SAN JOAQUIN COUNTY
FLOOD CONTROL & WATER CONSERVATION DISTRICT
P. O. BOX 1810
STOCKTON, CALIFORNIA, 95201
TELEPHONE (209) 468-3000
FAX NO. (209) 468-2999

KRIS BALAJI
DIRECTOR OF PUBLIC WORKS

ADVISORY WATER COMMISSION

October 19, 2016, 1:00 p.m.

Public Health Conference Room, 1601 E. Hazelton Avenue, Stockton, California

AGENDA

Roll Call

Approve Minutes for the Meeting of August 17, 2016

SCHEDULED ITEMS

I. Discussion Items:

A. Update on 2016 Drought Condition – Michael Cockrell

B. Discussion of Potential Impacts of State Water Resources Control Board's 2016 Draft Revised Substitute Environmental Document (SED) in Support of Potential Changes to the Water Quality Control for the Bay Delta: San Joaquin River Flows and Southern Delta Water Quality (See Attached) – Various

II. Communications (See Attached):

A. September 22, 2016, turlockjournal.com, "Local Legislators Deliver Over 3,000 Petitions to State Water Board"

B. September 25, 2016, dailydemocrat.com, "Governor Signs Wolk Climate Change Bill"

C. September 27, 2016, Best Best & Krieger Legal Alerts, "New California Law Amends Water Supply Planning Laws"

D. September 28, 2016, modbee.com, "Valley Leaders Take Issue with State Water Board's Explanation"

Public Comment:

Next Regular Meeting:

November 16, 2016, 1:00 p.m.
Public Health Conference Room

Commission may make recommendations to the Board of Supervisors on any listed item.

If you need disability-related modification or accommodation in order to participate in this meeting, please contact the Water Resource Staff at (209) 468-3089 at least 48 hours prior to the start of the meeting.Any materials related to items on this agenda distributed to the Commissioners less than 72 hours before the public meeting are available for public inspection at Public Works Dept. Offices located at the following address: 1810 East Hazelton Ave., Stockton, CA 95205. These materials are also available at http://www.sjwater.org. Upon request these materials may be made available in an alternative format to persons with disabilities.

REPORT FOR THE MEETING OF
THE ADVISORY WATER COMMISSION OF THE SAN JOAQUIN COUNTY
FLOOD CONTROL AND WATER CONSERVATION DISTRICT
August 17, 2016

The regular meeting of the Advisory Water Commission of the San Joaquin County Flood Control and Water Conservation District was held on Wednesday, August 17, 2016, beginning at 1:00 p.m., at Public Health Services, 1601 E. Hazelton Avenue, Stockton, California.

Roll Call

Present were Commissioners Nomellini, Swimley, Alternate Houghton, Commissioners Holman, Flinn, Winn, Holbrook, Christensen, Salazar Jr., Hartmann, Meyers, Neudeck, Secretary Nakagawa, Alternate Henneberry-Schermesser, and Chairman McGurk.

Others present are listed on the Attendance Sheet. The Commission had a quorum.

Approval of Minutes for the Meeting of June 15, 2016.

Motion and second to approve the minutes of June 15, 2016 (Flinn/Neudeck). Unanimously approved.

SCHEDULED ITEMS

Tom McGurk, Chairman of the Advisory Water Commission (AWC), led the agenda.

I. Action Items:

Secretary Nakagawa recommended deferring Action Item 1.A. until the arrival of Dr. Rod Smith, Stratecon, Inc. The Commission concurred and Item 1.A. was deferred.

B. Discussion and Possible Action to Recommend to the Board of Supervisors to Adopt the Initial Study and Mitigated Negative Declaration for the Demonstration Recharge Extraction and Aquifer Management (DREAM) and North San Joaquin Water Conservation District South System Improvement Project – Kris Balaji

Mr. Kris Balaji, Public Works Director, gave a presentation on the DREAM Project's background, concepts, the project team, and the project schedule. He explained that groundwater banking is where an entity can store groundwater for future use, and that our groundwater banking operations remain under local control for extraction and/or storage. Stakeholders include: the local growers, North San Joaquin Water Conservation District (NSJWCD), East Bay Municipal Utility District (EBMUD) as the water supplier of the project and funding partner for the cost of development and implementation, Stockton East Water District (SEWD), Woodbridge Irrigation District (WID), San Joaquin Farm Bureau, and San Joaquin County as the entity issuing the permit for exporting water back to EBMUD as well as future monitoring and extractions. The main objective of the DREAM Project is to provide substantial evidence to demonstrate groundwater recharge storage and extraction is feasible in San Joaquin County. This one-time project will test this concept. In addition, the project will demonstrate technical and financial feasibility, demonstrate options to extract and monitor groundwater, and demonstrate the ability of San Joaquin County to issue export permits.

Design constraints include:

- Must result in a groundwater export permit for this particular project;
- Capabilities to physically export the water;
- Must result in improved basin conditions; and
- Costs under $4 million.

The DREAM project will also include improvements to the NSJWCD's South System including a rebuilt pump station as well as possibly leveraging additional funding opportunities (e.g. WaterSmart Grant).

Mr. Balaji presented a slide-show of the project site plan – 350 of land acreage, up to 1,000 acre feet (AF) of in-lieu recharge, 2.8 miles of pipeline, and up to 500 AF of water exported to EBMUD (subject to conditions). Up to 500 AF of water will remain in the basin at all times to sustain groundwater levels. Once the project goes into the implementation stage, the existing extraction well will be used for monitoring groundwater withdrawals, and surrounding existing wells will be used for monitoring groundwater elevation.

Timeline Schedule to Date:

- February 17, 2016 – Project was presented to the Commission
- February 24, 2016 – Public meeting was held for landowners within 2-mile radius of the extraction well
- March 2016 – Published the Notice of Intent and Initial Study/Mitigated Negative Declaration (IS/MND), 30-day public comment period began
- Early March 2016 – Export permit application was submitted
- Public comment period was extended three times (to 5/4/16, to 6/3/16, to 7/8/16)
- Late July 2016 – Public comment period was closed
- August 23, 2016 – Final Mitigated Negative Declaration (MND) will be presented to the Board of Supervisors for adoption, and approval of the DREAM Project
- September 2016 – 30-day public comment period of export permit application
- October 2016 – Present to AWC for recommendation to the Board of Supervisors to request approval of the groundwater export permit
- November 2016 – Present to the Board of Supervisors for a groundwater export permit
- December 2016 – Board of Supervisors public hearing process for the application of the groundwater export permit

The issue of resolving the Protest Dismissal Agreement (PDA) signed a few years ago with EBMUD remains to be overcome. The PDA has been revised and the parties are working to overcome their differences. This DREAM Project, if implemented, will demonstrate to others that the parties can work together to resolve differences and towards a single goal of increasing the sustainability of the Eastern San Joaquin County Groundwater Basin.

The Board of Supervisors' adoption of the Final MND and approval of the DREAM Project does not authorize moving forward with this Project because the Board will still need to issue a groundwater export permit. Staff indicated that the Board of Supervisors' issuance of a groundwater export permit is contingent upon all parties agreeing to an amended PDA. Once the amended PDA is executed, only then will the PW Director take the recommendation to issue an export permit to the Board of Supervisors.

The concept of the DREAM Project is that for every drop of water put into the basin – up to ½ drop will be given back, with loss factors built in to agreement with EBMUD for extracting the water. Mr. Balaji added no future project for groundwater banking is contemplated with the DREAM project at this time although the County could work with agencies on a larger scale groundwater banking project in the future if the DREAM Project is successful. In conclusion, Mr. Balaji thanked his predecessors Mr. Tom Gau and Mr. Tom Flinn, both former Public Works Directors, who were responsible for conceiving this concept. He also acknowledged Mr. Fritz Buchman (Public Works Deputy Director), Mr. Brandon Nakagawa, County Counsel, consultants, and staff on their continuous efforts, as well as commended NSJWCD, EBMUD, and SEWD for their open-mindedness, support, and advice.

Mr. Balaji concluded his presentation and the discussion was opened.

Commissioner Neudeck inquired if the extensions of the public comment period were due to objections from the public. Mr. Balaji answered the extensions were based on internal stakeholder issues. Mr. Neudeck asked if there is intent to develop future improvement projects and build onto the work already done. Mr. Balaji replied affirmatively and added that WID gave a presentation at the last AWC meeting on options for groundwater recharge. In addition, once the GSAs are formed and the GSP is developed, large scale projects will be invited and considered. Commissioner Nomellini added that the significance of this project is it involves an export in conjunction with the groundwater banking.

A member of the public asked whose allocation of water will be used for the recharge. Mr. Balaji said it is not tied to a particular allocation, but EBMUD will be providing the additional water up to 1000 AF.

Alternate Houghton asked for clarification regarding the issuance of the groundwater export permit. Mr. Balaji responded the County issues the permit. Mr. Buchman added the permit is tied to a County ordinance.

MOTION: Commissioner Christensen stated the County has been involved in advancing the PDA discussions and the second PDA agreement is almost in place. Commissioner Christensen made a motion for the AWC to recommend to the Board of Supervisors to adopt the Initial Study and Mitigated Negative Declaration for the Demonstration Recharge Extraction and Aquifer Management (DREAM) Project and North San Joaquin Conservation District South System Improvements Project under the condition that EBMUD and all parties approved the Second Amended PDA as has been negotiated. The support is being granted because WID strongly supports NSJWCD's South System Improvement Project. Additionally, the DREAM Project is a small demonstration project for the purpose of obtaining operational scientific information. The motion was seconded by Commissioner Flinn. The motion was approved and Supervisor Winn abstained.

Commissioner Swimley added the City of Lodi is supportive of the DREAM Project as it stands. They maintain concerns of any larger project of potential export out of the County. He expressed that the project will be helpful to NSJWCD as well as future efforts in maintaining its groundwater.

Mr. Tom Francis, EBMUD made the following statement on behalf of EBMUD to the Advisory Water Committee at the meeting held August 17, 2016:

1. EBMUD is supportive of San Joaquin County's efforts to develop a groundwater sustainability plan in the long-run to improve the health of the basin, whether or not we are a partner.

2. The DREAM Project includes improvements to NSJWCD's south system with the initial capital of $1.75M to install necessary piping and ultimately test the viability of conjunctively managing the groundwater basin.

3. EBMUD and the County are working through water rights issues regarding the surface water supply for the DREAM Project.

A. Discussion and Possible Action to Recommend to the Board of Supervisors to Enter into a Memorandum of Understanding with Stanislaus County for an Economic Analysis of the Impacts of Reallocating Unimpaired Flows from Tributaries to the Lower San Joaquin River – Rod Smith, Stratecon, Inc.

Mr. Nakagawa informed the Committee that Dr. Rod Smith had arrived and is present to address any technical questions on his scope of work, his history, and methodologies. Stanislaus County hired Dr. Smith to perform an economic analysis of an unimpaired flows proposal by the State Water Resources Control Board (SWRCB). The SWRCB is prepared to take 30-50% of unimpaired natural flow from east side tributaries to augment lower San Joaquin River flows causing impacts to irrigation districts, cities that receive water through agreements and through SEWD and CSJWCD, which are contractors on the Stanislaus River. Thus, Stanislaus County reached out to San Joaquin and Merced Counties and offered to cost share Dr. Smith's analysis through an MOU, which will be presented to the Commission today for recommendation to the Board of Supervisors for final approval. This MOU would make San Joaquin County a cost-share partner at $20,000 of the $90,000 scope of work with Dr. Smith, Stratecon, Inc.

Dr. Rod Smith, President of Stratecon, Inc. introduced himself and gave a brief background of his history. Mr. Smith has been involved with water resources since the 1970s in California, Texas, Ariizona, Colorado, and Mexico. He is also the economic expert for CSJWCD. Stanislaus County approached Stratecon to research the SWRCB proposal to increase the dedication of unimpaired flows for environmental purposes. The proposal was based upon an analysis prepared by State Water Board staff which concluded a small impact of loss up to 300 AF of surface water, achieved by the use of computer models.

Stratecon's approach consists of two fundamental exercises:

- Look at facts. Stratecon will examine data which will demonstrate the consequences of natural experiments. The objective will be to quantify the impact on groundwater elevations in San Joaquin, Merced, and Stanislaus counties.

- Development of a 90-day study plan. Once the SWRCD releases their opinion, there will be only a 60-90 day public comment period.

The plan is to take past natural experiments and apply observations. To do so, data from the three counties is needed. Mr. Smith proposes to reach out to the districts and water users for information leading to a representative sample to focus on. Also needed for his analysis is actual data on water port flows, and water assets.

The focus of the study will be in five major areas:

1. Impact of water shortages on the local economy
2. Impact to the basin
3. Impact on hydroelectric resources
4. Impact to local recreation
5. Impact on disadvantaged communities – new approach to present to SWRCB

Dr. Smith stated the respective entities and organizations will be approached by Mr. Nakagawa and/or himself for information pertinent to his data. In conclusion, he proposes to complete the analysis within 90 days.

Dr. Smith concluded his presentation and discussion was opened.

Commissioner Nomellini asked if the emphasis on harm is to the eastern basin. Dr. Smith responded the research will be based on data from Stanislaus, Merced (east and west), and San Joaquin Counties. Commissioner Nomellini commented on the valid concern of Stanislaus and Merced Counties, but questioned if San Joaquin County would contribute as representing the east side or the west side of the river – which are competing sides. Dr. Smith responded to look at the counties as a "whole" and to examine the condition of impacts. The focus of the study is to trace down and quantify the impacts of the proposed action with the best available information.

Commissioner Holbrook emphasized this proposed action will significantly impact San Joaquin County. The surface water that enters on the south side near SSJID, ends up as groundwater moving north to east – thus, impacting everyone. Commissioner Nomellini interjected that the witness testimony to submit should focus on the adverse effects here in our County. His concern is any abandoned water will be shipped south. Commissioner Holbrook responded this study will demonstrate that shipping the water south will add economic costs, have impact to water storages, impact on surface water for groundwater recharge, impact on disadvantaged communities, and impact on hydroelectric resources. Dr. Smith reiterated the focus to the State Board will be the proposed actions will have specific impacts to the three counties.

Commissioner Hartmann asked Dr. Smith if he is preparing an expert opinion by an economist or an analysis. Dr. Smith responded it is analytical work that will result in a study which may result in further discussion at the CAO level. Commissioner Hartmann theorized if there is 1 million AF of water in the Stanislaus tributary for all counties, does San Joaquin County have 155,000 AF based upon the payment of 20% of the scope of work. He further asked if the concern is, per the SWRCD proposal, will that 155,000 AF of water and the 1 million AF of water go south. Dr. Smith answered that if the water goes south, the analysis will show the impact to San Joaquin, Merced, and Stanislaus Counties in terms of groundwater elevations, as well as the consequences to water quality, cost, and disadvantaged communities.

Commissioner Hartmann asked Dr. Smith if he represents any Southern Valley or Southern California water agency, or if he is involved with Paramount Farms. Dr. Smith responded no, he is not involved with any agency in the Central Valley. His past work includes Imperial Irrigation District, and involvement with the San Diego Quantification Settlement Agreement.

Commissioner Flinn asked if the water to be taken is allocated water, and inquired whose water rights will be imposed upon. Dr. Smith responded that the SWCRB will want to place restrictions. Commissioner Holbrook interjected the State will say agencies need to put more flow into the river – until you can't store anymore. Therefore, it will go "down" and "out" without being used for flood, or irrigation. In addition, you cannot run water treatment plants providing water to Manteca, Escalon, and

Tracy. SEWD would also lose their water. Dr. Smith added there are also operating restrictions which would be a source of losing water.

A member from the public asked if any consideration of this study was given to the ruling on the Friant Dam as the release into the San Joaquin River for restoration. Dr. Smith responded affirmatively, as another "natural experiment." Mr. Nakagawa added the San Joaquin Restoration settlement puts Friant Reservoir outside the State Board's reallocation of eastside tributaries. They are not considering any flow from this restoration as part of this lower San Joaquin River 30-50% unimpaired flow.

Commissioner Salazar, Jr. inquired about the new law in California where everyone has the right to water, and how will this increased cost be factored into the study. Another question is whether or not the cost of likely mitigation will be factored into this study. Dr. Smith responded the consequences to water systems has been factored in (e.g. loss of water, increased pumping, lower elevations, operating costs, capital investment, and water quality issues). Commissioner Salazar, Jr. referenced the disadvantaged communities and asked if their already unusable groundwater will be considered unusable and not factored in as a potential source; or alternatively, he questioned whether there will be an assumption of a viable groundwater basin thus incurring costs. Dr. Smith said the approach will be to look at a group of "representatives," focus on those representative samples provided, and be better able to assess. He added, there will be a diversity of answers and these will all be factored into the analysis.

Chairman McGurk asked if the financial aspects of the environmental will need to be reconciled. Dr. Smith replied that the analysis is intended to look at localized recreational impacts.

MOTION: Mr. Nakagawa stated staff is looking for a motion from the Commission to recommend to the Board of Supervisors to enter into an MOU with Stanislaus County for an economic analysis of the impacts of reallocating unimpaired flows from Tributaries to the Lower San Joaquin River. San Joaquin County's share to propose is $20,000, payable to Stanislaus County. Funding will come out of the Zone 2 or General Fund. Commissioner Holbrook made a motion and seconded by Commission Flinn. The motion passed and Commissioners Nomellini, Hartmann and Winn abstained.

