

RESPONSE TO COMMENTS ON THE MARCH 2010 DRAFT STAFF REPORT

Amendments to the Selenium Control Program, Sacramento River and San Joaquin River Basin Plan

Commenters:

[Central Valley Salinity Coalition](#)

[San Joaquin River Group Authority](#)

[Coalition of interests](#) (C-WIN, CSPA)

[US Environmental Protection Agency](#)

[Grassland Basin Drainers](#)

[US Fish and Wildlife Service](#)

[Ed Petri](#)

[Contra Costa Water District](#)

Central Valley Salinity Coalition, Inc. (23 April 2010)

The Central Valley Salinity Coalition (CVSC) supports the adoption of the proposed amendment to the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) to modify the compliance time schedule for the discharge of selenium-laden drainage water to Mud Slough (north), a tributary to the San Joaquin River from the Grasslands sub-basin. Efforts thus far by the Drainage Authority and the Grassland Area Farmers (GAF) have significantly improved water quality in the San Joaquin River for both selenium and salinity. The economic downturn and the cutbacks in water supplies available to the Westside unfortunately have delayed the completion of the drainage reduction plans for selenium and it is reasonable to extend the compliance period to allow this to occur.

Any future efforts to reduce selenium discharges are likely to also improve salinity conditions in the river. We would expect that the Drainage Authority and the GAF will continue to work closely with the CV-SALTS program as well as others in the basin as we all attempt to develop a long-term salinity management plan for the San Joaquin River. Their input and efforts in this program are critical to making progress toward developing a salinity management plan.

R - CVSC Central Valley Water Board staff appreciate your support of the proposed Amendment. If the Board adopts the Amendments, staff anticipates changes to the MRP formalizing the relationship between the Grassland Bypass Project dischargers and the CV-SALTS effort.

San Joaquin River Group Authority (23 April 2010)

1) The San Joaquin River Group Authority (SJRGA) supports the adoption of the proposed amendment to the Water Quality Control Plan for the Sacramento and San Joaquin River Basins (Basin Plan) to modify the compliance time schedule for the discharge of selenium-laden drainage water to Mud Slough (north), a

tributary to the San Joaquin River from the Grasslands sub-basin. Efforts thus far by the Drainage Authority and the Grassland Area Farmers (GAF) have significantly improved water quality in the San Joaquin River. Through no fault of their own, the economic downturn and the cutbacks in water supplies available to the Westside have delayed the completion of the drainage reduction plans. We believe it is reasonable and prudent to extend the compliance period as the water code clearly states that the Board is to consider economic factors in establishing a compliance time schedule.

R1-SJRG **Central Valley Water Board staff appreciate your support of the proposed Amendment.**

2) Any future efforts to reduce drainage discharges are likely to also improve salinity conditions in the river. We would expect that the Drainage Authority and the GAF will continue to work with others in the basin as we all attempt to develop a long-term salinity management plan for the San Joaquin River.

R2- SJRG **See response to Comment R-CVSC.**

3) When considering adoption of the amendment, we would also recommend that the Board consider a revision to Table IV-4 in the proposed amendment to ensure that the wording is consistent with the environmental documentation. Those documents state that the only water bodies continuing to be impacted by the drainage water discharges will be the six-mile stretch of Mud Slough (north) and the San Joaquin River from the Mud Slough (north) confluence with the San Joaquin River to the Merced River inflow. This change would provide continued water quality protection for the San Joaquin River Restoration Flows that will be in this reach of the River during the compliance time period. Our proposed wording changes for Table IV-4 are attached.

Attachment Describing Specific Recommended Wording Changes to Table IV-4

1. Under the column entitled "Water Body/Water Year Type", we recommend that you strike the words "Water Year Type" from the column heading as no water year types are considered in the Table. Thus it would read as follows: Water Body/Water Year Type

2. In the third row of the same column, we recommend that you strike all the wording. The selenium objective for the San Joaquin River below the Merced River is already in place and no compliance time schedule is needed. Thus it would read as follows: San Joaquin River below the Merced River: Critical, Dry, and Below Normal Water Year Types

3. In the fourth row, change the wording to reflect the current environmental documentation. Thus it would read as follows: Mud Slough (north) and the San Joaquin River from Sack Dam the Mud Slough Confluence to the Merced River.

At present, the table defines the San Joaquin River portion to be from Sack Dam to the Merced River Confluence.

R3- SJRGA If the proposed Amendments are adopted, the recommended clarifications will be made.

4) We also concur with the National Marine Fisheries Service determination that the proposed action by the Board will not adversely affect the Chinook salmon habitat in the San Joaquin River.

