

Comment Letter RD800

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	David K.E. Aladjem daladjem@downeybrand.com	
		FEB 09 2006 00166
February 7, 2006		
Paul Marshall California Department of Water Resources 1416 Ninth Street Sacramento, CA 95814	Sharon McHale U.S. Bureau of Reclamation 2800 Cottage Way Sacramento, CA 95825	
Re: South Delta Improvements Program Draft EIS/EIR		
Dear Ms. McHale and Mr. Marshall:		
<i>Introduction and Summary of Comments</i>		
Our firm represents Reclamation District No. 800 (Byron Tract) (the "District"), which is located on the west bank of Old River just north of Clifton Court Forebay. The District includes approximately 6,500 acres of land in agricultural production and is home to approximately 10,000 people in the community of Discovery Bay. The District appreciates the effort by the California Department of Water Resources (the "Department") and the United States Bureau of Reclamation ("Reclamation") to describe for the public the potential impacts of the South Delta Improvements Program ("SDIP").		
The District has reviewed the Draft EIS/EIR for the SDIP (the "Draft EIS/EIR") in order to determine the potential impacts of the SDIP on the District. Specifically, the District is concerned that the full implementation of SDIP could have adverse effects on: (i) water levels in the southern and western Delta, (ii) water circulation within Discovery Bay, (iii) the quality of water used for agricultural production in the District, (iv) recreational boating in the Delta and (v) navigation in the Delta for the purpose of maintaining and repairing the District's levees. The Draft EIS/EIR indicates, based on modeling results, that SDIP will not have any of these adverse effects. Given the many uncertainties regarding the Delta, the District is willing to not to contest the impact conclusions of the Draft EIS/EIR but requests that the two Lead Agencies enter into discussions with the District aimed at including performance standards in the Final EIS/EIR that will guarantee that implementation of SDIP will not have an adverse effect on the District.		
1. <i>Potential Impacts of Concern to the District.</i>		
As noted above, the District is concerned about five potential physical changes in the environment that could result from the implementation of SDIP.		

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First, SDIP could have an adverse effect on the environment by lowering water levels in the south and western Delta. A reduction in water levels would directly interfere with navigation. Recreational boating in Discovery Bay is a primary activity of the District's residents; it is reasonably foreseeable that the District would need to dredge some or all of the channels within Discovery Bay in order to preserve the ability of the District's residents to use their boats. Further, with regard to the agricultural diversions within the District, a reduction in water levels – especially at Italian Slough – could result in water levels that would interfere with the siphons that deliver water via gravity to crops. The gravity-operated siphons are highly sensitive to changes in water levels and are dependent on head differential to operate properly. Landowners in the District rely on the siphons to distribute agricultural water; it would be difficult – if not impossible – for those landowners to connect to an electrical system that would serve a pumping plant. The potential interruption of water supplies would lead to a reduction in crop yields and an adverse financial impact on growers.

RD800-1

Second, SDIP could have an adverse effect on the environment by interfering with the circulation of water within Discovery Bay. The District circulates approximately 42 million gallons per day of water through Discovery Bay; it is that circulation of water through the development that, save in rare cases, prevents stagnant water and algae blooms. The District's system of siphons was designed during the 1960's with then-current water levels as part of the design criteria. As previously explained, the District's siphons are sensitive to water level fluctuations. A reduction in water surface elevations, as proposed by SDIP, would lead to a reduction in the head differential between different portions of Discovery Bay and a consequent reduction in the effectiveness of the water circulation system. Such a change could well lead to more widespread areas of stagnant water, more frequent algal blooms and poorer overall water quality.

RD800-3

Third, SDIP could lead to a reduction in water quality in the western Delta. The District is aware that there is a present controversy in that the California State Water Resources Control Board has issued a proposed Cease and Desist Order against the two Lead Agencies for violations of water quality standards in the Delta. Any reduction in water quality that might result from the implementation of SDIP would aggravate this existing condition. Particularly in the southern portion of the District, a reduction in water quality (or, put otherwise, an increase in salinity), could have an adverse impact on crop yields or cropping mix on agricultural lands.

RD800-4

Fourth, SDIP could impede recreational boating in the Delta by preventing (or at least making more difficult) movement from the western and southern Delta to the San Joaquin River. The installation of the permanent barriers, even with locks that are designed to provide passage for recreational boats, will impede navigation in the Delta.

RD800-5

Fifth, lowered water surface elevations could interfere with the District's maintenance of its levee system. The District must be able to access the levees by barge to perform necessary maintenance and repairs. Lowered water levels caused by the installation of permanent barriers

RD800-6

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and/or increased pumping may well impede the District's ability to access its levees for this purpose.

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2. *Thresholds of Significance*

In each of these cases, the Draft EIS/EIR has adopted a threshold of significance. The District concurs with the general intent of these thresholds, which establish that any change from present conditions is considered to be a significant adverse effect on the environment. The following table shows the threshold of significance for each of the foregoing impacts.

Impact	Threshold of Significance
Reduction in water levels	"A project alternative is considered to have a significant effect on local channel hydraulics if it would cause local tidal flows to substantially exceed the historical range of tidal levels or to be substantially reduced below historical tidal levels." Draft EIS/EIR at 5.2-42 to 5.2-43.
Interference with water circulation	Same as reduction in water levels. Also, "[a] project alternative is considered to have significant impact on tidal circulation flows [and hence on the Discovery Bay siphon system] if it would cause monthly average tidal flows to be reduced substantially below historical tidal flows. . . There is considerable natural variability in tidal conditions. A 10% threshold is selected to distinguish an impact from this natural variability. A reduction in simulated average tidal flows of more than 10% was assumed to be substantial." Draft EIS/EIR at 5.3-31.

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Impact	Threshold of Significance
Reduction in water quality	"Increases in EC values that result in exceedance of the maximum objective at specified locations in the Delta are considered to be significant water quality impacts. Monthly changes in EC values are also considered to be significant if they exceed 10% of the applicable objective." Draft EIS/EIR at 5.3-22.
Interference with recreational boating	"Impacts on both water-dependent and water-enhanced recreation opportunities may be considered significant if implementation of an alternative would cause a change in south Delta flows, or reservoir surface water elevations that would result in substantial changes to existing recreational opportunities." Draft EIS/EIR at 7.4-19.
Interference with non-recreational navigation	"[A] project may be considered to have a significant effect on the environment if it would result in . . . impedance of navigational craft as a result of cofferdams, or the staging of barges in navigational sections of the South Delta waterways; impedance or blockage of navigational craft in the Delta channels where the fish control gate and flow control gates are installed; and safety conflicts by operating large, slow-moving dredging equipment on Delta waterways." Draft EIS/EIR at 5.8-9 to 5.9-10.

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3. *Adoption of Performance Standards.*

The Draft EIS/EIR concludes that SDIP will not have a significant adverse effect on the environment in any of the areas of concern to the District. Specifically, the Draft EIS/EIR described the impacts of SDIP on water levels as less than significant at pages 5.2-46; 5.2-52; 5.2-54; 5.2-55; 5.2-59; 5.2-61. The Draft EIS/EIR found that there would be no significant effect on the water available for agricultural diversions due to Phase I at pages 5.1-33 – 5.1-34. The Draft EIS/EIR acknowledged that there could be impacts from Stage 2, but failed to prescribe any mitigation measures at this time. Draft EIS/EIR at 5.1-35 – 5.1-37; 5.1-41 – 5.1-42; 5.1-44 – 5.1-45; 5.1-45 – 5.1-46; 5.1-47; 5.1-48. The Draft EIS/EIR found that impacts to water quality were less than significant at pages 5.3-31; 5.2-39; 5.3-44; 5.3-47; 5.3-49; 5.3-51 – 5.3-52; 5.3-54; 5.3-55; 5.3-58. The Draft EIS/EIR found that impacts to recreational boating were less than significant at pages 7.4-21 – 7.4-22; 7.4-23; 7.4-24; 7.4-26. Finally, the Draft EIS/EIR found that the impacts on non-recreational navigation in the Delta were less than significant at pages 5.8-14; 5.8-16 – 5.8-17; 5.8-18; 5.8-19; 5.8-21; 5.8-22 – 5.8-23.¹

RD800-7

The Department and Reclamation are well-aware that there is presently substantial scientific uncertainty and public controversy regarding the cause(s) of declining fish populations in the Delta. It is rare to find a day without an article in the Department's clipping service discussing questions or controversies relating to the Delta. This uncertainty is aggravated by the cumulative nature of impacts in the Delta. SDIP's impacts on the environment cannot be gauged in a vacuum. Over the past fifty years – indeed, over the past 150 years – there have been a very large number of projects that have had physical impacts on the Delta and that have modified the Delta's environment. The District's modeling indicates that the cumulative impacts of the projects over the past fifty years in combination with SDIP have resulted in decreased water levels in Discovery Bay of up to 1.0 foot and up to 1.5 feet in Italian Slough. Accurately predicting the potential impacts of SDIP on such an environment is a daunting task, but significant cumulative impacts, such as these decreases in water surface elevations, must be addressed. In light of this uncertainty, the District wishes to ensure that SDIP, if implemented, in fact does not have adverse effects on the District.

