diepenbrock·harrison
A PROFESSIONAL CORPORATION

JOHN Y. "JACK" DIEPENBROCK
KAREN L. DIEPENBROCK
KEITH W. McBRIDE
BRADLEY J. ELKIN
EILEEN H. DIEPENBROCK
MARK D. HARRISON
GENE K. CHEEVER
MICHAEL V. BRADY
LAWRENCE B. GARCIA
SUSAN E. KIRKGAARD
ANDREA A. MATARAZZO
JOEL PATRICK ERB
JON D. RUBIN

R. JAMES DIEPENBROCK
(1929 – 2002)

JEFFREY L. ANDERSON
MICHAEL E. VINDING
JENNIFER L. DAUER
SEAN K. HUNGERFORD
LEONOR Y. DICDICAN
CHRIS A. McCANDLESS
JEFFREY K. DORSO
DAN H. SILVERBOARD
ANDREW P. TAURIAINEN
BLAIR W. WILL
KRISTA J. DUHZWEILER
DAVID R. RICE
JENNIFER D. BECHTOLD
SARAH R. HARTMANN

January 5, 2007

Ms. Gita Kapahi, Chief
Bay Delta/Special Projects Unit
State Water Resources Control Board
P.O. Box 2000
Sacramento, CA 95812-2000

Re: Southern Delta Salinity Workshop

Dear Ms. Kapahi:

On October 13, 2006, the State Water Resources Control Board ("State Water Board") issued a notice for a public workshop. The notice provides that, at a workshop, the State Water Board would consider the appropriateness of the southern Delta water quality objectives for salinity ("southern Delta salinity objectives"), which are currently set forth in the 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("2006 Plan").

The notice for the workshop explains that in 2004 the State Water Board conducted a periodic review of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary adopted in 1995 ("1995 Plan"), and subsequently conducted a multi-day workshop to receive additional information on selected issues. Although the State Water Board approved the 2006 Plan in December 2006, the notice nevertheless invites interested parties to submit and discuss in January 2007 information regarding the southern Delta salinity objectives, including the corresponding elements of the program of implementation, presumable to assist the State Water Board with an additional review of those objectives. Pursuant to that invitation and goal, the San Luis & Delta-Mendota Water Authority ("Authority"), on behalf of its member agencies, submits this letter.

400 CAPITOL MALL
SUITE 1800
SACRAMENTO, CA 95814

WWW.DIEPENBROCK.COM 916 492.5000
FAX: 916 446.4535

The Authority, formed in 1992, consists of 32 member agencies,[1] each of which contracts with the United States Department of the Interior, Bureau of Reclamation ("Reclamation"), for a supply of Central Valley Project ("CVP") water. The Authority's member agencies are entitled to approximately 2,500,000 acre-feet of water for agricultural lands within the western San Joaquin Valley, San Benito County, and Santa Clara County, California. Authority members also supply water for municipal and industrial uses, including the delivery of approximately 150,000 and 200,000 acre-feet of water primarily to the Silicon Valley, and approximately 250,000 to 300,000 acre-feet of water for waterfowl and wildlife habitat in the San Joaquin Valley.

Two questions will be before the State Water Board in the workshop on southern Delta salinity objectives: (1) what are the appropriate water quality objectives to protect agricultural uses in the southern Delta, and (2) how should those objectives be implemented. The answers to those questions cannot be developed in a vacuum.

The Legislature provided general guidance to the State Water Board on how those questions should be answered. The Legislature found and declared:

> [A]ctivities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.

(Water Code, § 13000 (emphasis added)). The Legislature provided the State Water Board with a more direct mandate when it adopts water quality objectives. The Legislature requires the State Water Board to "establish such water quality objectives . . . as in its judgment will ensure the reasonable protection of beneficial uses and the prevention of nuisance." (Water Code, § 13241). To achieve that mandate, the State Water Board must consider all of the following:

---

[1] The member agencies of the Authority are: Banta-Carbona Irrigation District; Broadview Water District; Central California Irrigation District; Centinella Water District; City of Tracy; Columbia Canal Company; Del Puerto Water District; Eagle Field Water District; Firebaugh Canal Water District; Fresno Slough Water District; Grassland Water District; James Irrigation District; Laguna Water District; Mercy Springs Water District; Oro Loma Water District; Pacheco Water District; Pajaro Valley Water Management Agency; Panoche Water District; Patterson Water District; Plain View Water District; Pleasant Valley Water District; Reclamation District 1606; San Benito County Water District; San Luis Canal Company; San Luis Water District; Santa Clara Valley Water District; Tranquility Irrigation District; Turner Island Water District; West Side Irrigation District; West Stanislaus Irrigation District; Westlands Water District; and Widren Water District.