II. Discussion Items:

A. Update on 2016 Drought Conditions – Mike Cockrell

Mr. Mike Cockrell, San Joaquin County Office of Emergency Services, gave an update of the status of the drought, weather predictions, and drought impacts to our communities. The U.S. Drought Monitor has not changed with California still classified in "extreme drought." When will the drought be over? State-wide criteria is snowpack, temperatures, rainfall, reservoirs, groundwater, and water for farms and communities. Key unknowns include strength and location of storms, mudslides, and future conditions. Annual precipitation shows 121% of normal in Stockton, and 101% of normal in the Central Sierra. In the past years, statistics have been dismal with only the last year showing good results. This is not enough.

Reservoir levels are: Camanche – 70% of capacity; Pardee – 89% of capacity now, 100% average; New Hogan – 31% of capacity; New Melones – 23% of capacity; Don Pedro – 70% of capacity; Pine Flat – 25% of capacity; San Luis – 11% of capacity. The 5-station index of the Central Sierra shows precipitation at 101%, which is average.

Status of dry wells as of May 26, 2016 includes:

- County reported dry wells – Total 6: Resolved – 2; unresolved with replacement well permits issued – 4; unresolved with no permits – 0.
- Curtailments – Total 2: Upper Scotts River and the Delta River. Water rights holders agree ahead of time to defer the drawing of water so the upper Sacramento River dams can release water for fish protection and water quality.

Predictions as of July 14, 2016, show La Niña is favored to develop during August – October 2016, with a 55-60% chance of La Niña during the fall and winter 2016-17. Previous predictions showed a 75% chance of La Niña . In the past, Stockton Airport has recorded 70% below precipitation with a weak La Niña , which is not good. Differences between El Niño and La Niña is that El Niño will tend to last a season and return in 5-7 years, while La Niña will last multiple winters.

Climate Prediction Center reports:

- August is 40% warmer than normal, with precipitation below normal/normal rainfall.
- Sept/Oct/Nov shows warmer than normal, with normal rainfall.
- Oct/Nov/Dec shows wet north / dry south, with temperatures warmer than normal.
- Nov/Dec/Jan shows drier precipitation, with temperatures warmer than normal.
- Dec/Jan/Feb shows drier precipitation, with temperatures warmer than normal.

Recent State and Federal actions include:

- June 8, 2016 – Water Board approves simplifying recycled water use permits;
- July 8, 2016 – State issued the Sacramento River Temperature Management Plan to keep the river at 55 degrees or lower to address the summer smelt and the winter salmon;
- August 22, 2016 – The State Water Board is holding an informational fair on water measurement and reporting; and
- August 25, 2016 – the Delta Stewardship Council will have a discussion on the draft of the Delta Plan Revisions regarding priorities for State Delta Levees Investment.

The State changed conservation requirements as California's "way of life." The State Board's Emergency Regulations will be extended through January 2017, and will include four major action areas:

- A mandatory reduction in potable urban water usage;
- Eliminate water waste;
- Strengthen local drought resilience; and
- Improve agricultural water use efficiency.

Presently, the Water Board reports conservation has declined 21.5% in June. Several jurisdictions have adjusted watering schedules to 2-3 days.

San Joaquin County Mosquito and Vector Control are looking at whether the drought is the cause of the increase in West Nile Virus (WNV) and Zika Virus. As the water bodies are reducing, are mosquitos, animals and humans congregating at the same locations thus increasing the risk of infection? Records show the most cases of WNV reported since 2004. The County co-sponsored a drought and WNV/Zika awareness campaign August 1-7, 2016.

San Joaquin County Human Services Agency continues with the Emergency Food Box Giveaways for out-of-work farm workers. Each box contains 30 lbs. of food which will feed a family of four for one week. Also available is the Weatherization Program providing utility, energy, and heat saving measures to renters and homeowners, as well as the Toilet Replacement Program. A State-wide study has proven San Joaquin County with a 72% rating of public awareness of assistance programs.

The Agricultural Commissioner is still watching for fallowed crops. The cherry crop was hit hard due to late spring/summer storms. In addition, warmer weather has allowed an increase of invasive insects, requiring quarantines. The Air Pollution Control District has participated in several drought relief actions to assist while maintaining air quality.

All reclamation agencies within the County are in the process of developing emergency plans and flood fight maps. OES is starting to develop their application for Round 2 of the DWR Delta ER Grant in the amount of $2.8 million to fund evacuation planning, engineering designs to build up underpasses, stop waters, training, and the purchase of flood fight supplies. Deadline for application submittal is September 23, 2016.

Mr. Cockrell concluded his presentation and discussion was opened.

Commissioner Hartmann asked whether the grant award was received for Round 1. Mr. Cockrell responded the check for the first claim was received. The fiscal staff of the grant management system is behind three payments.

III. <u>Communications:</u>

A. August 2, 2016, Sacbee.com, "California Unveils Environmental Blueprint for Delta Tunnels"

B. August 9, 2016, NOAA Climate.gov, "Drought is Building in Places Other Than California"

C. August 10, 2016, Sacbee.com, "Legislators Approve Audit of Governor Jerry Brown's Water Tunnel Plan"

Public Comment: Danielle Barney, Staff to the Commission, and Public Works Water Resources announced the upcoming San Joaquin County Coastal Cleanup Day 2016. This is the County's 17th year as a participant with the California Coastal Commission for this one-day event to clean up trash and debris from our local waterways. The event will be held on Saturday, September 17th from 9 A.M. to 12 noon at twelve cleanup sites throughout San Joaquin County. Site captains will lead volunteers at each site, and Water Resources staff are also present at sites on the day of the event. Volunteers can register online at sjcleanwater.org, contact Danielle Barney at (209) 468-3089, or are welcome to register on the day of the event, at any site. Ms. Barney distributed a "Save the Date" Coastal Cleanup Day flier.

Next Regular Meeting: September 21, 2016, at 1:00 p.m.
Public Health Conference Room

Adjournment: 2:50 p.m.

SAN JOAQUIN COUNTY
FLOOD CONTROL & WATER
CONSERVATION DISTRICT

ADVISORY WATER COMMISSION

MEETING OF AUGUST 17, 2016

ATTENDANCE SHEET

NAME	AFFILIATION	E-MAIL ADDRESS	PHONE
M. Lynn Hoffman	SJC-PW-WR	mlhoffman@sjgov.org	468-3531
Michael Callahan	"	mcallahan@sjgov.org	468-9360
Antonio Tavar	City of Stockton	antonio.tavar@stocktongov.gov	209 937-8790
Gerald Schwartz	EBMUD		374 7048
Scot Moody	SJWG	——	——
Stephanie Reyna-Hiestand	City of Tracy	stephanie.hiestand@ci.tracy.ca.us	(209) 831-4333
Katie Patterson	SJGOV	Kpatterson@sjgov.org	209.468.2997
Tom Francis	EBMUD	tfrancis@ebmud.com	510 287 1303
Jen Spaletta	NSJ		
Julianne Phillips	SJFB	jphillips@sjfb.org	931-4931
Fritz Buchman	SJ County		
Brent Williams	stakeholder	Same	
Katie O'Ferrall	San Joaquin Cty-NHB	koferrall@neumiller.com	
Rod Attebery	SJC / Neumiller	RAttebery@neumiller.com	948-8200
Regina Rubier	City of Stockton	Regina.Rubier@stocktonca.gov	937-8782
Doug Heberle	WID	heberlewid@gmail.com	625-8438
Walt Ward	Stanislaus Co.	wward@envres.org	525-6710
Gerardo Dominguez	SJC	gdominguez@sjgov.org	953-7948
Michael R. Cockrell	SJC-OES	mcockrell@sjgov.org	209-953-6208
Brandon Nakagawa	SJC PW		
Mark Houghton	Manteca		
Charlie Swimley	City of Lodi		
Joe Salazar Jr.	Fish & Wildlife Rep.	JSalazar@LewisBrisbois.com	601-8030
Christopher H. Neudeck	Blog Rep	cneudeck@kjcsninc.com	946.0268
Annette Henneberry Schermesser		2mooncoin@att.net	839 0717

SAN JOAQUIN COUNTY
FLOOD CONTROL & WATER
CONSERVATION DISTRICT

ADVISORY WATER COMMISSION

MEETING OF AUGUST 17, 2016

ATTENDANCE SHEET

NAME	AFFILIATION	E-MAIL ADDRESS	PHONE
JOHN G. HOLBROOK	SSJID		209 986 4739
TOM MCGURK	SEWD		
George Hartmann	AWC / RD 2074 / RD 2030	gvhlaw@gmail.com	209 956 9940
Dante John Nomellini	CDWA	ngmplcs@pacbell.net	209 465 5883
Elbert H. Holman Jr	City of Stkn		209-423-3778
CHUCK WINN	SJC	CWINN@SJGOV.ORG	209-468-3113
Tom Flinn	NSJWCD	tomflinn2@me.com	465-8760
Andy Christensen	WID	widirrigation@gmail.com	625-8438
Dave Meyers	RD's	CDRUSA 9057@Aol.com	209-403-1223
Darlene Barney	SJC PW		

ATTACHMENT
I.B.

NEUMILLER & BEARDSLEE
A PROFESSIONAL CORPORATION • ATTORNEYS & COUNSELORS
ESTABLISHED 1903

77045-38362

Thomas J. Shephard, Sr.

509 WEST WEBER AVENUE
FIFTH FLOOR
STOCKTON, CA 95203

POST OFFICE BOX 20
STOCKTON, CA 95201-3020

(209) 948-8200
(209) 948-4910 FAX

FROM MODESTO:
(209) 577-8200
(209) 577-4910 FAX

March 29, 2013

Via E-Mail to commentletters@waterboards.ca.gov and U.S. Mail to Jeanine Townsend, Clerk to the Board

Chair Charlie Hoppin and Members of the State Water Board
c/o Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95814-0100

Re: **Comment Letter – Bay-Delta Plan SED**

Dear Chair Hoppin and Members of the State Water Board:

On behalf of the County of San Joaquin and the San Joaquin County Flood Control and Water Conservation District (collectively "County"), we submit the following comments on the Substitute Environmental Document (SED) and the proposed changes to the San Joaquin River Flow Objectives and South Delta Water Quality Objectives of the Water Quality Control Plan for the San Francisco Bay – Sacramento/San Joaquin Delta Estuary.

The Water Quality Control Plan and the proposed objectives are of significant concern to the County and modification of, and implementation of, the existing or modified objectives has a significant impact on San Joaquin County. Nearly two-thirds of the Delta is located within San Joaquin County. The lower San Joaquin River flows through San Joaquin County and the Stanislaus River forms a portion of the southern boundary of the County. Large portions of the County are served both municipal and agricultural water supplies from the Stanislaus and San Joaquin Rivers and the southern Delta. The southern Delta is located entirely within San Joaquin County and the beneficial users which are protected by the southern Delta salinity objectives are all located within the County. As a result, State Water Board proposed action regarding these objectives greatly impacts the County.

The SED provides that it performs a macroscopic programmatic analysis rather than a project-level analysis. While this is permissible, the SED must still include the rigorous environmental analysis required by regulation. The SED must identify any significant or potentially significant adverse environmental impacts of the proposed

project. Cal. Code Regs., tit. 23, § 3777. The SED must also include an analysis of reasonable alternatives to the project and mitigation measures to avoid or reduce any significant adverse environmental impacts. Cal. Code Regs., tit. 23, § 3777. See *City of Arcadia*, 135 Cal.App.4th at 1422. As indicated in these comments, throughout the SED inadequate environmental analysis is performed.

The County respectfully submits that the SED analysis is not adequate to support a decision by the State Water Board. The County provides these comments regarding the inadequacies of the SED and the concerns of the County.

A. March 20, 2013 Public Hearing – County Comments

Please find attached as Exhibit A the complete written comments provided orally by DeeAnne Gillick on behalf of the County to the State Water Board during the March 20, 2013 public hearing. Due to the limited three minute comment period, the complete County comments were not presented during the public hearing and are provided to the State Water Board attached hereto. In summary, the County submits that the SED is seriously inadequate to support changing the South Delta salinity objective and is inadequate to establish flow objectives for the San Joaquin River. More information and analyses is necessary for both proposals.

B. South Delta Salinity Objective

The adopted State Water Board south Delta salinity objective is legally required to be established at whatever level is needed to meet the agricultural beneficial uses in the Delta. The South Delta Water Agency indicates that the Hoffman Report (SED Appendix E) is flawed and is not reflective of the interior southern Delta conditions which the salinity objectives are intended to protect. South Delta Water Agency, in cooperation with the U.C. Cooperative Extension Office in San Joaquin County, is currently conducting studies intended to gather information necessary and relevant to this evaluation. The State Water Board needs more information and additional evidence in order to adequately and legally make any changes to the salinity objectives. The County submits that any changes to the salinity objectives be delayed until the South Delta Water Agency and U.C. Cooperative Extension Office's study is complete and the State Water Board has thoroughly reviewed the resulting report.

The importance of Delta agriculture within the County is highlighted in the 2011 San Joaquin County Agricultural Report which reports that the total County agricultural production was estimated at an all-time high of $2.2 billion. The 2011 report includes a highlight of the San Joaquin County Delta Region (first page) including a map depicting the Delta crops grown within the County (page number 13). All

recent San Joaquin County Agricultural Reports, including the 2011 Report, are available at http://www.sjgov.org/agcomm/annualrpts.aspx. In addition, the 2011 San Joaquin County Agricultural Report is included hereto as Exhibit B and submitted to the State Water Board on a compact disk under separate cover due to the size of the document.

The existing or future south Delta salinity objectives should be met without disproportionally burdening New Melones and consistent with federal law, HR 2828 (Public Law 108-361), which mandates a reduction in reliance on New Melones to meet the water quality objectives. Likewise, meeting any future San Joaquin River flow objectives should not be a disproportional burden on the Stanislaus River and its water right holders.

C. San Joaquin Flow Objective

The County submits that the SED contains many significant flaws and lacks sufficient evidence to support a decision at this time to establish San Joaquin River flow objectives as proposed by the State Water Board.

During the March 20, 2013 Public Hearing the State Water Board received numerous comments and evidence pointing to the inadequacies of the SED. The County also submits that the SED is flawed and inadequate for a variety of reasons and is concerned about inadequate evaluation of the following:

1. Reduced water deliveries to municipal and agricultural users within the County due to demands placed on the Stanislaus River;
2. The resulting increase in groundwater use and further exacerbating groundwater overdraft within eastern San Joaquin County; and,
3. Significant agricultural sector income impacts.

Attached hereto as Exhibit C are further comments on the lack of evidence and errors in the SED as it relates to San Joaquin County. The County contends that there are fundamental errors in the baseline determination, alternatives analysis, and the Water Supply Effects (WSE) Model, which are identified in part in Exhibit C and were presented by many other commenting parties at the March 20 and 21, 2013 public hearing. In particular, both the Bureau and Stockton East Water District disagreed with the proposed decision's effect on deliveries by the Bureau to the County contractors. The SED also lacks adequate carryover storage assumptions and impacts analysis. These errors make the analysis of the SED inadequate and prohibits the State Water Board from making an informed decision based on the reasonable, foreseeable environmental effects of the proposed action.

In addition, the County re-submits its February 8, 2011 letter to the State Water Board and its Attachment A entitled "Potential Impacts to San Joaquin County if New Melones Reservoir is Used to Meet Proposed San Joaquin River Flow Requirements attached hereto as Exhibit D. The County submits that this information is not adequately evaluated in the SED. The County's February 8, 2011 letter indicates that the total estimated value of crops grown in areas in San Joaquin County receiving New Melones water is $842,615,940 based on the 2009 San Joaquin County Agricultural Report. Furthermore, the resulting cost to the area of increased groundwater pumping is $24.4 million if the entire New Melones Bureau contracted amounts of 155,000 acre-feet of water is not delivered to County contractors. Both the Bureau and Stockton East Water District indicated on March 20, 2013 that this is the likely outcome of the proposed flow objective. The SED inadequately states and evaluates these significant effects.

The effect of the flow objectives on the Stanislaus River on the availability of water to the County water districts is neither adequately nor specifically described. An environmental document must be prepared to be used by the non-technical reader. The failure to describe the effects on the County districts in turn fails to describe and evaluate the further depletion of the Eastern San Joaquin groundwater basin which is already overdrafted. The negative effects, which very likely are a significant negative unavoidable impact, must be described in the SED.

D. Groundwater Characteristics of San Joaquin County

The Eastern San Joaquin Groundwater Basin was described by the Department of Water Resources in Bulletin 118-80 as critically overdrafted. Portions of the Basin have seen groundwater levels decline by as much as 2 feet per year up to 90 feet below sea level. Furthermore, groundwater level declines induce the intrusion from the west of highly saline groundwater into the Basin from an ancient saline deposit underlying the Delta.

Correcting long-term groundwater overdraft in Eastern San Joaquin County has been a major priority for stakeholders. The County participates in this effort with other groundwater interests through the Northeastern San Joaquin County Groundwater Banking Authority (GBA), a consensus based joint powers authority. The GBA adopted a Groundwater Management Plan in 2004 and subsequently developed and adopted an Integrated Regional Water Management Plan (IRWMP) in 2007. The GBA's 2007 IRWMP contains a detailed description of efforts to sustain the underlying groundwater basin in Eastern San Joaquin County through conjunctive use. Continued deliveries from New Melones Reservoir are critical for meeting the adopted basin management objectives for groundwater levels and groundwater quality in the IRWMP. Reduced New Melones Deliveries would only exacerbate the

impacts of continued long-term groundwater overdraft. The GBA's 2007 IRWMP is included hereto as Exhibit E and submitted to the State Water Board on a compact disk under separate cover due to the size of the document.

The SED at page 9-26 incorrectly states and concludes as follows:

> Average increases in groundwater pumping are expected to be minimal for irrigation districts and water districts with water supplies diverted from the Stanislaus. This is likely due to the fact that the existing Stanislaus River flow requirements for fish habitat are high, and LSJR Alternative 3 would not require much more river flow, so the water supply deliveries would remain similar to baseline conditions.