RD800-8

Accordingly, the District hereby requests the opportunity to meet jointly with the Department and Reclamation to cooperatively develop performance standards that would be included in the Final EIS/EIR and that would guarantee that SDIP performs as well in practice as described in the Draft EIS/EIR. Data that the District has collected through its cooperative water level monitoring program with the Department is appropriate information for discussion and upon which to base the development of the performance standards. The District will also share any

RD800-9

¹ The District notes that the threshold for significance of non-recreational navigation does not identify a threshold for the potential effect of impeded navigation due to more shallow water. The District proposes that developing an appropriate standard for this effect be part of the discussion of performance standards among the District, the Department and Reclamation.

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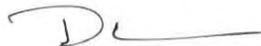
additional information it has as a part of the discussions. In particular, the District proposes that we discuss performance standards for: (i) variations in water levels at several points within the District, (ii) water quality in Old River, and (iii) navigational access to the Delta from Discovery Bay. Such performance standards, of course, would be consistent with all applicable provisions of local, state and federal law.

RD800-9

Please contact the District's Manager, Jeffrey Conway at (925) 634-2351 at your earliest convenience so that we may begin the process of developing appropriate performance standards.

Very truly yours,

DOWNEY BRAND LLP



David R.E. Aladjem

729126.4

cc: Board of Trustees
Jeffrey Conway
Christopher Neudeck

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Responses to Comments

RD800-1, RD800-2, and RD800-3

DSM2 modeling shows that tidal water level in the vicinity of RD 800 will not change as a result of the SDIP. No effects on siphons, navigation, or water circulation are expected in Discovery Bay.

RD800-4

DSM2 modeling indicates that changes in salinity in the vicinity of RD 800 will be less than significant. Salinity in Old River at State Route 4 (CCWD Los Vaqueros Intake) is representative of salinity in Discovery Bay.

The water quality model used for impact assessment for Stage 1 of the SDIP shows an increase in salinity of 0.1 and 0.2% at Emmaton and Jersey Island, respectively. This level of impact on the western Delta was not considered a significant impact, for which mitigation is required. The water quality section also indicates a potential substantial decrease in salinity in the South Delta on Old River (17% reduction) and Middle River (25% reduction). These two sites represent water quality compliance monitoring stations in a current Cease and Desist Order issued by the State Water Board. Two other compliance stations would not be significantly affected by Stage 1 elements of the SDIP. Because of the expected benefits to south Delta water quality resulting from Stage 1, the current Cease and Desist Order nearly requires the construction of the proposed permanent operable gates or implementation of equivalent measures.

RD800-5

The permanent gates are not expected to result in substantial changes in navigational access through south Delta channels. The temporary barriers currently installed each year use boat ramps at each location. The permanent gates would each have a boat lock (except in the case of Middle River) that can accommodate up to several boats at once and would be operated at all times during gate operation. The upper sections of Middle River are shallow and do not support boating access. It is not expected that the use of the boat lock will take substantially more time than the boat ramp. Compared to the existing temporary barriers, the permanent gates would provide the same or greater passage because they would only be operated during the ebb-tide periods of each day, as necessary, rather than constructed and left in place for months at a time.

RD800-6

Please see the response to comment RD800-1.

RD800-7 and RD800-9

DWR and Reclamation will meet with RD 800 and other water districts, levee maintenance districts, and reclamation districts to describe monitoring and other assurances to demonstrate minimal impacts on local district activities.

RD800-8

Cumulative effects of CVP and SWP pumping on water level are illustrated in Figures 5.2-15, 5.2-16, and 5.2-17. Very little change in water level from SDIP Stage 2 was identified for any south Delta location.

Comment Letter SJC

		SJC
 NEUMILLER & BEARDSLEE A PROFESSIONAL CORPORATION • ATTORNEYS & COUNSELORS		ESTABLISHED 1903
		77045-31986
<i>DeeAnne M. Gillick</i>		
509 WEST WEBER AVENUE FIFTH FLOOR STOCKTON, CA 95203	February 7, 2006	Feb 07, 2006 00136
POST OFFICE BOX 20 STOCKTON, CA 95201-3020	Sent by e-mail to sdip_comments@water.ca.gov and U.S. Mail	
(209) 948-8200 (209) 948-4910 FAX	Mr. Paul Marshall SDIP EIS/EIR Comments State of California Department of Resources Bay Delta Office 1416 Ninth Street Sacramento, CA 95814	
FROM MODESTO: (209) 577-8200 (209) 577-4910 FAX		
Re: SDIP EIS/EIR COMMENTS		
Dear Mr. Marshall:		
On behalf of the County of San Joaquin ("County") we submit the following comments to the South Delta Improvements Program ("SDIP") Draft Environmental Impact Statement/Environmental Impact Report ("EIR").		
The County has serious concerns regarding the SDIP as described in the EIR. First, the SDIP's proposed installation of permanent operable barriers must be installed and operated to provide adequate water quantity and quality at all times to the agricultural water users and for other beneficial uses located within the South Delta. The project purpose should be revised to fully mitigate the adverse impacts to the area caused by the export projects, to meet all existing water quality standards, and to satisfy the needs of all beneficial uses pursuant to the Delta Protection Act. Rather than operating at a minimal level as currently addressed in the EIR, the SDIP should be operated to maximize water quality in the channels in line with CALFED's goal of continuing improvements in water quality.		SJC-1
The County supports the proposed dredging of Middle River and Old River so long as the modifications to the impacted agricultural diversions are made to the satisfaction of the local diverters and that periodic dredging occurs to maintain the optimal operation of the barriers. The County does not support increased south of the Delta exports associated with pumping at 8,500 or the Napa Proposition and objects to any linkage between increased pumping and the barrier program.		
In addition, the County has other concerns regarding the impacts of the SDIP on flood control, on dissolved oxygen issues in the Deep Water Ship Channel as well as the fishery and recreational resources of the Delta.		
The Project Overview provides on page 5 that the temporary barriers project began in 1991 "as an effort to improve the water levels, circulation patterns and fish protection in the South Delta" and it indicates that the three temporary rock barriers are used "to improve conditions		
400282-2		

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for local agriculture.” The Project Overview continues on page 6 that a goal of the SDIP is “to increase water supplies south of the Delta.” The EIR Executive Summary indicates on page ES-1 that since 1991, actions have been proposed to “improve water supply for south Delta agriculture, improve fish protection, and increase the amount and reliability of water supply for the State Water Project (“SWP”) and the Central Valley Project (“CVP”).

The County does not support any increase in water supplies south of the Delta, especially until and unless the water supplies and the water quality of the water supplies within the south Delta used for agricultural and other purposes are improved and protected. Such export and use of Delta water without the prior satisfaction of the needs of the south Delta agricultural users would be a direct violation of the Delta Protection Act (Wat. Code. §§ 12200 et seq.) and the Watershed Protection Statute (Wat. Code §§ 11460 et seq.). The SWP must not increase any pumping capacity until such time as the current impacts from the export pumps are completely mitigated and until such time as the SDIP improvements are installed and operated in such a manner to demonstrate that the improvements maintain an adequate water supply and adequate water quality for the agricultural beneficial users within the South Delta as well as provides adequate safeguards and mitigation to the Delta fishery resources.

SJC-2

The County is particularly concerned about how the SDIP will be implemented and managed in such a manner to ensure adequate water quantity, flow and quality in all areas and at all times in order to provide continued adequate water supply to the agricultural beneficial users within the South Delta. At present, there is grave concern that barrier operation modeling results show that this will not be the case. As such, the County adopts by this reference the comments and concerns provided by the South Delta Water Agency.

SJC-3

The installation and operation of permanent operable barriers must balance and maintain many differing factors to ensure adequate continued water quality and quantity within the south Delta channels. Some of the factors that must be considered and maintained include maintaining adequate water flow within the south Delta rivers, channels and sloughs including protecting against an accumulation of salts and probable water quality standard violations due to the limited water flows during certain periods and within all if the South Delta channels, sloughs and rivers.

In addition, in order to minimize water quality and flow impacts from SDIP on the lower San Joaquin River below Brandt Bridge, DWR and USBR must commit to providing a minimum flow on the River through recirculation, exchanges, or other means without any additional impact on New Melones Reservoir. These agencies should also commit to meeting the water quality standard at Brandt Bridge with downstream flows and not allow reverse flows on the main stem of the San Joaquin River to occur. Such downstream flows will provide help in maintaining the dissolved oxygen levels at the Stockton Deep Water Ship Channel. In addition, the barriers must be operated at all times throughout the year in order to optimize the effect of the barriers to improve water quality and quantity throughout the Delta.

SJC-4

The County is also concerned with the actual operable barrier design and the construction of the facilities along the Delta channels. The EIR is deficient in information regarding the impact of the barriers on potential flooding in the Delta. DWR must consult with local

SJC-5

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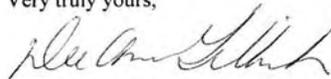
Reclamation Districts and their engineers to fully analyze the flood flow effects of the barriers. The barriers must be designed to be "flood neutral" as are all other in-water works in the Delta. Any flood flow restriction is unacceptable in the Delta which is already overly stressed during flood situations. The design and construction of the operable barriers may need to include substantial setbacks and levee reconstruction in order to not increase the flood flow demands within the system.