(a) Past, present, and probable future beneficial uses of water.

(b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

(c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.

(d) Economic considerations.

(e) The need for developing housing within the region.

(f) The need to develop and use recycled water.

(Water Code § 13241).

This letter focuses only on two, all be them critical, factors: (1) the extent of the beneficial uses, and (2) the factors which affect water quality in the southern Delta. (Water Code §13241(a), (c)). The letter will explain why the State Water Board must evaluate the water rights of those protected by the water quality objectives – agricultural water users in the southern Delta, and why the State Water Board should focus its inquiry on factors that affect the quality of water below Vernalis on the San Joaquin River. The Authority believes defining the water rights of those who the State Water Board seeks to protect and the scope of the area to be protected are critical, threshold steps. Only after that process is complete the State Water Board could conduct the necessary balancing and determine what might be the reasonable water quality conditions "considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible." (Water Code, § 13000). Notwithstanding, in the event that the State Water Board considers factors outside of the Delta, this letter also presents information on the significant actions by the Authority and its member agencies that, although not immediately relevant, improve water quality in the San Joaquin River, upstream of Vernalis.

Past, Present, And Probable Future Beneficial Uses Of Water

When considering what water quality objectives will provide a reasonable level of protection for agricultural uses in the southern Delta, the starting point must be a

definition of water rights held by agricultural users in that area. (Water Code, § 13241(a)). If the State Water Board were to establish water quality objectives without such a threshold consideration, its action would likely be unreasonable and could be in direct conflict with well established law. Indeed, it could lead to the State Water Board imposing water quality objectives intended to protect agriculture that are not consistent with the past, present, and probable future water rights exercised for that beneficial use.

As an example, if the State Water Board were to establish a water quality objective for the southern Delta to protect agricultural beneficial uses at a time when no water user in the southern Delta maintains a right to divert water, the State Water Board could, when it implements the objective, require reductions in discharges and/or diversions to be taken that serve no lawful use of water, a result contrary to the California Constitution. (Cal. Const. art. X, §2). Alternatively, the State Water Board might require releases of stored water. In that case, that water would either be wasted, again as it would serve no beneficial use and thus unlawful, (*id.*), or it would be illegally diverted. (*State Water Resources Control Board Cases* (2006) 136 Cal.App.4th 674). Agricultural water users in the southern Delta do not have the right to water previously stored by another. (*Id.*)

The Court of Appeal in the *State Water Resources Control Board Cases* explained:

> In *Lindblom v. Round Valley Water Co. (1918) 178 Cal. 450*, our Supreme Court explained that a downstream riparian user may not claim any benefit from the storage of water by an upstream appropriator. "[The riparian user] is not in a position to demand that the [upstream appropriator] shall, by its artificial works, furnish a constant flow of water in [the watercourse] throughout the year. His only rights are those which he would have had under the natural conditions existing before the dam was erected, subject to the deduction of so much of the water as [the upstream appropriator] has continuously applied to a beneficial use. In other words, he cannot require the [upstream appropriator] to discharge any water into the stream during those months in which there would be no flow if no dam had ever been built. He may merely insist that, during the months of natural flow, the [upstream appropriator] shall permit the escape into the [watercourse] of the surplus of the natural flow over and above what is required to enable the [upstream appropriator] to meet its reasonable needs ... ." (*Id. at p. 457.*)

(*State Water Resources Control Board Cases*, *supra*, 136 Cal.App.4th at 738).

An inquiry into the extent of rights held by agricultural water users in the southern Delta is particularly important given the findings by the State Water Board, which are reflected in State Water Board Decision 1641 ("D-1641"). There, the State Water Board summarized its findings as to riparian water users in the southern Delta as follows:

> 1. On average, insufficient water is available to supply the southern Delta in Below Normal, Dry and Critical Dry years in August, September and October.
>
> 2. On average, sufficient water is available in September only in Wet Years.
>
> 3. Insufficient water is available in July during 16 percent of years, in August during 56 percent of years, in September during 78 percent of years, and in October during 70 percent of years.
>
> To the extent that other instream water users are making riparian use of water, and to the extent that all southern Delta lands are not riparian, water is available to southern Delta water users less often than assumed herein.
>
> Based on this analysis, riparian rights to the waters of the San Joaquin River are inadequate to meet the agricultural demands in the southern Delta in some months of many years. Because a riparian right holder's water right cannot exceed the natural flow, it follows that whenever there is inadequate natural flow to meet their demands, southern Delta riparian right holders cannot be injured if they are deprived of water that exceeds the natural flow.