The above conclusion is not supported by the facts and an accurate evaluation of the impacts to San Joaquin County irrigation districts and water districts. The erroneous assumptions of the baseline and alternatives exacerbate this erroneous impact analysis of the SED. The County submits that these potential impacts to County districts are not, and must be, accurately evaluated by the State Water Board in the SED.

E. SED and Proposal are Flawed by Failing to Evaluate and Require Flows from the Main Stem of the San Joaquin River.

The State Water Board cannot legally exclude the main stem of the San Joaquin River above the Merced River from meeting flow requirements. The SED indicates that the average annual unimpaired flow for the Upper San Joaquin River at Friant Dam represents about 28 percent of the unimpaired flow on the San Joaquin River at Vernalis. SED p. 2-7. However, the upper portion of the River is excluded from any of the flow contribution requirements. Other sources of unimpaired flow are thus disproportionally contributing to the flow objective requirements on the River. Furthermore, a potential source of water to meet the proposed water quality objective is prematurely eliminated from such obligations. This approach is not legally defensible as discussed immediately below under the heading of "Potential Violations of California Water Rights Laws."

F. Potential Violations of California Water Rights Laws

1. Water Rights Priorities

California water rights law is premised on an established priority system where shortages among competing water right holders are resolved based on water right

priorities. As written, the SED conflicts with the current law by ignoring the water right priority system and the relevant protective statutes. The possible violations are numerous due in part to the limitation of the SED to the three tributaries between the rim dams and the San Joaquin River resulting in high priority or protected water right holders being impacted while lower priority water right holders are either not impacted or impacted to a lesser extent.

California's water rights operate under a dual system that recognizes both riparian water rights and appropriative water rights. "Appropriation rights are subordinate to riparian rights so that in times of shortage riparians are entitled to fulfill their needs before appropriators are entitled to *any* use of the water." *El Dorado Irr. Dist. v. SWRCB* (2006) 142 Cal.App.4th 937, 961 (citing *Racanelli* at 102) (emphasis added). "And as between appropriators, the rule of priority is 'first in time, first in right.'" *Racanelli* at 102; see *Irwin v. Phillips* (1855) 5 Cal. 140, 147. "The senior appropriator is entitled to fulfill his needs before the junior appropriator is entitled to use any water." *Racanelli* at 102; see *Phelps v. SWRCB* (2007) 157 Cal.App.4th 89, 118.

All users are limited by the Constitutional principle of reasonable use, even riparians. Riparians and appropriators alike are subject to the universal limitation that water use must be reasonable and for a beneficial purpose. Cal. Const., art. X, § 2; *Racanelli* at 105. However, even in the application of the Reasonable Use Doctrine the priority system of California water law must be considered. *City of Barstow v. Mojave Water Agency* (2000) 23 Cal.4th 1224, 1250.

Thus, riparians take first and in the entire amount to fulfill the riparians' reasonable and beneficial uses, subject only to the correlative rights of other riparians. Then senior appropriators may take from any surplus, followed by more junior appropriators. Competing demands for water by water right holders are properly resolved by applying the priority system, not by "balancing." Any reductions in use of water from the affected area as required by the proposed flow and salinity objectives in the SED must adhere to this priority hierarchy. The proposed SED analyses and State Water Board proposal does not.

2. Protection Statutes

In conjunction with the system of water right priorities, California has enacted several statutes to protect the water rights of residents in areas of origin.

The Watershed Protection Act was passed in 1933 as part of the Central Valley Project Act and ensures that water users within a watershed of origin will not be deprived "of the water reasonably required to adequately supply the beneficial needs

of the watershed, area, or any of the inhabitants or property owners therein." Wat. Code § 11460. The provision was initially intended to apply to the Department of Water Resources, but was made applicable to the Federal Bureau of Reclamation under Water Code section 11128. Thus, the Bureau's CVP export operations must not deprive water right holders in the Delta watershed and on the tributaries in San Joaquin River watershed the use of water originating therein necessary to supply all of the watershed's beneficial needs.

The Delta Protection Act of 1959 was enacted to ensure that water right holders within the legal Delta have an adequate supply of good quality water. The Act requires that the CVP and the SWP coordinate to provide "salinity control and an adequate water supply for the users of water in the Sacramento-San Joaquin Delta." Wat. Code § 12202. The Bureau and DWR are required to release stored water to meet salinity requirements set by the SWRCB to ensure that Delta water users have access to water sufficient to "maintain and expand agriculture, industry, urban and recreational development in the Delta," but the County reiterates that reliance on New Melones for meeting Delta salinity objectives must be reduced pursuant to Federal law. Wat. Code § 12201; see *Racanelli* at 139; Pub. Law 108-361 (HR 2828). Further, no person, corporation or public or private agency should divert water from the Delta "to which the users within said Delta are entitled." Wat. Code § 12203. No water shall be exported if needed to meet the above requirements. Wat. Code § 12204. Thus, the Act prohibits exports if Delta water right holders are not first able to receive all the water of sufficient quality to which they are entitled under those rights.

The "protected area" statutes were enacted in 1984 and mandate that water exporters shall not deprive enumerated protected areas "of the prior right to all the water reasonably required to adequately supply the beneficial needs of the protected area, or any of the inhabitants or property owners therein." Wat. Code § 1216. Water users in the protected area may obtain a water right that is senior in priority over the rights of an exporter. Wat. Code § 1217. The Delta and the San Joaquin River System are specifically named as protected areas. Wat. Code § 1215.5. Thus, the beneficial and reasonable uses of any water right holder in the Delta or on the tributaries to the San Joaquin River have priority senior to that of any exporter. Therefore, under the State's priority system, any required reductions of Delta or tributary water use must first be borne by exporters before any Delta tributary water right holders are affected.

3. SED and Proposed Objectives inconsistency with these laws.

The SED is seriously flawed because it does not comply with the State's water right priority system and enacted protective statutes. The proposed objectives set forth

potential requirements and a program of implementation that ignore the current law and make no reference to the priority rights system.

The Preferred Lower San Joaquin River Alternative which requires a 35% unimpaired flow from February through June on the Stanislaus, Tuolumne, and Merced Rivers will impact senior water right holders. The stated narrative objective calls for the following:

> Maintain flow conditions from the San Joaquin River Watershed to the Delta at Vernalis, together with other reasonable controllable measures in the San Joaquin River Watershed, sufficient to support and maintain the natural production of viable native San Joaquin River Watershed fish populations migrating through the Delta.

By including only the Stanislaus, Tuolumne, and Merced Rivers in the objectives, the Board ignores other possible sources of water to satisfy the narrative objectives. This includes reductions to, or elimination of, CVP and SWP exports. Increased flows from the main stem of the Upper San Joaquin River and the westside tributaries would assist in accomplishing the narrative objective. Further, the program of implementation does not contemplate contributions from tributary diverters upstream of the New Melones, New Don Pedro, and New Exchequer Dams. Rather, the flow objective and accompanying program of implementation burdens only the senior water right holders on the tributaries without affecting more junior diverters.

The Preferred Southern Delta Water Quality Alternative which permits an increase in salinity levels to 1.0 dS/m at all monitoring locations in the south Delta fails to protect senior water right holders in the south Delta. The Delta Protection Act ensures priority to in-Delta diverters as well as an adequate quality of water. Despite this, the SED does not place any burdens on the Bureau or DWR to reduce pumping or otherwise compensate for the increased salinity which is primarily caused by their export operations through the State Aqueduct and the Delta-Mendota Canal. Decreasing the quality of water accessible to south Delta water users rather than burdening the export operations of the Bureau and DWR violates the Delta Protection Act and the State's water right priority system.

The SED is further flawed, by the anticipated benefit that the actions imposed on the more senior water right holders will have on the export operators. The SED states at page 5-61 that the flow alternatives "have the potential to change the CVP and SWP exports." The SED continues that "changes in SJR flow at Vernalis would either change exports or change outflow." The flow at Vernalis will be increased and either Delta outflow will increase or exports will increase. Thus the SED and

proposed flow objective impacts to the more senior water right holders will result in a benefit of increased exports by the more junior CVP and SWP.

G. Proposal violates *Racanelli*

In its periodic review and revisions of the Bay-Delta Plan, the SWRCB is charged with two distinct responsibilities: first, to develop water quality objectives in a quasi-legislative capacity; and second, to implement the objectives through water right reallocations in an adjudicative action. As explained in *US v. State Water Resources Control Board* (1986) 182 Cal.App.3d 82, ("*Racanelli*"), it is a fundamental flaw to merge the two functions by developing objectives based on probable adjudicative action. *Id.* at 119-20. Only after the Board establishes water quality objectives which ensure reasonable protection of beneficial uses should the Board consider potential implementation through water right actions. *Id.* at 119.

In *Racanelli*, the Third District Court of Appeal invalidated the Board's 1978 Bay-Delta Plan because the Board had combined its water quality and water right authorities. *Id.* at 120. The Board had used a "without project" standard to establish water quality objectives based on conditions which would theoretically occur without the projects. *Id.* at 115. Because the Board set the objectives such that they could only be implemented by the CVP and SWP operators, the Board had defined its scope too narrowly and compromised its important water quality role. *Id.* at 120. As opposed to an objective standard and subsequent implementation while considering all polluters and diverters, the limited standard did not protect against degradation by other users. *Id.* at 118. *Racanelli* held that the use of the "without project" standard violated the requirement that the Board's legislative and adjudicative functions be performed separately. *Id.* at 119.

The Board's current iteration of the Bay-Delta Plan is similarly flawed. The Board utilizes an "unimpaired flow" standard to develop the proposed Lower San Joaquin River flow objectives based on flow which would theoretically occur without the systems of dams and surface water diversions on the tributaries. The Board has set the flow objectives such that they can only be met by the dam system operators and surface water diverters on the tributaries. The Board has limited its scope and compromised its objective setting role by precluding consideration of other sources of flow for contribution in the Lower San Joaquin River. The proposed objectives amount to a water right action and *Racanelli* prohibits such merging of the Board's legislative and adjudicative functions.

H. Phased Review Constitutes Prohibited Piecemealing

Although exempt from the EIR requirement of CEQA, the adoption of the water quality control plan is subject to the SED requirements of section 3777 of the California Code of Regulations. And though the CEQA Guidelines do not directly apply to the required SED, the SED is subject to the broad policy goals and substantive standards of CEQA. See *City of Arcadia v. State Water Resources Control Board* (2006) 135 Cal.App.4th 1392, 1422.

One of CEQA's policies is that the "lead agency must consider the whole of an action, not simply its constituent parts, when determining whether it will have a significant environmental effect." Cal. Code Regs., tit. 14, § 15003 (citing *Citizens Assoc. For Sensible Development of Bishop Area v. County of Inyo* (1985) 172 Cal.App.3d 151). Courts have recognized that CEQA forbids "piecemeal" review of the significant environmental impacts of a project. See *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70 (providing a history of "piecemeal" challenges). "Rather, CEQA mandates that environmental considerations do not become submerged by chopping a large project into many little ones—each with a minimal potential impact on the environment—which cumulatively may have disastrous consequences." *Id.* at 989 (citing *Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 283-284).

The Board is phasing its current review of the Bay-Delta Plan with Phase 1 being the review of San Joaquin River flow and South Delta salinity objectives and Phase 2 being a comprehensive review of all other water quality objectives. The objectives developed in each phase will combine to make up the Bay-Delta Water Quality Control Plan. Performing the environmental review of the objectives in phases is the exact type of "piecemealing" that is prohibited under CEQA. In the Delta, with its connected hydrological system, the environmental impacts from one objective will combine with and influence the impacts of another. For example, by not evaluating the potential October flow requirements or carryover storage requirements and availability, the SED improperly evaluates and fails to provide the decision makers with the information necessary for an informed decision as required by CEQA. The proper environmental review must consider the Bay-Delta Plan as a whole with all of its component objectives. The proffered SED is inadequate in that it "piecemeals" the environmental review of the Bay-Delta Plan.

I. Additional Comments to SED.

The following identifies some of the other errors and shortcomings of the SED.

1. The boundaries of the Stockton East Water District are incorrectly depicted in the SED within Figure 2-5. The County submitted to the State Water Board in February 2011 a map with the current boundaries of the Stockton East Water District which is resubmitted as Exhibit F attached hereto.

2. The SED indicates that the Stanislaus River causes seepage at flows greater than 1500 cfs. At page 6-21 the SED indicates that such flows will occur under the baseline and under the alternatives at certain percentages of up to 78% of the time. SED p. 6-21 and 6-22, Tables 6-12 and 6-13. Pages 11-31 to 11-33 do not completely describe potential impacts due to this seepage. The issue of seepage into the orchards and other crops grown along the Stanislaus River is inadequately considered in the SED. The only study cited is a limited study done for the U.S. Attorney in litigation in which the growers whose crops were being damaged by high spring flows where seeking an injunction against the high flows. The study appears to have considered 6 orchards and one field of sugar beets although that itself is not clear. Sugar beets are no longer grown in the area. Evidence was presented at the hearing in Federal Court of the significant damage to the orchards and an injunction was issued. This evidence is not considered in the SED. Moreover, there is no showing of the affected area. It is *assumed* that the 6 orchards and one sugar beet field is the extent of the damage and thus is not significant. This analysis in the SED is inadequate, incomplete, and requires further evaluation to determine the full amount of damage.

3. State Water Board staff summarized that for hydropower impacts the SED assumes that reservoir carryover storage is similar to the baseline. This assumption is fundamentally flawed as increased flow requirements will necessarily reduce the water left in the reservoirs and thus carryover storage will be altered. The SED is inadequate due to this failure to model and project actual carryover storage.

4. The County is heartened by the SED's acknowledgment that several water suppliers plan to augment existing surface water supplies in order to relieve stress on subbasins and prevent further overdraft and resulting saline intrusion and further that the SED identifies the Eastern San Joaquin Integrated Conjunctive Use Program as a foreseeable future project related to groundwater. SED at page 9-30. The County has pending before the State Water Board two water right applications identified in the Eastern San Joaquin Integrated Conjunctive Use Program. The water right applications are designed to capture winter flows in wet water year types for use within the County consistent with the Conjunctive Use Program. The County welcomes cooperation with the State Water Board in perfecting these water right applications in a manner that can provide feasible mitigation for the State Water Board proposed water quality objectives.

5. A benefit to species and habitat is presumed by the SED. It is assumed that higher spring flows will benefit species. A legally adequate SED needs to include the factual justification that the proposed 35% of unimpaired flow objective will provide benefits. Public comments during the March 20 and 21, 2013 public hearing concluded that flows were both too much and not enough. Further evaluation in the SED is required.

6. The County is also concerned that the SED fails to adequately consider alternatives and mitigation measures that are nonflow measures. For example, non-native predator suppression is not adequately considered nor is habitat restoration. In addition, disruptions in food production for micro-invertebrates needed to build a health food web are not evaluated.

7. The County continues to remind the State Water Board that CVP and SWP diversions from the Delta are the major cause of harm to fisheries and, accordingly, the CVP and SWP should mitigate all past, present, and future damage. The State Water Board and the SED's Preferred Alternatives fail to adequately implement or evaluate the principal that the CVP and SWP must mitigate for the impacts caused by export operations. The mitigation of the Project's impacts cannot legally be borne by other water users. This includes the impacts of Delta export operations and the failure of the SWP and CVP to provide an additional 5 Million acre-feet from North Coast Rivers.

J. Conclusion

The County recognizes and appreciates the enormous effort exerted by the State Water Board and its staff in this process. However, the County respectfully submits that the SED is inadequate as proposed.

The purpose of the SED is to provide a transparent evaluation of all significant environmental impacts resulting from potential changes to the Bay-Delta Water Quality Control Plan. Yet the SED relies on inaccurate assumptions, flawed modeling, and data that is often either erroneous or not representative of the actual area at issue. Moreover, the SED inappropriately "piecemeals" the environmental review of the potential changes to the Plan due to the Board's phasing of the process. These flaws make a substantive evaluation of the environmental impacts impossible and render the SED inadequate for this purpose.

The SED also ignores California's established water right priority system and burdens senior water right burdens without first impacting more junior water right holders. This result is evident, in part, because the SED violates the rule in *Racanelli* by merging the Board's distinct legislative responsibility of setting objectives with

its adjudicatory function of reallocating water rights in a water right action. Precedent exists for invalidating a water quality control plan when these Board functions are merged.

The County appreciates this opportunity to provide comments to the State Water Board. Due to the substantive and procedural inadequacies presented in this letter, the County respectfully requests that the draft SED be revised and re-circulated based on the County's comments and concerns

Very truly yours,

Thomas J. Shephard, Sr.
Attorney at Law

TJS/DMG/ect
cc: David Wooten, County Counsel
Brandon Nakagawa, Water Resources Coordinator
DeeAnne M. Gillick
Kurtis C. Keller

Exhibit "A"

County of San Joaquin and San Joaquin County Flood Control and Water Conservation District Comments on the Changes to the Water Quality Control Plan for the San Francisco Bay-Sacramento/San Joaquin Delta Estuary: San Joaquin River Flows and Southern Delta Water Quality
March 20, 2013

Good Morning Chair Hoppin and Members of the Board:

DeeAnne Gillick, Neumiller & Beardslee, PO Box 20, Stockton, on behalf of the County of San Joaquin and the San Joaquin County Flood Control and Water Conservation District.

