Representative

X	Michael Callahan	County ESJ
	Alicia Connelly	County ESJ
X	Alyson Watson	ESJ GSP Project Manager
X	Christy Kennedy	ESJ GSP Deputy Project Manager
X	Lindsay Martien	ESJ GSP Deputy Project Manager
X	Cindy Thomas	Stakeholder Engagement & Public Outreach Consultant
X	Toby Fedder	Project Manager Woodard & Curran

Meeting Notes

I. Welcome

- a. Alyson Watson welcomed the group.
- b. Alyson Watson reviewed the meeting agenda, emphasizing the focus would be on financing.

II. Meeting Objectives

- a. Review and discuss roadmap and deliverable schedule update.
- b. Review options for GSP funding and financing.
- c. Wrap up and summarize.

III. Roadmap Deliverables Update

- a. Alyson noted she and her team will work with staff and legal counsel to come up with a new schedule and deliverables based off the Board's direction. Chapters will be released on a rolling basis and with an internal round of review. Additionally, the GSA staff will develop a detailed schedule with direction from the Board. At this point there is not a finalized timeline.
 - i. Mary Elizabeth said there was a policy call and there are concerns that a lot of the decisions that have been made thus far have not been vetted. During this meeting there was a lot of discussion about schedule and timing. She noted that there are attorneys involved. The main concern is the lack of draft materials released from the consultants prior to decisions being made.
 - ii. Jane Wagner-Tyack said that during the meeting, they specifically spoke about the water budget. The acre-foot sustainable yield requirement was questioned.
 - iii. Alyson Watson said the consultants were not invited to the meeting. Decisions made will be made by the GWA Board. She noted that there was never an intent to not have an administrative review – just a review by the Advisory Committee. The new direction is to deliver to GSA staff, and the chapters will be available to the public once that review had taken place.
 - iv. Alyson Watson let the group know over the next two months, the focus will be to work with staff on GSA-level water budgets and a refined schedule. Drafts will be available to GSAs and the general public once these meeting have been held.

IV. Financing

- a. Alyson Watson introduced Toby Fedder of Woodard & Curran and explained that he will be presenting financing options available to the GSAs.
- b. Toby Fedder gave background— his main job to help public identify funding sources for large capital investments and to explain the number of capital investment sources available.
 - i. Toby Fedder discussed the types of funding sources available.
 - ii. Toby Fedder discussed the financing strategies and the methods of making sure the utility remains financial stable. Additionally, he noted that there will be some GSAs that may need to team up to meet goals and create a strategy.
 - iii. Toby Fedder reviewed the federal funding programs. The top row showed subsidized funds, and the bottom three showed grant programs with required matching funds.
 - iv. Toby Fedder reviewed bonding, going out to the capital markets and borrowing money with a bond repayment schedule. It is an upfront cash situation.
 - v. Toby Fedder reviewed PayGo. Large capital projects that have to bond due to government structure.
 - vi. Toby Fedder reviewed P3 (Private-public partnership). He gave an example of the Washington D.C. express lanes project. A third party built the lanes then charge the toll. Once it is paid, they belong to the state of Virginia and they get the revenues. Often times you are dealing with private equity, so you have to be careful. GSAs do not need to come up with initial money, instead they are agreeing to a revenue stream.
 - vii. Toby Fedder reviewed financing strategies. The public agencies need to remember that financed correctly, public agencies can borrow large dollar amounts and repay over time.
- a. Will Price said his research suggests that unless you design P3 contracts well, they end up badly. There could be a lot of penalties.
- b. Toby Fedder says there are a lot of challenges with the P3 type of funding, and that it is best suited for agencies that are unable to bond. There are instances where providing a product for a service works—he described GE Engines and American Airlines
- c. Mary Elizabeth said 4.5 percent is pretty low for any type of financing. Asked what it would look like for 5.5 percent?
- d. Toby Fedder said for every million dollars every percentage is about \$10k in interest—normally. He explained the payback terms of GO Bonds. He described payback on bonds—and the flexibility vs. the state subsidized vehicles.
- e. Toby Fedder discussed ESJ-specific considerations. The basin are moving toward a blended approach—both a basin-wide and a GSA by GSA approach to financing and funding. He noted that it is too early to make decisions on financing.
- f. Alyson Watson agreed.
- g. Toby Fedder noted the GWA has administrative costs for financing. He acknowledged that no matter the funding choices, the basin has to make its filing as a group. He explained the high cost of administrative charges and that those costs can be shared. He described a bundle into a combined approach and noted that no GSA would be better off going at financing alone.

- h. Daryll Quaresma asked if one GSA goes and does its own financing, will the rest of the GSP be held ransom.
- i. Alyson Watson said the approach is a broadly supported solution including a regional cost allocation. A number of GSAs do not want to take the singular approach but there are GSAs who want to do their own thing. She noted that there is an approach for addressing enforcement or monitoring from the GWA. The state intervention would be a basin issue most likely, as the GSP is for the entire basin.
- j. Toby Fedder said there is not one GSA that can hold the entire thing up.
- k. Paul Wells said the Board will have a way of policing - monetarily and with projects. The State Water Board will not step in unless the basin is not in compliance.
- l. Andrew Watkins said there will be a pumping issue and a curtailment of pumping for crops.
- m. George V. Hartmann said when the JPA agreement was made, it was designed to bring all the GSAs together to get the GSP done. It was designed intentionally for organic growth and was only intended to last through GSP adoption. DWR looks at it from a basin scale and not case by case for each GSA. It was not designed to deal with compliance. Need to build in mechanisms for monitoring.
- n. George V. Hartmann asked to go around the table to ask how people feel about enforcement.
- o. Will Price asked what the statute says
- p. George V. Hartmann said there is state law, and that the fees that are charged are astronomical.
- q. Jane Wagner-Tyack said the attorneys raised the issue about wanting more information because they do not know about the water budget and at what scale it will be monitored.
- r. Daryll Quaresma noted that he went to a water coalition meeting and one of the issues discussed was with a group of Salinas Valley disadvantaged communities who sued the largest property owners in agriculture over drinking water. Due to the lawsuit, the property owners have to provide the community with drinking water. The same group went after Kern County. He asked if we will have that problem in our basin?
- s. Toby Fedder described the water rates in large metropolitan cities – they are higher to account for everyone. A regional financing approach would be similar. This is not our decision, it is the GSAs.
- t. Brandon Nakagawa noted there is a varying take on the regional approach. The spectrum is large in the community. We need to find whatever solution fits the problem. We heard of a lot of problems today. There are projects on the table that are more expensive than we can afford right now but a regional approach can help that.
- u. Yolanda Park said stations for water has a lot of variables including community input. It is not an easy question.
- v. Daryll Quaresma noted that we talk about quantity but we also need to talk about quality of water.
- w. Alyson Watson said this feedback is important and will be taken back to the Board.
- x. Alyson Watson stressed that we have intentionally avoided the allocation path.
- y. Daryll Quaresma asked if a GSA has a project that is expensive, how are they expected to repay?

- z. Toby Fedder said the State would look at it at a GSA level. Bond underwriters would look at those parameters during the underwriting process.
- aa. Jane Wagner-Tyack clarified that she thought we should look at markets within the basin.
- bb. Paul Wells said SGMA is set up for the GWA to manage the basin. It is not the final plan set in stone but rather an adaptive plan updated every five years. SGMA is set up to allow the GWA to do that.
- cc. Joey Giordano said as far as paying for the projects, Kings River GSA looked at overdraft for the basin and split up the fees accordingly. One of the GSAs in the basin passed a large administrative fee.
- dd. Joey Giordano noted that overdraft is our biggest issue and he would like a template dictating how the cost is shared.
- ee. George V. Hartmann said the Governor appointed Laurel Firestone to the State Water Board – her mission is to provide portable drinking water to disadvantaged communities. He noted the Salinas story and how the infrastructure was not suitable to provide drinking water so that is why they have the stations. Someone will have to pay to redo their water infrastructure.
- ff. Brandon Nakagawa explained where the hole is located.
- gg. Mary Elizabeth said Daryll Quaresma brought up the want to develop dry land into irrigated crop. There needs to be some type of monitoring for all of this. If you are in an area of overdraft, there should be increased monitoring.
- hh. George V. Hartmann asked what happens if a GSA is out of compliance
- ii. Brandon Nakagawa said the State can take over
- jj. Toby Fedder asked what if the GSA continues to over pump?
- kk. Brandon Nakagawa explained that there is a bad neighbor clause from the State that is punitive.
- ll. Toby Fedder described financing strategies for raising revenue and the challenges.

Brandon Nakagawa asked the group what it would take for you to vote on a sales tax increase for water. He noted that they are working on that now.

- a) George V. Hartmann said there would need to be a tax that it is only used for water.
- b) Andrew Watkins said the water problem needs to be solved. Sales tax is a vicious cycle.
- c) George V. Hartmann noted a desire for regional scale with a regional authority or leave it to the GSAs
- d) Jane Wagner-Tyack brought up legislative efforts to provide for safe and affordable drinking water, which are also part of the Governor's budget trailer bill. Part of this proposal involves a statewide tax on water. A competing proposal involves setting up a trust fund from the general fund and using the interest off that. There needs to be a way to pay for operation and maintenance. She noted the other thing is looking at ways to offset rates for low income ratepayers that will result in some type of legislation. Some of these measures are likely to compete with local efforts to raise money for SGMA-related infrastructure projects.
- e) Mary Elizabeth said Cal Water has the highest rates in the basin.
- f) George V. Hartmann noted that you need to figure out what you want to do before you figure out how you want to fund it.
- g) Alyson Watson noted the challenge the smaller GSAs with larger issues are facing and funding those with a smaller rate base.