(D-1641, p. 33).

Although the State Water Board did not make similar, specific findings for agricultural water users in the southern Delta that hold rights to appropriate water, it did recognize the limitations imposed on such water users: a limitation, as recognized above, the Court of Appeal accepted in *State Water Resources Control Board Cases, supra,* 136 Cal.App.4th 674. In D-1641, the State Water Board stated:

> Appropriative rights have limits, however, that are relevant in this decision. If the amount of unappropriated water in the source is inadequate to satisfy senior appropriative rights, a junior appropriator may not be able to divert any water. Even if there is enough water for senior water right holders, a junior appropriator may not be able to divert the maximum amount available under the permit or license if there is not enough water left after the needs of senior water right holders are taken into account. Like riparians, downstream appropriators cannot require that the owner of an upstream reservoir release water appropriated during another season. (*Lindblom*, *supra*.)
>
> Further, a senior downstream appropriator can only demand that the reservoir operator bypass water during the season when the water is present in the stream and is being diverted. (*Lindblom*, *supra*.) Finally, an upstream appropriator is not required to continue to abandon stored water it has abandoned in the past, causing an artificial flow of water. (*Stevens v. Oakdale Irrigation District* (1939) 13 Cal.2d 343 [90 P.2d 58].)

(*Id.* at p. 33).[2]

Tailoring water quality objectives to periods when a particular quality of water would arguably benefit a lawful, beneficial use is not a concept foreign to water quality control plans. Indeed, the 1995 Plan and the 2006 Plan reflect many examples of such refined objectives. For example, in the 1995 Plan and 2006 Plan, the State Water Board established a minimum level of dissolved oxygen for the San Joaquin River between Turner Cut and Stockton to protect fish and wildlife beneficial uses. (1995 Plan, Table 3; 2006 Plan, Table 3). That objective applies only from September through November. (*Id.*). The State Water Board limited the time the objective is in effect because the September through November was the period the fish and wildlife beneficial use of concern arguable required protection. September through November is the period during which fall-run salmon migrate in the lower San Joaquin River. (1995 Plan, p. 15; 2006 Plan, Appendix 1, pp. 74-76).

---

[2] The need for a review and definition of the rights held by agricultural water users in the southern Delta is also highlighted by the findings and conclusions rendered in Order WRO 2004-0004 - In the Matter of Administrative Civil Liability Complaints for Violations of Licenses 13222 and 13274 et al.

For these reasons, the State Water Board should evaluate the water right applications that seek authorization for and the permits and licenses that authorize the diversion of water for agricultural purposes in the southern Delta. The State Water Board should also require riparian and pre-1914 water rights holders, if they want the protections afforded by water quality objectives, to submit to the State Water Board evidence showing the nature and extent of their rights. The State Water Board should then create an inventory of all of those water rights to determine the period when agricultural water users in the Delta may lawfully divert water. The State Water Board should use those periods to establish the time when the southern Delta salinity objectives apply.

Water Quality Conditions That Could Reasonably Be Achieved Through The Coordinated Control Of All Factors Which Affect Water Quality In The Area

The State Water Board must consider the water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area. (Water Code, § 13241(c)). To satisfy that required consideration, the State Water Board must first define the area, and then identify the factors which affect water quality within that area.[3] Only after that occurs should the State Water Board assess how the factors within the area could be affected to achieve the desired water quality conditions.

In this case, the area of concern should be narrowly defined to include only those areas in the southern Delta, downstream of Vernalis – the area for which the State Water Board has established compliance measurement points at Interagency Station Nos. C-6, C-8, and P-12 (respectively San Joaquin River at Brandt Bridge, Old River near Middle River, and Old River at Tracy Road Bridge). It should not include the San Joaquin River at or upstream of Vernalis. (*See* Notice of Workshop on Southern Delta Salinity Objectives, Background (only discussing the area of the compliance measurement points referenced above)).

Although the State Water Board did not draw such a distinction in the 1995 Plan or the 2006 Plan when it discussed factors affecting salinity, it should have, and indeed drew the appropriate distinction in D-1641. The distinction between the southern Delta,

[3] The importance of identifying the factors that affect water quality within the area of concern has recently been recognized by the State Water Board in the 2006 Plan. (*See* 2006 Plan, p. 3 (stating "This plan establishes water quality objectives for which implementation can be fully accomplished only if the State Water Board assigns some measure of responsibility to water right holders and water users to mitigate for the effects on the designated beneficial uses of their diversions and use of water" (emphasis added)).

downstream of Vernalis, and the lower San Joaquin River (Vernalis) is significant, as the factors which affect water quality in those areas are different.