SJC-5

The installation and operation of the SDIP is a complex proposition. The County requires that such physical facilities are designed, installed and operated in such a manner to protect the County's important beneficial agricultural, fishery and recreational uses. The design and operation of the SDIP must include adequate mitigation measures and safeguards to protect these important County resources.

At this time, the complete impacts of the SDIP is still being evaluated by the County and other interested and affected parties. It is anticipated that additional comments and concerns will be identified regarding the installation and operation of the SDIP and the County requests the opportunity to provide such further comments at a later time.

Very truly yours,



DEEANNE M. GILLICK
Attorney at Law

DMG:dmg

cc: Senator Michael Machado
Dr. Mel Lytle
Thomas J. Shephard

400282-2

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Responses to Comments

SJC-1

The water quality section indicates a potential substantial decrease in salinity in the south Delta on Old River (17% reduction) and Middle River (25% reduction) as a result of implementing Stage 1 of the SDIP. These two sites represent water quality compliance monitoring stations in a current Cease and Desist Order issued by the State Water Board. Two other compliance stations would not be significantly affected by Stage 1 elements of the SDIP.

Please also see Master Response O, *Gate Operations Review Team*.

SJC-2

Implementation of Stage 1 includes the adaptive management of gate operations. Modeling, however, does indicate significant improvements in water quality in several south Delta locations resulting from Stage 1, and slightly less improvement occurring if and when Stage 2 is implemented. For both Stage 1 and Stage 2, DWR and Reclamation would be responsible for the continuous compliance with existing water quality regulations and requirements.

SJC-3

Please see Master Response O, *Gate Operations Review Team*.

SJC-4

Reclamation is currently in the process of developing a Plan of Study for a feasibility study of Delta-Mendota Canal Recirculation as a means to augment flow and improve water quality on the San Joaquin River. Additionally, both DWR and Reclamation are already committed to meeting the water quality standard at Brandt Bridge. Water Rights Decision 1641 stipulates that water quality objectives for agricultural beneficial uses in the southern Delta shall be met at specific monitoring locations, including Brandt Bridge. Furthermore, the project description includes operating the head of Old River gate at times throughout the year that will optimize flow on the San Joaquin River in an effort to help improve DO levels.

The impacts of the SDIP on Brandt Bridge water quality are described on page 5.3-26 and in Figure 5.3-11. Water quality degradation downstream of Brandt Bridge is a function of discharges to the San Joaquin River from various sources. Proposed gate operations at the head of Old River will maintain the historical 50/50 flow split with the San Joaquin River; this will improve flow conditions in

the Deep Water Ship Channel and the low DO conditions. Because the proposed flow conditions will not allow reverse flows in the San Joaquin River past Stockton, the water quality there will be entirely dependent on San Joaquin River water quality and will be slightly lower quality than at other times in the past. Gate operations have little effect on water quality outside of the interior south Delta channels.

SJC-5

Please see Master Response R, *Effects of the South Delta Improvements Program Stage 1 Tidal Gates and Dredging on Flood Elevations in the South Delta Channels*.

Comment Letter SJWD

	<h3>San Juan Water District</h3>	SJWD	
	<p>P.O. Box 2157 • Granite Bay, California 95746 • 916.791.0115 9935 Auburn Folsom Road • Granite Bay, California 95746 Fax: 916.791.7361 • www.sjwd.org</p>		
		<p><i>Directors</i> Edward J. "Ted" Costa, <i>President</i> Pamela Tobin, <i>Vice President</i> Dorothy Kilgore Kenneth H. Miller Dave Peterson ▲ <i>General Manager</i> Shauna Lorange</p>	
February 8, 2006			
Mr. Paul Marshall 1416 Ninth Street Sacramento, Ca 95814	FEB 14 2006 00200		
Subject: SDIP EIS/EIR Comments			
Dear Mr. Marshall:			
Thank you for the opportunity to comment on the South Delta Improvement Program (SDIP). I have provided my comments below as briefly as possible.			
First, I would like to commend both the State of California (SWP) and the United States Bureau of Reclamation (CVP) in working in a collaborative approach to identify the most efficient way to manage water in the State of California. This cooperative approach is refreshing to witness.			
The District supports full contractual deliveries to all CVP contractors. While encouraging the SWP and CVP to continue to work in a collaborative manner toward this goal, San Juan Water District believes that the projects must evaluate SDIP's potential impacts to water supply reliability at Folsom Reservoir. In the event that SDIP's implementation reduces carry over storage in Folsom Reservoir, the resulting impacts must be mitigated.	SJWD-1		
SDIP has significant potential to impact the reliability of water supplies provided by Folsom Reservoir for both consumptive and environmental uses. The CVP uses Folsom Reservoir as an "annual reservoir," based on the assumption is that the Reservoir is highly likely to refill each year, which it generally does. The District, however, is seriously concerned about the years when Folsom Reservoir does not refill and about whether SDIP will make such shortages years more frequent and/or more severe. SDIP's impacts to fish flows and municipal water supply reliability could be significant if SDIP results in more frequent and/or more severe storage shortages at Folsom Reservoir.			
Folsom Reservoir supplies over 98% of the water supply for San Juan Water District (wholesale provider to Citrus Heights Water District, Fair Oaks Water District, Orange Vale Water Company, and San Juan Water District retail service			

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area), as well as the cities of Folsom and Roseville. These purveyors are the water suppliers for the eastern portion of the greater Sacramento Metropolitan Area. The water supply at Folsom Reservoir is critical to the health and safety of over 250,000 people. **Folsom Reservoir is the only portion of the CVP capable of supplying this region.**

SJWD-1

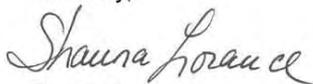
The SDIP EIS/EIR states that SDIP would reduce average carryover storage at Folsom Reservoir by an average of 22 taf because of the increased deliveries from the Reservoir to satisfy the increased export demands. It is not the average that primarily concerns the District, but rather the intermittent years in which Folsom storage could be reduced significantly. In those years when reduced Folsom carry over storage spikes significantly lower, water contractors south of the Delta should receive water provided from other reservoirs within the system. As the SWP and CVP continue to evaluate the operational criteria to utilize the additional capacity made available by the SDIP, it is imperative that any potential impact to the reliability of surface water deliveries to Sacramento-area CVP contractors be analyzed and mitigated in a suitable manner.

In addition, the SDIP EIS/EIR also must analyze, and propose mitigation for, the impacts that reduced Folsom storage may have on the lower American River's environmental resources. Sacramento-area municipal water purveyors like the District and environmental groups, among others, have signed the Sacramento Water Forum agreement, under which the signatories work together to satisfy the twin goals of enhancing the region's water supplies and improving the lower American River's environmental resources. Folsom Reservoir of course provides flows to the lower American River. If SDIP would result more frequent and/or more significant reductions in lower American River flows during dry years, then that impact must be analyzed and mitigated in a suitable manner.

SJWD-2

I appreciate your acceptance of my comments. If you have any additional questions or comments, please do not hesitate to contact me on my direct line at 916-791-6936.

Sincerely,



Shauna Lorance
General Manager

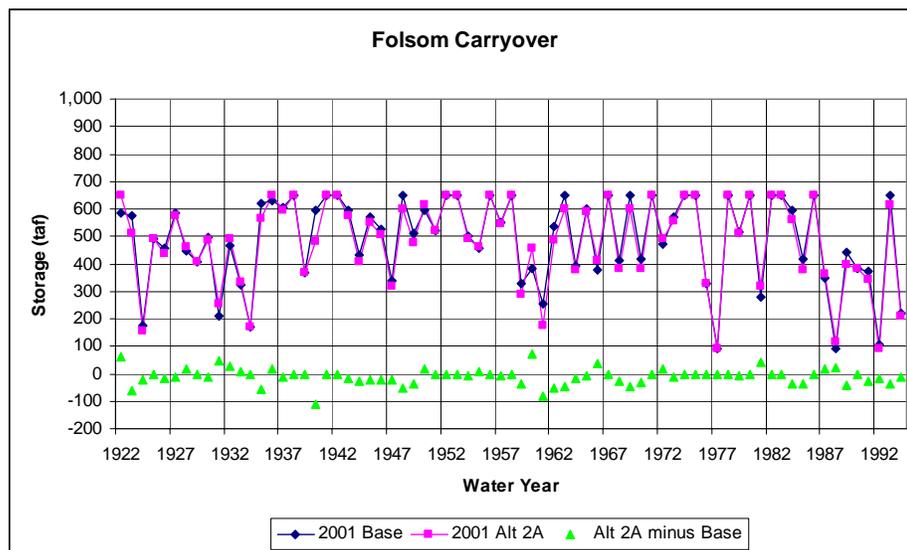
Responses to Comments

SJWD-1

Folsom Reservoir operations will not be changed by the SDIP Stage 2 alternatives. Reclamation operates Folsom to meet all local water contracts and supply all water rights. The Water Forum agreements are included in the CALSIM modeling. The description in Section 5.1 of a reduction in Folsom Reservoir carryover of 22 taf refers to the expected changes under 2020 baseline conditions, largely because of the higher water supply deliveries from Folsom. The SDIP has no additional effects on Folsom Reservoir levels.

The monthly CALSIM results for the SDIP 2001 and 2020 baselines and each alternative can be reviewed in a single Excel spreadsheet (MacroSets_RussOutputs_10-18-05.xls) from the SDIP website (<ftp://ftp.modeling.water.ca.gov/pub/SDIP/DSM2_SDIP_results>).