R4- SJRGA The comment does not suggest a change to staff report or proposed Amendments.

Coalition of interests (C-WIN, CSPA) (26 April 2010)

(Sierra Club California, Friends of the River, Public Employees for Environmental Responsibility, Winnemem Wintu Tribe, California Water Impact Network, California Sportfishing Protection Alliance, Pacific Coast Federation of Fishermen's Associations, San Francisco Crab Boat Owner's Association, Center for Biological Diversity, The Public Trust Alliance, Friends of Trinity River, AquAlliance, North Coast Rivers Alliance, Friends of the Eel River, Federation of Fly Fishers, Planning and Conservation League, Food and Water Watch)

1. The Environmental Impact Report/Statement (EIR/S) certified by the San Luis Delta Mendota Water Authority and the proposed Regional Board staff Functional Equivalency Document (FED) do not meet the legal requirements of CEQA and are not based on the Regional and State Boards' responsibilities to protect beneficial uses of water.

a) The Purpose and Need Statement for the Final Environmental Impact Statement and Report (EIS/EIR) for the Grasslands Bypass Project 2010-2019 "*To facilitate drainage management that maintains the viability of agriculture in the Project Area and promotes continuous improvement in water quality in the San Joaquin River*" was unduly narrow for the Regional Board and State Board to consider the proposed Basin Plan Amendments because it favors continued agriculture over beneficial uses of water. The range of alternatives fully analyzed was not reasonable because neither the lead agencies nor the Regional Board in the Draft Staff Report considered the possibility of land retirement as a permanent solution to selenium tainted drainage. In focusing on keeping agriculture in business in this area is to ignore the Board's mandate to protect all beneficial uses of water. Alternatives which would consider land retirement, conversion of cultivated lands to solar farms, and Integrated Farm Drainage Management (IFDM) were not considered because the Purpose and Need Statement was inherently the continuation of status quo agriculture in the Project Area, at the expense of water quality and other beneficial uses.

R1a-C The Final Environmental Impact Statement and Report for the Grasslands Bypass Project 2010-2019 (GBP EIR/EIS) has already been certified by the U.S. Bureau of Reclamation and the San Luis and Delta-Mendota Water Authority. The adequacy of the EIR/EIS is not the subject of this Board action. With respect to land retirement, the Board cannot mandate that land be retired to comply with the prohibition, although that is an option for the landowner. However, the Staff discussion of the No Project alternative points out that an immediate prohibition would lead to rising groundwater levels and salinization of soil. In essence, those lands with no drainage options would likely become unusable for agricultural use and “retired”.

b) The proposed 9 year 3 month time extension to meet the 5 µg/l Basin Plan selenium objective and TMDL for Mud Slough (north) and the San Joaquin River from Sack Dam to the confluence of the Merced River is an egregious deferral of the State Board and Regional Board mandates to protect beneficial uses of water under the federal Clean Water Act and the Porter Cologne Water Quality Control Act. The justification for the State action is that agricultural profits and viability will be ensured (see Draft Staff Report, p 48 of 60). The Grasslands Bypass Project has already been extended once before for 8 years with promises that Basin Plan Selenium Objectives would be met by 2009, yet now an additional 9 years and 3 months is requested based on a thin hope that technology and publicly subsidized funding will be available to construct and operate a drainage treatment facility. It is clear that the proposal is simply a stalling tactic to continue to extract as many public subsidies as possible until the land is salinized or a technological miracle occurs.

The EIS/R analysis includes an unrealistic No Action Alternative that skews the analysis toward the Proposed Action, rather than an Environmentally Preferred Alternative that would ultimately reduce overall creation of seleniferous agricultural drainage, not just discharges through the Grasslands Bypass Project and Mud Slough.

R1b-C As discussed in the Staff Report, continuation of the coordinated effort to manage drainage from the Grasslands area is critical to protecting the beneficial uses of the wetland supply channels and the San Joaquin River downstream of the Merced River. In absence of a coordinated effort, the Central Valley Water Board would need to individually regulate over 100 growers. Such an effort would take years to initially issue and later enforce individual WDRs and would likely lead to an initial degradation in water quality as regional coordination and resources are withdrawn. The proposed Amendments

constitute the first time extension since the beginning of the Grassland Bypass Project, with dates for meeting water quality objectives for the listed reaches in 1996 (Salt Slough and wetland water supply channels), 2005 and 2010 (San Joaquin River below the Merced River, and Mud Slough). The 1996 and 2005 compliance dates were met in the project area, as will be the 2010 date for the San Joaquin River below the Merced River. If the Amendments are adopted, Mud Slough and the San Joaquin River between the drainage discharge and the Merced River would continue to exceed water quality objectives. However, the Grassland Bypass Project Use Agreement includes further load reductions and the proposed Amendments include a performance goal that will reduce allowable concentrations in Mud Slough and the San Joaquin River.