As the State Water Board found in D-1641:

> Salinity at Vernalis is affected by the salt load and quantity of flow in the lower San Joaquin River. High salt loads and low flows at Vernalis result from a combination of upstream water diversions, discharges of saline drainage water to the San Joaquin River and subsurface accretions to the river from groundwater.

(D-1641, p. 80). At that time, the State Water Board determined:

> [T]he actions of the CVP are the principal cause of the salinity concentrations exceeding the objectives at Vernalis. The salinity problem at Vernalis is the result of saline discharges to the river, principally from irrigated agriculture, combined with low flows in the river due to upstream water development. The source of much of the saline discharge to the San Joaquin River is from lands on the west side of the San Joaquin Valley which are irrigated with water provided from the Delta by the CVP, primarily through the Delta-Mendota Canal and the San Luis Unit. The capacity of the lower San Joaquin River to assimilate the agricultural drainage has been significantly reduced through the diversion of high quality flows from the upper San Joaquin River by the CVP at Friant.
>
> * * *
>
> The Vernalis salinity objectives can be achieved either by providing sufficient fresh water to dilute upstream discharges of saline water above Vernalis or by using measures to control the discharge of saline water to the river upstream of Vernalis.

(D-1641, p. 83).

In contrast to that finding and determination related to water quality at Vernalis, the State Water Board found:

> Water quality in the southern Delta downstream of Vernalis is influenced by San Joaquin River inflow; tidal action; diversions of water by the SWP, CVP, and local water users; agricultural return flows; and channel capacity. . . .

(D-1641, p. 86). As a result, for water quality in the southern Delta, the State Water Board rendered conclusions very different then those rendered for water quality conditions at Vernalis. The State Water Board concluded the factors that could be controlled to achieve water quality conditions in the southern Delta were "dilution flows, controlling in-Delta discharges of salts, or by using measures that affect circulation in the Delta". (D-1641, pp. 86-87).

For the area downstream of Vernalis, the State Water Board identified a single adverse impact, albeit partially, attributable to operations of the CVP and State Water Project ("SWP"): an impact attributable to the effect on circulation. The State Water Board stated:

> [E]xport pumping by the SWP and the CVP and in-Delta diversions in the southern Delta . . . cause null zones, areas with little or no circulation. These zones have little assimilative capacity for locally discharged salts. The lack of circulation prevents better quality water that is otherwise available from the main channels from freshening the water in these channels.

(D-1641, p. 87).[4] Thus, even for that impact, the State Water Board also found that in-Delta diversions contributed to the alleged adverse affect.

The Court of Appeal in the *State Water Resources Control Board Cases* recognized the distinction drawn by the State Water Board in D-1641, and the limited adverse affect of the CVP and SWP on water quality in the southern Delta. The Court stated:

---

[4] The State Water Board also acknowledged the benefit of export pumping on water quality. It stated:

> Diversions in the Delta can cause hydrodynamic changes that affect water quality. During periods of high exports and peak irrigation, higher quality water is drawn into the southern Delta from the Delta cross-channel, the Mokelumne River, and Georgiana Slough. These waters mix with and improve the quality of San Joaquin flow.

(D-1641, p. 87 (emphasis added)).

> In Decision 1641, the Board determined that salinity concentrations at Vernalis are caused by "a combination of upstream water diversions, discharges of saline drain-age water to the San Joaquin River and subsurface accretions to the river from groundwater." The Board further determined "that the actions of the CVP are the principal cause of the salinity concentrations exceeding the objectives at Vernalis."
>
> * * *
>
> With respect to the three other agricultural salinity objectives for the southern Delta downstream of Vernalis, the Board determined the Department and the Bureau were partially responsible for the salinity problems at those locations because of export pumping. Decision 1641 noted that "[m]easures that affect circulation in the Delta, such as barriers, can help improve the[se] salinity concentrations" (Decision 1641, p. 89) and that the Department and the Bureau were working together on a barrier program.

(*State Water Resources Control Board Cases, supra,* 136 Cal.App.4th at 710-11 (emphasis added)).

Thus, as the State Water Board reconsiders the southern Delta salinity objectives, the starting point for the factors it might affect, or seek to have other affect, to achieve reasonable water quality conditions in the southern Delta is the factors identified in D-1641 – San Joaquin River inflow; tidal action; diversions of water by the SWP, CVP, and local water users; agricultural return flows; and channel capacity." (D-1641, p. 86). The State Water Board should also consider updating the existing inventory of southern Delta diversions and discharges and, if necessary, expand that inventory to include municipal and industrial diversions and discharges.[5] Once that is completed, the State Water Board could begin to consider the water quality conditions that could reasonably be achieved through the coordinated control of each of those factors.