- h) Jane Wagner-Tyack suspects we are not facing what happened in Salinas with the disadvantaged communities. We do not have communities in our basin facing that scale of water quality problems.
- i) Chris Shutes asked for an update on the status of projects.
- j) Alyson Watson noted that it is part of the process mentioned earlier. At the Board and Advisory Committee meetings, there was a request for a process change. An updated schedule will be available in March.
- k) Will Price is worried about holding off on finance until the GSP is completed. If we wait until the plan is completed, we only have a short time to make financial decisions.
- l) Jane Wagner-Tyack asked about the timelines.
- m) Alyson Watson noted everything has to be done by 2040.
- n) Daryll Quaresma asked if there are areas we need to consider helping with funding.
- o) Mary Elizabeth said there are pockets all over the basin.
- p) Toby Fedder reviewed five case studies on cost sharing. He noted that there is time to plan for the revenue streams and that working together creates smaller impacts. There is a huge amount of value in regionalization done right.
- q) George V. Hartmann thinks there should be a study on the pros and cons for regionalization vs. GSA level
- r) Mary Elizabeth is not in favor for sales tax increase. She noted that low income populations pay more of their funds.
- s) Daryll Quaresma asked if some of the projects deliver water outside of the basin. If the water is sold, should there be a fee on the sale of the water go into funding the lower funded GSAs?
- t) Andrew Watkins noted that there is not a lot of water to sell outside of jurisdiction. Moving water around is practically impossible with the exception of East San Joaquin.
- u) Brandon Nakagawa explained the DREAM project with EBSMUD.
- v) Daryll Quaresma reiterated that the water is here, we just need to know how to use it.

V. Informational Meeting Recap

- a. The third informational meeting took place on Tuesday, February 13 at the Lockeford Community Center.
 - i. The event followed an open house format, and 60 people attended
 - ii. Meeting materials are available on the website

VI. Wrap Up & Summary Discussion

- a. Alyson Watson wrapped up the meeting by reiterating the purpose of reviewing funding and financing options.
- b. The group developed a list of comments to go to the Board.
- c. Alyson Watson noted the date, time and location of the next meeting. Wednesday, March 13 at the San Joaquin County Public Works Department.

VII. Announcements

- a. Alyson Watson adjourned the meeting at 5:46 p.m.

Comments by Mary Elizabeth

Here are some excerpts from the JPA:

To the extent the Members are not successful at jointly implementing the GSP within the Basin, or to the extent that any Member wishes to implement the GSP within its boundaries, the Authority intends to allow any individual Member to implement the GSP within its boundaries, and to work together with all Members to coordinate such implementation in accordance with the requirements of SGMA

2.6 The Members expressly intend that the Authority will not have the authority to limit or interfere with the respective Member's rights and authorities over their own internal matters, including, but not limited to, a Member's legal rights to surface water supplies and assets, groundwater supplies and assets, facilities, operations, water management and water supply matters. The Members make no commitments by entering into this Agreement to share or otherwise contribute their water supply assets as part of the development or implementation of a GSP.

6.2 Noncompliance. In the event any Member (1) fails to comply with the terms of this Agreement, or (2) undertakes actions that conflict with or undermine the functioning of the Authority or the preparation or implementation of the GSP, such Member shall be subject to the provisions for involuntary removal of a Member set forth in of Section 6.3 of this Agreement. Such actions of a Member shall be as determined by the Board of Directors and may include, for example, failure to pay its agreed upon contributions when due; refusal to participate in GSA activities or to provide required monitoring of sustainability indicators; refusal to enforce controls as required by the GSP; refusal to implement any necessary actions as outlined by the approved GSP minimum thresholds that are likely to lead to "undesirable results" under SGMA.

6.3 Involuntary Termination. The Members acknowledge that SGMA requires that multiple GSAs within Bulletin 118 groundwater basins designated as high- or medium-priority must coordinate, and are required to use the same data and consistent methodologies for certain required technical assumptions when developing a GSP, and that the entire Basin must be managed under one or more GSPs or an alternative in lieu of a GSP for the Basin to be deemed in compliance with SGMA. As a result, upon the determination by the Board of Directors that the actions of a Member (1) fail to comply with the terms of this Agreement, or (2) conflict with or undermine the functioning of the Authority or the preparation and implementation of the requirements of the GSP, the Board of Directors may terminate that Member's membership in this Authority, provided that prior to any vote to remove a Member involuntarily, all of the Members shall meet and confer regarding all matters related to the proposed removal. The Board of Directors shall terminate the membership in the Authority of any Member that fails, on or before June 30, 2017, to (i) elect to become a GSA duly established in accordance with SGMA, or (ii) participate, through a joint exercise of powers agreement or other legal agreement, in a GSA duly established in accordance with SGMA.

Triggering State Intervention

Sustainable Groundwater Management Act (SGMA)

Under a limited set of circumstances, the State Water Resources Control Board (State Water Board) may step in to help protect local groundwater resources. The process of State Water Board intervention is sometimes referred to as the State Backstop or State Intervention, and only occurs when local efforts are not successful. State Intervention requirements remain in place until local efforts are able to sustainably manage groundwater resources.

The following table lists the events that could trigger State Intervention:

Date	Intervention Trigger
After June 30, 2017	No Groundwater Sustainability Agency (GSA) formed.
After January 31, 2020	In high- or medium-priority basins in a condition of critical overdraft: 1) No sustainability plan has been adopted, or 2) The Department of Water Resources (DWR), in consultation with the State Water Board, finds that the sustainability plan or its implementation is inadequate.
After January 31, 2022	In other high- or medium-priority basins: 1) No sustainability plan has been adopted, or 2) DWR, in consultation with the State Water Board, finds the sustainability plan or its implementation is inadequate, and the State Water Board finds that the basin is in a condition of long-term overdraft.
After January 31, 2025	DWR, in consultation with the State Water Board, finds that the sustainability plan is inadequate or the plan is not being implemented in a manner that is likely to achieve the sustainability goal, and the State Water Board finds there are significant depletions of interconnected surface waters.

The earliest the State Water Board can implement the State Intervention is 2017, when local agencies in high- and medium-priority basins must form GSAs. If local agencies fail to form a GSA by June 30, 2017 local groundwater users must begin reporting groundwater use to the State Water Board.

When an intervention trigger occurs, the State Water Board may, in consultation with DWR and through a public process, identify groundwater basins as probationary and develop interim sustainability plans for those basins. The interim plan remains in effect until the State Water Board finds that local efforts will likely achieve groundwater sustainability.

More information at www.waterboards.ca.gov/gmp.



Last Updated on March 7, 2016





MichaelSvoboda

February 1, 2019 | [Legal Notes](#) | by Christian Marsh

California's Public Trust Doctrine Draws Attention in the Courts

Christian Marsh is a partner in the law firm of Downey Brand LLP and can be reached at cmarsh@DowneyBrand.com.

The common law public trust doctrine in California has long played an important role in protecting navigable waters and waterfronts for the purposes of public use and enjoyment, such as commerce, navigation, fisheries, recreation and preservation. Cities periodically encounter the doctrine when:

- Administering tideland grants;
- Maintaining or operating ports and harbors; and
- Approving or proposing projects along coastal or bay waterfronts.¹

In 1983, the California Supreme Court extended the doctrine substantially in the case of *National Audubon v. Superior Court*, applying it for the first time to potentially limit water diversions by the City of Los Angeles from streams flowing into Mono Lake.²

In the 30 years following the *National Audubon* decision, environmental advocates were largely unsuccessful in using public trust litigation to reshape environmental policies in any significant manner. During the past decade, however, California has experienced a surge in the volume of public trust cases and recent court decisions, infusing the

doctrine and its reach with renewed vigor. These recent decisions culminated in a ruling from the California Court of Appeal for the Third Appellate District in summer 2018 in *Environmental Law Foundation v. State Water Resources Control Board* (referred to as ELF). The ruling extends the public trust to a county's administration of groundwater hydrologically connected to downstream waterways. Because of ELF and other rulings, cities should pay closer heed to the multitude of ways the public trust doctrine is being asserted to challenge land-use entitlements, public infrastructure, and surface, groundwater and reclaimed water supplies that allegedly threaten public trust uses or values.³



MichaelSvoboda

The History of the Public Trust Doctrine

Modern interpretations of the public trust are said to have originated from a sixth-century Roman law that asserted, “[b]y the law of nature these things are common to mankind — the air, running water, the sea and consequently the shores of the sea.”⁴ Although the public trust is a feature of state — not federal — law, the U.S. Supreme Court advanced the doctrine in *Illinois Central Railroad Co. v. Illinois*.⁵ The Illinois Legislature had granted more than 1,000 acres of submerged land in Lake Michigan to the railroad for development of the Chicago waterfront. Relying on the public trust, the Supreme Court promptly revoked the grant, holding that Illinois’ ownership of Lake Michigan “is a title held in trust for the people of the state that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interferences of private parties.”⁶

The public trust doctrine in California derives from the state’s role as trustee over tidelands, submerged land and land underlying inland navigable waters, which the state and its grantees (including cities) hold for public trust purposes.⁷ Such trust purposes were traditionally confined to navigation, commerce and fisheries, but later extended to

include recreation and preservation of trust lands in their natural state.⁸ In the land-use context, the doctrine often arises when:

- Questions are raised about the extent of trust land at a site or allowable land uses for land subject to the public trust; or
- The state has entered into a boundary line or exchange agreement to resolve trust boundary issues.⁹



CampPhoto

In its landmark 1983 decision, the California Supreme Court in *National Audubon Society v. Superior Court* applied the public trust to limit the appropriation of water from navigable streams and nonnavigable tributaries.¹⁰ Specifically, the court held that “[t]he state has an affirmative duty to take the public trust into account in the planning and allocation of water resources.”¹¹ The State Water Resources Control Board (SWRCB), the state agency in charge of administering water rights in California, may allocate water resources within its discretion

and “despite foreseeable harm to public trust uses” but only as long as it “considers” public trust resources and “preserves” those resources to the extent “feasible.”¹² In 2003, however, the California Court of Appeal for the Sixth Appellate District in *Santa Teresa Citizen Action Group v. City of San Jose* declined to extend *National Audubon*, holding that the doctrine “has no direct application to groundwater.”¹³

Public Trust Doctrine Applied to Groundwater: A Harbinger of Rulings to Come?