For example, Alternative 2A will reduce the average carryover storage by less than 10 taf. The pattern of carryover storage will not be substantially reduced. The figure below illustrates these small simulated changes.



SJWD-2

SDIP Stage 2 alternatives will have no effect on the dry year river flows below Folsom Dam. These flows are regulated by the existing water right decisions, as well as by other Reclamation agreements and provisions. If the proposed Water Forum minimum flows are approved, this new water right decision will control flows in dry years.

Comment Letter SDWA

SDWA

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John Herrick

February 7, 2006

Via e-mail

Mr. Paul Marshall
Department of Water Resources

Re: Comments to DEIS/R for the South Delta Improvements Program

Dear Mr. Marshall:

In making these comments, the South Delta Water Agency ("SDWA") notes that it is involved in ongoing discussions and negotiations with DWR regarding the project. It is the intent of the parties through those discussions to resolve all of the issues which are of concern to SDWA. At this time, it is anticipated that the resolution would be some sort of outside agreement similar in form to that which was originally proposed as a settlement to the lawsuit referenced below. In light of this, SDWA looks forward to reaching agreement with DWR and USBR so that it may fully support the barrier portion of SDIP.

One portion of the SDIP deals with the tidal barriers. The genesis of the barrier project was a 1982 lawsuit filed by SDWA against both DWR and the USBR. That suit alleged adverse impacts arising out of the operation of the SWP and CVP to the detriment of southern Delta water users. The suit was eventually stayed so the parties could follow through on settlement negotiations. Those negotiations were at first productive and resulted in the idea that exports could continue if tidal barriers were installed and operated in the south Delta to address water level and quality impacts. Another portion of the negotiations dealt with addressing the effects of the CVP on San Joaquin River flows and anticipated the commitment of additional flows down the River. This latter portion of the negotiations was terminated by the USBR, which in turn prevented any final settlement from being formalized.

From the beginning, SDWA has tried to have a comprehensive resolution of the issues in order that the alleged effects of the projects are cured or mitigated. At this time, the SDIP preferred alternative addresses many but not all of the issues. Hence, SDWA believes a resolution will require not only necessary changes to the SDIP, but also, outside additional commitments by DWR and the USBR.

The other portion of SDIP deals with increasing SWP export rates up to 8500 cfs. Per the DEIS/R, DWR and USBR are waiving any statute of limitations for a CEQA or other challenges to the portions of this document which relate to 8500 until sometime after the decision on selecting a preferred alternative for the 8500 is accomplished through additional or supplemental

environmental review. Based on that assurance, SDWA will make no comments at this time on 8500 or transfers done thereunder, and the possible effects of those actions.

The following comments are divided into two areas. The first, which includes Nos. 1 through 11 are general comments on the efficiency and performance of the proposed barrier program. Although general, these comments do deal with the specifics of water quality, quantity, and depths associated with proposed barrier operations. The second group of comments are more narrowly focused on statements, facts, or assumptions in the DEIS/R which SDWA seeks to correct or comment on.

General Comments

1. Project Purpose. The SDIP project purpose is to "maintain adequate water levels, and through improved circulation, water quality available for agricultural diversions in the South Delta." The water level, flow and quality problems experienced in the South Delta are the result of the operation of the SWP and CVP. Although the exact extent of those impacts may be the subject to discussions, the effects themselves and the magnitude thereof is not. Attached hereto is a 1980 Report on the effects of the projects on South Delta water levels, inflow, circulation, quality and quantity. The SDIP project purpose should be to fully mitigate the adverse impacts to the area caused by the projects. In addition, as this project is a key portion of CALFED's attempts to "fix the Delta," to improve water quality for all users, and to not redirect adverse impact to other parties, the project purpose should also be to meet all existing water quality standards and to satisfy the needs of all beneficial uses in the area pursuant to the Delta Protection Act and watershed protection statutes. As written, the project purpose allows for water levels and quality to be maintained at what DWR and USBR deem adequate, rather than what the local diverters believe is adequate or what is required by statute or permit conditions.

SDWA-1

2. Salinity Goals. Actual operations of the barriers, Clifton Court Forebay, the CVP Tracy Pumping Plant, and numerous upstream actions taken by or at the behest of the projects, will affect the water quality in the southern Delta channels. The system should be operated to maximize water quality in the channels in line with CALFED's goal of continual improvements in water quality. Such efforts will not only be beneficial to local diversions, but will improve export quality also to the benefit of municipal and agriculture export users. Hence, regardless of the existing water quality standards, the system should be operated to better those standards when reasonable.

SDWA-2

3. Barriers Used as Needed. Current language in the DEIR/S suggests that use of the barriers in summer will be allowed most of the time and that use during other times will be contingent on other factors, and may not be allowed. There must be assurance that the barriers and other facilities will be operated when and as needed to protect the in-channel water supply and quality. This protection must not be subject to being overridden to satisfy other interests. Fishery concerns may create a tension with barrier operations, but both are mitigation for project operations and one should not trump the other. If the projects cannot protect fisheries and local diversions, then exports must decrease to the point where such complete protection is provided.

SDWA-3

4. Water Levels. The draft SDIP plans to do specified dredging and then operate barriers so that the water level at any point in the channels downstream of the HOR will not fall below 0.0 ft msl, and will have adequate depth at that level for continuous operation of local diversion facilities. This level is lower than that maintained with temporary barriers. The barriers are proposed to be operated so that there is a net unidirectional reverse flow from the Middle River barrier up to Old River; a net unidirectional reverse flow from the Old River barrier near Tracy up and through the connecting channels to Grant Line Canal; and a net unidirectional flow in Grant Line Canal over the Grant Line barrier/weir. Alternatively the flows in Old River and

SDWA-4

Grant Line can be switched so that the upstream flow is in Grant Line and the downstream flow is in Old River.

DWR modeling indicates that this lower level is satisfactory. However, there is no margin of error. If the modeling is off for any reason, operations may not be flexible enough to correct the problem while still maintaining water quality. [This is due to the tension between the two goals; raising the barriers to help levels will decrease net flows and adversely affect quality.] The program should insure that water levels are kept at heights that actually do allow for local diversions to continue as needed and without impairment.

SDWA-4

DWR and USBR should commit to keeping water levels at heights "which will allow for local diversions to continue as needed and without impairment." If proposed operations do not provide such protection, DWR and USBR must commit to supplementing the tidal inflow so that adequate depth can be maintained while still providing circulation for quality concerns. This supplemental flow will most likely involve the use of low-lift pumps at one or more of the tidal barriers. This contingency option should be included in the final EIR/S. The only other option is to increase San Joaquin River flow such that the net flow is downstream in all South Delta channels. This option appears to be more difficult to implement.

5. Net Flows/Maintaining Water Quality. DWR modeling (attached) done at the behest of SDWA indicates that under certain conditions, during the two neap tide cycles of each month and with average local diversions, net flow upstream in Middle River and Old River will slow sometimes to 50 cfs or less. Both DWR and SDWA believe such a low flow will be insufficient to adequately flush the salts and other constituents. During these times, it is likely that water quality on Old River, and perhaps also on Middle River will exceed the standard. This is of special concern in Old River which receives both a higher amount of poor San Joaquin River water and the effluent discharges of the City of Tracy. During times of peak local diversions, the modeling indicates that the flows in the upstream areas of Old River and Middle River will rarely be in the upstream direction (which is necessary for the maintenance of water quality). At those peak times, the flows will be back downstream creating a null zone in each channel where salts and other constituents will accumulate and concentrate. At those times, water quality in the channel cannot be expected to be in compliance with water quality standards. Even when the flow under these conditions is back upstream, it is far less than what is necessary to have any meaningful flushing of the channel.

This lack of salinity control can occur twice each month over a four to seven day period at a minimum, and at most (under peak depletion times) during the entire month. Although DWR modeling of these conditions uses July of 1995 as the worst case scenario, this does not mean these conditions can be assumed to be rare. It is likely that they will occur in many summer or fall months. Even if these conditions were not frequent, they should still constitute a significant impact that must be avoided or mitigated. Local diversion needs and the requirement for good water quality (at or below the standard) are necessary for the production of crops. Evidence on the impacts to crops production are also included herewith. Local agricultural diverters should not subject to protection at some times and not at others.

SDWA-5

DWR modelers have proposed that to address this situation when net flows are insufficient or lacking, the Old River barrier be used as a weir instead of the Grant Line Canal barrier. DWR partial tracking indicates that with such a change (under monthly average diversions, not with peak diversions) the constituents of Old River water will be flushed out downstream over a three to five day period. This does provide a flushing, but it is unknown if that will be enough. That channel is expected to get even more municipal discharges in the near future, and already experiences low DO levels and elevated salinities.

Given the lack of margin of error in water level portion of the program, it is not certain that switching the flow patterns will solve the quality problem when it occurs. Therefore, just as the water level concerns require supplementing the incoming tidal flows, so too must this option

be considered for the water quality aspect of the project. It appears that a commitment to the low-lift pumps is necessary to make the program provide the necessary protections.