[5] The importance of that update becomes evident when considering the extent of diversions and discharges in the southern Delta, and recent actions authorizing municipalities to discharge in the southern Delta. (*See, e.g.*, Delta Atlas at pp. 32, 34, copies of which are attached hereto as Exhibit 1; Order WQO 2005-0005 (authorizing the City of Manteca to discharge at levels in excess of the southern Delta Salinity objectives)).

Actions By The San Luis & Delta-Mendota Water Authority and Its Member Agencies To Address (1) Salinity in Discharges to the San Joaquin River At Or Above Vernalis And (2) Drainage Within Their Service Areas

As noted above, in D-1641, the State Water Board determined that actions of the CVP are the principal cause of the salinity concentrations exceeding the objectives in the San Joaquin River at Vernalis. Specifically, the State Water Board identified (1) low flows in the San Joaquin River due to upstream diversions, and (2) saline discharges to the San Joaquin River "from lands on the west side of the San Joaquin Valley which are irrigated with water provided from the Delta by the CVP, primarily through the Delta-Mendota Canal and the San Luis Unit." (D-1641, p. 83).

The Authority and its member agencies own no dams and do not control upstream diversions. Their primary water supply is the Delta-Mendota Canal, with its burden of imported salt. Those member agencies that have discharged water into the San Joaquin River have undertaken significant activities to address their discharges while those same member agencies and/or other member agencies have undertaken significant activities to address drainage issues within their service areas.

The Authority and its member agencies have successfully pursued federal grants, state grants, federal appropriations, and/or State Water Board low-interest loans for programs to improve infrastructure; acquire and develop reuse areas; and encourage installation of high-efficiency irrigation systems. Some member agencies have also funded their own revolving loan programs to assist growers with return systems, drip irrigation, and other irrigation improvements. Member agencies (1) have engaged their landowners and water users to achieve broad participation in the Regional Board's Irrigated Lands Program through the Westside San Joaquin River Water Quality Coalition, (2) comply with waste discharge requirements for the Grassland Bypass Project, including significant load reductions for both selenium and salt, and/or (3) developed a long-term program for drainage management, known as the Westside Regional Drainage Plan that builds on the Grassland Bypass Project and continues as a permanent drainage solution, with the goal of ultimate in-valley management of drainage from irrigation.

By the Authority and its member agencies undertaking those activities, they have improved drainage conditions within their service area, and, for those that discharged into the San Joaquin River, substantially reduced their discharges. All of those activities promise dramatic, further reductions in the future.

Westside San Joaquin River Watershed Coalition: The Westside San Joaquin River Watershed Coalition ("Westside Coalition") was formed by many of the Authority's member agencies under the umbrella of the San Joaquin Valley Drainage Authority ("SJVDA"). In June, 2003, the SJVDA submitted a Conditional Waiver Report for the Westside Coalition, was accepted into the program, and has assumed a leadership role ever since. The Westside Coalition watershed generally lies on the westside of the San Joaquin River from approximately the Stanislaus River on the north to 10 miles south of Mendota and encompasses an area of approximately 460,500 acres. There are approximately 4,000 landowners and 1,500 operators within the watershed. Most of the watershed receives water supplies from the CVP and is within the boundaries of the Authority. The Coalition also includes certain areas that receive water from the SWP, some areas that receive supplies from the San Joaquin River and local water sources, one area that receives a Kings River supply, and some areas receive water from groundwater wells. The Delta-Mendota Canal and San Luis Canal run through the center of the watershed. Water deliveries are made to CVP contractors and to the San Joaquin River Exchange Contractors from these facilities.

The Grassland Drainage Area encompasses 97,400 acres that are geographically within the watershed. The Grassland Drainage Area is not part of the Irrigated Lands Program because it is covered under its own waste discharge requirements for the Grassland Bypass Project (No. 5-01-234), discussed in more detail below. Nonetheless, the Grassland Drainage Area coordinates its separate monitoring and reporting program under the above waste discharge requirements.

The Westside Coalition area also includes federal, state and private managed wetlands. These areas share water delivery and drainage conveyance systems with the surrounding agricultural areas. Due to the integrated nature of the water facilities the managed wetlands have joined the Westside Coalition as a wetland sub-watershed participant to comply with the Conditional Waiver and effectively and efficiently address water quality issues.

Principal activities of the Westside Coalition to meet obligations under the Irrigated Lands Program consist of Monitoring, Reporting and Outreach, and BMP Development, briefly described below.