MundusImages

Fifteen years after *Santa Teresa*, the Third Appellate District reached a different conclusion on Aug. 29, 2018, in *ELF*.¹⁴ The environmental plaintiffs in *ELF* brought an action against Siskiyou County and SWRCB to limit permits for new groundwater wells

near the Scott River.¹⁵ They complained that the groundwater was “hydrologically connected” to the Scott River and that pumping was in part responsible for decreased surface flows.¹⁶ Those decreased flows, they alleged, had injured fish populations and rendered the river less suitable for recreation.¹⁷ The plaintiffs sought a declaration that the public trust doctrine applies to groundwater hydrologically connected to

navigable waters and that the county had a duty to consider the trust in administering its well ordinance.¹⁸

The Third Appellate District agreed with the plaintiffs and issued three important holdings. First, the court held that the doctrine applies to the extraction of groundwater where it adversely impacts the Scott River, a navigable waterway. Taking care to distinguish Santa Teresa, the court emphasized that the issue in ELF “is not about protecting public trust uses in groundwater, but about protecting the public trust uses of the Scott River that are at risk of being impaired due to groundwater pumping of contributory flows.”¹⁹

Second, the court disregarded the county’s argument that public trust duties of the Legislature cannot be imposed without express delegation. According to the court:

A county is a legal subdivision of the state and references to the “state” may include counties. . . . Although the state as sovereign is primarily responsible for administration of the trust, the county, as a subdivision of the state, shares responsibility for administering the public trust and “may not approve of destructive activities without giving due regard to the preservation of those resources.”²⁰



CampPhoto

Third, the court rejected the county’s argument that the recently enacted Sustainable Groundwater Management Act — the state’s overarching regulatory framework for ensuring sustainability of groundwater use — has fulfilled any common law duties to administer the trust. As with other recent rulings, California courts are applying much greater scrutiny and skepticism toward public agency actions that threaten public trust resources and values.

Conclusion

ELF and the series of recent rulings on the public trust doctrine mark the most significant extensions of the doctrine in decades and have

opened the door to a new frontier for public trust litigation in California. Given the broad and equitable nature of the doctrine and the ability of third parties to file an action at any time, the courts will likely be asked again and again to evaluate activities by cities or other agencies that may harm public trust uses and values.

[1] *City of Berkeley v. Superior Court* (1980) 26 Cal.3d 515 (scope of legislative grants to tidelands along San Francisco Bay); *Carstens v. California Coastal Commission* (1986) 182 Cal.App.3d 278; *Zack's v. City of Sausalito* (2008) 165 Cal.App.4th 1163 (holding the public trust doctrine allows a leasehold interfering with public and private rights to use a tidelands street to be adjudicated a nuisance and enjoined for the failure of the trustee to comply with a state street closure statute).

[2] *National Audubon Society v. Superior Court* (1983) 33 Cal.3d 419.

[3] *Environmental Law Foundation v. State Water Resources Control Board* (2018) 26 Cal.App.5th 844 (ELF).

[4] Cooper, *The Institutes of Justinian* (3d ed. 1852), Bk. II, tit. I, §§ 1–5, p. 67.

[5] (1892) 146 U.S. 387.

[6] *Id.* at 452.

[7] *People v. California Fish Co.* (1913) 166 Cal. 576, 584.

[8] *Marks v. Whitney* (1971) 6 Cal.3d 251, 259–260.

[9] *California Land Use Practice* (CEB 2014), at §14.57; *Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036 (denying claim that environmental impact report failed to disclose and analyze the impacts of proposed nontrust uses on portions of Treasure Island that are subject to the trust).

[10] 33 Cal.3d 419.

[11] *Id.* at 446.

[12] *Id.* at 446–447; see also *State Water Resources Control Bd. Cases* (2006) 136 Cal.App.4th 674, 777–778 (State fulfilled its public trust duties in implementing water quality control plan under state clean water laws).

[13] *Santa Teresa Citizens Action Group v. City of San Jose* (2003) 114 Cal.App.4th 689, 709.

[14] ELF, *supra*, 26 Cal.App.5th 844.

[15] *Id.* at 851.

[16] *Id.* at 853.

[17] Id.

[18] Id. at 856.

[19] Id. at 860.

[20] Id. at 867–868.

About Legal Notes

This column is provided as general information and not as legal advice. The law is constantly evolving, and attorneys can and do disagree about what the law requires. Local agencies interested in determining how the law applies in a particular situation should consult their local agency attorneys.

From: Michael Machado <michael.machado@ymail.com>
Sent: Monday, March 11, 2019 9:23 PM
To: info@esjgroundwater.org; Ara Marderosian
Cc: 'Sheri Madsen'; 'Mary Elizabeth'; goldrushdean@yahoo.com; kensvogel@yahoo.com; twells@tfewines.com; wprice@pacific.edu; ypark@ccstockton.org; daryllpq@gmail.com; LTurkatte@sjcehd.com; 'Restore the Delta'; Dfries.audubon@gmail.com; 'George Hartmann'; 'Mary Hildebrand'; jennifer@mccv.org; jgiordano@thewinegroup.com; ryan.mock@simplot.com; Mooovers@aol.com; colin@ejcw.org; mike@springcreekcc.com; machadofamilyfarms@gmail.com; Christy Kennedy; 'Lucy Eidam Crocker'; Lindsay Martien; 'Nakagawa, Brandon'; ESJgroundwater@sjgov.org; Alyson Watson; Todd Shuman
Subject: Re: March 13 ESJ Groundwater Sustainability Workgroup Meeting Materials

Ara makes a good point, if undeveloped land is continually developed that only increases the pressure on both surface and ground water supplies. One needs only look back to irrigation efficiencies that have been employed that increased acres put into production without returning any water to the system.

On Monday, March 11, 2019, 6:11:53 PM PDT, Ara Marderosian <ara@sequoiaforestkeeper.org> wrote:

Responses to 13 March 2019 slides

Why would undeveloped agricultural land be developed when existing AG land is suffering from a lack of access to groundwater due to drought and over-pumping?

Is the DWR or the GSA responsible for plans to provide a sustainable yield or profit for agricultural entities?

Since all agricultural land was once habitat for wildlife species, should undeveloped agricultural land be left to wildlife?

What approaches are being considered to address undeveloped agricultural land?

What is the driving force for developing undeveloped agricultural land?

Ara

Mr. Ara Marderosian

Sequoia ForestKeeper®

P.O. Box 2134

Kernville, CA 93238

(760) 376-4434

www.sequoiaforestkeeper.org

From: info@esjgroundwater.org [<mailto:info@esjgroundwater.org>]

Sent: Monday, March 11, 2019 4:25 PM

To: info@esjgroundwater.org

Subject: Re: March 13 ESJ Groundwater Sustainability Workgroup Meeting Materials

Good afternoon all –

Please find the remaining documents for Wednesday's meeting:

- Workgroup slides
- Workgroup slides w/ notes (printer friendly)

Additionally, please note this month's meeting is at the **San Joaquin County Public Works Department** - 1810 E. Hazelton Ave. This is the same location as the February meeting. The workgroup meetings will no longer be held at the Agricultural Center.

Thanks, Cindy

From: info@esjgroundwater.org

Sent: Monday, March 11, 2019 12:08 PM

Subject: March 13 ESJ Groundwater Sustainability Workgroup Meeting Materials

ESJ Groundwater Sustainability Workgroup –

We look forward to Wednesday's workgroup meeting. In preparation of the meeting I have attached the following:

- March workgroup agenda
- February meeting summary with comments

The meeting slides and note friendly printables will be distributed shortly.

If you have any questions, please do not hesitate to contact me.

Thank you,

Cindy



Office of the City Manager

390 Towne Centre Drive, Lathrop, CA 95330

Phone (209) 941-7220 – Fax (209) 941-7229

www.ci.lathrop.ca.us

March 12, 2019

Eastern San Joaquin Groundwater Authority Board of Directors
Attention: Brandon Nakagawa, P.E., Water Resources Coordinator
San Joaquin County Department of Public Works
1810 E. Hazelton Avenue
Stockton, CA 95201

Re: City of Lathrop – Voluntary Withdrawal from the Eastern San Joaquin Groundwater Authority

Dear Mr. Nakagawa,

The Department of Water Resources has recently approved a basin boundary modification between the Eastern San Joaquin subbasin and the Tracy subbasin that moves the City of Lathrop (City) entirely within the Tracy subbasin. This letter is serving as the City's ninety days' written notice to voluntarily withdraw from the Eastern San Joaquin Groundwater Authority in accordance with the provisions of voluntary withdrawal set forth in Section 6.4 of the Eastern San Joaquin Groundwater Authority JPA.