I would like to thank you for the opportunity to provide oral comments on the Substitute Environmental Document (SED) and the proposed changes to the San Joaquin River Flow Objectives and South Delta Water Quality Objectives of the Water Quality Control Plan for the San Francisco Bay –Sacramento/San Joaquin Delta Estuary. The Water Quality Control Plan and the proposed objectives are of significant concern to the County as nearly two-thirds of the Delta is located within San Joaquin County, all four of the southern Delta measuring locations are located within the County and the Agricultural Beneficial Use Objectives are to protect agriculture beneficial uses located entirely within San Joaquin County. Furthermore, the Stanislaus River forms a portion of the southern boundary of the County and joins the San Joaquin River in the County at the southern edge of the Delta. County users receive significant municipal and agricultural water supply from the Stanislaus River. The County remains very concerned about the water available to County users from the Stanislaus River and the water quantity and quality

within the Delta. The proposed actions of the State Water Board would potentially have significant impacts to the County, some of which are not adequately evaluated in the SED.

South Delta Salinity Objectives

The County is concerned with the proposal to relax the summer salinity objectives originally established to protect agricultural beneficial uses within the southern Delta from the existing 0.7 to 1.0 dS/m. The County's concerns are due to the significant criticisms and objections of the South Delta Water Agency, which represents those farmers in which the standard is intended to protect. South Delta Water Agency has expressed to the State Water Board and continues to express disagreement with the Hoffman Report, in which the SED relies, to support the relaxation of the southern Delta objectives. Among other things, the South Delta Water Agency criticizes the Hoffman Report relying on studies that are not reflective of the applied water quality, soil, leeching factors, groundwater characteristics and tidal influences within the interior southern Delta. However, the SED and the State Water Board continue to rely upon the Hoffman Report despite the criticisms of the South Delta Water Agency and those farmers within the area designed to be protected by the objective. The County supports South Delta's concerns with and potential flaws of the Hoffman Report.

In order to further address the inadequacies of the Hoffman Report the South Delta Water Agency, in cooperation with the U.C. Cooperative Extension Office in San

Joaquin County, is conducting a study in the subject area of the South Delta. The study will be conducted this year and funding for the study is available. The study will determine the soil and growing conditions of the area within the South Delta at issue. The South Delta Water Agency will provide the Board with more information regarding their proposal as well as their concerns and objections to the Hoffman Report. The County supports such efforts by South Delta Water Agency and respectfully requests the State Water Board to delay the relaxation of the South Delta salinity objectives until completion of South Delta Water Agency's study.

The adopted State Water Board South Delta salinity objective is legally required to be established at whatever level is needed to meet the agricultural beneficial uses in the Delta. South Delta Water Agency which represents those water users in which the objective is designed to protect, indicates that the evidence before the Board is flawed. The State Water Board should delay its decision until this South Delta Water Agency study is complete in order to establish the salinity objective required to protect the agricultural beneficial uses within the south Delta.

The County further asserts that the established south Delta salinity objectives should be met without disproportionally burdening New Melones and consistent with federal law, HR 2828, which mandates a reduction in reliance on New Melones to meet the water quality objectives.

San Joaquin River Flow Objectives

The County is equally concerned with the SED and the State Water Board's efforts to establish February through June flow requirements on the San Joaquin River, which includes specific requirements for the three eastside tributaries, including the Stanislaus River. The SED fails to adequately evaluate the significant impacts to San Joaquin County water users due to the State Water Board preferred alternative to dedicate 35% of unimpaired flow from Feb through June for fish and wildlife beneficial uses. Significant impacts which are not adequately evaluated in the SED include, but are not limited to:

1. Reduced water deliveries to municipal and agricultural users within the County due to demands placed on the Stanislaus River;
2. The resulting increase in groundwater use and further exacerbating groundwater overdraft within eastern San Joaquin County;
3. Significant agricultural sector income impacts; and
4. Seasonal seepage impacts along the Stanislaus River due to increased spring flows which may threaten ag land currently in production.

The County is also concerned with the impacts to carryover storage due to the State Water Board proposal. In particular, the County points to the concerns of Stockton East Water District that the SED inaccurately characterizes the impacts to Stockton East Water District and significantly deceases surface water supplies to San Joaquin County districts due to the State Water Board proposal. The County submits that the SED does not

adequately and completely address the significant impacts to San Joaquin County due to the increased releases from the Stanislaus River.

Furthermore, the State Water Board cannot legally exclude the main stem of the San Joaquin River above the Merced River from meeting flow requirements. The SED and State Water Board's approach to evaluate and impose unimpaired flow contributions is flawed if the main stem is not included in the mandated obligations. In addition, factors other than flow which effect fisheries are inadequately evaluated in the SED, such as:

1. Delta export operations and the failure of the SWP and CVP to provide an additional 5 Million acre-feet from North Coast Rivers;
2. Continued violation of Delta water quality and Delta outflow objectives;
3. Reduced water quality in the Lower San Joaquin River from discharges upstream of the Stanislaus River absent a functioning San Luis Drain as required under the CVP;
4. Predation pressures in the tributaries; and
5. Disruptions in food production for micro-invertebrates needed to build a health food web.

Such other factors have significant effects on fisheries and must be adequately considered by the State Water Board. The State Board must be certain that the course of action outlined in the SED is exhaustive of other viable remedies.

In addition, the County continues to remind the Board that CVP and SWP diversions from the Delta are the major cause of harm to fisheries and, accordingly, the CVP and SWP should mitigate all past, present, and future damage.

Thank you for allowing the County of San Joaquin the opportunity to comment today, and we look forward to submitting more detailed written comments to the Board regarding the SED and the proposed changes to the San Joaquin River flow objectives and Southern Delta Salinity objectives for the Bay Delta Water Quality Control Plan.

Evaluation of Methods of Compliance – Groundwater Impacts Analysis is Inadequate

In Appendix H: Evaluation of Methods of Compliance, the SED makes a series of assumptions as to how impacted parties would cope with the demands placed on them should the SWRCB choose to implement one of the alternatives to increase flows into the San Joaquin River from New Melones Reservoir, and correspondingly to decrease surface-water supplies. For Eastern San Joaquin County and the Eastern San Joaquin Groundwater Subbasin[1], those impacts have been merely suggested as "potential" and no attempt has been made to quantify those impacts. Quantifying these impacts to the Eastern San Joaquin Groundwater Subbasin is necessary to fully disclose to the SWRCB members the serious and grave impacts before a decision can be made on any San Joaquin River flow alternative. The result of decreasing surface-water supplies will be increased groundwater pumping. The impacts will be to cause groundwater-level declines, to accelerate saline-water intrusion from the San Joaquin River into the groundwater system , to induce saline-water intrusion from marine deposits underlying the groundwater system, to cause land subsidence, to deplete San Joaquin River streamflows, and to increase groundwater pumping costs. A long-term impact of reduced surface-water supplies will be an equal long-term reduction in San Joaquin River streamflows because of the replacement groundwater water pumping. Correspondingly, the SED will not result in long-term increased San Joaquin River streamflow.

The absence of long-term benefits to the San Joaquin River from the SED follows directly from a simple consideration of the water budget for the stream-aquifer system. The groundwater system underlying San Joaquin County is connected directly to the San Joaquin, Stanislaus, Mokelumne, and other streams. Along some stream reaches the streams lose flow to the groundwater system, and along other reaches the streams gain flow from the groundwater system. The net effect on the San Joaquin River at any point is the cumulative upstream losses and gains along the San Joaquin River and the tributaries to the river. That cumulative effect is determined by the pumping from the groundwater system. The effect of increased pumping is to cause a one-to-one increase in streamflow losses to the groundwater system and a correspondingly one-to-one decreased in San Joaquin River flow. The full effect of the pumping lags the start of increased pumping, but with sufficient time the effect is complete. While a groundwater model will facilitate quantifying the lag period, any plausible model will predict a long-term one-to-one reduction in streamflow due to increased pumping.At the local level, these impacts have additional monetary costs in terms of groundwater pumping, environmental costs to the underlying groundwater basin due to increased saline groundwater intrusion and increased lateral inflow from area streams, rivers, and adjacent groundwater subbasins, and additional costs for the identification and implementation of additional substitute surface water supplies to offset current basin management objectives for groundwater quality and groundwater levels in Eastern San Joaquin County. SED alternatives that increase the burden on New Melones to provide more flow reduces surface water deliveries to Eastern San Joaquin County requiring additional surface water supplies to offset additional groundwater pumping.

[1] Delineated by DWR in Bulletin 118 2003 Update.

The comments offered below are intended to 1.) Educate the SWRCB on why Appendix section H.2.2 Substitution of Surface Water with Groundwater is inadequate and 2.) Offer suggestions on technical elements that should be incorporated in a more thorough analysis and discloser of groundwater impacts.

The following list of questions sets up how rigorous an analysis would be needed to adequately address the impacts to Eastern San Joaquin County.

1. What will be the declines in groundwater levels over the long term?
2. What will be the projected impact to groundwater quality in terms of saline groundwater intrusion from the west in the general vicinity of the Cities of Stockton, Lodi, Lathrop and Manteca?
3. What will be the impacts on saline-water intrusion from the marine deposits underlying the groundwater system?
4. What will be the impacts on land subsidence?
5. What will be the resulting decline in local streamflows due to the groundwater-level declines caused by increased groundwater pumping, including impacts on the Stanislaus and Mokelumne rivers?
6. What will be the long-term impact on San Joaquin River streamflows due to the groundwater-level declines
7. What is the economic impact of groundwater declines over the long term (i.e. pumping costs, supplemental surface water supplies, degradation of water quality, cropping patterns, crop yields per acre, etc.)?

Tools for Quantifying Groundwater Impacts

In discussing what tools for quantifying impacts to groundwater levels and groundwater quality, often, the selected tool is a numerical model that calculates changes to groundwater levels a number of variables that relate to the hydrogeologic conditions in the sub-surface, the areal land use patterns across the model boundary which could include crop-type, varying densities of urbanized areas, and surface water features like rivers, lakes, reservoirs, canals, etc., and a defined set of hydrologic inputs to the underlying basin from percolation of rainfall, runoff, accretions from area surface water bodies, and deliveries to demand units from surface water and groundwater sources.

The intensity of gathering this kind of data in the amounts required is high, however, the issue of groundwater overdraft in the San Joaquin Valley is a major water resources issue at the local, State and Federal levels. There have been a number of groundwater models that have been developed over the years including the Eastern San Joaquin Subbasin Model created on the DYNFLOW platform which has been used by Eastern San Joaquin County interests in the development and adoption of a Groundwater Management Plan (2004) and Integrated Regional Water Management Plan (2007). For your reference, the 2007 IRWMP has been included in the County's comments to the SED as Exhibit E which includes a description of the DYNFLOW model, pertinent references to other contributing documentation, and a

robust explanation of the groundwater overdraft issue in Eastern San Joaquin County and a detailed description of the Eastern San Joaquin Integrated Regional Conjunctive Use program.

Additionally, the United States Geological Survey has developed the Central Valley Hydrologic Model (CVHM)[2]. It is the County's understanding that the CVHM is exactly the type of tool that could be used to more rigorously analyze and quantify the groundwater impacts of the alternatives presented in the SED. Nevertheless, if the CVHM were to be used, the adequacy of the model with respect to its representations of the hydrogeologic setting, aquifer parameters, land use, and water use would need to be validated.

Quantifying Decreased Water Deliveries

The SED states that the water supply effects of the Lower San Joaquin River Alternatives were analyzed in the Water Supply Effects (WSE) model. The WSE model is also described as a spreadsheet model that allocates water available in a mass-balance accounting framework based on rules for reservoir target levels, minimum and maximum in-stream flows, and deliveries of water to users. The WSE model has several user defined inputs which are described on page F.1-16 of Appendix F.1.

Before one can adequately get to groundwater impacts using a model such as the CVHM or DYNFLOW, there are several key factors that must be defined as it relates to hydrologic conditions that directly affect the accounting and flow of groundwater in relation to surface water bodies such as reservoirs, rivers, and other natural or man-made conveyances. These relationships are often defined by input tables. In the case of the DYNFLOW model created by the County, these input tables are depicted as historic flow demands in a monthly time series. In terms of comparing scenarios, WSE calculates the amount of water delivered to users while maintaining minimum and maximum reservoir level parameters, releases to meet current and proposed in-stream flows, and other key parameters. In theory, since the SED lacks an adequate depiction of impacts to the Eastern San Joaquin Groundwater Basin, one possible fix would be to take the WSE output in the time-series format and input the projected delivery deficits and changes in in-stream flow patterns into the CVHM or the County's DYNFLOW model in order to quantify how those proposed changes hydrologic conditions would truly affect the Eastern San Joaquin Subbasin in terms of accretions from rivers, decreases in groundwater levels over time, and the increase of saline groundwater intrusion in the vicinity of the City of Stockton.

Because the WSE model is used as a surrogate model which relies on gross assumptions for its inputs, the overall uncertainty and error associated with the WSE output cannot be overstated. Criticism of the WSE model is foundational to argument that a sound groundwater impacts analysis starts with input that is accurate, believable, and if possible, has consensus around the technical adequacy of the model and confidence in its output. The following reasons for the County's criticism of WSE stem from the following shortcomings:

[2] More detailed information on the CVHM can be found at the USGS website at http://ca.water.usgs.gov/projects/central-valley/central-valley-hydrologic-model.html

- WSE is not CALSIM II so therefore lacks the robust decision support functions that allocate water to various demands based on a set of rules, operational targets, and input.
- WSE is inaccurate in its depiction of the SEWD and CSJWCD contract with the Bureau of Reclamation for New Melones Water.
- WSE is inaccurate in its depiction of SSJID/OID's Pre-1914 water rights.
- WSE inaccurately calculates storage levels which are key indicators for interpreting New Melones operations and ultimately how the Stanislaus River meets its water quality and flow obligations, and if SEWD and CSJWCD receives water from New Melones.
- WSE has varied inputs which for the purposes of the analysis of the SED, is not reflective of the current and proposed conditions by which New Melones is operated and therefore, does not adequately describe the baseline output or the output for the contemplated San Joaquin River flow alternatives.

The SED's approach to quantifying the impacts of varying in-stream flow requirements and the WSE model itself is flawed; therefore, any resulting groundwater impacts analysis would be deemed inadequate based on an unreasonable depiction of *baseline* and *with project* conditions. An accurate analysis and disclosure of impacts to Eastern San Joaquin County stars with improvements to the SED's approach which may or may not include major improvements to the WSE model or use of another tool with the capability of meeting the criteria listed above.

Exhibit "D"

NEUMILLER & BEARDSLEE
A PROFESSIONAL CORPORATION • ATTORNEYS & COUNSELORS
ESTABLISHED 1903

77045-34734

DeeAnne M. Gillick

509 WEST WEBER AVENUE
FIFTH FLOOR
STOCKTON, CA 95203

POST OFFICE BOX 20
STOCKTON, CA 95201-3020

(209) 948-8200
(209) 948-4910 FAX

FROM MODESTO:
(209) 577-8200
(209) 577-4910 FAX

February 8, 2011

Via U.S. Mail & Via Email:
bay-delta@waterboards.ca.gov
kkyler@waterboards.ca.gov

Ms. Kari Kyler
Division of Water Rights
State Water Resources Control Board
P.O. Box 2000
Sacramento, CA 95812-2000

Re: Nov 2010 SJR Flow and S. Delta Salinity Response

Dear Ms. Kyler:

On behalf of the County of San Joaquin and the San Joaquin Flood Control and Water Conservation District (collectively hereinafter the "County"), we respectfully submit the following comments in regard to potential modifications to the San Joaquin River flow and southern Delta salinity objectives, including an implementation program to achieve these objectives.

Modification of, and implementation of, the existing or modified objectives has a significant impact on San Joaquin County. The lower San Joaquin River flows through San Joaquin County and the Stanislaus River forms a portion of the southern boundary of the County. Large portions of the County are served both municipal and agricultural water supplies from the Stanislaus and San Joaquin Rivers and the southern Delta. The southern Delta is located entirely within San Joaquin County and the beneficial users which are protected by the southern Delta salinity objectives are all located within the County. As a result, any and all action by the State Water Board regarding these objectives greatly impacts the County.

The County submits as Attachment A to this letter comments regarding a more detailed description of the County and its current condition of groundwater overdraft. In addition, there is an analysis of the potential impacts to agricultural production within the County due to the potential loss of water supply to the County in meeting potential San Joaquin River flows.

In addition, the County supports the comments and concerns submitted by: (1) the South Delta Water Agency related to the southern Delta salinity objectives and the Hoffman

Report, and (2) the Stockton East Water District related to flows on the Stanislaus River in excess of 1,250-1,500 cfs after February 1st, and the mandates of HR 2828 regarding the Stanislaus River.

If you should have any questions or concerns, please do not hesitate to contact me at (209) 948-8200.

Very truly yours,

on behalf of

DeeAnne M. Gillick
Attorney at Law

DMG/ect
Attachment
cc: C. Mel Lytle

Attachment A: Potential Impacts to San Joaquin County if New Melones Reservoir is Used to Meet Proposed San Joaquin River Flow Requirements

Background

San Joaquin County continues to be a leading regional center for agricultural production and food related processing and manufacturing. Based on the U.S. Census Bureau 2007Economic Census, food manufacturing accounted for over $3.1 Billion in receipts and sales. The 2009 San Joaquin County Agricultural Commissioner's Report listed San Joaquin County's total agricultural production value at approximately $2 Billion, just under the all time high of $2.1 Billion in 2008. The underlying groundwater basin is relied upon heavily to meet the water demands of irrigated agriculture and the needs of urban areas. Figure 1 depicts the agencies overlying the Eastern San Joaquin Groundwater Management Area.