Monitoring Program: A key concept of the Irrigated Lands Program is that carefully controlled monitoring programs are required to develop reliable information on the quality of water discharged from irrigated lands. On July 30, 2004, the Westside Coalition received approval for its irrigated agricultural monitoring plan and quality

assurance program and plan from the Central Valley Regional Water Quality Control Board ("Regional Board"). The Monitoring and Reporting Plan for the Westside Coalition includes a monthly sampling plan for 19 monitoring sites within the coalition area, and plans for sampling for two rain events during each year. The first sampling event took place on July 6, 2004, and has continued ever since. The objectives of the monitoring program are as follows:

- To assess the existing water quality characteristics of major agricultural drains within the watershed area.
- To determine the location and magnitude of water quality problems.
- To determine the cause of water quality problems and develop solutions.

Two sampling crews have been trained by the analytical laboratories to collect samples according to the Westside Coalition's QAPP and Field Sampling Manual. These crews are responsible for collecting samples at each of the 19 sites. The sampling responsibilities include completion of the field data sheets, collection of water and sediment samples, completion of labels and chain of custody sheets, and coordination with the labs for sample pickup. The parameters analyzed at each site are shown in the table below.

Map Designation	Site Description	General Physical	Irrigation Season Aquatic Toxicity	Winter Aquatic Toxicity	Sediment Toxicity	Drinking Water Constituents	Pesticide Sampling
	1	3	4	5	6	7	8
1	Hospital Creek at River Road	x	x		x	x	x
2	Ingram Creek at River Road	x	x		x	x	x
3	Westley Wasteway nr Cox Road	x	x		x	x	x
4	Del Puerto Creek nr Cox Road	x	x		x	x	x
5	Del Puerto Creek at Hwy 33	x	x		x	x	x
6	Salado Creek nr Olive Ave	x	x		x	x	x
7	Ramona Lake nr Fig Avenue	x	x		x	x	x
8	Marshall Road Drain nr River Road	x	x			x	x
9	Orestimba Creek at River Road	x	x		x	x	x
10	Orestimba Creek at Highway 33	x	x		x	x	x
11	Newman Wasteway nr Hills Ferry Rd	x	x		x	x	x
12	SJR at Sack Dam	x					
13	SJR at Lander Ave	x	x	x	x	x	x
14	Mud Sl upstream of San Luis Drain	x	x	x	x	x	x
15	Salt Sl at Lander Ave	x	x	x	x	x	x
16	Salt Sl at Sand Dam	x	x		x	x	x
17	Los Banos Cr at Hwy 140	x	x	x	x	x	x
18	Los Banos Cr at China Camp Road	x	x		x	x	x
19	Turner Slough nr Edminster Road	x	x		x	x	x
	Number of sites	19	18	4	17	18	18
	Times per year	13	8	4	2	13	8
	Total	247	144	16	34	234	144

In addition to these constituents, aquatic and sediment toxicity samples were collected and analyzed. These samples were analyzed by Pacific Ecorisk, Inc. using the methods described below:

- *Ceriodaphnia dubia*: "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (USEPA 2002a).
- *Pimephales promelas*: "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (USEPA 2002a).
- *Selenastrum capricornutum*: "Short-term Methods for Estimated the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms" (USEPA 2002b).

Hyalella azteca: "Methods for Measuring the Toxicity and Bioaccumulation of Sediment-associated Contaminants with Freshwater Organisms" (USEPA 2000).

Reporting and Outreach: The Westside Coalition has submitted numerous reports to the Regional Board as required by the Irrigated Lands Program, including a Watershed Report, six semi-annual monitoring reports, reports communicating water quality exceedances, and others.[6] Since the inception of monitoring in July of 2004, the Westside Coalition has held 43 meetings with presentations to over 2,500 people. These outreach meetings have included coalition and district meetings to inform growers, landowners and other interested parties about the Westside Coalition and to discuss issues that have been identified as a result of the monitoring program. Specific water quality issues encountered within the Westside Coalition monitoring program have also resulted in meetings with the affected parties focusing on solutions. Other types of outreach meetings have included West Stanislaus Resource Conservation District ("WSRCD") meetings, county ag commissioner meetings, pest control advisor and grower meetings organized by the Westside Coalition, Coalition for Urban/Rural Environmental Stewardship ("CURES"), the WSRCD and others. Outreach has also included regular meetings with Regional Board Ag Waiver staff, and preparation and distribution of newsletters.

The Steering Committee for the Westside Coalition meets monthly to receive updates on and discuss both policy issues and technical information. Regular water district board meetings of participants in the Westside Coalition also include discussion of the Waiver and implementation measures.