Please confirm if you require a FORM 700, Leave of Office, within 30 days of this letter; or 30 days after the 90-day written notice period, which ends on June 10, 2019.

If you should have any questions regarding this letter, please contact Greg Gibson, Senior Civil Engineer, the staff engineer assigned to this project, by phone (209) 941-7442 or by email: ggibson@ci.lathrop.ca.us.

Thank you,

Stephen J. Salvatore
City Manager

cc: Monica J. Streeter, Special Counsel, Neumiller & Beardslee
Greg Gibson, Senior Civil Engineer, City of Lathrop
Kelly Villapando, Management Analyst II, San Joaquin County Public Works

Enclosures

- FORM 700, 2018 Annual Statement for Stephen Salvatore, due April 2, 2019
- Section 6.4 of JPA

EASTERN SAN JOAQUIN GROUNDWATER AUTHORITY JPA 2017

6.2 Noncompliance. In the event any Member (1) fails to comply with the terms of this Agreement, or (2) undertakes actions that conflict with or undermine the functioning of the Authority or the preparation or implementation of the GSP, such Member shall be subject to the provisions for involuntary removal of a Member set forth in of Section 6.3 of this Agreement. Such actions of a Member shall be as determined by the Board of Directors and may include, for example, failure to pay its agreed upon contributions when due; refusal to participate in GSA activities or to provide required monitoring of sustainability indicators; refusal to enforce controls as required by the GSP; refusal to implement any necessary actions as outlined by the approved GSP minimum thresholds that are likely to lead to “undesirable results” under SGMA.

6.3 Involuntary Termination. The Members acknowledge that SGMA requires that multiple GSAs within Bulletin 118 groundwater basins designated as high- or medium-priority must coordinate, and are required to use the same data and consistent methodologies for certain required technical assumptions when developing a GSP, and that the entire Basin must be managed under one or more GSPs or an alternative in lieu of a GSP for the Basin to be deemed in compliance with SGMA. As a result, upon the determination by the Board of Directors that the actions of a Member (1) fail to comply with the terms of this Agreement, or (2) conflict with or undermine the functioning of the Authority or the preparation and implementation of the requirements of the GSP, the Board of Directors may terminate that Member’s membership in this Authority, provided that prior to any vote to remove a Member involuntarily, all of the Members shall meet and confer regarding all matters related to the proposed removal. The Board of Directors shall terminate the membership in the Authority of any Member that fails, on or before June 30, 2017, to (i) elect to become a GSA duly established in accordance with SGMA, or (ii) participate, through a joint exercise of powers agreement or other legal agreement, in a GSA duly established in accordance with SGMA.

6.4 Withdrawal of Members. A Member may, in its sole discretion, unilaterally withdraw from the Authority, effective upon ninety (90) days’ prior written notice to the Authority, provided that (a) the withdrawing Member will remain responsible for its proportionate share of any obligation or liability duly incurred by the Authority, in accordance with Article 5.1. A withdrawing Member will not be responsible for any obligation or liability that the Member has voted against at a Board meeting, providing that such Member shall give notice of its withdrawal from the Authority as soon after voting against the proposal as is practicable. Without limiting the generality of the previous sentence, in the event that the Authority levies or adopts any tax, assessment or property-related fee or charge (collectively “Authority Charge”) the Authority Charge will not be effective within the jurisdictional boundaries of a Member that votes against the Authority Charge and withdraws in accordance with this Article 6.4. In the event the withdrawing Member has any rights in any property or has incurred obligations to the Authority, the Member may not sell, lease or transfer such rights or be relieved of its obligations, except in accordance with a written agreement executed by it and the Authority. The Authority may not sell, lease, transfer or use any rights of a Member who has withdrawn without first obtaining the written consent of the withdrawing Member. Notwithstanding any other provision of this Agreement, if a Member fails to take action, on or before June 30, 2017, to (i) elect to become a GSA, or (ii) join in a GSA that is a member of the Authority, that Member shall withdraw from the Authority and this Agreement in accordance with this Article 6.4.

From: Ara Marderosian <ara@sequoiaforestkeeper.org>
Sent: Monday, March 25, 2019 8:55 AM
To: Colin@ejcw.org; barbara@Restorethedelta.org;
gbigler@puentesca.org; machadofamilyfarms@gmail.com;
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dbarney@sjgov.org; Todd Shuman
Subject: ESJ Groundwater Sustainability Workgroup - REPORT 89% of CV water
flowing into San Francisco Bay was for salinity control to protect
human uses of this water

New report: Delta water supply impacted by human use protections and capacity significantly more than endangered fishes
89% of Delta water flow into Bay was to combat salinity or due to water flows exceeding export capacity. Less than 1.5% related to Delta smelt.

From the Bay Institute, the San Francisco Baykeeper, and The Nature Conservancy:
<https://mavensnotebook.com/2019/03/25/news-worth-noting-new-report-delta-water-supply-impacted-by-human-use-protections-and-capacity-significantly-more-than-endangered-fishes-feinstein-speier-to-epa-explain-reversal-of-redwood-city-s/>

New findings published in the journal *San Francisco Estuary & Watershed Science*, reveal that water exports from the South Delta were limited by infrastructure and water quality concerns far more often than protections for endangered species. During the 2010-2018 study period, 89% of Central Valley water flowing into San Francisco Bay was the result of salinity control and infrastructure constraints on water exports compared to less than 1.5% caused by endangered species act

safeguards specific to protection of Delta smelt from entrainment in the export pumps.

“Safeguards for the San Francisco Bay estuary’s six endangered fish species led to relatively small increases in freshwater flow to the Bay,” said Greg Reis, staff scientist for The Bay Institute and lead author of the research article. “In two of the nine years we studied, protections for Delta Smelt did not limit water exports for even a single day — the effect on water supplies of protecting this unique species, which functions as an indicator of overall ecosystem health, is far less than what’s commonly reported.”

Reis added, “Most of the water flowing out of the Delta to San Francisco Bay exceeds system capacity in wet years, and in dry years is needed to keep salt away from Delta farms and state and federal export pumps in order to protect human uses of this water.”

Analyzing long-term trends regarding the factors that governed water export facilities in the Delta, researchers from The Bay Institute, The Nature Conservancy, and San Francisco Baykeeper found that data do not support the much-publicized narrative of fish vs. farmer which significantly overstates how much endangered species regulations have impacted the amount of water that is exported from the Delta.

“Despite water quality regulations that are intended to protect fisheries and wildlife populations in general, and endangered species act protections for the most imperiled fishes, the proportion of Central Valley river flows that make it all the way to San Francisco Bay has been declining for decades,” said Dr. Jonathan Rosenfield, Senior Scientist at San Francisco Baykeeper and co-author of this study. “Currently, Californians divert, on average, about 1/2 of the ecologically critical winter-spring runoff that would otherwise flow into San Francisco Bay, and the fish, wildlife, and water quality that rely on this water are suffering as a result.”

For years the narrative of water usage in the Delta has been driven by the contention that water use by agriculture was being limited by environmental regulations. But, access to data regarding those claims has been extremely challenging. Though data were publicly available, the data were scattered in

various locations, often in ad-hoc fashion without context, which led to misinformation being inadvertently amplified.

Improved access to, and clear context for, data presented by state and federal agencies is critical to preventing unfounded claims from filtering into government water policy.

“Given the ongoing conversation, it was surprising to see how low the numbers actually are,” said Dr. Jeanette Howard, Director of Science, at The Nature Conservancy’s California Water program. “But, what this study clearly shows is that we need more transparency and public access to data when it comes to understanding our water in California. As temperatures rise and we see wider swings between wet and dry seasons across the state, we need to base our decisions around usage of this critical resource in reality.”

Between 2010 and 2018, exports were limited to maintain salinity standards for human water use on 29% of days, roughly the same frequency as that required for protections of the Bay’s six endangered fish species. Often overlooked in the rhetorical battle over environmental protections, exports were constrained by infrastructural constraints (including full storage reservoirs, required system maintenance, or because the export system had met capacity) on 1 of 6 of days, including 59% of days in water year 2017.

In 2014 and 2015, the driest years of the study, the contrast was especially stark. Salinity control led to export constraints on 62% and 56% of days, respectively, while exports were not cut short to protect Delta smelt on any days. In 2011 and 2017, the wettest years studied, infrastructure and hydrologic limitations constrained project water exports on 49% and 59% of days, respectively.


Researchers also looked at how much freshwater flows from the Central Valley watershed to San Francisco Bay. The status of many fish and aquatic wildlife species depend on freshwater flows through the estuary during winter and spring. They found that the amount of freshwater runoff from the Central Valley that reaches San Francisco Bay has decreased significantly over time, even following implementation of new water quality regulations in 1995. The vast majority of the water flowing into San Francisco Bay over the past nine years was necessary to

control water salinity or exceeded export pump capacity, and all the water flowing to the Bay helped maintain water quality for human consumption.