The program must also insure that there is a net export or flushing of incoming salts out of the area. Even if flows at some times are sufficient to meet water quality standards, there can still be an accumulation of salts on the lands and in the groundwater of the area, to the detriment of local beneficial uses. Flows must transport all of the incoming salts out of the area.

The water quality analysis and modeling supporting the program should be updated. Currently the model used incorporates an assumed salinity concentration for local discharges. However, this assumption derives from a survey that lumps portions of the Central Delta with the South Delta to arrive at an average discharge salinity. Central Delta discharges from the area included in the survey have salinities well below those in the South Delta and consequently, the assumption causes results which understate the salinity of the return flows. This in turn results in an understatement of the water quality in the channels and the effects of the SDIP barriers. Hence, it is unknown at this time if the impacts to water quality resulting from the project are adequately represented and thus an analysis of significant impacts undeterminable.

SDWA-5

6. Tom Paine Slough A question exists as to whether or not Tom Paine Slough will fill under the manipulated tidal conditions of the SDIP. In recent years (at least 2002, 2003, 2004), the Slough has experienced significant problems of insufficient water levels. A number of causes have been proposed, but the effects of export pumping on the ability of the channel to get water into the Slough is at least a part of the underlying causes. Prior investigations by SDWA and USBR in their 1980 Report indicate that channel resistance in the area greatly increases and therefore the normal degradation of the channel bottoms may have exacerbated the "normal" problem of filling the slough such that it cannot now fill during the time available. The SDIP and related exports decrease the duration and peak of the incoming tides. At this time, DWR modeling indicates that SDIP will not make it any easier to fill the Slough and may likely make it more difficult. The program should include measures to insure that the Slough will fill as needed.

SDWA-6

7. San Joaquin River. The SDIP proposes to address the channels west of the HOR and not the mainstem. As stated above SDWA believes it should not separate out two portions of the same problem; the adverse effects of the SWP and CVP on water levels, quality and flows in the South Delta.

The SDIP assumes that under monthly average depletion conditions, minimum flows of 700 - 800+ cfs will be present at Vernalis to supply the necessary 500 cfs into HOR while still providing depletion needs and downstream flow towards Stockton. [SDIP assumes operation of the HOR such that 500 cfs flows into Old River when mainstem flows are 700 - 2,200. Above 2,200, the barrier is proposed to be fully open. Below 700 the barrier is also fully opened.] The 700 - 800+ cfs amount is based upon 150 - 200 cfs of diversions from Vernalis to HOR plus the 500 cfs regulated into Old River with the remaining flow, if any, providing net downstream flow towards Brandt Bridge. When peak diversions are modeled, the 500 flow into HOR must be raised to 700 cfs during the neap tide periods in order to maintain water levels west of the HOR barrier (this additional inflow has no effect on the lack of net flow/water quality problem identified above, it is necessary to keep water levels behind the tidal barriers above the 0.0 msl). In such an event, the minimum Vernalis flow to provide these needs is somewhere near 1,000 cfs in order to maintain some sort of net downstream flow to Brandt Bridge.

SDWA-7

Current modeling of the San Joaquin River predicts that these summer flows may decrease to approx 600 cfs.

When the flows drop below approx 1,000 cfs at Vernalis, many local diversions on the mainstem are unable to draw water out of the river due to low levels. If the flows drop below 700 - 800+ cfs, the SDIP still requires 500 - 700 flow through the HOR. Given the depletions upstream on the mainstem, that required flow will result in reverse flows in the Brandt Bridge

area towards HOR. This circumstance is not expressly analyzed in the DEIS/R, but was done by DWR in its communications with SDWA. The modeling shows that if flows on the mainstem decrease to 600 cfs at Vernalis, the San Joaquin will reverse its net flow from north to south. This reverse flow is not expected to be abrupt and substantial, and will therefore result in the creation of a large null zone where quality will worsen. In that circumstance, the SDIP will also be lowering the levels in the mainstem and exacerbating the diversion problem. SDWA asserts that pre-project, the tidal waters reached all the way to Vernalis, and that the tidal effect helped provide the necessary water height notwithstanding low River flows. Hence, under those conditions the diverters would have had sufficient depth for their pumps, and therefore the SDIP should insure they can continue such diversions.

SDWA-7

DWR and USBR must commit to providing a minimum flow on the River through recirculation, exchanges, or other means. They should also commit to meeting the water quality standard at Brandt Bridge with downstream flows and not allow reverse flows on the mainstem to occur. Such downstream flows will provide help in maintaining the DO levels at the Stockton Deep Water Ship Channel. In addition, DWR may want to explore dredging and intake alterations along the mainstem to minimize the extra flows needed.

8. Barrier Effects of Flood Flows. It appears that SDIP modeling for flood flow effects in the DEIR/S is insufficient. The analysis appears to have compared the HOR channel cross-section as it is now with the cross-section after dredging for the barrier but without the barrier in place. Thus the modeling gives no meaningful data on flood flow effects. Other barriers were not examined, but were assumed to have no effect on flood flows. This deficiency in modeling must be corrected in the final EIR/S. DWR and USBR must consult with local Reclamation Districts and their engineers to fully analyze the flood flow effects of the barriers. The barriers need to be flood neutral as are all other in-water works in the Delta.

SDWA-8

9. Maintenance Dredging. In order to maintain the efficiency of the barriers, maintenance dredging is required to insure barrier operations continue as planned. Since the barriers are mitigation for the adverse effects of the SWP and CVP on local beneficial uses, it should be the obligation of the projects to make sure the barriers continue to work. That obligation should include maintenance dredging.

SDWA-9

10. Downstream Diversions. The barrier program will adversely affect water levels downstream of the structures. The SDIP includes necessary changes to diversion intakes and dredging as necessary. It appears that Victoria Island is also experiencing this problem and will need to be added to the project, especially if 8500 is approved.

SDWA-10

11. Other. Both the 1995 Water Quality Control Plan for the Bay-Delta and D-1641 recognized that the previous salinity monitoring locations will no longer be representative of conditions throughout the channels once barrier operation create altered flow patterns. New monitoring points must therefore be representative of salinity throughout the channels during each mode of operation.

SDWA-11

Specific Comments

-- It is unclear as to what the net flows will be in channels such as Old River during VAMP flow periods. At those times, the project proposes closure of head of Old River. Even with the expected low exports during that time, there does not appear to be a mechanism for creating a net flow in the various channels. Although these are normally times of good quality, during low flow years the existing problems in Old River may be exacerbated rather than improved.

SDWA-12

-- On page 1-5, the document lists numerous effects on water quality and levels in the South Delta. Although there are certainly numerous things which affect such quality and levels, the document should not suggest that export levels are merely one of many. The

<p>conditions other than exports did not historically appreciably affect local diversions. However, when exports began and CVP service area discharges entered the river, numerous adverse effects to the South Delta arose.</p>	SDWA-12
<p>-- On page 1-19, the document references a CALFED goal to balance beneficial uses as well as the needs of the environment. To the extent such a balancing is contrary to existing water right priorities including the priorities of the Delta Protection Act and area of origin statutes, such a balance would be illegal.</p>	SDWA-13
<p>-- Page 1-30 references a potential agreement to allow for the easy installation of low lift pumps to supplement tidal inflows. The project at a minimum should anticipate and allow for such installation. The operational scenarios examined by the document refer to an increase in State exports up to 8,500 cfs. Until the perceived problems with the SDIP are either resolved or otherwise corrected, there should be no increase in exports allowed.</p>	SDWA-14
<p>-- With regards to the various alternatives examined, it should be made clear that options which include only the HOR barrier or only the HOR barrier and the Old River and Tracy Old River barrier would not mitigate the effects of the export projects on the South Delta. Closing off the head of Old River for the protection of fish without some other agreed-to program could be deemed illegal as it would deprive various riparian, appropriate, and pre-1914 water right holders of water to which they are entitled.</p>	SDWA-15
<p>-- SDWA believes there should be no interim 8,500 operations until resolution of the herein-described issues is accomplished.</p>	SDWA-16
<p>-- The document states in one place that the barriers will be installed without any levee relocation. At another place, it states that the barriers will have no adverse effects on the passage of flood waters. Given the drawings and schematics of the barriers, it appears that each will have an abutment and other in-channel structures which will necessarily impact the passage of flood flows. The final document should include an examination and most likely adoption of levee relocations to address this issue.</p>	SDWA-17
<p>-- At page 2-26, the document describes how operation of the tidal barriers would vary over the course of the peak agricultural diversion season. This statement should be corrected to indicate that the barriers will always be operated as needed.</p>	SDWA-18
<p>-- Page 2-29 describes a gate operations review team which does not include SDWA. In addition to resolving the issues described herein through an agreement, any oversight team dealing with barrier operations must include a representative of SDWA.</p>	SDWA-19
<p>-- On page 2-33, the amount of dredging proposed is set forth. It would appear that substantially more dredging will be necessary in the Doughty Cut/Old River/Salmon Slough area. SDWA suggests the document be changed to include such additional dredging.</p>	SDWA-20
<p>-- It should be noted that the document and especially figure 4-1 therein show that the project results in lower peak tide levels under all alternatives and lower low tides during a substantial portion of the year during the preferred alternative. The benefits from such higher tides should not be understated.</p>	
<p>-- The document's treatment of water rights in Chapter 5 is incomplete. It suggests that South Delta diverters may not always be entitled to divert from the channels. To the contrary, given the area's elevation, there is always water in the channels, even during the worst droughts of record. During those times, all inflow into the Delta provided a supply for diverters which was maintained or supplemented by Bay waters. Only on one occasion did sea water intrude into the South Delta and that was in a September, allowing local diverters to adjust</p>	SDWA-21

accordingly. The issue of maintaining water quality has been settled by being placed in the permits of the DWR and USBR, besides other statutory and regulatory requirements. Hence, there are no times when South Delta diverters would be legally unable to divert from the channels.