---

[6] A copy of the most recent semi-annual monitoring report (without figure 1 and appendices) is attached hereto as Exhibit 2.

Pesticide manufacturers are also supporting the Westside Coalition's grower and PCA outreach through sponsorship and participation in some of the landowner meetings. They have also provided technical and BMP information for use in publications and presentations developed by CURES Information on how to implement these label changes as well as other best management practices were presented at each of the landowner meetings described above.

Recent editions of the *Water Coalition Newsletter*, a publication covering waiver activities and BMP development for irrigated agriculture that is published by CURES through support from the Almond Board of California, have been distributed to growers by districts within the Westside Coalition. Newsletters distributed by individual water districts have also included articles that update landowners on the conditional waiver program.

BMP Implementation: Several specific projects have already been implemented within the Westside Coalition. These efforts on the ground to improve water quality include:

- Tailwater return systems have been installed in Tranquility ID, the Grassland Drainage Area, Columbia Canal Company, Central California ID and Stevinson Water District. These projects and proposed future projects should yield immediate benefits to water quality in the affected streams and in the San Joaquin River.

- Construction of a regional tailwater return project to prevent surface runoff from entering the San Joaquin River and to improve water supplies within Patterson ID is complete and the project is operational, resulting in water quality improvements to the San Joaquin River. This return system intercepts water from the Marshall Road Drain and diverts it into a 65± acre foot reservoir, where it is returned to the irrigation system. The reservoir collects approximately 2000 cubic yards of sediment that settles out of the diverted water each year. This project was supported by a Department of Water Resources Water Use Efficiency grant.

- Construction of a second tailwater return project in Patterson Irrigation District is currently underway and is expected to be completed by 2008. The project includes a 50± acre foot reservoir will collect tail water and operational spills from five canal laterals that would otherwise discharge into Del Puerto Creek.

The project could potentially affects up to 4,500 acres by intercepting tail water and settling out suspended solids. This project is supported by a State Water Board Ag Water Quality grant.

- A project to identify and design BMP's for reduction of discharge from the Orestimba Creek watershed is completed; project BMP recommendations were developed in binder format and distributed to landowners/operators. Funding was made available by the CALFED Drinking Water Program, Prop 13.

- Landowners are continuing to install drip and micro spray irrigation systems. These systems reduce tailwater generation and subsequent discharge. Some of the systems are privately funded, some are funded through revolving loan-interest loan programs funded by member agencies, and others have been funded through State Revolving Fund Loans or Agricultural Water Quality program low-interest loans to participating districts.

The Westside Coalition is also in the process of developing additional best management practices through several projects. These projects include:

- Demonstration of an achievable reduction of chlorpyrifos in drainage water discharging from the tributary watershed of Orestimba Creek into the San Joaquin River from alfalfa, vegetable and other row crop farms. Vegetated ditch BMPs have been constructed and will be tested this summer. PAM calcium applications and constructed wetlands will also be evaluated this summer. Work will include field site assessments, grower publications and BMP outreach. Support includes a Department of Pesticide Regulation PRISM Grant.

- Examination and evaluation of four BMP strategies currently being used in the region for the control of sediments and pesticides: drainage retention ponds (reservoirs), constructed wetlands, vegetated ditches, PAM applications, and use of pesticide-degrading enzymes. Vegetated ditches have been constructed and will be tested this summer. Data has been compiled from previous studies. The project includes development of guidelines for BMP selection and grower outreach and education and is supported by a CALFED Drinking Water Program-Prop 13 grant.

- A project in the Grassland Water District, an area of private wetland habitat, supported by a State Water Board Agricultural Water Quality Grant Program, to study adaptive, coordinated real-time management of wetland drainage.

Grassland Bypass Project: The first regional effort to manage drainage and reduce discharges that reach the San Joaquin River was the Grassland Bypass Project, organized under the umbrella of the San Luis & Delta-Mendota Water Authority. Participants include Panoche Drainage District, Firebaugh Canal Water District, Camp 13 Drainage District, Charleston Drainage District, Pacheco Water District and several other small districts outside the San Luis Unit comprising approximately 97,000 acres. In 1996, and again in 2001, the Water Authority, entered into a Use Agreement with Reclamation to utilize a portion of the San Luis Drain to convey subsurface drainage water containing selenium around sensitive wetlands and wildlife habitat. The subsurface drainage is discharged into Mud Slough, a tributary of the San Joaquin. The project removed selenium from some 90 miles of wetland delivery channels, while causing significant worsening of water quality in approximately 6 miles of Mud Slough North between the end of the Drain and the River. Each Use Agreement was negotiated through a stakeholder process involving Reclamation, US Fish and Wildlife Service, USEPA, the Regional Board, Contra Costa Water District, Environmental Defense, and others.