Long-term groundwater overdraft has had dramatic effects on water levels and water quality. Portions of the Basin have seen groundwater levels decline by as much as 2 feet per year up to 90 feet below sea level. Groundwater level declines have induced steep gradients from the west Delta inducing the intrusion of highly saline groundwater into the Basin. Several municipal supply wells in the City of Stockton and irrigation wells have been abandoned due to elevated salt levels unsuitable for drinking and agricultural supplies. The California Department of Water Resources (DWR) has declared the Eastern San Joaquin Groundwater Basin (Basin) "critically overdrafted," indicating that the current rate of groundwater pumping exceeds the rate of recharge and is not sustainable. (DWR, 1980)

Groundwater flow in the Basin now converges on the depression with relatively steep groundwater gradients eastward from the Delta toward the depression East of Stockton. The eastward flow from the Delta area is significant because of the typically poorer quality water now moving eastward in the Stockton area.

Degradation of water quality due to saline migration threatens the long-term sustainability of underlying basin. Salt laden groundwater is unusable for either urban drinking water needs or for irrigating crops. The saline intrusion problem is not well understood by the Authority. Limited studies and monitoring have produced postulates as to the sources and extent of the saline front. Figure 2 illustrates the approximate location of the 300 mg/L isochlor as measured in 2000. Projections indicate that the rate of eastward migration of the saline front is approximately 150 to 250 feet per year. Figure 2 also shows the projected 2030 location of the 300 mg/L isochlor under no-action conditions.

Water from Stanislaus River has been relied upon by San Joaquin County water users for over 100-years. SSJID and OID have pre-1914 rights which are recognized contractually by the Bureau of Reclamation for up to 600,000 acre-feet per year from New Melones Reservoir.

The SSJID is located wholly within San Joaquin County with portion only a portion of OID within the County-line. Water available to SSJID and OID from the Stanislaus River is used primarily for irrigated agriculture within their respective service areas. Up to 320,000 acre-feet of water is available to SSJID and the San Joaquin County portion of OID from New Melones. SSJID also provides approximately

44,000 acre-feet per year of treated surface water for potable uses in the Cities of Lathrop, Manteca, and Tracy. SSJID is scheduled to begin treated water deliveries to the City of Escalon in 2012.

Additionally, the SEWD and CSJWCD have existing contracts with the Bureau of Reclamation for up to 155,000 Acre-feet per year which includes a firm delivery of 49,000 acre-feet per year to the CSJWCD. Under the Interim Plan of Operations for New Melones, which is currently being implemented by the Bureau of Reclamation, SEWD and CSJWCD receive far les than the face value of their contract. A portion of the New Melones water supply was also intended to be delivered to the City of Stockton Metropolitan Area[1] (COSMA) to offset groundwater pumping. The COSMA currently receives approximately 20,000 acre-feet per year of potable from the New Melones Project which is treated by SEWD.

Analysis of Water Supply Lost to San Joaquin County

The following analysis was prepared to demonstrate how the loss of New Melones water could affect the agricultural production in Eastern San Joaquin County. Commodities acreages were extracted from the 2010 San Joaquin County Agricultural Commissioner's Office Geographical Information Systems Database. Commodity unit values were obtained from the 2009 San Joaquin County Agricultural Report. The total estimated value of crops grown in areas receiving New Melones Water is $842,615,940 (See Tables Below).

Irriagted Acreage and Crop Value by Area Receiving Water from the New Melones Project			
	Irrigated Acreage		Total Value
CSJWCD	66,781	S	265,605,816
OID	9,114	S	19,364,153
SEWD	145,513	S	340,360,627
SSJID	72,532	S	175,626,565
Unorganized Areas	20,818	S	41,658,778
Total	**314,758**	**$**	**842,615,940**

[1] The COSMA consists of the City of Stockton, California Water Service - Stockton, Lincoln Village, and Colonial Heights water service areas.

Top Ten (10) Crops Based on Reported Acreage**	
WALNUT	37,776
ALMOND	37,401
CORN FOR/FOD	19,363
CHERRIES	12,724
WHEAT	12,093
WINE GRAPE	11,502
OAT FOR/FOD	11,182
ALFALFA	6,814
TOMATO PROCESS	4,991
OAT	4,741

Top Ten (10) Crops Based on Estimated Value**	
CHERRIES	S 151,562,082
DAIRY	S 145,626,903
WALNUT	S 124,464,929
ALMOND	S 105,156,399
TOMATO	S 38,037,885
WINE GRAPE	S 35,759,923
APPLE	S 30,498,705
CORN FOR/FOD	S 17,787,442
TOMATO PROCESS	S 15,141,419
ONION DRY	S 14,626,384

Since the magnitude of actual water deliveries to be seized in the implementation of recommended flow increases to up to 60% of natural flow is unknown, a conservative estimate of 60% reduction of water supplies from New Melones could drastically reduce the value of irrigated agriculture in Eastern San Joaquin County and send a catastrophic ripple effect throughout the manufacturing and processing related industries which contribute substantially to the San Joaquin County community.

An addition impact of reduced New Melones Flow is the need to replace lost surface water supplies and the marginal cost of declining groundwater levels. Assuming that the water supply contract between the Bureau of Reclamation and CSJWCD is not honored the resulting loss of 155,000 acre-feet per year to the underlying basin is estimated at over $24.4 million annually. The calculation is based on a net pumping of 45,000 acre-feet per year within in the City of Stockton, 452,586 acre-feet per year in SEWD and CSWCD due to the loss of New Melones supplies, a specific yield of 7.3%, a combined acreage of 212,294 acres within the COSMA, SEWD, and CSJWCD, a factor of 1.46 KW-hours per foot of lift per acre-foot, and a $0.11 per KW-hour. Additional impacts to groundwater quality are also expected to be exacerbated due to increases in the rated of saline groundwater migration closer to municipal wells located in the COSMA

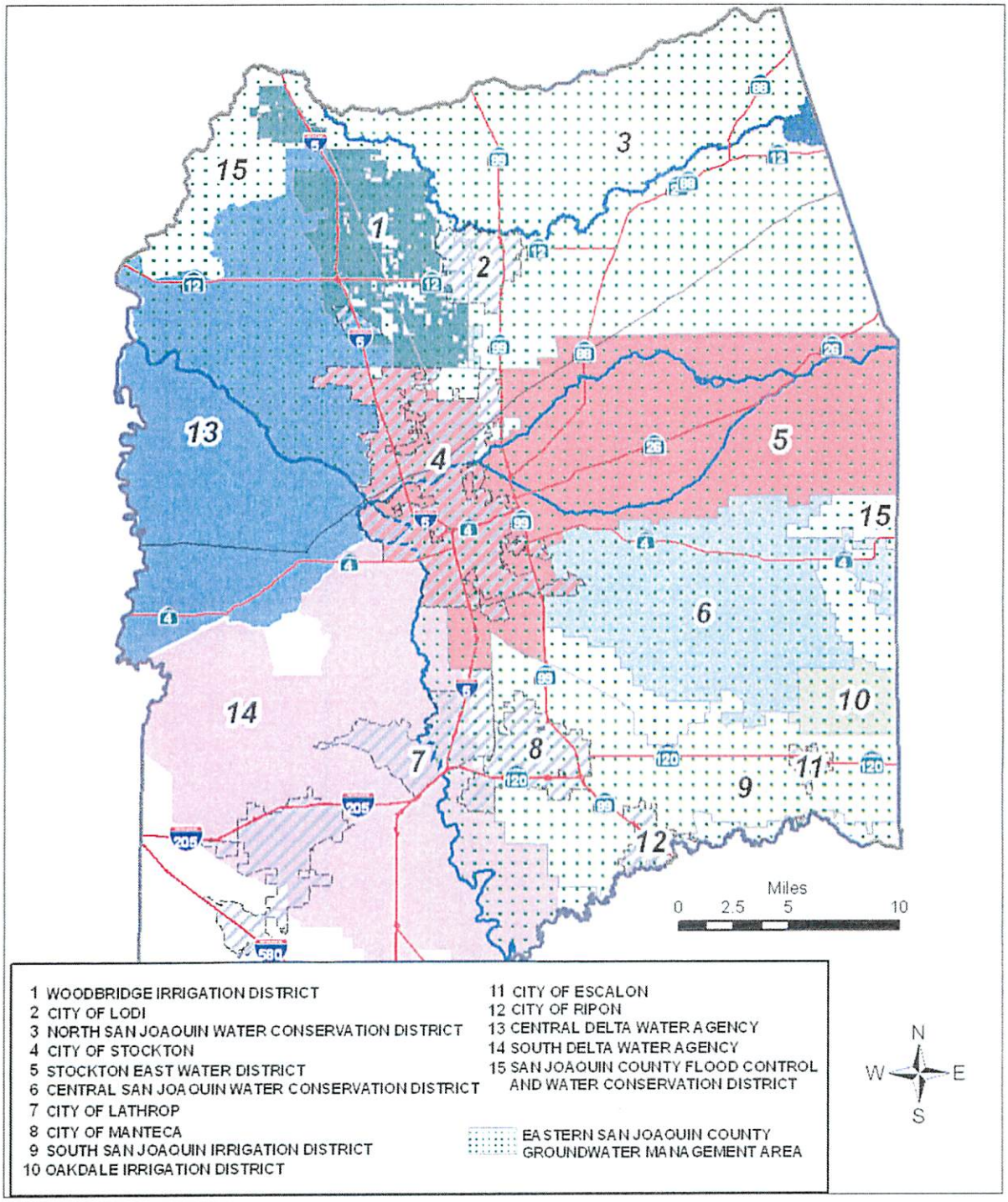

Figure 1 Overlying Agencies within the Groundwater Management Area

Source: California Spatial Information Library at http://www.gis.ca.gov/

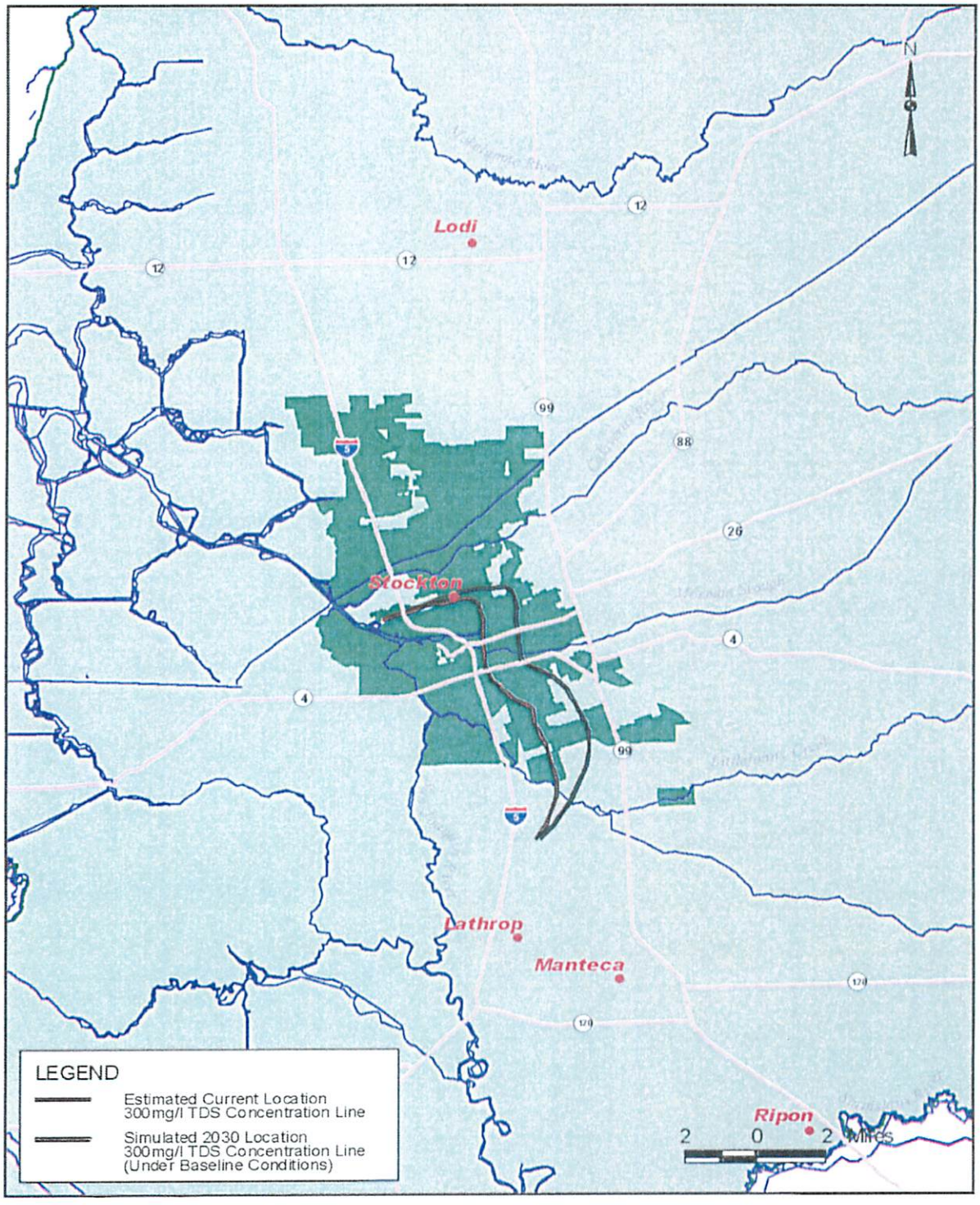

Figure 2 Estimated 2000 and Projected 2030 Saline Front

Source: Camp Dresser & McKee, Inc.

2011 Agricultural Report
SAN JOAQUIN COUNTY

San Joaquin County's Delta, a Region of Agricultural Abundance

San Joaquin County's Delta Region

The Sacramento-San Joaquin Delta is a place with rich agricultural, natural, cultural, and recreational resources that are both unique and irreplaceable. Sculptured by over 1,100 miles of levees, the Delta's numerous islands abound with a wide variety of fruitful crops. Fertile peat and mineral soils, an abundant water supply, and a climate featuring warm days and evenings cooled by "delta breezes," produce one of the world's most highly productive agricultural regions. With five major rivers flowing through the Delta, the region also serves as an infrastructure hub for the state's water system and, as a result, often finds itself at the center of California's water controversy.

Before California's gold rush, the Delta was composed of a variety of wetlands, riparian forest, scrub, grasslands, and floodplains, all contained within an intricate network of waterways. In the late 19th and early 20th centuries, encouraged by state and federal legislation, most of the Delta was drained and leveed for agriculture on fertile peat soils. This transformation was largely completed by the late 1920s.

Among the counties in the Delta, San Joaquin County has the largest share of the Delta at 43%. Located on the west side of the County, the Delta comprises over a third of San Joaquin County's total land mass. Agriculture is the dominant land use, comprising two-thirds of the region's landscape. In the County's Delta region, there are nearly 215,000 acres of farmland producing a total farm gate value of over $558,000,000.

Farm gate sales do not measure the total economic impact of agriculture on state and local economies. To measure agriculture's full economic impact, economists account for the ripple effect of agricultural production throughout the economy, including shipping, processing, packaging, and value added products. Considering the ripple effect, agriculture in San Joaquin County's Delta region annually contributes approximately $3.4 billion to California's economy and is responsible for over 15,000 jobs state-wide.

For years the Delta has been the center of California's water debate and a focus of environmental concerns. However, in recent times the public debate over the Delta has reached a crescendo. With water in limited supply and growing scarcer, Delta water quality and reliability are key issues. How water is conveyed around or through the Delta and the water quality left behind is core to the Delta water debate. Discussions regarding future ecosystem restoration in the Delta could dramatically change its landscape which is now predominately agricultural. Finally, answers to the "who, what, when, where, why and how" of levee maintenance in the Delta are critical to fixing this aging infrastructure.

In various ways, the public policy outcomes to each of these complex issues will greatly impact Delta's agriculture. This leaves the future of agriculture in the Delta at a crossroads. Considering Delta's agricultural significance to local and state economies, it is vital that, when the dust settles on the Delta debate, agriculture remains strong, vibrant, and continuing down the road of prosperity.

SAN JOAQUIN COUNTY
AGRICULTURAL COMMISSIONER'S OFFICE

2011 ANNUAL CROP REPORT

Scott Hudson
Agricultural Commissioner/Sealer

Compiled by
Rick Schwieger

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Terry King	**Accounting Technician II**
Laura Rocha	**Senior Office Assistant, Simms Station**

All staff are based in Stockton unless otherwise noted.

SAN JOAQUIN COUNTY

OFFICE OF THE

AGRICULTURAL COMMISSIONER

MAIN OFFICE
2101 E. EARHART AVENUE, Suite 100
STOCKTON, CALIFORNIA 95206-3924
PHONE: (209) 953-6000 FAX: (209) 953-6022

SCOTT HUDSON
AGRICULTURAL COMMISSIONER
SEALER OF WEIGHTS AND MEASURES

GARY STOCKEL
ASST. AGRICULTURAL COMMISSIONER
ASST. SEALER OF WEIGHTS AND MEASURES

LODI OFFICE
210 N. SACRAMENTO ST.
(209) 331-7287

SIMMS STATION - RIPON
17620 E. HWY 120
(209) 838-2276

MS. KAREN ROSS, SECRETARY
CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE
AND
THE HONORABLE BOARD OF SUPERVISORS
SAN JOAQUIN COUNTY

Dear Secretary and Board Members:

In accordance with Section 2279 of the California Food and Agricultural Code, I am pleased to present the seventy-eighth annual report of agricultural production in San Joaquin County.