-- The document makes the error of analyzing averages, whether it be flows, tides, depletion rates, or salinity. Averages mask maximum and minimum conditions and give the impression that there are no problems. This is inappropriate. For example, average water levels may be sufficient for local diversions, but those averages may include substantial times when levels are below the target level. During those times, diversions will be impaired and crops may be affected. When the higher levels occur it does not "undo" the harm that occurred when the levels were low. The document notes some of these extremes, but concludes that on average the extremes don't result in significant impacts.

SDWA-22

-- The document lists the priority of uses for the increased export rates, but these uses do not include recirculation of export water for release into the San Joaquin River. By excluding such a priority, DWR and USBR are ignoring D-1641's directive to examine recirculation as a means of addressing salinity loads/concentrations on the River, and HR 2828's directive to do the same.

SDWA-23

-- Page 5.2-17 states that Tom Paine Slough is isolated from tidal influences. This is only partially true. The siphons which fill the slough are influenced by the tides on the Old River side. Anecdotal observations indicated that the problems experienced on the slough in recent years was directly related to the tide levels in Old River.

SDWA-24

-- The analysis of impacts on tide levels in Chapter 5.2 requires clarification. The impacts stated are substantially different than those contained in the 1980 Report and an explanation would seem appropriate. In addition, some of the analysis includes SWP export rates at 10,300 cfs. Such an analysis should not be done unless one of the purposes of the document is to allow later tiering for 10,300. If that is the case, it should not be. Any decision on such a radical changes must stand alone and not be hidden in this document. At this time, DWR modelers and SDWA acknowledge that protection of water levels and quality in the South Delta cannot be maintained when SWP exports are at 10,300.

SDWA-25

-- The operation of the tidal barriers on page 5.2-30 gives a false impression that the barriers can be manipulated to achieve higher water levels. As currently modeled, raising the level above the 0.0 msl goal will adversely affect circulation and quality.

SDWA-26

-- The data in Figures 5.2-28 et. seq. raises numerous questions. For example, how can water levels at Grant Line be lower than -1.0 with barrier operations which prevent such an occurrence? Similarly, under the circulation scenario, water levels sometimes drop below -1.0. Discussions with DWR modelers indicated that with the GLC barrier at 0.0, the water levels in the channels upstream would remain at or above 0.0. If water levels drop below this target, even for short periods of time, substantial impacts do occur to local diversions. [Loss of siphon or pump results in an interruption of irrigation needs. Re-establishing the supply results in over watering of a portion of the crop, and the delay can result in lack of water for the remainder of the crop. The later application of irrigation water does not "cure" the previous stress to the plant when water was unavailable.]

SDWA-27

-- The analysis of salinity effects should take into account that standards apply to all portions of the channels, not just at specific compliance locations.

SDWA-28

-- It is not clear how the changes in water quality which are greater than 10% (Table 5.3-3) are treated in the significance analysis. A ten percent changes was described as significant

in the text, but the results are not deemed significant. The project should result in full compliance with the 0.7/1.0 EC standards.

– The water quality and level impacts resulting from a substantial amount of transfers (see for example page 5.3-62) are generally unexamined and deferred. SDWA assumes that comments to this may be made at the time the preferred alternative for 8500 is determined.

SDWA-28

– The modeling results for EC contained in Figures 5.3-46 et. seq. show exceedances above the standards. If those exceedances constitute a violation of the standards (are over thirty days) they are necessarily significant under CEQA. Even if they do not occur over the thirty day average time frame of the standard, they should be considered significant to the degree they impact crop production.

The SDWA looks forward to resolving its concerns with DWR and USBR.

Very truly yours,

JOHN HERRICK

Attachments

Various DWR flow and salinity model runs
1980 Report (send in two parts)
Cease and Desist Hearing Transcript November 21, 2005
Alex Hildebrand Testimony and Exhibits
Terry Prichard Testimony
Dr. Sean Snaith Testimony and Exhibits

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Responses to Comments

SDWA-1

The project purpose statement is intended to meet the minimum needs of local diverters such as SDWA, and also to allow for the best possible CVP and SWP operations. Existing water quality standards and other applicable requirements will continue to be met. Therefore, DWR and Reclamation intend to meet the “No redirected impacts” principle of CALFED.

SDWA-2

Existing salinity objectives in the Delta and San Joaquin River have been established by the State Water Board to protect municipal, agricultural, and fish and wildlife uses of water. SWP and CVP reservoir and Delta operations are managed to protect all beneficial water users and provide good quality water for water supply contractors south of the Delta. Whenever reasonable to do so, project operations will provide the best available water quality in south Delta channels.

SDWA-3

Please see Master Response O, *Gate Operations Review Team*.

SDWA-4

DWR and Reclamation are committed to provide a minimum water level of 0.0 feet msl to allow diversions from all south Delta pumps and siphons upstream of the agricultural gates. Low-head pumps are not currently included in the gate design. Reclamation and DWR have completed modeling that shows low lift pumps would not be necessary under the range of operations considered in the 16-year period analyzed. However, engineers are designing elements of the proposed gates to allow for the placement of low lift pumps in the future, if they are needed, without modification to the new gate structures.

SDWA-5

The SDIP proposed tidal gate operations will produce substantial net circulation flows in the south Delta channels, which are expected to maintain very good water quality. The existing EC monitoring locations throughout the south Delta channels will provide sufficient information for the GORT to consider possible modifications in the tidal gate operations to reduce salinity, when EC conditions suggest that this is needed. Section 5.2 describes in detail the channel volumes,

tidal fluctuations, and corresponding flushing of water in the channels upstream of the tidal gates. Tidal flow and salinity conditions will be much better with the SDIP than they have been with the temporary barriers.

The general operation of the head of Old River tidal gate for fish protection can be modified to also provide for a flow split that allows sufficient water into Old River for salinity management and dilution of the Tracy treated wastewater effluent, while still maintaining a net downstream flow at Brandt Bridge and at Stockton.

The DSM2 model does use constant monthly estimates of agricultural drainage salinity. This is considered to be a reasonable representation of central and the south Delta agricultural drainage effects; very few measurements of these agricultural drainage EC values are available.

SDWA-6

Tom Paine Slough water levels will be protected by the continued operation of CCF gates under the priority 3 schedule, which allows the higher-high tide to fill south Delta channels without diversions into CCF. DWR will continue to work with SDWA to resolve local water supply issues along Tom Paine Slough.

SDWA-7

SDIP does not change the San Joaquin River flows at Vernalis or Mossdale. Diversions along the river may have problems during periods of summer low flow. SDIP operations at the head of Old River will be evaluated and determined through the GORT. There are no guaranteed flows; the SDIP allows tidal and net flows in the south Delta channels to be more adaptively managed than with the temporary barriers, which generally restrict tidal flows.

The modeling results you cite in your example are based on maximum exports from both CVP and SWP facilities coupled with maximum diversions for agricultural uses throughout the south Delta. In the modeling you cite, the original low flow condition was on the order of 1,300 cfs on the San Joaquin River. It was set lower to study the hypothesis that SDWA presented. It is believed that the proposed gate operations will meet or exceed the needs of the SDWA in the interior south Delta during low flow periods. No minimum flow on the San Joaquin River is being proposed at this time.

SDWA-8

DWR has conducted additional flood-flow modeling in consultation with SDWA staff. Each of the four tidal gates are flood-neutral, causing no significant increase in water surface elevation at a peak Vernalis inflow of 52,000 cfs

(existing levee capacity). Dredging in Middle River may increase flows in Middle River, but will not substantially raise water levels (more than 0.1 feet) during flood events. Additional modeling is being conducted in cooperation with CDWA and SDWA engineers to extend the dredging to Tracy Boulevard Bridge to obtain a dredging plan that is flood-neutral. Please also see Master Response R, *Effects of the South Delta Improvements Program Stage 1 Tidal Gates and Dredging on Flood Elevations in the South Delta Channels*.

SDWA-9

As described in Chapter 2 of the Draft EIS/EIR, DWR would conduct maintenance dredging around the gates, as needed, to continue operating the tidal gates.

SDWA-10

Water levels along Victoria Canal will not be changed by the SDIP. However to ensure uninterrupted function of diversions, the SDIP includes spot dredging for intakes along Victoria Canal that are currently higher than -2 feet msl.

SDWA-11

Salinity monitoring stations are already located throughout the south Delta channels. No new stations are proposed under SDIP to measure salinity within the channels influenced by SDIP tidal gate operations. Information provided by the current monitoring stations will be regularly reviewed by GORT to maintain adequate water quality for agricultural uses.

SDWA-12

Please see Master Response O, *Gate Operations Review Team*.

SDWA-13

SDIP will not affect any Delta water right priority. As described in Chapters 1 and 2 of the SDIP Draft EIS/EIR, several regulations are in place to protect water quality, fish, water levels, and other important resources. The proposed project would continue to operate in compliance with these regulations.