The Use Agreement provides for a series of load reduction commitments, fee incentives and credits, and under highly unusual circumstances allows for some exemptions, all administered by a multi-agency Oversight Committee. The current agreement includes a selenium and biological monitoring program, supported by funding from the local agencies and Reclamation. Compliance with selenium objectives at monitoring points downsteam in the San Joaquin River is also required. Paralleling the Use Agreement, the Regional Board has issued waste discharge requirements to the Water Authority and Reclamation for the Project under the Porter-Cologne Act, the first such regulation of non-point source discharges from irrigated lands. The process included approval of a selenium TMDL, drastic reductions in both salt and selenium loading, and a glide path to achieving water quality objectives for selenium.

The Grassland Bypass Project is widely regarded as a model for addressing non point source discharges from irrigated land. Participants have been highly successful, reducing the selenium load discharged 70% since the beginning of the Project. There have been no annual load exceedances, although there have been some monthly load exceedances during periods of heavy rain or flooding when there has been little or no ongoing irrigation. The load reductions have been attained largely through improved

irrigation efficiencies, some recycling of drainage into the irrigation supply, load trading among participants, and collection and application of subsurface drainage on regional reuse areas that grow salt-tolerant grasses and other crops. A regional reuse area of 4,000 acres has been acquired with the support of a $17.5M State grant, and developed with a combination of federal appropriation support and local contributions.[7] The Grassland Bypass Project deals with subsurface drainage water, and project participants are required to eliminate tailwater from their systems. This ordinarily occurs through the installation of on-farm recirculation systems, funded by farmers or supported by district revolving loan programs.

The project continues until December 2009, when the existing waste discharge requirements expire and the Basin Plan requires compliance with stringent selenium objectives in the compromised portion of Mud Slough. Due to delays in anticipated funding and development of treatment and disposal processes, Project participants have begun exploring with the Regional Board and others the possibility of an additional term for the Bypass Project and to consider longer-term use of the San Luis Drain as a conveyance to separate flood flows containing selenium from wetland channels.

Westside Regional Drainage Plan: The next anticipated phase of regional drainage management is implementation of the Westside Regional Drainage Plan ("WRDP"), which will cover the same lands as the Grassland Bypass Project with some expanded benefit to Westlands Water District and other San Joaquin River Exchange Contractor lands. The WRDP continues the Grassland Bypass Project model of implementing a proactive, regionally driven response to water quality regulations. It will continue and expand reuse facilities, provide investment in system improvements to reduce seepage to groundwater, and will ultimately add treatment and disposal facilities. It will also incorporate such additional features as groundwater pumping and transfers. The suite of actions is a proposed long term drainage solution for the region and contemplates the elimination of discharges of subsurface or surface flows arising from irrigation in the project area to the San Joaquin River.[8]

---

[7] *See* photos that depict the regional reuse area, attached hereto as Exhibit 3. Also, attached as Exhibit 4 is a December 29, 2006 letter to Rudy Schnagl of the Central Valley Regional Water Quality Control Board providing, pursuant to the Waste Discharge Requirements, an update of the long-0term drainage management plan for the Grassland Bypass Project.

[8] In the event the State Water Board expands the scope of the workshop beyond the southern Delta, the Authority requests the opportunity to submit additional reports and information further documenting the facts presented in this letter.

Conclusion

This letter demonstrates two over-arcing points. It show that there are a number of factors the State Water Board must consider before undertaking the balancing necessary to determine what might be reasonable water quality conditions in the southern Delta for the protection of agricultural beneficial uses. Specifically, as threshold actions, the State Water Board should define the extent of the beneficial uses protected by the southern Delta salinity objectives, and identify the factors in that area, the control of which could reasonably achieve a desired water quality condition.

Second, this letter reflects the fact that the Authority and its member agencies are fully engaged in and committed to actions to reduce salinity in the San Joaquin River that results from irrigation within the Authority member agencies' service areas. Given those efforts, it is not appropriate to develop water quality objectives or a program of implementation that might cause actions that will further reduce the already restricted water supplies of the Authority's member agencies or to demand more from them in order to solve downstream water quality issues, at least until all contributors to those quality issues are addressing their own effects at a similar level.

The Authority and its member agencies are willing to meet with the State Water Board and its staff to answer questions or address concerns.

Thank you for your consideration of these comments.

Very truly yours,

DIEPENBROCK HARRISON
A Professional Corporation

By
Jon D. Rubin
Attorneys for the San Luis & Delta-Mendota
Water Authority

cc: Daniel Nelson