The gross value of agricultural production for 2011 is estimated at an all-time high of $2,238,688,000. This is an increase of 14.2% from the 2010 estimated production value of $1,960,086,000. The following are the 2011 values for each crop category, as well as, the percentage change over the 2010 values:

- Field Crops: $307,236,000 (+47.2%)
- Vegetable Crops: $295,438,000 (+15.3 %)
- Fruit & Nut Crops: $956,402,000 (+2.3%)
- Nursery Products: $77,370,000 (+0.5%)
- Livestock & Poultry: $112,133,000 (+18.0%)
- Livestock & Poultry Products: $471,239,000 (+27.7%)
- Apiary Products: $13,801,000 (+3.4%)
- Seed Crops: $5,069,000 (-10.5%)

In 2011, a cold, wet spring adversely affected production in many of the County's crops. Rains during the first week of June severely damaged the County's cherry crop resulting in a 68% crop loss. Fortunately, most crops did not suffer this degree of production loss. Prices increased for many commodities and, in some cases, were able to overcome decreases in production.

The values shown are estimates based on the most common method of sale for the individual commodity, except for fresh fruits and vegetables where the value is based on the F.O.B. packed price at the shipping point. The figures contained in this report are gross values rather than net returns to the grower.

I wish to express my sincere appreciation to all who assisted my Agricultural Biologists and Deputies by furnishing the necessary information that made this report possible.

Respectfully submitted

Scott Hudson
Agricultural Commissioner/Sealer

FIELD CROPS

Corn, alfalfa, wheat and safflower crops enjoyed significant increases in price, greatly adding to the value of the Field Crops

CROP	YEAR	PRODUCTION ACRES HARVESTED	YIELD	TOTAL	UNIT	GROSS VALUE VALUE PER UNIT	SUBTOTAL	TOTAL
	2011	4,000	1.16	4,630	TON	$998.00		$4,622,000
BEANS, DRY, ALL	2010	4,800	0.57	6,100	TON	$854.00		$5,234,000
	2011	2,800	1.20	3,360	TON	$1,003.00	$3,370,000	
LIMA	2010	3,300	1.28	4,220	TON	$891.00	$3,711,000	
BEANS, OTHER*	2011	1,220	1.04	1,270	TON	$1,000.00	$1,252,000	
	2010	1,590	1.01	1,970	TON	$780.00	$1,523,000	
CORN, GRAIN	2011	63,000	5.20	328,000	TON	$206.00		$67,568,000
	2010	46,200	5.28	244,000	TON	$175.00		$42,700,000
HAY, ALL	2011	62,700	5.69	357,000	TON	$251.00		$89,577,000
	2010	89,700	5.66	508,000	TON	$118.00		$59,750,000
ALFALFA	2011	53,400	6.24	333,000	TON	$255.00	$84,915,000	
	2010	59,800	6.50	389,000	TON	$133.00	$51,737,000	
OTHER	2011	9,300	3.08	28,600	TON	$163.00	$4,662,000	
	2010	29,900	4.00	119,600	TON	$67.00	$8,013,000	
PASTURE & RANGE	2011	134,500			ACRE	$45.00		$5,993,000
	2010	134,500			ACRE	$45.00		$5,993,000
IRRIGATED	2011	14,500			ACRE	$165.00	$2,393,000	
	2010	14,500			ACRE	$165.00	$2,393,000	
OTHER	2011	120,000			ACRE	$30.00	$3,600,000	
	2010	120,000			ACRE	$30.00	$3,600,000	
RICE	2011	5,410	3.99	21,600	TON	$363.00		$7,841,000
	2010	7,170	3.55	22,600	TON	$340.00		$7,684,000
SAFFLOWER	2011	7,165	2.00	14,330	TON	$500.00		$7,165,000
	2010	4,880	1.50	7,320	TON	$320.00		$2,342,000
SILAGE, CORN	2011	45,100	31.61	1,426,000	TON	$44.00		$62,744,000
	2010	57,100	29.25	1,670,000	TON	$29.00		$48,430,000
SILAGE, OTHER	2011	91,600	6.54	599,000	TON	$34.00		$20,366,000
INCLUDES GREEN CHOP	2010	73,900	6.16	455,000	TON	$25.00		$11,375,000
WHEAT	2011	37,500	2.90	108,700	TON	$206.00		$22,385,000
	2010	29,600	3.34	99,100	TON	$167.00		$16,509,000
OTHER	2011	80,600						$18,975,000
	2010	94,100						$8,712,000
TOTAL	2011	532,000						$307,236,000
	2010	546,000						$208,729,000

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING
*BEANS OTHER WILL NOW INCLUDE BLACKEYE, KIDNEY, GARBANZO, AND ALL OTHER BEANS NOT LISTED

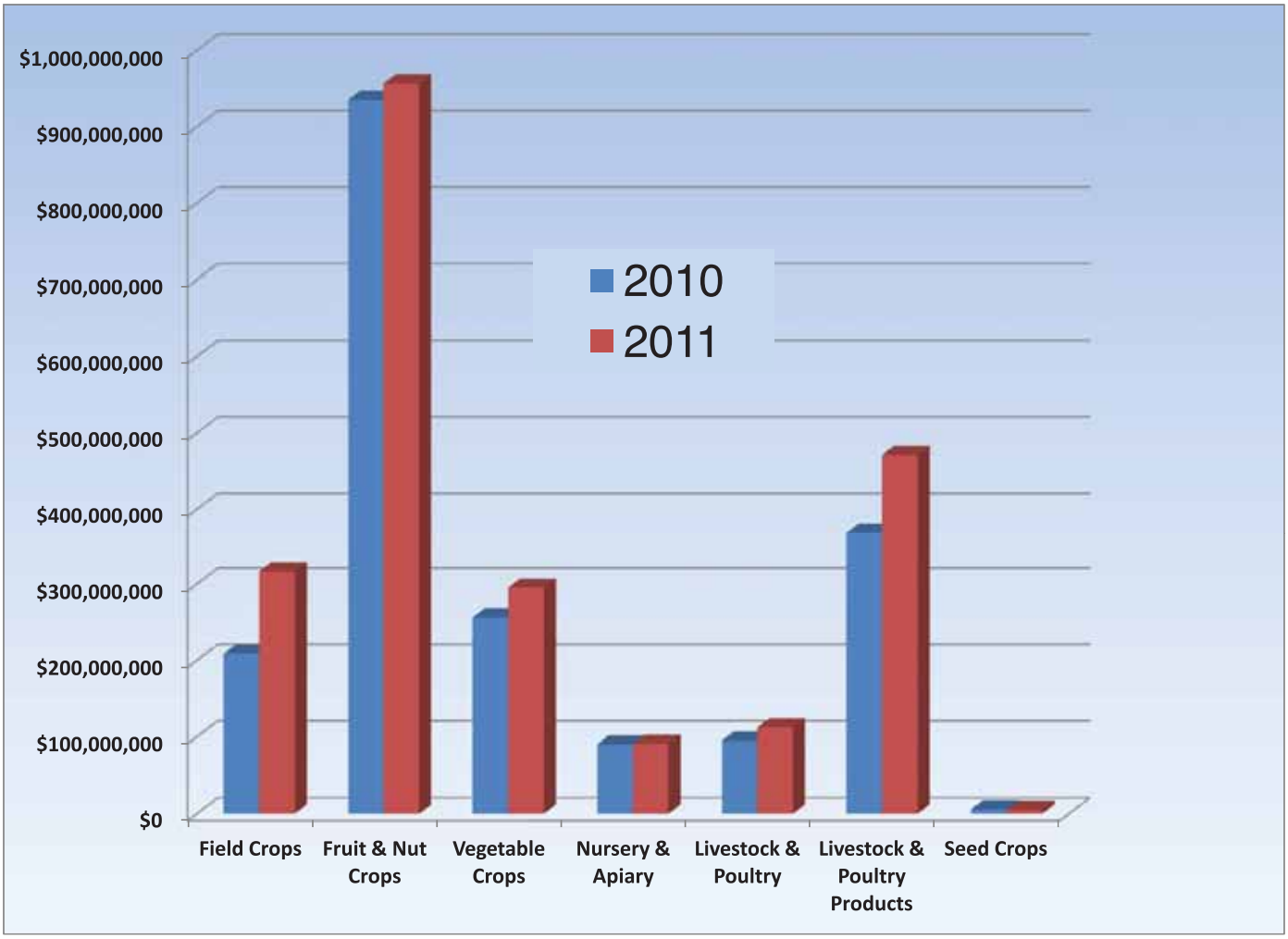
SEED CROPS

In 2011, seed production in the County declined sharply

CROP	YEAR	PRODUCTION ACRES HARVESTED	YIELD	TOTAL	UNIT	GROSS VALUE VALUE PER UNIT	TOTAL
BEANS, OTHER	2011	44	23.00	1,000	CWT	$55.00	$55,000
	2010	325	18.71	6,081	CWT	$46.00	$280,000
MISCELLANEOUS	2011	514					$5,014,000
	2010	724					$5,384,000
TOTAL	2011	558					$5,069,000
	2010	1,050					$5,664,000

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING
KIDNEY BEANS INCLUDED IN BEANS ALL
VEGETABLES SEEDS INCLUDED IN MISCELLANEOUS

COMPARISON OF VALUES FOR EACH CROP COMMODITY



FRUIT AND NUT CROPS

Almond acreage, yield, and price, increased in 2011 resulting in a 17% increase in value

CROP	YEAR	PRODUCTION				GROSS VALUE		
		ACRES HARVESTED	YIELD	TOTAL	UNIT	VALUE PER UNIT	SUBTOTAL	TOTAL
ALMOND, MEATS	2011	48,800	1.03	50,200	TON	$3,740.00		$187,748,000
	2010	48,200	0.92	44,300	TON	$3,540.00		$156,822,000
ALMOND, HULLS	2011			113,000	TON	$124.00		$14,012,000
	2010			99,700	TON	$71.00		$7,079,000
APPLES, ALL	2011	3,670	23.49	86,200	TON	$496.00		$51,390,000
	2010	3,100	28.56	89,000	TON	$589.00		$52,111,000
FRESH	2011			62,390	TON	$665.00	$41,489,000	
	2010			59,000	TON	$706.00	$41,689,000	
PROCESSING	2011			23,800	TON	$416.00	$9,901,000	
	2010			30,000	TON	$353.00	$10,422,000	
APRICOTS	2011	694	12.00	8,300	TON	$450.00		$3,735,000
	2010	779	9.56	7,400	TON	$378.00		$2,797,000
BLUEBERRIES	2011	1,190	4.35	5,160	TON	$4,671.00		$24,102,000
	2010	1,350	4.74	6,400	TON	$3,700.00		$23,659,000
CHERRIES, ALL	2011	19,500	1.43	28,000	TON	$3,185.00		$89,175,000
	2010	21,200	2.71	57,000	TON	$3,212.00		$184,544,000
FRESH	2011			21,000	TON	$4,111.00	$86,331,000	
	2010			46,200	TON	$3,880.00	$179,256,000	
PROCESSING	2011			7,040	TON	$404.00	$2,844,000	
	2010			9,360	TON	$565.00	$5,288,000	
GRAPES, ALL	2011	93,300	5.61	523,000	TON	$548.00		$286,728,000
	2010	95,900	5.69	546,000	TON	$456.00		$248,987,000
TABLE, CRUSHED	2011	280	5.00	1,400	TON	$229.00	$321,000	
	2010	240	6.58	1,580	TON	$203.00	$321,000	
WINE, ALL	2011	93,100	5.61	522,000	TON	$549.00	$286,407,000	
	2010	95,600	5.69	544,000	TON	$457.00	$248,666,000	
FRESH	2011			4,410	TON	$300.00	$1,323,000	
	2010			4,310	TON	$289.00	$1,246,000	
CRUSHED	2011			518,000	TON	$551.00	$285,418,000	
	2010			540,000	TON	$458.00	$247,320,000	
OLIVES, PROCESSING	2011	4,160	3.54	15,000	TON	$532.00		$7,980,000
	2010	4,060	2.92	12,000	TON	$582.00		$6,896,000
PEACHES, ALL	2011	1,940	22.37	43,400	TON	$268.00		$11,623,000
	2010	2,140	23.34	49,000	TON	$275.00		$13,751,000
CLINGSTONE	2011	780	16.60	12,900	TON	$291.00	$3,754,000	
	2010	960	18.50	17,800	TON	$285.00	$5,073,000	
FREESTONE	2011	1,160	26.33	30,500	TON	$258.00	$7,869,000	
	2010	1,180	27.24	32,100	TON	$270.00	$8,678,000	

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING

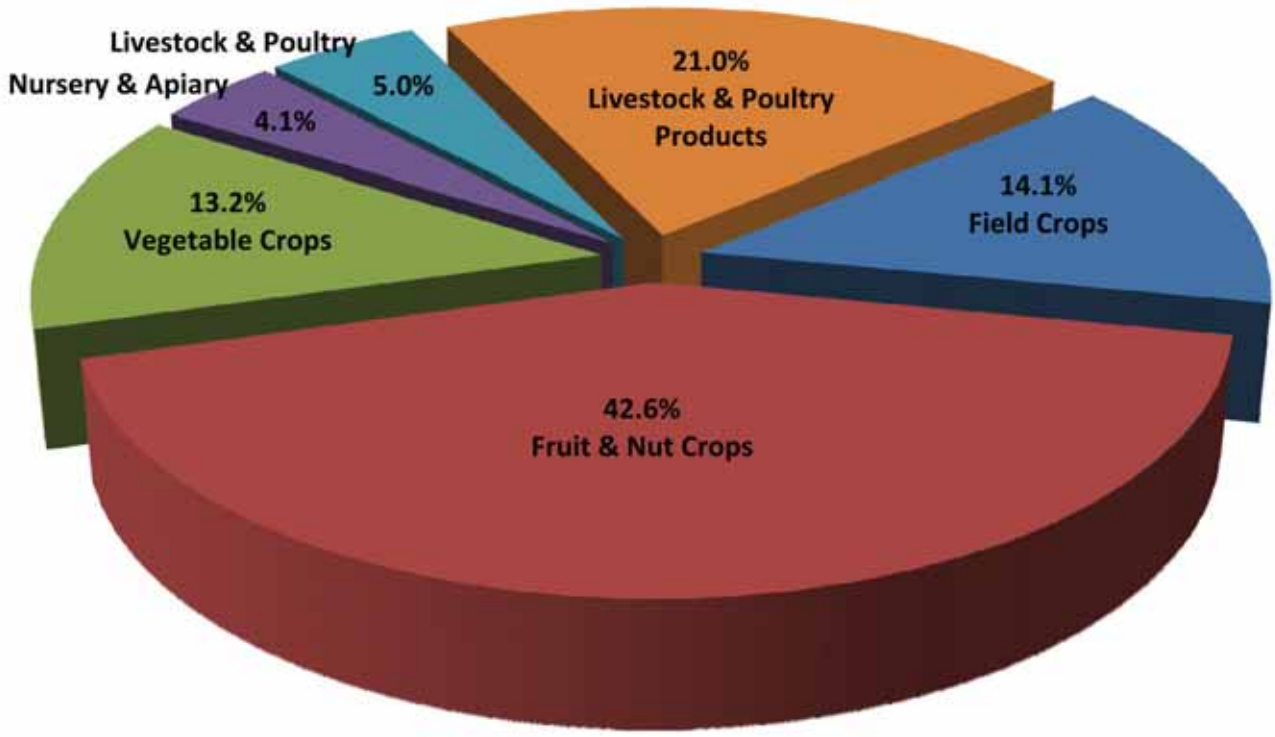
FRUIT AND NUT CROPS

Almond acreage, yield, and price, increased in 2011 resulting in a 17% increase in value

CROP	YEAR	PRODUCTION				GROSS VALUE		
		ACRES HARVESTED	YIELD	TOTAL	UNIT	VALUE PER UNIT	SUBTOTAL	TOTAL
PEARS	2011	325	10.00	3,300	TON	$351.00		$1,158,000
	2010	448	22.00	9,900	TON	$268.00		$2,642,000
WALNUTS, ENGLISH	2011	53,000	2.07	109,700	TON	$2,542.00		$278,857,000
	2010	55,400	2.00	110,700	TON	$1,872.00		$207,230,000
MISCELLANEOUS	2011	1,030						$6,240,000
	2010	820						$27,398,000
BIOMASS	2011							$1,654,000
	2010							$1,239,000
TOTAL	2011	222,000						$956,422,000
	2010	228,000						$935,155,000

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING

PERCENTAGE OF EACH CATEGORY TO TOTAL



VEGETABLE CROPS

For 2011, onion and potato acreage and yields were up.
Watermelon yields and price also increased.