Ara

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CA WATER LAW SYMPOSIUM: Groundwater adjudication under SGMA

 March 27, 2019
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Attorney Eric Garner and EDF's Christina Babbitt discuss adjudication and management under SGMA in a panel discussion moderated by Justice Ron Robie

The Sustainable Groundwater Management Act explicitly states that nothing in the legislation will alter surface or groundwater rights under the common law. However, the legislation requires groundwater basins be managed to prevent the

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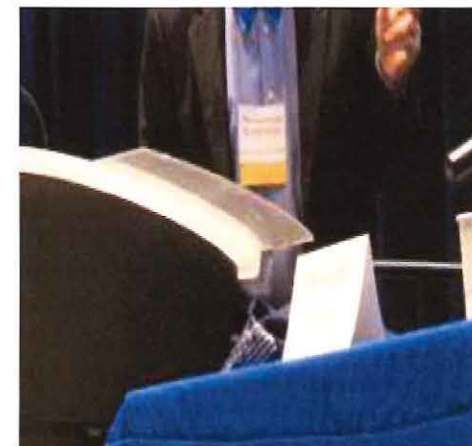
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"undesirable results" caused by extraction of groundwater. This begs the question: how will these two seemingly-opposing provisions of the legislation be reconciled?

At the 2019 California Water Law Symposium, Eric Garner, managing partner of Best Best & Krieger, and Christina Babbitt, Program Manager for Groundwater at the Environmental Defense Fund discussed groundwater adjudications in the new age of groundwater management under Sustainable Groundwater Management Act in a panel discussion moderated by the Honorable Ronald Robie. This panel was organized by students from McGeorge School of Law.

The Sustainable Groundwater Management Act (or SGMA) became effective on January 1, 2015, which required all basins designated as medium or high priority to form local Groundwater Sustainability Agencies and develop Groundwater Sustainability Plans to achieve sustainable management by 2040/2042.



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Justice Robie began by defining three key terms in SGMA:

- **Sustainable yield:** The maximum quantity of water calculated over long-term conditions in the basin, including any temporary excess that can be withdrawn over a year without an undesirable result.
- **Sustainable groundwater management:** The management and use of groundwater that can be maintained without causing an undesirable result.
- **Undesirable results:** The persistent lowering of groundwater levels, a significant reduction in groundwater storage, salt water intrusion, degradation of water quality, significant land subsidence, and surface water depletion.

In 2015, the legislature followed up passage of SGMA with groundwater adjudication reform legislation in an attempt to make adjudications less lengthy. Ron Robie asked Eric Garner if groundwater adjudications are going to be the way going forward, or will there be lawsuits between individual pumpers?

Eric Garner began by noting that while he has done a substantial number of adjudications, in all of them, he has represented public agencies – either a city or a water district, so his comments will reflect the perspective of his clients. And despite having spent 30 years involved in adjudications, he remains optimistic about the ability to solve groundwater problems in California.

Email Format

- html
- text

Sign me up!



UPCOMING EVENTS

APR 4 Thu
 all-day
 California Water Policy Conference @ Courtyard by Marriott at Liberty Station (https://cawaterlibrary.net/event/california-water-policy-conference-2/?instance_id=535)

"While adjudication doesn't really solve anything, it provides a framework that then can be implemented under court jurisdiction to solve the problems," he said. "So the idea behind SGMA was to provide all those tools to local agencies so they didn't have to go through a court process and I'm very optimistic about the state's ability to get that done. That said, all these adjudications have made me realistic, and it's not easy – it won't be cheap, it won't be inexpensive, and there will be a lot of litigation, probably."

A BRIEF HISTORY OF GROUNDWATER ADJUDICATIONS IN CALIFORNIA

Mr. Garner then discussed the history of adjudications around the state to set the stage for the upcoming discussion. Until 2014, groundwater was not regulated by the state; it was 'pump until a judge tells you not to.' Basically only a ministerial permit from the county was needed to make sure the well complied with health code safety requirements in how it was drilled. Then you turned it on and pumped, unless your neighbor sued you or unless you got caught up in one of these big lawsuits and a judge told you, you had to pump less, he said.

Historically, California water rights to groundwater developed with a different types of rights. There are overlying rights, which are landowners who pump water and use it on their land, and appropriative rights, which are pumpers that basically take water and export it out of the basin.



all-day
 Central Valley Regional Water Quality Control Board (https://cawaterlibrary.net/event/central-valley-regional-water-quality-control-board-17/?instance_id=5373)

all-day
 Delta Independent Science Board @ Park Tower Building (https://cawate



Mr. Garner cautioned that there is a nuance to that appropriative right that comes from an old Supreme Court case which laid the groundwork to say that if a water supplier puts groundwater they pump in a common system, and then distributes it to its inhabitants, even if it's overlying the groundwater basin, then that's an appropriative use. That is important because an appropriative use is junior to an overlying use, so this means effectively under the common law that overlying rights, which are primarily agricultural farming rights, have a priority over a city pumping water out of a groundwater basin and delivering it to its residents and that is the common law in the state of California to this day, he said.

"I'm a big fan of Water Code Section 106.3, the basic human right to water, and the whole 106 sections which relate to priorities for domestic use which those benefit public water suppliers for sure," he said. "But there is no case directly on point saying that those trump the overlying right, and so someday a court is going to have to decide that issue before the human right to water gets implemented in any meaningful way. My guess is it will be the California Supreme Court because I think

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it would go that far, and so that's just one example of why this is so complex and why it is so difficult"

"We're not alone in this," he continued. "There is no place in the world that I've seen - and I've worked on a number of different continents on groundwater - that manages groundwater very well or very sustainably. I think we human beings have a really tough time doing it. It's a very tough issue. It's tougher than surface water and surface water is hard enough. Groundwater is really hard at least in part because you can't see it, and so when water levels are falling, it's not quite the same as a reservoir drying where we can see it and we have to use less water."

Adjudication is just a fancy word for suing everybody in the basin, and to resolve groundwater rights, you have to bring in all the users. In 1949, the Supreme Court took up the case, Pasadena v. Alhambra; it was the first time that a conflict between city appropriators and farming overlayers in a basin in overdraft where there was insufficient water had made it to the Supreme Court. If they followed the priority system, the overlayers win and the cities are cutoff.

"The California Supreme Court did not want to do that, so they reached way back to an early 1900s appellate court case called Smith v. Hampshire and created effectively out of whole cloth, a doctrine called mutual prescription which was that priority didn't quite trump because the appropriator cities were pumping adversely to the overlayers, so basically there was a pro rata deduction," Mr. Garner said. "And that was the doctrine of mutual prescription, so that's the first time the court found a way to avoid just having to implement this overlying priority. It was to protect the cities."

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And so mutual prescription was considered the law of the state of California until the case, Los Angeles vs. San Fernando, was filed in 1955. This case had a different fact pattern than Pasadena v. Alhambra. Everyone had started pumping before the overdraft began, and because water levels were falling, the City of Los Angeles started importing more water from the Owens Valley, which had ramifications that played out in other litigation, and so they reduced their level of pumping.

"As per public policy, they did the right thing; they reduced local sources and they got water from somewhere else," he said. *"Of course, no good deed goes unpunished when it comes to adjudications, so other parties used that against them, and prevailed at the trial court. The court went with mutual prescription, so because Los Angeles had pumped less, they got less. The California Supreme Court got the case and they threw that out. They said that mutual prescription was not needed to get to a fair result in this case, and so they didn't use mutual prescription."*

"When I started practicing law which was about a dozen years after that, people thought that mutual prescription has been overruled," he continued. *"Now we understand that if you read it very carefully, they didn't overrule it – they just said in that situation, they were not going to use it"*

Next, the Mojave Adjudication is important in terms of how quickly SGMA will get implemented and how much litigation there will be around it. Mr. Garner noted that in the 100-page decision in the LA v San Fernando case, there were two important footnotes that were argued in the Mojave Adjudication case. One was footnote 61, which referenced the doctrine of equitable apportionment and which said, 'this is

5
Fri

12:00 pm Overview of In Situ and Ex Situ ... @ Cal EPA Headquarters (https://cawaterlibrary.net/event/overview-of-in-situ-and-ex-situ-technologies-in-development-for-the-treatment-of-per-and-polyfluorinated-substances/?instance_id=5619)

APR 8
Mon

1:00 pm Delta Plan Interagency Implementation...

where the Supreme Court was pointing the law should go when a basin is in overdraft; all the pumping is unreasonable, you have to look at all these factors and reach a fair allocation.' The other side said 'no, water rights are water rights, look at footnote 100, it says that overlying rights have priority and you have to go with the priority on overlying rights.'

"When we were sitting in oral argument and the justice asked the question when the person was arguing this and said what about footnote 100, you knew where it was going to go," he said. *"So we got a very strict water rights decision from the California Supreme Court in Mojave which said reasonable use is the most important thing in California water law, but first you have to go through and determine water rights and only then can you make adjustments to priority. As I like to say, in California we always start with priority but we rarely end with priority. But it is a journey to get there."*

Justice Ron Robie notes that SGMA says it doesn't affect water rights in any way, and so nothing in the Groundwater Sustainability Plans is going to create a right or take away a right from anybody. So that absence then may mean the law in Mojave is still going to be significant.

"Yes absolutely, let me be very clear," said Mr. Garner. *"I think anyone who was involved in the drafting of SGMA would say that there was zero chance this would have passed if it affected water rights, so it had to be in there in multiple places that it was not going to affect water rights, and yet at the same time, you're giving these GSAs and the GSPs the authority to reduce pumping. You can reduce pumping, but you can't affect water rights. How exactly does that fit together? That's a really good*

(https://cawaterlibrary.net/event/delta-plan-interagency-implementation-committee-dpic-meeting/?instance_id=5558)

APR 9
Tue

9:00 am LEG HEARING: Assembly Committee ... (https://cawaterlibrary.net/assembly-committee-on-water-parks-and-wildlife-9/?instance_id=5603)
9:30 am LEG

question. Admittedly when we were drafting it, we didn't really exactly know, but we knew we needed to get something done. It was going to have to get sorted out later, and it will get sorted out later."