The proposed Amendments do not alter the prohibition of discharge for agricultural subsurface drainage to water bodies that are not meeting selenium objectives if WDRs bringing the discharge into compliance with selenium objectives have not been issued.

The California Water Impact Network (C-WIN) and the California Sportfishing Protection Alliance (CSPA) recommended throughout EIS/EIR process a maximum two year extension and evaluation of an alternative which includes land retirement and reinitiation of the San Luis Drainage Decision Analysis process originally launched by the U.S. Geological Survey. We believe that our recommended alternative will lead to a solution that is cost effective and technically feasible, but it has been unreasonably rejected and ignored. The C-WIN/CSPA Alternative is more likely to lead to zero discharge of subsurface contaminated agricultural drainage sooner and more continuously from the Grasslands Drainage Area to Mud Slough and the San Joaquin River than the proposed action which admittedly relies on unproven and unfunded technology. The Regional Board staff has summarily dismissed the C-WIN/CSPA proposal as the same as the No Action Alternative because of the 2 year time frame. However, the No Action Alternative contains no plan for land retirement and is therefore not the same alternative.

R1c-C The draft resolution includes a requirement that the dischargers describe how compliance will be achieved (whether by treatment or otherwise) in their 1 January 2013 update to their long-term drainage management plan. If treatment is not viable, the Dischargers must describe the other alternatives, which could include land retirement, that would be implemented to achieve the objectives. See response R1a-C for discussion of land retirement.

d) Staff's description of the No Action Alternative is not accurate because absent the proposed action, vigorous regulatory enforcement by the Regional Board to institute source control would alleviate the water quality problems using its authorized powers. Even the Regional Board, in its comments on the DEIS/EIR noted as follows:

"The No Project alternative seems mischaracterized. Why would the "ongoing program for drainage management" cease if the Use Agreement were not extended. If the extension is not granted, wouldn't it simply mean the discharges must employ more aggressive source control measures while the Project continues to develop to the point where all drainage can be managed to avoid violating water quality objectives?"

The City of Stockton, in its September 3, 2009 comment letter on the FEIS/EIR astutely noted as follows:

"Because the No Action Alternative makes unreasonable and unsupported assumptions about agricultural and water management practices in the Project Area under the no action scenario, many if not all of the EIS/EIR's determinations regarding the significance of Project-related environmental impacts are undermined. The failure to evaluate a credible No Project Alternative is a fatal flaw that requires that the EIS/EIR be revised and recirculated to evaluate a No Action Alternative that is grounded on evidence and reasonable assumptions regarding likely future management and drainage control actions in the absence of Project implementation."

The EIR/S therefore sets up an unrealistic worst case scenario for the No Action Alternative, which then predisposes the analysis to enable the SLDMWA to recommend the Preferred Alternative. Unfortunately, despite appropriate comments by Regional Board staff on the EIS/EIR, the Regional Board's own environmental checklist on the Basin Plan Amendment does not address the deficiencies of the EIS/EIR. It simply reiterates support for continued irrigated agriculture in the Grasslands Drainage Area (environmental checklist items 2 and 9), when the Regional Board should instead be ensuring that all beneficial uses of water are protected.

R1d-C In response to the staff question cited above, draft GBP EIS/DEIR authors informed staff that continuation of coordinated regional efforts is uncertain if the Use Agreement is not extended. The possibility that regional cooperation may disappear without the Amendments does not change the Board's authority or responsibility to regulate, but it does raise logistical and policy issues that would take time to fully work out, and environmental impacts that are minimized or avoided now through regional monitoring and management could occur during the transition to issuance and enforcement of individual orders. There would be a very real possibility of

increased impacts to drainage-area wildlife while the selenium control program is transitioned from regulating a single discharge to regulating multiple discharges; as well as the anticipated impacts to agriculture from lack of adequate drainage as described in the GBP EIS/EIR. The staff report's description of what could occur under the No Project alternative is appropriate.

e) The Regional Board should more meaningfully address CEQA in its environmental checklist and Functional Equivalency Document (FED). CEQA provides for an exemption from preparation of an EIR for plans, policies, or guidelines adopted under the State Board's Water Quality Control (Basin)/208 Planning Program, so long as a written report is prepared and submitted in compliance with sections 3777-3781 of the State Board's regulations (Public Resources Code § 21080.5; 23 C.C.R. § 3782.)