CROP	YEAR	PRODUCTION ACRES HARVESTED	YIELD	TOTAL	UNIT	GROSS VALUE VALUE (PER UNIT)	SUBTOTAL	TOTAL
ASPARAGUS	2011	6,400	1.68	10,800	TON	$2,930.00		$31,644,000
	2010	6,600	1.59	10,500	TON	$2,640.00		$27,720,000
CORN, SWEET	2011	4,890	7.70	37,700	TON	$501.00		$18,888,000
	2010	4,900	8.09	39,600	TON	$373.00		$14,777,000
CUCUMBERS	2011	2,390	8.30	19,900	TON	$183.00		$3,642,000
	2010	1,910	9.00	17,200	TON	$210.00		$3,612,000
MELONS, ALL	2011	2,110	41.23	87,000	TON	$275.00		$23,931,000
	2010	2,240	30.89	69,200	TON	$231.00		$16,008,000
WATERMELON	2011	2,080	41.50	86,300	TON	$275.00	$23,733,000	
	2010	2,200	31.00	68,200	TON	$230.00	$15,686,000	
OTHER	2011	30	22.00	660	TON	$300.00	$198,000	
	2010	40	24.50	980	TON	$329.00	$322,000	
ONIONS, DRY	2011	2,880	25.24	72,700	TON	$210.00		$15,267,000
	2010	2,000	18.00	36,000	TON	$360.00		$12,974,000
PEPPERS	2011	1,630	24.00	39,100	TON	$400.00		$15,640,000
	2010	1,970	15.45	30,400	TON	$400.00		$12,160,000
POTATOES	2011	3,200	19.10	61,700	TON	$780.00		$48,126,000
	2010	2,600	15.00	39,000	TON	$600.00		$23,400,000
PUMPKINS	2011	3,280	18.00	59,000	TON	$320.00		$18,880,000
	2010	4,350	17.50	76,100	TON	$300.00		$22,830,000
TOMATOES, ALL	2011	32,300	36.25	1,171,000	TON	$92.00		$107,844,000
	2010	34,800	35.40	1,232,000	TON	$94.00		$115,712,000
SHIPPING	2011	4,960	13.12	65,000	TON	$400.00	$26,000,000	
	2010	5,290	16.19	86,000	TON	$466.00	$40,076,000	
PROCESSING	2011	27,300	40.51	1,106,000	TON	$74.00	$81,844,000	
	2010	29,500	38.84	1,146,000	TON	$66.00	$75,636,000	
MISCELLANEOUS VEGETABLES	2011	3,580						$11,576,000
	2010	2,530						$7,068,000
TOTAL	2011	62,700						$295,438,000
	2010	63,900						$256,261,000

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING

NURSERY AND APIARY PRODUCTS

Nursery industry values increased despite continued slow growth in the housing market and the economy.

NURSERY PRODUCTS

ITEM	YEAR	QUANTITY SOLD	UNIT	GROSS VALUE TOTAL
GRAPEVINES, STRAWBERRY PLANTS, FRUIT & NUT TREES	2011	99,812,000	PLANT	$11,714,000
	2010	63,726,000	PLANT	$5,810,000
VEGETABLE PLANTS	2011	400,294,000	PLANT	$13,955,000
	2010	385,843,000	PLANT	$16,058,000
FLOWERING POTTED PLANTS	2011	598,000	EACH	$2,840,000
	2010	460,000	EACH	$1,344,000
FOLIAGE PLANTS	2011	704,000	EACH	$3,129,000
	2010	1,130,000	EACH	$4,690,000
BEDDING PLANTS	2011	230,669,000	PLANT	$11,418,000
	2010	220,821,000	PLANT	$13,471,000
WOODY ORNAMENTALS	2011	6,281,000	EACH	$22,669,000
	2010	5,768,000	EACH	$22,981,000
BULBS, RHIZOMES, TURF, CACTUS, CHRISTMAS TREES, ETC.	2011			$11,645,000
	2010			$12,597,000
TOTAL	2011			$77,370,000
	2010			$76,951,000

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING

APIARY PRODUCTS

ITEM	YEAR	PRODUCTION	UNIT	GROSS VALUE PER UNIT	GROSS VALUE TOTAL
HONEY*	2011	108,000	LBS	$1.56	$168,000
	2010	121,000	LBS	$1.80	$217,000
POLLINATION	2011	114,300	HIVE	$109.00	$12,415,000
	2010	128,000	HIVE	$92.00	$11,739,000
OTHER APIARY*	2011				$1,218,000
	2010				$1,393,000
TOTAL	2011				$13,801,000
	2010				$13,349,000

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING
* OTHER APIARY INCLUDES POLLEN, BEES, QUEENS, NUCLEUS COLONIES & BEESWAX

LIVESTOCK AND POULTRY

Increases in cattle numbers and price accompanied with increases in price for sheep and lambs contributed to an 18% increase in livestock values

ITEM	YEAR	NO. HEAD	LIVE WEIGHT	UNIT	GROSS VALUE PER UNIT	GROSS VALUE TOTAL
CATTLE & CALVES	2011	119,700	827,000	CWT	$86.00	$71,479,000
	2010	106,000	815,000	CWT	$74.00	$60,165,000
SHEEP & LAMBS	2011	13,900	18,000	CWT	$185.00	$3,333,000
	2010	14,900	19,000	CWT	$111.00	$2,113,000
BROILERS	2011	1,718,000	9,964,400	LBS	$0.64	3,624,000
	2010	2,418,000	13,347,400	LBS	$0.66	$8,454,000
TURKEYS	2011	558,000	19,579,000	LBS	$0.83	$16,325,000
	2010	424,000	14,217,000	LBS	$0.83	$11,854,000
OTHER LIVESTOCK**	2011					$17,372,000
	2010					$12,423,000
TOTAL	2011					$112,133,000
	2010					$95,010,000

**OTHER LIVESTOCK INCLUDES HOGS, GOATS, SQUAB, DUCKS, AND OTHER FOWL

LIVESTOCK AND POULTRY PRODUCTS

ITEM	YEAR	PRODUCTION	UNIT	GROSS VALUE PER UNIT	GROSS VALUE SUBTOTAL	GROSS VALUE TOTAL
MILK, ALL	2011	24,461,000	CWT	$19.00		$452,880,000
	2010	23,169,000	CWT	$15.00		$341,366,000
MARKET	2011	23,749,000	CWT	$19.00	$439,603,000	
	2010	20,922,000	CWT	$15.00	$308,389,000	
MANUFACTURING	2011	711,000	CWT	$19.00	$13,509,000	
	2010	2,247,000	CWT	$15.00	$33,705,000	
WOOL	2011	32,000	LBS	$1.75		$57,000
	2010	74,000	LBS	$1.32		$98,000
EGGS, CHICKEN	2011	19,380,000	DOZ	$0.82		$15,848,000
	2010	37,462,000	DOZ	$0.72		$27,005,000
MANURE	2011	491,000	TON	$7.68		$2,454,000
	2010	494,000	TON	$1.08		$534,000
TOTAL	2011					$471,239,000
	2010					$369,003,000

NUMBERS MAY NOT COMPUTE EXACTLY DUE TO ROUNDING

Delta Facts
San Joaquin County

- Today, nearly two-thirds of the state's population (approximately 25 million people) depend on water conveyed through the Delta for some portion of their water supply, as does more than 2 million acres of irrigated farmland that grow crops for in-state, national, and international distribution.

- Much of California's agriculture depends on water from the Delta watershed; one-sixth of all irrigated lands in the nation are in this watershed, including the southern San Joaquin Valley.

- Rivers flowing into the Delta are the Sacramento, San Joaquin, Mokelumne, Cosumnes, and Calaveras rivers.

- In 1992 California's Delta Protection Act was passed. The act established the Delta Protection Commission, a state entity to plan for and guide the conservation and enhancement of natural resources, agriculture, and recreation in the Delta. The Act also defines a Primary Zone, which is the Commission's geographic area of jurisdiction. The Primary Zone is largely the agricultural, water, and open space areas in the center of the Legal Delta. The Secondary Zone is an area outside the Primary Zone within the Legal Delta.

- Most of the Delta in the Primary Zone is below sea level, some areas as much as 25 feet below sea level.

- The Bay-Delta is the West Coast's largest estuary, with 57 major reclaimed islands and numerous unleveed channeled islands.

- Over half of the Delta's 1,000 miles of levees are located in San Joaquin County.

- Of the five counties with Delta land, San Joaquin County has the largest portion at 43%. The other counties with Delta land are Sacramento, Solano, Yolo, and Contra Costa counties.

- The San Joaquin County Delta has over 215,000 acres of farmland that produces a farm gate value of nearly $560 million.

- Over 1/3 of San Joaquin County's land mass is in the Delta and produces nearly 25% of the County's $2.2 billion total agricultural value.

San Joaquin County
TOP TEN LEADING CROPS FOR 2011

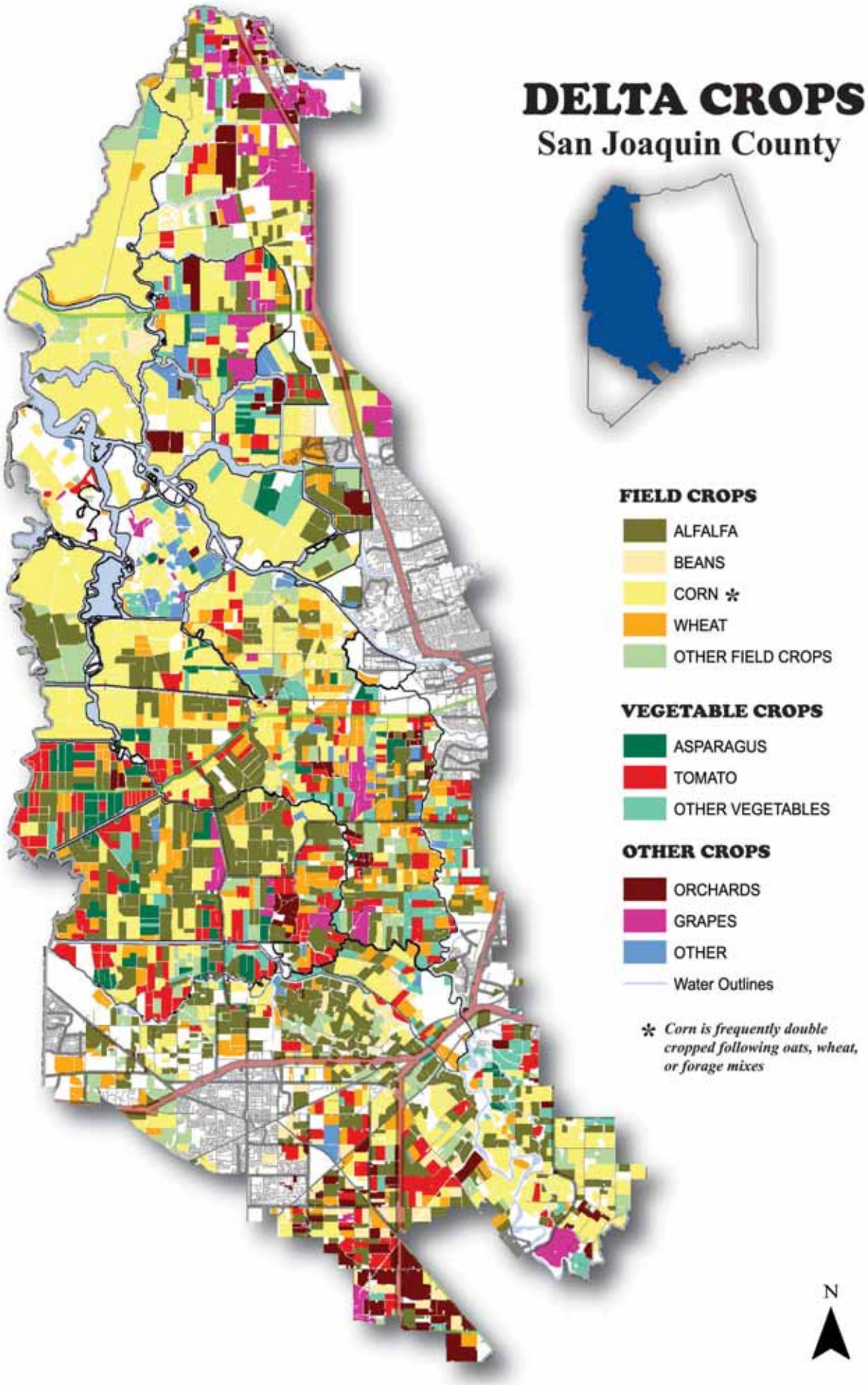
Commodity	Value	Percent of Total Ag Value
1 MILK	$452,880,000	20%
2 GRAPES	$286,728,000	13%
3 WALNUTS	$278,857,000	12%
4 ALMONDS	$187,748,000	8%
5 TOMATOES	$107,844,000	5%
6 CHERRIES	$89,175,000	4%
7 HAY	$89,577,000	4%
8 CATTLE & CALVES	$71,479,000	3%
9 GRAIN CORN	$67,568,000	3%
10 SILAGE CORN	$62,744,000	3%
ALL OTHER CROPS	$553,406,000	25%

DELTA TOP TEN CROPS BY ACRES

CORN	70,100
ALFALFA	42,600
WHEAT	24,400
TOMATO	18,900
GRAPE	10,600
OATS	8,600
SAFFLOWER	6,500
ASPARAGUS	6,300
ALMOND	4,400
BEAN	3,800

DELTA TOP TEN COMMODITIES BY VALUE

MILK	$92,948,000
CORN	$82,429,000
ALFALFA	$67,777,000
TOMATO	$56,741,000
POTATO	$43,830,000
GRAPE	$32,588,000
ASPARAGUS	$30,863,000
BLUEBERRY	$28,609,000
ALMOND	$17,015,000
TURF	$16,720,000


DELTA CROPS
San Joaquin County
FIELD CROPS
ALFALFA
BEANS
CORN *
WHEAT
OTHER FIELD CROPS
VEGETABLE CROPS
ASPARAGUS
TOMATO
OTHER VEGETABLES
OTHER CROPS
ORCHARDS
GRAPES
OTHER
Water Outlines
* Corn is frequently double cropped following oats, wheat, or forage mixes
N

Pest Exclusion / Detection and Sustainable

Preventing the introduction and establishment of invasive pests and diseases is always the best and least costly method of control. The Agricultural Commissioner's Office is tasked with this large responsibility. Thousands of inspections are conducted annually for invasive pests. We also deploy thousands of insect traps throughout the County to detect invasive pests before they can gain a foothold in the County.

Kojak - San Joaquin County's Plant Detector Dog

In October 2010, San Joaquin County became one of eight counties to have a California Dog Team. Kojak, a Black Lab mix, came to San Joaquin County after going through an intense ten week training course at the USDA National Detector Dog Training Center in Newnan, Georgia. Senior Agricultural Biologist Tom Doud completed the training with Kojak and is his assigned handler. Together they work as a team to enhance the County's parcel package inspection and surveillance program.

Kojak and Tom Doud

In this program, Agricultural Biologists inspect incoming packages containing plant material for harmful pests at the County's common carrier facilities (i.e. FedEx, UPS etc.). Using his keen sense of smell, Kojak helps identify marked and unmarked packages containing plant material. Once identified, our trained biologists will inspect the package for harmful pests that could potentially cause millions of dollars in damage to agriculture, urban landscapes, and the environment.

San Joaquin County's Invasive Plant Pest Quarantines in 2011

During 2011, the County experienced a number of plant pest quarantines that seriously impacted agriculture. During the fall of 2011, nearly 1/3 of the County was under one or more plant quarantines. The following provides a brief discussion of these quarantines.

<u>Oriental Fruit Fly</u>

On September 8, 2011, two oriental fruit flies were detected in north Stockton by a pest surveyor from the Agricultural Commissioner's Office. A Federal/State Quarantine was eventually established a few days later after 6 Oriental Fruit Flies (OFF) were trapped in Stockton. The finds triggered the immediate initiation of an intensive detection and eradication program by federal, state, and county plant quarantine officials.

By June 19, 2012, three OFF lifecycles had passed without detection. As a result, OFF was declared eradicated and the quarantine deregulated. From the beginning of the OFF quarantine in September until its end in June, many quarantine detection and enforcement activities occurred that impacted a large number of growers, packers, and residents.

Pest Exclusion & Sustainable Agriculture Continued

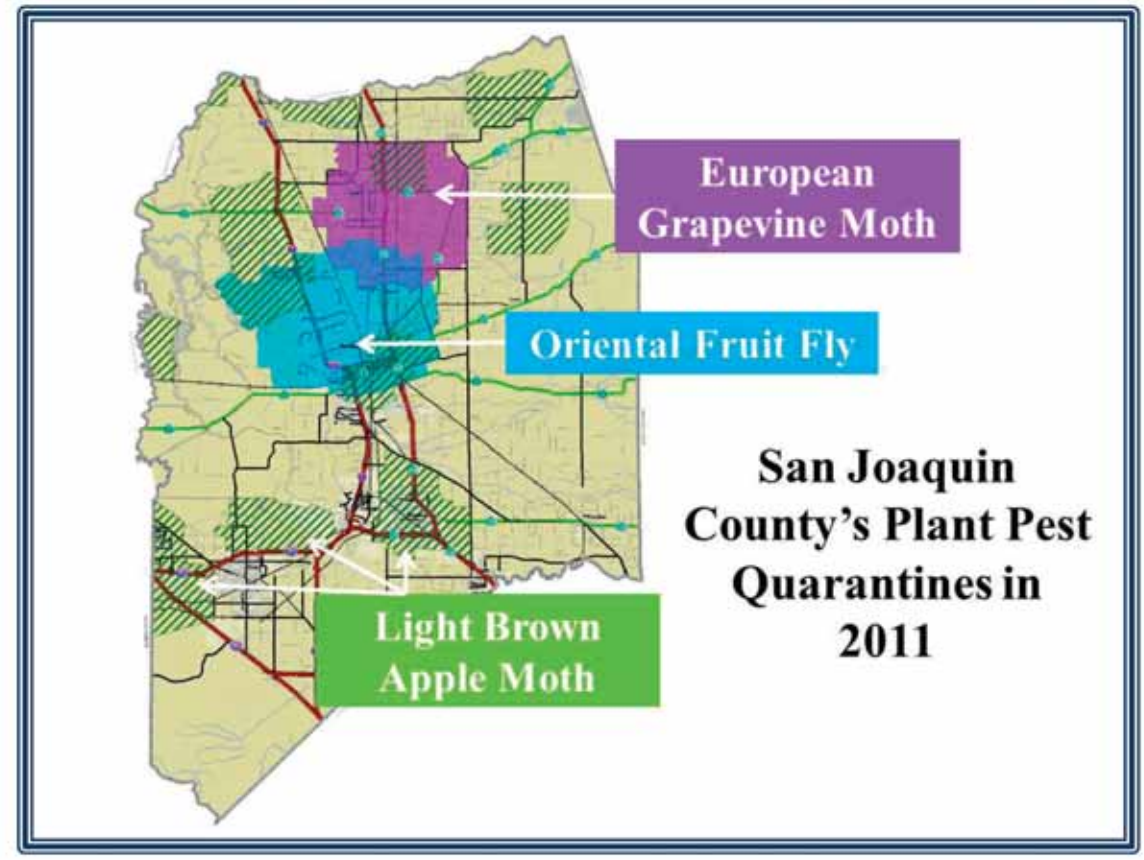
During the course of the OFF quarantine over 31,500 OFF traps were inspected by state, federal and county trappers who spent over 6,000 hours checking these traps. Nearly 22,000 pounds of fruit were removed from residential yards located near OFF detection sites. Additionally, over 6,000 pounds of fruit were seized from fruit stand vendors for noncompliance with safeguarding requirements.