SDWA-14

Any increase in CCF diversions will be based on SDIP Stage 2 evaluations, which will begin after a Stage 1 decision is made.

Reclamation and the Department have completed modeling that shows low lift pumps would not be necessary under the range of operations considered in the 16-year period of analysis. However, engineers are designing elements of the proposed gates to allow for the placement of low lift pumps in the future without modification to the new gate structures. This is not to say low lift pumps have been designed for installation, but only that future installation could be accommodated with relative ease.

SDWA-15

Neither the one-gate or three-gate configuration provides water level and water quality protections that sufficiently meet the project objectives. Therefore, DWR and Reclamation are proposing the four-gate configuration.

SDWA-16

Please see Master Response M, *Interim Operations*.

SDWA-17

Please see the response to comment SDWA-9. The proposed gate designs were modeled to determine if the gate designs caused any localized water stage effects during floods. Those results showed very small water level effects. Therefore, levee relocation is not necessary.

SDWA-18

The agricultural tidal gates will be operated to provide minimum water levels and tidal flushing throughout the irrigation season.

SDWA-19

The text has been modified. Please see Master Response O, *Gate Operations Review Team*.

SDWA-20

The SDIP Draft EIS/EIR provides an overall estimate of the likely total dredging volumes. More detailed assessment of dredging needs will be prepared by DWR in the first phase of Stage 1 implementation. Dredging volumes in the Doughty Cut area will be refined as the design is furthered. SDWA will be consulted on the areas that need dredging in that vicinity.

SDWA-21

The discussion of water rights in Section 5.1 provides only a general introduction to water rights. Riparian water users in the Delta are always permitted to divert water for beneficial uses. Water quality for agricultural uses is protected by salinity objectives in the 1995 WQCP and D-1641.

SDWA-22

All graphs for tidal elevations, flows, and EC conditions show monthly minimum, average, and maximum values for each month.

SDWA-23

Reclamation is evaluating recirculation of water from the DMC to the San Joaquin River. However, this is not an SDIP purpose or action. A recirculation pilot study was completed in August 2004 and a report on the study was released in June 2005. The priority list of uses of the water does not preclude use in recirculation actions similar to what was studied in 2004.

SDWA-24

Tom Paine Slough is physically isolated from tidal fluctuations. The one-way siphons are used to fill the slough for agricultural diversions and are influenced by tides. This is similar to other Delta sloughs (e.g., Trapper Slough along State Route 4 irrigating Upper Jones Tract) that have been isolated as irrigation canals.

SDWA-25

The SDIP is not proposing SWP pumping of 10,300 cfs and did not evaluate any effects from 10,300 cfs pumping. Section 5.2 includes a comparison of the tidal fluctuations in water surface elevations for the full range of combined CVP and SWP pumping, from 0 cfs to 14,900 cfs. The only effects being evaluated for the SDIP are the increased SWP pumping from a maximum of 6,680 cfs to a

maximum of 8,500 cfs, which is equivalent to a combined maximum pumping of 11,280 cfs to 13,100 cfs (when CVP pumping is at a maximum of 4,600 cfs).

SDWA-26

The tidal gates can be operated in a variety of ways; the minimum water level can be independently controlled by the weir elevation of the Grant Line Gates. Adequate tidal circulation can generally be provided for a range of minimum water levels, although higher minimum water levels will reduce the tidal flushing.

SDWA-27

Figures 5.2-39 to 5.2-45 show representative monthly tidal elevations and tidal flow volumes for the basic and circulation tidal gate operations. Elevations upstream from the tidal gates do remain above the 0.0 foot target elevation. These figures also show the tidal elevations downstream from the gates, which do regularly fall below minus 1.0 foot msl, reflecting the normal minimum tidal levels in Delta channels. SDIP also includes the extension of agricultural diversions that are higher than -2 feet msl, which would ensure that even when tidal levels fall to -1 foot msl, diversions will operate efficiently.

SDWA-28

D-1641 objectives apply at specific compliance locations, although it may be the intent of the State Water Board that these objectives protect beneficial uses of water in nearby channels. The monthly criterion of 10% (of the objective) was used to evaluate the monthly EC changes resulting from the CALSIM monthly exports and Delta outflow values. However, the overall significance for salinity changes was judged with the long-term criteria of 5% increase in average EC. Salinity changes from potential future water transfers were assumed to be avoided by appropriate "carriage water", which will slightly increase Delta outflow at the same time that exports are increased. All increases when the baseline salinity already exceeded the salinity criteria are considered significant. No additional pumping would be allowed unless Delta inflows were increased to provide sufficient Delta outflow to satisfy the EC objective.

Comment Letter SEWD

SEWD

Feb 07, 2006 00138
Jeanne M. Zolezzi jzolezzi@herumcrabtree.com
February 7, 2006
<u>VIA EMAIL and US MAIL.</u>
Mr. Paul Marshall SDIP EIS/EIR Comments State of California Department of Resources Bay Delta Office 1416 Ninth Street Sacramento, California 95814
Re: <u>Stockton East Water District/South Delta Improvement Program</u>
Dear Mr. Marshall:
These comments on the South Delta Improvement Program Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR) for the South Delta Improvements Program (SDIP) are submitted on behalf of Stockton East Water District.
SPECIFIC COMMENTS
<u>New Melones Reservoir</u> (p. 5.1-13)
The statement is made that "Operation of New Melones is governed by the interim operations plan. . ." This statement is inaccurate. The United States Bureau of Reclamation has indicated that it is using the interim operations plan (IOP) as a "guide." In fact, Reclamation had consistently deviated from the IOP in its operations of New Melones for the past several years, provided more water for water quality when needed and additional water to CVP contractors
SEWD-1
2291 West March Lane Suite 8100 Stockton, CA 95207 • Tel 209.472.7700 • Fax 209.472.7986 • Modesto Tel. 209.525.8444 A Professional Corporation

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than allocated under the IOP formula. As a result, the validity of modeling results using a version of CALSIM operating New Melones in accordance with the IOP is questionable.

SEWD-1

San Joaquin River and South Delta Salinity (p. 5.3-13)

The statement is made that "Releases from New Melones Reservoir are used by Reclamation to control the salinity at Vernalis, but there is a maximum specified volume of water reserved for this purpose." This is inaccurate for several reasons. First, Reclamation has been operating New Melones without regard for any maximum specified volume of water for the control of salinity. In addition, Public Law 108-361 directs the Secretary to change the operation of New Melones for this purpose to reduce such releases. This change is not discussed in the operating scenario.

SEWD-2

The statement continues: "CALSIM attempts to meet the EC objectives, but because the salinity control water volume may be depleted at the end of the water year, the simulated Vernalis EC is often higher than the 1,000 $\mu\text{S}/\text{cm}$ objective in September." Because Reclamation has indicated that the EC standards at Vernalis will be met this statement reveals the inaccuracy of the CALSIM model as used.

SEWD-3

Finally, the Draft EIS/EIR states: "The SDIP alternatives are not expected to change the San Joaquin River flows and therefore would not affect the Vernalis EC values." This conclusory statement is not supported with evidence anywhere in the record; nor does the record contain any analysis on this issue.

At p. 5.3-14 the Draft EIS/EIR states:

The potential indirect effects of the SDIP providing increased CVP deliveries that would add to the salt load at Vernalis were considered in the CALSIM salinity estimates at Vernalis that were used in DSM2. However, most of the additional deliveries would be made to the CVP San Luis Unit contractors (e.g., Westlands Water District). Most of the CVP deliveries to water districts along the San Joaquin River are DMC exchange contractors who already receive their full allocation of Delta water in almost all water years. Changes in the Vernalis EC estimates caused by the SDIP were negligible.

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Please point out the information and analysis contained in the Draft EIS/EIR upon which these conclusions are based. The statement that "Changes in the Vernalis EC estimates caused by the SDIP were negligible" is not supported with data.

SEWD-3

Most importantly, asking whether or not operation of Stage 2 of the SDIP changes the Vernalis EC estimates does not evaluate the adverse impact of the project on the environment. Because the potential indirect effects of Stage 2 of the SDIP providing increased CVP export deliveries that would add to the salt load at Vernalis were simulated with the CALSIM model, any changes in the salt load would be masked by the salinity management with New Melones releases to meet the EC objectives. The Draft EIS/EIR needs to evaluate the increased salt load at Vernalis NOT the estimated increase in Vernalis EC.

In fact, the Draft EIS/EIR does not discuss the impact of increased CVP exports (including refuge supplies) on return drainage into and water quality in the San Joaquin River, and resulting adverse impacts to water quality at Vernalis. While Reclamation will release additional water from New Melones to insure that the objective at Vernalis is met, that in itself is a potential adverse impact that must be evaluated in the Draft EIS/EIR and is not. In addition, the Draft EIS/EIR should discuss the appropriateness of assuming additional releases from New Melones to mitigate for adverse impacts caused by increased CVP return flows in light of the specific mandate of Public Law 108-361 to reduce such flows.

SEWD-4

Moreover, we are not able to identify any analysis in the Draft EIS/EIR that supports the assertion that most of the additional deliveries would be made to Westlands Water District. Table 9.6 of the Draft EIS/EIR reveals increased deliveries under each alternative to CVP contractors, other than Westlands Water District, that drain into the San Joaquin River.