R1e-C The Staff Report, including the environmental checklist, are consistent with the State Water Board's regulatory requirements. If the Central Valley Water Board adopts the Amendments, a final staff report will be prepared that addresses the comments received on the draft staff report and any changes adopted by the Board.

f) The FED does not comply with CEQA or the State Board's regulations, because it does not analyze or mitigate the potentially significant adverse environmental impacts of the Draft Policy or identify the benefits of potential alternative approaches such as land retirement. The U.S. Geological Survey (USGS), states that "*Land retirement is a key strategy to reduce drainage because it can effectively reduce drainage to zero if all drainage-impaired lands are retired.*" The Regional Board's FED completely ignores that well-known fact.

The Regional Board cannot approve the proposal because a feasible alternative exists—land retirement—that it has failed to consider, let alone evaluate adequately.

R1f-C The Staff Report, including the environmental checklist, is consistent with CEQA and State Water Board regulatory requirements. Consistent with these legal requirements, the document considers a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation and identifies ways to mitigate or avoid the significant effects that extension of the compliance schedule may have on the environment. The proposed changes to the Basin Plan also provide the Board with the option to immediately impose the prohibition, if timely and adequate

mitigation is not provided. It should also be noted that the goal of the selenium control program is to meet applicable water quality objectives, not to reduce discharge to zero. With regard to the alternative of land retirement specifically, see responses R1a-C and R1c-C.

2. The purpose and need for “continuous water quality improvement” of the San Joaquin River is not met under the Use Agreement’s proposed load objectives for wet and above-normal water years until 2015 because improvements sought through the proposed project are not continuous and are essentially deferred for 10 years without promise that water quality standard violations would be resolved even by then.

The very narrow Purpose and Need statement “*To facilitate drainage management that maintains the viability of agriculture in the Project Area and promotes continuous*” proposed action because the proposed 2010-2015 load limits remain the same as existing load limits.

The selenium load limits in the proposed Use Agreement for wet and above normal years fail to show continuous improvement in the first five years of the proposed extension because they are the same as existing discharge limits for those water year types, and therefore conflict with the project purpose and need for continuous improvement of water quality in the San Joaquin River. Given that some of the largest selenium discharges occur as a result of storm runoff in wetter years, this provides little assurance of “continuous improvement” of water quality because it leaves intact the likelihood that sources of high selenium loads will be inadequately controlled during wetter years.

R2-C The proposed Amendments do not include changes to load limits in the basin plan, but the Use Agreement assumes selenium load reductions would occur on a negotiated schedule. Load allocations are peripheral to the proposed Amendments, but if the Board adopts the Amendments, the Grassland Bypass Project’s WDRs would need to be updated. The negotiated load reductions and this comment will be considered at that time.

3. There is no attempt to achieve compliance in the proposed project’s design with the California Endangered Species Act (CESA) for the Delta Smelt, Giant Garter Snake, Swainson’s Hawk, San Joaquin Kit Fox and other state listed species for the Proposed Action. There is no information in the record that the project proponents have done anything other than coordinate with the Department of Fish and Game’s (DFG) Wildlife Refuge unit, but there has not been coordination with DFG’s CESA unit. Coordination should not be confused with attaining protection and recovery of endangered species.

The EIS/EIR and Regional Board Draft Staff Report mention, but do not demonstrate how the proposed project and basin plan amendment attain California Endangered Species Act compliance. The Regional Board's Draft Staff Report simply states that "*CDFG has been working closely with the Bureau and Authority to craft the 2010-2019 Use Agreement's wildlife monitoring and protection and impact mitigation requirements.*" The Department of Fish and Game (DFG) has been disappointingly silent throughout the environmental review. DFG will need to issue concurrence statements for the NMFS and USFWS Biological Opinions, or issue separate CESA clearance for Delta Smelt, San Joaquin Kit Fox, Giant Garter Snake, Swainson Hawk Sacramento River winter-run Chinook, spring run Chinook, and other state-listed species affected by the Proposed Action.

In regard to the need for a CESA consultation on the Delta Smelt, the USFWS Biological Opinion (USFWS BO) makes a statement that would lead a reasonable person to conclude that adverse impacts will occur as follows:

"...the Service believes that the smelt would more appropriately fall under the 'may affect' category, with the subsequent required analysis of whether or not the project is likely to adversely affect the species."

There is also substantial evidence in the USFWS BO indicating that harmful levels of selenium are bioaccumulating in San Joaquin Kit Fox and Giant Garter snakes due to consumption of contaminated rodents and amphibians, respectively (see discussion under item 8 below).