European Grape Vine Moth

In August, 2010, two European grapevine moths (EGVM) were trapped in a vineyard east of Lodi. The discovery of this serious invasive grape pest resulted in a quarantined area encompassing a 5 mile radius around the find and the immediate initiation of an eradication program. During the 2011 EGVM detection season, over 5,000 traps were placed in the County and monitored by 10 trappers every 2 weeks from March through October. EGVM was not detected in 2011. Consequently, EGVM was declared eradicated and the quarantine lifted.

Light Brown Apple Moth

Over the past three years, San Joaquin County has experienced multiple Light Brown Apple Moth (LBAM) detections that have resulted in a number of quarantined areas in the Tracy, Manteca, and Stockton areas. LBAM is an invasive pest of numerous agricultural crops. In 2011, LBAM was detected in several nurseries in the Lodi area triggering a 1½ mile radius quarantined area around the nursery detection sites. These new quarantined areas in the Lodi region include many acres of vineyards. The County continues to battle LBAM.



SAN JOAQUIN COUNTY TRADING PARTNERS 2011

ALGERIA
ARGENTINA
AUSTRALIA
AUSTRIA
BAHAMAS
BAHRAIN
BELGUIM
BOLIVIA
BRAZIL
BURKINO FASO
CANADA
CHILE
CHINA
COLOMBIA
COSTA RICA
CYPRUS
CZECH REPUBLIC
DENMARK
DOMINICAN REPUBLIC
ECAUDOR
EGYPT
EL SALVADOR
ESTONIA
FINLAND
FRANCE
FRENCH GUIANA
GERMANY
GREECE
GUATEMALA
GUYANA
HAITI
HONDURAS
HONG KONG
INDIA
INDONESIA
IRAQ
ISRAEL
ITALY
JAMAICA
JAPAN
JORDAN
KAZAKHSTAN
KOREA, REPUBLIC OF
KUWAIT
LATVIA
LEBANON
LIBYAN ARAB JAMAHIRIYA
LITHUANIA
MACEDONIA
MALAYSIA
MALTA
MAURITIUS
MEXICO
MOROCCO
NETHERLANDS
NEW ZEALAND
NICARAGUA
NORWAY
PAKISTAN
PANAMA
PARAGUAY
PERU
PHILIPPINES
POLAND
PORTUGAL
QATAR
ROMANIA
RUSSIAN FEDERATION
SAUDI ARABIA
SERBIA
SINGAPORE
SOUTH AFRICA
SPAIN
SRI LANKA
SWEDEN
SWITZERLAND
TAIWAN
THAILAND
TUNISIA
TURKEY
UKRAINE
UNITED ARAB EMIRATES
UNITED KINGDOM
URUGUAY
VENEZUELA
VIETNAM

General San Joaquin County Information

County Seat:	Stockton
County Population (2010 Census):	685,306
Population per Square Mile:	489
Incorporated Cities (7):	
Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, Tracy	
Land Area (Square Miles):	1,400
Land Area in Farms (Acres-2007):	737,503
Total Cropland (Acres-2007):	492,032
Irrigated Cropland (Acres- 2007):	453,980
Number of Farms (2007):	3,624
Average Size of Farms (Acres-2007):	204
Agricultural Work Force (Monthly Average-2007):	23,037
Lowest Elevation in County (Delta Area):	12’ Below Sea Level
Highest Elevation in County (Southwest Hills):	3065’ Above Sea Level
Length of County (North to South):	75 Miles
Length of County (East to West):	65 Miles
Average January Temperature (F)	46
Average July Temperature (F)	76
Average Annual Rainfall:	

North County:	16 Inches	South County:	14 Inches
East County:	12 Inches	West County:	9 Inches

A SPECIAL “THANK YOU”

The San Joaquin County Agricultural Commissioner’s Office expresses its appreciation to the

San Joaquin Farm Bureau Federation **and** American AgCredit

for their contributions to the 2011 Crop Report. We would also like to thank the San Joaquin County Cooperative Extension for their assistance. Without their support the publication of this report would not be possible.

Front cover photo: San Joaquin County Delta, Highway 4 crossing the San Joaquin River at Union Point.

AGRICULTURAL COMMISSIONER'S OFFICE
SAN JOAQUIN COUNTY
2101 East Earhart Avenue, Suite 100
Stockton, CA 95206

ATTACHMENT
II.A.

Print This Article

Local legislators deliver over 3,000 petitions to State Water Board

Alysson Aredas
aaredas@turlockjournal.com
September 22, 2016

Assemblymembers Adam Gray (D-Merced) and Kristin Olsen (R-Riverbank) delivered 3,100 petitions to the State Water Resources Control Board this week, proclaiming their firm opposition to a recent proposal to allocate 40 percent of water along the Tuolumne River for the benefit of fish and wildlife in the Delta.

"The last report from the State Water Board proposed taking 35 percent of our water," said Gray. "After a four year review process, during which the Board refused to engage with local stakeholders who live near and depend on these rivers, the number has now grown to 49 percent.

"It is unfathomable how the Water Board could witness the harm caused by one of the worst droughts in California's history and draw the conclusion that they need even more from us," continued Gray.

This proposition is part of the State Water Board's requirement every three years to update the Bay-Delta Plan, which is a state-certified regulatory program used to establish water quality control measures in order to adequately protect beneficial water use in the Bay-Delta Watershed.

As detailed in the draft, the State Water Board proposes increasing flows to provide habitats for fish and wildlife upstream of the Delta from Feb. 1 to June 30 from three tributaries of the lower San Joaquin River and adjusting the salinity requirements to a slightly high level to reflect updated scientific knowledge and protect farming in the Southern Delta.

"The State Water Board must acknowledge the difficult position this proposal will have on our local communities as we attempt to balance demands on water," said Olsen. "How can we achieve sustainable groundwater supplies if the number one source of recharge from our rivers is eliminated under this proposal?"

Along with turning in the petitions, both Gray and Olsen requested that the SWRCB extend the original 60 day comment period to 120 days in order to give additional stakeholders time to respond. They also asked that the Board hold meetings with local agencies in the communities that depend on each of these three rivers.

"The Water Board's proposal makes a number of references to settlement discussions," said Gray. "If they genuinely would prefer settlement instead of litigation, they need to start treating our communities with the respect they deserve."

Gray and Olsen were not the only local legislators to publicly oppose the State Water Board's proposal as Congressmen Jeff Denham (CA-10), Jim Costa (CA-16) and Tom McClintock (CA-4) released a joint statement expressing their disapproval.

"It is completely unacceptable that the State Water Resources Control Board failed to hold public hearings in the communities most affected by this proposal," wrote Denham, Costa and McClintock in the statement. "The people, the farmers and communities in the San Joaquin Valley have borne the brunt of the impacts of five years of drought conditions and this proposal, if adopted, would only result in further harm to the economy of the region.

"The SWRCB must extend the comment period for at least 90 days because the people of San Joaquin, Stanislaus, and Merced Counties deserve an open and transparent process where their voices can be heard. Furthermore, it is imperative that before any additional releases are ordered, the SWRCB must prove that the anticipated ecological benefits outlined in this proposal will be realized," continued Denham, Costa and McClintock.

http://www.turlockjournal.com/archives/32748/

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Daily Democrat (http://www.dailydemocrat.com)

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Governor signs Wolk climate change bill

Sunday, September 25, 2016

Gov. Jerry Brown Friday signed into law legislation by Senator Lois Wolk, D-Yolo County, to promote the protection and management of natural and working lands as part of California's ongoing efforts to meet its climate change goals.

"From farms to rangelands, wetlands to parks, California's natural and working lands have the potential to store considerable amounts of carbon," Wolk said in a statement. "SB 1386 will reinforce that investment in these lands' management is an important strategy in meeting the California's ongoing efforts to reduce its greenhouse gas emissions."

Wolk's Senate Bill 1386 declares it to be state policy that protecting and managing natural and working lands is important to meeting California's climate change goals. The bill also directs all relevant state agencies to consider this policy when conducting their work.

Natural and working lands — which include forests, farms, rangelands, wetlands, parks and other open spaces — are unique in that they can actively remove carbon from the air and store, or sequester, that carbon in plants and trees, roots, and other organic materials in the soil.

"The protection and restoration of California's natural and working lands plays an important part in reducing greenhouse gas emissions while growing food, cleaning our air and water, providing greenspaces for communities, and allowing for healthy fish and wildlife populations," said Kim Delfino, California Program Director for Defenders of Wildlife, which is sponsoring SB 1386. "Defenders of Wildlife is pleased to see this important climate change policy become state law."

SB 1386 will also support the many other benefits provided by natural and working lands, which produce food and fiber, improve air and water quality, and provide wildlife habitat, flood protection, and recreational and economic opportunities.

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New California Law Amends Water Supply Planning Laws

Legal Alerts

Water Supply Sufficiency Analyses Must Consider Groundwater Sustainability

SEPTEMBER 27, 2016

Gov. Jerry Brown has signed Senate Bill 1262 into law, representing an initial attempt to incorporate groundwater management requirements under the Sustainable Groundwater Management Act into two of California's water supply planning laws. SB 1262 amends Water Code section 10910 of the Water Supply Assessment statute (commonly referred to as "SB 610") and Government Code section 66473.7 of the Written Verification statute (commonly referred to as "SB 221"). While SB 1262 begins to address the relationship between California's water supply planning laws, many questions remain unanswered.

Both Water Supply Assessments and Written Verifications apply to certain types of development projects. Each requires a specific analysis of whether sufficient water supplies will be available to serve a proposed project in addition to existing and planned future uses. Among other things, SB 1262 amends the WSA and WV statutes to require those water supply analyses to consider the most recently adopted Groundwater Sustainability Plan prepared under SGMA if the water supply for a proposed project includes groundwater from a basin designated as medium- or high-priority.

SGMA was adopted in 2014 and, for the first time in California, establishes statewide requirements for establishing sustainable groundwater management in all basins designated by the California Department of Water Resources as medium- or high-priority. Under SGMA, Groundwater Sustainability Agencies must be established by June 30, 2017 and GSPs must be adopted by 2020 or 2022, depending on whether a basin is deemed to be critically overdrafted, to achieve groundwater sustainability within 20 years from adoption. Notably, prior to SB 1262, neither SGMA nor California's water supply planning statutes made any

People

Paeter E. Garcia
Partner
(213) 787-2543

Sarah Christopher Foley
Associate
(213) 787-2560

Miles B. H. Krieger
Associate
(951) 826-8215

Related Practice

Environmental Law & Natural Resources
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reference to how GSPs may relate to WSAs or WVs. SB 1262 changes that, although the change is very slight and many other issues still must be addressed.

Amendments to the WSA statute (Wat. Code § 10910)

As mentioned above, SB 1262 amends Water Code section 10910 to require certain SGMA-related information to be included in a WSA being prepared for a project under the California Environmental Quality Act. Specifically, if a water supply for a proposed project includes groundwater from a basin that is not adjudicated and is designated as medium- or high-priority, the following additional information must be included in the WSA: whether DWR has identified the basin as being subject to critical conditions of overdraft; and if a GSA has adopted a GSP or approved an alternative plan under SGMA, a copy of the GSP or alternative plan. For a basin that is not adjudicated and is designated by DWR as low- or very low-priority, the WSA must include information as to whether DWR has identified the basin as being overdrafted or projected that the basin will become overdrafted if present management conditions continue. SB 1262 also amends Water Code section 10910 by stating that "hauled water" is not considered a source of water for purposes of preparing a WSA.

Amendments to the WV statute (Gov. Code § 66473.7)

SB 1262 amends Government Code section 66473.7 in similar ways. Now under the WV statute, where a proposed "subdivision" (a residential development of more than 500 units) relies in whole or in part on groundwater, the following information must be considered in a WV:

1. for an adjudicated basin, the order or decree adopted by the court or the State Water Resources Control Board;
2. for a basin that is not adjudicated and is designated as medium- or high-priority under SGMA, the most recently adopted GSP or approved alternative plan; and
3. for medium- or high-priority basins where no GSP or alternative has been approved, and for basins designated as low- or very low-priority under SGMA, information as to whether DWR has identified the basin as being overdrafted or projected that the basin will become overdrafted if present management conditions continue.

The undefined relationship between SGMA and California's water supply planning laws

SB 1262 represents an initial effort to address the relationship between SGMA and two of California's other water supply planning laws, *i.e.*, the WSA and WV statutes. In sum, SB 1262 requires WSAs and WVs to consider the most recently

adopted GSP(s) or alternative plan(s) prepared under SGMA when a proposed project relies in whole or in part on groundwater. Viewed another way, for projects that rely on groundwater, SB 1262 provides that GSP(s) or alternative plans are now part of the "substantial evidence" that may support a determination of whether sufficient water supplies will be available to serve the proposed project in addition to existing and planned future uses.

While SB 1262 codifies one way that SGMA now relates to WSAs and WVs, many other questions remain. For example, the extent to which GSPs and alternative plans prepared under SGMA must be considered in Urban Water Management Plans has not been addressed. Furthermore, the relationship between water supply "sufficiency" (for purposes of WSAs, WVs, and CEQA review) and groundwater "sustainability" (for purposes of SGMA) will need to be harmonized, either by statute or at the hand of lead agencies, GSAs and land use practitioners. To that end, the parallel — yet potentially conflicting — conclusions of GSPs, UWMPs, WSAs, WVs, CEQA documents, and other water supply analyses may lead to tension or evidentiary disputes with regard to project approvals and land use decision making.

SB 1262 helps identify the uncertainties that will persist as SGMA unfolds and relates to California's other water supply planning laws in the coming years. Best Best & Krieger LLP advises numerous public and private entities on these and related issues throughout the state. If you have any questions about SB 1262 or how it may impact your agency, please contact the attorney authors of this Legal Alert listed to the right in the firm's Environmental Law & Natural Resources practice group, or your BB&K attorney.

Please feel free to share this Legal Alert or subscribe by clicking here. Follow us on Twitter @BBKlaw.

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EDITORIALS SEPTEMBER 28, 2016 5:44 PM

Valley leaders take issue with state water board's explanation

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BY THE EDITORIAL BOARD

There was nothing ambiguous in what representatives of the State Water Resources Control Board heard Wednesday morning:

"We definitely want to deliver a message," said Stanislaus County Supervisor Terry Withrow. "We want to call BS. This is an insult to our intelligence."

Withrow was speaking to Les Grober, a high-ranking state water board staffer who attended a packed meeting of the Stanislaus Water Advisory Committee in downtown Modesto. And those weren't the angriest or loudest words Grober and two other board staffers heard.

Officials from Stanislaus, Merced and San Joaquin counties listened as state officials explained the revised Substitute Environmental Document – a 3,100-page justification for taking twice as much water from our region as the state takes now.

It was the first skirmish in what many public officials – legislators, school superintendents, irrigation district officials – are declaring a water war.

The SED justifies sending 40 percent of the flows from the Merced, Tuolumne and Stanislaus rivers down the San Joaquin to the Sacramento-San Joaquin Delta – basically, double current flows.

The state claims the additional water is necessary to save threatened salmon and steelhead trout. There's no doubt both species are in trouble, but many are questioning the state's sudden urgency.

A horribly flawed SED was released in 2012 then rescinded. It took four years to revise it, but the water board has given our region only 60 days to respond; it plans to make a decision by early 2017.

That timeline has angered legislators such as Jeff Denham, Adam Gray and Kristin Olsen and a host of other public officials. Now, the state is expected to extend the comment period.

It should. After four years and dozens of delays, what's the sudden hurry?

Could it be the water board is trying to speed along Gov. Jerry Brown's twin-tunnels project to ship Delta water south?

Grober said all that was in "phase 2" and refused to elaborate. But just four days after the SED's rerelease provoked a maelstrom of criticism, Gov. Brown intervened and instructed his Natural Resources Agency to work with the water board and regional officials to reach "voluntary agreements" – clearly the best approach. But an SED with absurd economic-impact numbers and a failure to recognize the devastating impacts of predation on salmon is an unlikely starting point.

When Turlock Irrigation District board member Ron Macedo asked what the state's objectives are for the number of salmon, Grober spoke of "biological goals" instead of actual numbers. Yet, the state justifies its grab by citing low numbers of fish; that's a disconnect.

Even as it justified taking more water from our region, the state suggested selling water to others to help pay for improvements. We're supposed to sell the water we've got left instead of using it to grow food and create jobs?

After 90 minutes, Walt Ward, Stanislaus County's groundwater expert, finally unmasked "the 800-pound gorilla," noting the amount of water demanded from the tributaries is roughly equal to the water Gov. Jerry Brown's proposed twin tunnels will remove from the Delta.

Coincidence?

As Withrow said, don't insult our intelligence.

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- River flow proposal gets tense airing in Modesto

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