SEWD-5

In addition, Table 9.6 indicates identifies zero increased deliveries under all alternatives to refuge contractors, while at p. 4-7 of the Draft EIS/EIR the statement is made that with implementation of Stage 2 of Alternative 2A: ". . .DWR would annually convey up to 100,000 acre-feet of CVP Level 2 Refuge water through CCF and SWP Banks by September 1. . . ." Is this additional water?

SEWD-6

Further, the Draft EIS/EIR does not evaluate whether or not any of the additional unused pumping capacity that would allow an average of approximately 100,000 acre feet of potential

SEWD-7

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water transfers pursuant to Stage 2 of Alternative 2A would be used to convey additional water to wildlife refuges.

SEWD-7

At p. 5.3-17 the Draft EIS/EIR states:

Figure 5.3-8 shows the DSM2 EC boundary conditions for the San Joaquin River at Vernalis for the 1976-1991 period compared to the historical EC measured at Vernalis during the same period. The relationship between EC and flow at Vernalis is generally matched with the DSM2 boundary EC conditions that are actually obtained from CALSIM. However, the historical monthly pattern of EC, which is generally highest in the winter months, was not always reproduced in the CALSIM-estimated EC values that were used in the DSM2 modeling. The DSM2 Vernalis boundary conditions show highest EC values in the months of August and September, apparently because the CALSIM-simulated salinity control account in New Melones Reservoir is depleted. CALSIM results (used in DSM2) show several years with a violation of the 1,000-µS/cm EC objective at Vernalis in September. Recent technical work by Reclamation on the Vernalis salinity estimates in CALSIM may resolve this issue. The high Vernalis EC from CALSIM produces a subsequent problem in DSM2 simulations of the SDIP alternatives, because the simulated complete closure of the head of Old River fish control gate in October and November tends to trap high EC water in the south Delta channels. Violations of the south Delta EC objectives that may be simulated in the baseline conditions are not considered to be an impact from the SDIP if the cause was the high Vernalis EC.

SEWD-8

The "recent technical work" being undertaken by Reclamation is not described; please indicate what type of work is being undertaken.

Sources of South Delta Salinity (page 5.3-25)

The Draft EIS/EIR includes the statement:

The CALSIM-estimated EC values, which are used in DSM2 simulations of EC, exceed these salinity objectives in September of several years. The high EC values from CALSIM that are above the water quality objectives in September do not occur in the historical record. There is no reason to believe that the Vernalis EC in September will exceed the EC objective in the future. The high EC values estimated by CALSIM in March are more likely to occur because there has been high salinity at Vernalis during the winter of low-flow years. Technical work currently being prepared by Reclamation to revise and improve the EC estimates in the CALSIM model may help resolve this

SEWD-9

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issue. The revised Vernalis EC estimates are generally lower and suggest that water quality objectives at Vernalis and in the south Delta channels may be met more frequently.

SEWD-9

Where is the support for the conclusion that “The high EC values estimated by CALSIM in March are more likely to occur because there has been high salinity at Vernalis during the winter of low-flow years?” The most likely reason that EC values are high in March is refuge releases during that period, and this is not evaluated. Again, please define the “technical work” being prepared by Reclamation.

GENERAL COMMENTS

Refuge Supply Impacts

An area completely ignored by the Draft EIS/EIR is the potential impact of Stage 2 operations on water availability to water supply refuges. The document acknowledges that refuge water supplies are included in CVP demands (at p. 5.1-19), but does not provide specific information regarding increased supplies to refuges as a result of operational changes that could occur in Stage 2 of the SDIP.

SEWD-10

Conditions Precedent to Stage 2

The California Legislature has imposed conditions upon the Department of Water Resources and the United States Congress has imposed conditions upon the Bureau of Reclamation that must be met before the operational changes contemplated at Stage 2 of the SDIP can be implemented. Yet, the Draft EIS/EIR does not mention the requirements imposed by California Water Code §138.10 or Public Law No: 108-361.

SEWD-11

Water Code §138.10 specifically provides that the Secretary of Resources is to submit a plan to meet the existing permit and license conditions imposed upon the Department of Water Resources by the State Water Resources Control Board in D 1641, and that the plan is to be submitted to the Board of the California Bay-Delta Authority “prior to increasing the existing permitted diversion rate at the State Water Project’s Harvey O. Banks Pumping Plant.”

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SEWD-11

Public Law 108-361 includes an express prohibition against "increasing export limits from the Delta for the purposes of conveying water to south-of-Delta Central Valley Project contractors" until the Secretary develops and initiates implementation of the program described in that law. The program is a specific pre-requisite to implementation of the Stage 2 of the project described in the Draft EIS/EIR, and the project description must include a discussion of the program requirements.

Specifically, Public Law 108-361 requires re-operation of the New Melones Project to address the following changes in operations on the San Joaquin River:

- ✓ Developing a recirculation program to provide flow, reduce salinity concentrations in the San Joaquin River, and reduce the reliance on the New Melones Reservoir for meeting water quality and fishery flow objectives through the use of excess capacity in export pumping and conveyance facilities.
- ✓ Implementing a best management practices plan to reduce the water quality impacts of the discharges from wildlife refuges that receive water from the Federal Government and discharge salt or other constituents into the San Joaquin River.
- ✓ Acquiring water from willing sellers on streams tributary to the San Joaquin River or other sources to provide flow, dilute discharges of salt or other constituents, and to improve water quality in the San Joaquin River below the confluence of the Merced and San Joaquin Rivers, and to reduce the reliance on New Melones Reservoir for meeting water quality and fishery flow objectives.

The express purpose of the obligations imposed by Public Law 108-361 is to "reduce the demand on water from New Melones Reservoir used for that purpose and to assist the Secretary in meeting any obligations to Central Valley Project contractors from the New Melones Project." Consequently, these directed changes are foreseeable and must be analyzed in the 2020 operations scenario to present an accurate environmental impact.

CONCLUSION

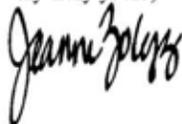
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In summary, it appears that the Draft EIS/EIR does not discuss, let alone address, all impacts of the proposed project. In addition, the project description does not accurately reflect existing law governing operation of the CVP, and specifically, the limitations imposed upon operation of Stage 2 of the Project by Public Law 108-361.

Very truly yours,



JEANNE M. ZOLEZZI
Attorney-at-Law

JMZ:rl

cc: Mr. Kevin Kauffman
Mr. Michael Finnegan

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Responses to Comments

SEWD-1

The CALSIM model (Benchmark 2002) used operation rules developed from the New Melones Reservoir Interim Operations Plan (IOP) to simulate monthly water allocation for the Stanislaus River. Reclamation actually operates each reservoir with some discretionary actions, in addition to the basic operations outlined with the IOP. For the SDIP evaluation, the most important concept is that New Melones Reservoir operations were not changed by the SDIP. There are, therefore, no impacts on any water districts that use Stanislaus water, or on fish habitat or water quality conditions in the Stanislaus River.

SEWD-2 through SEWD-5

Please see Master Response Q, *Effects of SDIP on San Joaquin River Flow and Salinity*.

SEWD-6 and SEWD-7

The SWP wheeling of 100,000 af/yr of level 2 supply to refuges allowed more water to be pumped through the CVP Tracy facility and delivered to CVP contractors. Per the SDIP project purpose, the additional export capacity provided under Stage 2 could be used to convey additional supply to refuges. Analysis of this potential action is incorporated into the analysis of water transfers.

SEWD-8 and SEWD-9

Please see Master Response Q, *Effects of SDIP on San Joaquin River Flow and Salinity*.

SEWD-10

Refuge supplies will not change (increase) with the SDIP. Alternative 2A, which includes some CVP/SWP integration provisions, will allow the SWP to convey 100 taf/yr of refuge water supplies, allowing CVP pumping to increase deliveries to CVP contractors. Any future water transfer may require additional evaluation of environmental impacts in the water source area and in the water use area; the SDIP evaluation of future water transfers includes only the Delta effects from the increased pumping.

SEWD-11

DWR has completed a plan to meet existing permit and license conditions dated January 2006. As required by Water Code 138.10, this plan will be submitted to the CBDA and the State Water Board prior to increasing the existing permitted diversion rate of the SWP.

This comment contains numerous legal conclusions with which Reclamation does not agree. Reclamation believes that it is complying fully with all applicable state and federal laws, including Public Law 108-361, in connection with the proposed SDIP. Moreover, contrary to this comment, it is Reclamation's position that:

- Reclamation has historically met the terms and conditions of its water right permits for operation of the New Melones Project, as required by the State Water Board. Reclamation is committed to meet these terms and conditions in the future.
- Reclamation has a Program to Meet Standards in place, and a report describing this program, dated February 2006, is currently awaiting Administration review before being issued as a public document.
- Reclamation and DWR have committed to additional NEPA/CEQA documentation before the Stage 2 decision and prior to increasing exports beyond current permit conditions. Reclamation and DWR are not presently operating the CVP and SWP export facilities beyond levels allowable under their respective water right permits and licenses.
- The "future without project" condition developed in the SDIP Draft EIS/EIR incorporates all reasonable, foreseeable actions.