The Santa Maria case started in 1997 and took 15 years to get to a decision. "As lawyers sitting there, we were saying what do we do after this Mojave case? We have to try the water rights."

He pointed out that what brings settlements about in adjudications is people having to go to court and prove their water rights, so they did try water rights. "It's the first time prescription was actually tried because it had been stipulated to in the prior cases where it had been involved, and we were successful in proving prescription and it was upheld on appeal," he said.

The Antelope Valley adjudication took 16 years to make it through trial court and is currently on appeal. "It's the largest adjudication ever," he said. "The Antelope Valley basin is 1390 square miles. We had 70,000 parties; 65,000 in one class. We created a class in the basin; no one had ever used a class in a groundwater rights case before, but we had two classes. The federal government was involved; there is an exception in federal law that you can bring the federal government into the state court in a full basin adjudication if it's comprehensive, so we did that extraordinarily complex case. And so that's up on appeal right now."

Mr. Garner noted that there always seems to be some party who challenges the decision. "Most parties settled, but in this case, we have the unexercised overlyers who did not go along with that class, and so they are appealing it."

HEARING:
Senate
Natural
Resources
(https://cawaterlibrary.net/event/leg-hearing-senate-natural-resources-and-water-committee/?instance_id=5607)



"The reasons these cases take so long is the complete lack of data," he said. "I have to dash to the airport after this and I have a lot more information about traffic patterns than we do about the most essential resource that we have, which is ridiculous but it's true. We generally in these basins do not know who is pumping and we do not know how much their pumping. That's the baseline that's trying to be established right now to get to a point where you can even start to regulate."

Justice Robie noted that during the Antelope Valley adjudication, Mr. Garner's client, the County of Los Angeles, hired people to fly over the farms to measure the acreage that was being farmed, as nobody really knows because you don't have to report. "They had to spend money on that kind of discovery to figure out if these people were really telling the truth when they put their claims," he said.

Mr. Garner noted that the case started before the technology was anywhere close to where it is now, and acknowledged that in fact, they did do that.

WILL ADJUDICATIONS CONTINUE UNDER SGMA?

In terms of the future and where things are headed, Mr. Garner said that he does think there will be continued litigation in the future. He noted that he is currently involved in an adjudication in the Las Posas Basin; the GSP is not even in place yet and a group of landowners have filed a lawsuit. Another lawsuit has been filed by the City of Ventura that mostly involves the Ventura River but implicates two groundwater basins that are interconnected with the river.



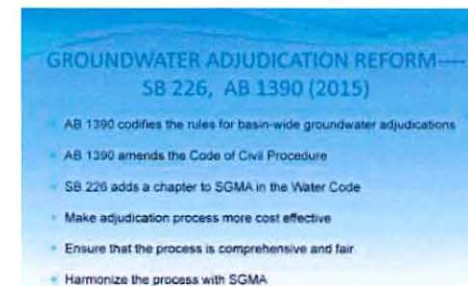
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Mr. Garner said he thinks there will be continued litigation for two reasons. First, lawyers are cheap compared to water. *"If you do the math, water is \$10,000 an acre-foot, and you can pay a lawyer a lot of money for a long time and that doesn't come anywhere close to the cost of replacing that water supply,"* he said. *"I've seen that play out in some of the adjudications I described, most dramatically in the Antelope Valley where the other side was doing that to our client, and it is very easily to delay cases procedurally as Justice Robie and other jurists could tell you."*

Secondly, with SGMA there is the ability to reduce pumping so what's the standard going to be? *"Certain parties will stand up and say, you haven't determined my water rights, you can't cut my pumping, but I think it really comes back to reasonableness in Article 10, Section 2,"* he continued. *"Is the reduction unreasonable? If the estimate is that the basin is 25% in overdraft, and the GSA cuts everyone 20% and gradually decline to that number while the water rights are sorted out, and then someone prevails and they should have only been cut 15%. So was that 5% really unreasonable for that period of time and now they get their full amount back? I think that's tough to show. Now if they should have cut back 5% and they are cutback 50%, then that's going to be a whole different issue."*

As the GSPs go forward, there really is the ability to provide relief even while the litigation is going on, so it's not end of management that the litigation goes on, it just may slow some things down, he said. *"The SGMA timeline is long,"* Mr. Garner said. *"One way, SGMA, or another way, courts and adjudications, we are going to have groundwater management by 2040, so I think that's the bright side."*

SB 226 and AB 1390: STREAMLINING THE ADJUDICATION PROCESS



Ron Robie noted that SB 226 and AB 1390 that passed in 2015 changed some things to streamline adjudications and harmonize the process more with SGMA. Previous adjudications were under common law. The new legislation codified the rules for basin-wide adjudications; it amended the code of civil procedure, and also added a chapter on adjudications in SGMA.

Mr. Garner noted that service (meaning notifying landowners of the adjudication) is difficult and expensive, so the new legislation now allows for service by publication, which will be a big timesaver.

Other elements of the streamlining legislation include presumption that adjudications are complex so they will now automatically go to a judge that handles complex litigation; the court can divide the case into phases; there are limitations on discovery, and measures to prevent relitigating issues. It also requires the court to consider some matters in advance of other things, such as deciding

prescriptive rights; it authorizes the appointment of a special master which is not under the present law, and it requires all parties all serve the quantity of groundwater extractions for past 10 years, type of water rights claimed, purpose to which groundwater is being used, and other data.

"The groundwater adjudication law is going to speed things up if it works, and we'll see if it does," said Justice Robie.



WATER TRADING AND THE ROLE OF ALLOCATIONS AND ADJUDICATIONS

Next, Christina Babbitt discussed the work that the Environmental Defense Fund (EDF) is doing to help GSAs and stakeholders to resolve issues without having to resort to adjudication.



First, she explained the mission of the Environmental Defense Fund, which is an international

environmental non-profit that works across numerous natural resource issue areas to devise solutions that work both for people and for nature. Science and economics are at the foundation of the work that we do, she said. EDF strongly believes in the role of trading to achieve better outcomes for both the natural environment and resource users as long as these programs are designed well. EDF works on programs such as carbon markets, catch share programs for fisheries, and designing crediting programs for habitat enhancement and protections.

Ms. Babbitt is part of the EDF team working on western water issues, and in particular, she is working on surface and groundwater markets which they think offers a lot of promise in working towards solutions. She noted that EDF has a long history in working on water trading in California, specifically healthy water trading. In her presentation, she said she would be deviating somewhat from the topic of adjudications to discuss water trading and allocations, but there is a strong nexus with adjudications as clearly defined groundwater pumping rights are the foundation for any trading program.

She began with the potential role of water trading under SGMA. Under SGMA, overdrafted basins will need to decrease their dependence on declining groundwater resources. This will be perhaps most acutely felt in the San Joaquin Valley where there are predictions that up to 750,000 acres of irrigated land will need to go out of production to comply with SGMA, she said. Many GSAs will inevitably need to impose reductions in pumping to achieve sustainability goals.

"One tool that we think offers a lot of promise is groundwater trading programs or groundwater

markets," Ms. Babbitt said. *"We think there's a lot of opportunity to help soften the landing for GSAs working to comply with SGMA by adding increased flexibility and providing increased access to water in times of scarcity."*

Although water trading is one tool, it is definitely not a silver bullet, she cautioned. *"It offers promise in a lot of areas, but you're really going to need a portfolio of approaches. You're going to need to think about supply solutions and demand management strategies in combination with one another."*

Water trading in California will increase under SGMA, and in fact, it's already starting in Ventura County with Fox Canyon Groundwater Management Agency implementing the first groundwater trading program under SGMA. EDF is working on establishing a water trading program in Kern County, as are other parts of the state.

There is an opportunity to improve the way water trading programs are designed. Ms. Babbitt acknowledged that markets are not universally accepted and not trusted by some, and rightfully so. *"Trading programs haven't always been designed with the utmost transparency in mind, and a lot of transfers often favor the big players within the system,"* she said. *"You also have to consider third party impacts. That's one of the reasons EDF is so involved – because we really think there's an opportunity to design healthy water trading programs that consider environmental and community needs and use this to build a more resilient water system in California."*

Ms. Babbitt noted that water trading is definitely not new to California: it's been happening for some time,

both through informal and formal mechanisms. Adjudications have helped pave the way for some of these markets by parties having clearly defined groundwater pumping rights. Groundwater trading programs are an important tool to help people manage their water more flexibly, which can be a motivating factor in settling adjudications, she said.

She also noted that water trading programs are now going to have to be designed to comply with SGMA which means addresses the six undesirable results, including declining groundwater levels, water quality degradation, and subsidence.

While water trading programs are on the horizon, it will take time for them to develop. *"Stakeholder buy-in is essential and really laying the foundation on which to build these programs,"* she said. *"You need to have information and data. How much water do you even have to work with in your basin? What are the needs within your basin? Can you quantify those? And above that, you're going to have to establish a cap and then decide how you actually want to divide the pie – how you want to allocate groundwater."*

Ms. Babbitt then turned to her experiences working with EDF to advance water trading to date, and in particular, the challenge of groundwater allocations. Back in 2015, when SGMA implementation was just getting underway, not too many groups were thinking seriously about the different projects and actions they are going to achieve sustainability.

"In all honesty, I think people were thinking about what is SGMA, what does it mean to my area, what does it mean to me individually, what does it mean to my livelihood, is it really here to stay, and do I need to think seriously about it," she said. *"Once*

those realizations started to sink in, people then started to turn to these supply-side solutions. OK, what water can I import into my basin or thinking about recharge, and without a doubt, these both are going to be vital strategies in moving forward. But it really is about a portfolio of approaches that in some areas are really going to need to do a lot more of.

In order to build the knowledge base and identify some of the uncertainties, the EDF worked with Mammoth Trading to develop a water trading paper intended to demystify trading programs and how they might work under SGMA. They also hosted a series of workshops with the Water Foundation and with Mike Young, one of the architects of Australia's water program, that brought in legal and technical experts. Through all of these efforts, the one big challenge identified was the role of groundwater allocations as a foundation to these programs.

"The real challenge is how you devise a legally acceptable allocation scheme that fits with local conditions and that are accepted by stakeholders," Ms. Babbitt said. "As a groundwater manager, you see the legislation that SGMA does not impact groundwater rights, but then you have this task in front of you of managing groundwater and in a lot of areas, you'll have to cut back, so how do you reconcile these and what does that mean? A lot of people are struggling with how to best move forward."

She also acknowledged that not all Groundwater Sustainability Agencies are thinking about allocations – there are other strategies, and not all of the GSAs that are thinking about allocations are thinking about water trading programs, although allocations do pave the way for those programs and other incentive programs to be placed on top. But

you can't have a water trading program if you don't have clearly defined groundwater pumping rights, she noted.

EDF recently released a paper with New Current Water and Land, a groundwater management strategic consulting firm in the Central Valley, that offered some recommendations for GSAs as they consider groundwater allocations. The paper provides some information on groundwater rights and parties, and lays out some potential allocation methods as well as some advantages and disadvantages of each approach.

Methods for Establishing Groundwater Pumping Allocations

Pro Rata Allocation per Overlying Acre

- Divides available groundwater resources between overlying landowner proportionate to property size

Pro Rata Allocation per Irrigated Overlying Acre

- Certifies all existing overlying groundwater use (e.g. irrigated acres) and develops an allocation proportionate to land use

Allocation Based Upon a Fraction of Historic Pumping

- Allocations are determined by historic pumping. Grandfathers in existing pumpers and excludes those who have not developed rights

Comprehensive Allocation Method (Recommended)

- Establishes groundwater allocations based on a comprehensive consideration of CA groundwater law, preserving the relative priority of overlying, prescriptive, and appropriative users

Ms. Babbitt then discussed different ways people are considering allocating groundwater. She noted that most of these strategies aren't actually legal, but people are thinking about them. *"One method is essentially you have a cap, you look at your overlying acres, and all landowners are given an equal amount of groundwater to pump, whether they use that water or not. You could also look at only the people who have used groundwater in the past and then divide groundwater equally among those users. Or, if you even have enough*

information which might be questionable, you could look at historic pumping and allocate a percentage of that"

Justice Robie noted that in the Antelope Valley adjudication, there were carrot growers that used 2 acre-feet per acre per year and the alfalfa growers, who used 5 acre-feet per acre per year. *"Now it occurred to me, the parties were not going to raise the constitutional waste of water or reasonable use provision because the only people in the adjudication were just the water users, and so they're not going to do that,"* he said.

"But now the Attorney General can join in an adjudication and you can have a public interest adjudication where maybe somebody would say those rights that were claimed were unreasonable, and you just said, give everybody a certain amount," continued Justice Robie. *"If you just looked at it normally, you might say, why not give everybody the same? But you have these crop patterns. I think that was one of the things that was wrong with the old adjudication law – that you could validate an unreasonable use of water because there was nobody there to point the finger at them."*

"It certainly was an argument we had in our cross complaint," said Mr. Garner. *"We never actually had to make the argument that growing certain types of crops out in the desert was unreasonable, but that is, shall we say, an incendiary argument, frankly."*

Groundwater Pumping Allocations under

Groundwater Pumping Allocations under California's Sustainable Groundwater Management Act

CONSIDERATIONS FOR
GROUNDWATER SUSTAINABILITY AGENCIES

Ms. Babbitt noted that with all the different allocation methods, there are a lot of challenges that exist with each of those. *"Some people might say it's fair if every overlying user gets a share of water, but then you could also look at people who have spent money to develop those rights,"* she said. *"Obviously different crops require different demands, and equity is a big issue that enters this discussion on all levels, and it is something that is going to need to be considered."*

One of the recommendations in the paper is that when moving forward with groundwater allocations, the role of groundwater rights and priorities must be considered to the extent possible. *"We make the case if you devise groundwater allocation schemes in a manner that's consistent with the fundamental principles of groundwater law, the allocation scheme they devise will more likely be durable and legally defensible,"* she said.

Ms. Babbitt cautioned that the allocations schemes being considered in terms of equal across users and others might be politically expedient, but if there

isn't broad consensus on those allocation methodologies and it gets brought court and tested, you could be sent back to square one, and SGMA deadlines are not necessarily going to be that forgiving. *"It's important that under SGMA, if people do come together to agree on an allocation scheme, the question begs, at one point into the future will someone decide that they are not happy?"*

There are other considerations to be thinking about with respect to allocations. Ms. Babbitt acknowledged that she works for an environmental organization so perhaps that's her bias, but the needs of the environmental and the communities need to be considered up front when thinking about groundwater allocations, because one can't develop an allocation scheme, throw a trading program on top of that, and hope things turn out well. It's probably not going to work out, she said.

"SGMA doesn't operate in a silo, so if you're in a basin and you have endangered species issues or you have flow requirements, there's the human right to water... to the extent that pumping impacts any of those issues, there's going to need to be some kind of coordination between these groups coming together and figuring out how to address those issues," she said. *"And I can't emphasize too much that measurement tracking and enforcement are essential. You need to know how to best move forward. You need to be able to include mechanisms in your allocation scheme that allow you to adapt as you get more information."*

Ms. Babbitt said she thinks the SGMA process offers a lot of promise in bringing local groups together to devise groundwater management solutions that are tailored to local conditions. When stakeholders come together and agree, they have good

leadership, then the path forward is going to be a lot smoother, she said. Noting the Las Posas and City of Ventura adjudications will be the first under the new law, so it will be interesting to see how these cases lay the foundation for how the SGMA process in these streamlined adjudications will play out on the ground. Even with the new legislation, adjudications are going to remain expensive, time consuming, and take a lot of resources, which unfortunately in California groundwater management, are not in ample supply, she said.

Ending on a hopeful note, she said that in advancing the SGMA process, if people can't come together to come to an agreement, there are probably ways to use those streamlined adjudications to establish clear deadlines in how to move forward while also creating certainty around pumping rights.

"So in closing, I'll just say I hope groups take advantage of the streamlined adjudication as a tool to help facilitate the process instead of a tool to impede the process."

STIPULATED AGREEMENTS, UNEXERCISED RIGHTS

Justice Robie asked that if an agreement was worked out among a basin, why couldn't that agreement be a stipulated adjudication? Then you would have definitive rights and they could be much more flexible in the future.

Mr. Garner said that it absolutely could. The Mojave court basically said that the parties could stipulate effectively whatever they wanted to; the issue was that if they were impacting other users who don't agree, they would want to challenge it.

Justice Robie noted that the Long Valley case says that unexercised riparian rights have to be recognized; is that still an issue?

Mr. Garner agreed, noting that the ruling says they can't be extinguished. The issue is the unexercised overlying rights -the people who have never pumped water on their land. *"There is a body of law that's very clear that says an overlying right is acquired by real property ownership; it's not gained by use or lost by disuse,"* he said. *"Then on the other side, there is the adjudication law which talks about this concept of self-help, so when prescription is happening, farmers don't have to file a lawsuit to protect their water rights. Mojave says that in black and white, it says they can retain some of their rights, it picks up on Pasadena by pumping self-help - that's the mutual prescription idea."*

"If you take those two pieces; pumping shouldn't matter at all but self help matters in a prescription case and you get to Antelope Valley where you have a situation where the agricultural pumping alone exceeded the safe yield during the period of prescription, and you have public agencies that did prescript, what do you do with the unexercised overliers?," he continued. *"Because of the self-help doctrine, doesn't pumping have to matter at some point? Or should anyone who didn't prescript, which would be all the non-public agencies, do all the self-helpers and the non-pumpers have to share all that water equally?"*

Mr. Garner said that the case was never going to settle if that was the result. *"So the self helpers got the benefit and the unexercised overliers got subordinated and we'll see how that plays out. But Long Valley didn't say they had to be equal; Long Valley said you can't extinguish them but you could*

subordinate them under certain circumstances which we did, so we'll see ..."

"I understand the reason for the rule, but in a case of absolutely limited resources, you shouldn't be able to sit on your rights," replied Justice Robie. *"You shouldn't be able to come in and pre up people who invested a lot of money and so forth, so we'll see what happens with this in the long run because the courts have to struggle to try to find a way of complying with the law determined by the California Supreme Court."*

Justice Robie noted that the Mojave case is the structure of the law as it is today, which does give a primacy to overlying landowners. Mr. Garner noted that because prescription was not pled in Mojave, there was no prescription to flip it. *"The uncertainty in the overlying right is where the issue could arise with just allocating water to people who pumped, but again, if everyone agrees to it, it's not a problem."*

Ms. Babbitt noted that groundwater managers on the ground need to know what the possible scenarios are that they could move forward with. They are working to develop some sort of legal guidance so managers can weigh their options.

"The courts are very happy with people who agree to things," said Justice Robie. *"If people can come forward with an agreement, you don't have to exactly and completely follow the law if everybody agrees to it. The Supreme Court said in the Mojave case, they wanted people to work things out. That's the policy of the law, and I think if you do it right, you can do it."*

AUDIENCE QUESTIONS

Question: Christina, I'm having a difficult time conceptualizing water trading. Can you give an example of water trading that has occurred or typical of water trading?

Ms. Babbitt noted that sometimes in conversations, domestic users think they would have to participate in a water market to get water, and that would not be a well-designed market. She then gave an example of water trading: *"If you do an allocation scheme and you recognize your human uses and environmental uses; then for irrigated agriculture, you could enter the market if you're an irrigator and you have almond trees and a hardened demand for water, so in a drought year, you might have a neighbor that grows alfalfa and has the flexibility of following their field and selling their water to someone who has a hardened demand. That's what I mean by these well-designed healthy markets."*

Justice Robie added that there is the potential to do water trading on a larger scale. *"For years, there have been transfers using the California Aqueduct and other physical facilities. People in Kern County have sold their contract amounts of water from the State Water Project to people in the Bay Area, and the reason they can do it is because the pipeline can deliver it to the Bay Area and just not deliver it to Kern County, so there have been a lot of exchanges in the past... those are the obvious ones because people have a contract right or a contract entitlement, but we're now trying to deal with people who don't have that but want to do it anyway in a given area."*

Question: Do any of you have any thoughts about the recent quiet title action down in the Paso Robles basin? My understanding is that the landowners there were incentivized to pursue that

and to be aggressive with that, possibly with a fear of what might happen with the parallel SGMA process. What is the intersection between that quiet title action and SGMA?

Eric Garner began his answer by noting that his law firm represents the City of Paso Robles and he worked on the case. *"I can't say that I think the SGMA process incentivized them to proceed with that,"* he said. *"They sued the city, proclaiming the primacy of the water rights, which is a fact pattern I've seen in Santa Maria, the Antelope Valley, and then Paso; the city is defending itself and prescription in this last round. It's a different situation, because no one has joined all the users, so basically you're just dealing with something where those parties water rights will get determined against the city's rights. No other landowner in the basin is going to be bound by that and so you'll have a situation where a GSA/GSP goes forward, they'll have to incorporate to some extent that water rights determination and different types of rights between the overliyers, so that's another scenario playing out."*

"That was a preemptive strike, basically," said Justice Robie.

"Here's where my bias comes out, but at best, the cities pumping is 10%, more like 5% of the basin," said Mr. Garner. *"You add all the public water suppliers together, you get 10%, which can guess what the other 90% is, and that's probably where the solution lies, yet it's a preemptive strike to prevent the public agencies from pumping."*

Question: One of the features of the groundwater adjudication law that was important to the administration was the provision for a preliminary injunction, the thinking being that the obvious

reason for preliminary injunction is to prevent irreparable harm during the decades before you reach judgement. The administration also thought this might promote settlement, because people who could live with the preliminary injunction might decide to settle and it might focus the issues on how to change from interim relief to the final. My question is, do you think that's going to work? Do you think that that will be effective, speed up adjudications?

Justice Robie added that what the court would be saying is, now the lawsuit has been filed, everybody stop where you are and we're not going to let you pump further amounts while we're adjudicating, which was not possible under the old law.

Eric Garner said he thought that it might. *"I was very supportive of that. I wish we had that in Antelope Valley because the case went on, year after year after year. I do think there is potentially some hope that that will speed it up."*

Question: We've talked a lot about how SGMA says it doesn't change existing water rights, but it does have an exception in there, and so my question's going to be whether you think the exception is going to matter. The exception in SGMA is that between the time of the passage of SGMA and the time of the adoption of a groundwater sustainability plan, nobody can use any new pumping or increased pumping in a claim of prescription. Do you think it's going to matter in a post-Mojave world?

"I think it matters," answered Mr. Garner. *"I thought that was an important provision to have in there because there is a line from Pasadena about the race to the pumphouse and one of our concerns was*

in working on that legislation was okay, we've set this date, the next four years, everyone's going to be drilling wells and turning on their pumps and pumping like crazy to establish a higher pumping right, so I think it helps protect the basin, absolutely, because there's no benefit to pumping more over this period until the GSP is in place."

"That is consistent with the concept that water rights are not involved in SGMA," added Justice Robie.

"Because you're not determining a water right, you shouldn't let it be used also to enhance your potential water right either. So that is a good provision."

FOR MORE INFORMATION ...

- [Adjudication Under SGMA – PowerPoint Presentation](#)
- [Environmental Defense Fund – California SGMA Allocations](#)
- [Environmental Law News – Fall 2014 – Swing Pendulum Swing-c2](#)
- [Learn more about SGMA and SGMA implementation at the Groundwater Exchange.](#)

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Water from the Oroville Dam Auxiliary Spillway at Lake Oroville flowed toward the diversion pool of the Feather River on Feb. 12, 2017. (Photo by Kelly M. Grow/ California Department of Water Resources.)



Gathering storm: What California must learn from the Midwest floods

Guest Commentary | April 1, 2019 | [COMMENTARY](#), [ENVIRONMENT](#), [MY TURN](#), [WATER](#)

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By **Jacob Katz**, *Special to CALmatters*



A bomb cyclone formed in the sky above Nebraska not long ago, and warm rain melted an above-normal snowpack, causing catastrophic flooding across six states.

The Missouri River is long way away. But this emergency offers California critical lessons about how we must prepare for severe storms in a changing climate.

In California, we call our greatest flood threat "atmospheric rivers." One of these rivers in the sky directed a firehose of tropical moisture at Northern California, leading to March flooding along the Russian River. Truth is we got off easy, as we did in 2017 when Oroville Dam's spillway nearly failed and 188,000 people were evacuated. It could have been so much worse.

Sacramento is, after all, among the cities in the country with the greatest risk of catastrophic flooding.

In the wake of the Midwest destruction, a group of scientists [published the lessons learned](#) to help protect families and livelihoods.

Among the conclusions:

- A changing climate must be considered in flood planning.
- Engineering cannot provide protection from the most extreme floods.
- We must act proactively to prevent damage, rather than simply waiting to respond to emergencies.



- Building on floodplains greatly increases risk.
- Flooding in rural communities can be easily discounted.

Each of these lessons has remarkable applicability to the flood risk Central Valley residents face.

Fortunately, California has developed a forward-looking Central Valley Flood Protection Plan to meet this challenge. In his first state of the state address, Gov. Gavin Newsom highlighted the central tenet of the flood plan—investing in floodplain improvements that give rivers more room to safely bypass flood waters around cities and infrastructure.

The Yolo Bypass—that expanse west of Sacramento that is alternately rice fields and floodplain—is the best-known part of the Central Valley’s flood system. It will be expanded under the flood plan.

Other improvements include the new multi-benefit floodplain project on the Sacramento River 100 miles north of the city of Sacramento at Hamilton City, which kept residents safe during recent storms.

Improving floodplain management will help recharge depleted groundwater, preserve ranches and farms and enhance habitat by allowing rivers to function more naturally. These multiple benefits explain why farmers, fishermen and flood agencies all support the new flood plan.

Here are a few ideas to help Gov. Newsom turn a proactive vision of flood and water management into reality.

- Integration: California’s defining 21st Century challenge is to reconcile water supply, flood protection and ecosystem health in the face of a changing climate. We can address these challenges simultaneously by modernizing antiquated water infrastructure. Agencies must integrate expanded floodplains with efforts to implement California’s landmark [Sustainable Groundwater Management Act of 2014](#). Floodplains can do triple duty by protecting communities from flood, replenishing over-tapped aquifers and enhancing river ecosystems.



- Justice: Disadvantaged communities are among the most at risk from floods. The upcoming update to the flood plan should focus on protecting vulnerable cities such as Stockton and Sacramento as well as small towns such as Firebaugh, which face the greatest climate-driven increase in flood risk.
- Investment: Writing a good plan is one thing; building it is another. To find the billions necessary to adapt to extreme weather will require tapping into many sources—reflecting the many benefits these investments will provide—including a mix of bonds, local contributions, habitat restoration, groundwater management, water supply reliability and climate change funds.

A Nobel laureate sang, “You don’t need a weatherman to know which way the wind blows.”

The destructive power of Hurricanes Katrina and Harvey, Super-storm Sandy and the bomb cyclone that hit Nebraska in March are yet more evidence climate change is upon us.

Severe storms and flooding will be more frequent and more dangerous. We must adapt. We must prepare. We have the plan. We must act on it.

Jacob Katz is a senior scientist at CalTrout where he directs the organization’s Central California region. jkatz@caltrout.org He wrote this commentary for CALmatters.

Commentaries

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- We will edit them, post them on our site and share them with our news partners. They may publish them.
- Your op-eds must be exclusive to CALmatters and no more than 650 words.
- Please include your photo and email address for publication.
- Please also include phone number so we can reach you.



- If your piece is selected for publication, we will ask that you sign a release, and statement that you have read and accept our ethics policy.

Please contact Dan Morain with any questions, dmorain@calmatters.org, (916) 201.6281.



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