The Regional Board, as a State Agency, is also required to comply with CESA for approval of the Basin Plan Amendment. There is no indication that process with DFG has been initiated, let alone completed. Approval of the Basin Plan Amendment would therefore be unlawful pursuant to CESA.

R3-C The Department of Fish and Game (DFG) participated in the Use Agreement negotiations and DFG's input is reflected in the mitigation measures in the 2010 Use Agreement. The GBP EIS/EIR was submitted to DFG for review and DFG has had an opportunity to comment on the Staff Report, including the environmental checklist, and if adopted, the Amendments will also be subject to a DFG determination. DFG remains an active participant in the monitoring and oversight of the Grassland Bypass Project through the Data Collection and Reporting Team, the Technical and Policy Review Team and the Oversight Committee.

4. The proposal jeopardizes restoration of the San Joaquin River's salmon runs by continuing to kill up to 50% of juvenile salmon and Central Valley steelhead due to aquatic, bioaccumulating selenium exposure. NMFS'

concurrence memo under the Endangered Species Act did not consider information from U.S. Fish and Wildlife Service and selenium/salmonids research biologist Dennis Lemly that the EIS/EIR underestimates San Joaquin River juvenile salmonid selenium, exposure, bioaccumulation, and subsequent mortality.

The GBP EIS/EIR fails to provide public or peer-reviewed analysis when it responded to comments and substantial evidence that there are significant impacts to salmon, steelhead and other aquatic life from selenium exposure and bioaccumulation. The lead agencies' response to comments was that there will be no significant impacts from selenium discharges to salmon restoration in the San Joaquin River, despite the analyses by William Beckon et al (USFWS) identifying substantial evidence that juvenile Chinook salmon are very sensitive to selenium discharges from the San Luis Unit of the CVP.

The reintroduction of Chinook salmon and existing Central Valley Steelhead are adversely affected by selenium discharges from the project, according to the memo to Tom Stokely of C-WIN from Dennis Lemly, Research Biologist. Up to 50% of the juvenile salmon and steelhead in the San Joaquin River downstream of the Merced River would be killed by the continued selenium discharges. The USFWS, in an e-mail to Reclamation, also challenged the analysis and findings in the FEIS/EIR on impacts to salmonids (Attachment 1). The response in the EIS/EIR disregarded both the CWIN/CSPA and USFWS comments and concluded that the: *"GBP is unlikely to have a significant impact on the fish reintroduced as part of the SJRRP. Because both projects would be expected to improve conditions for salmonids in the SJR and, therefore, they would not have a cumulatively significant impact."*

The EIS/EIR should be recirculated because there was no opportunity for the public or a peer review of claims in the EIS/EIR responses to comments that selenium loading and bioaccumulation of selenium in the Bay-Delta food chain and ecosystem is not a problem. Since the San Joaquin River from the Merced River to the Delta Boundary and Suisun Bay are listed as impaired for selenium under Section 303(d) of the Clean Water Act (SWRCB 2006), the EIR/S's claims are farfetched, at best. The FEIS does not address the overall problem of continued selenium loading and contamination of the food chain in the Bay-Delta. As the SWRCB noted in the 303(d) listing of waters in the North Bay, *"exotic species may have made food chain more susceptible to accumulation of selenium; health consumption advisory in effect for scaup and scoter (diving ducks)..."*

The National Marine Fisheries Service's (NMFS) November 18, 2009 Endangered Species Act determination of not likely to adversely affect Central Valley Steelhead, Southern DPS of green sturgeon and other listed species could not have considered the comments of Dennis Lemly and the U.S. Fish and Wildlife Service that there would be significant mortality of juvenile salmonids and other species from selenium exposure. It is difficult to

fathom that mortality of 50% of the juvenile Central Valley steelhead in the San Joaquin River would generate a finding of not likely to adversely affect if that information had been closely examined by NMFS.

Furthermore, given that attempts at restoration of Chinook salmon in the San Joaquin River are imminent through the San Joaquin River Restoration Program, the Regional Board should include cold water fisheries in the Basin Plan as a beneficial use of the San Joaquin River upstream of the Merced River

R4-C The commenter cites a report and communications (commenter's attachments 1 and 2) that staff considered during the preparation of the draft staff report concerning the US EPA water quality criterion on which the San Joaquin River water quality objective for selenium is based. EPA is in the process of developing new selenium criteria (see USEPA comments, 26 April 2010). The effort to develop a new national selenium criterion has been underway for several years. Given the complexity of the issue, it may be many more years before a new state or national criterion is fully adopted. Changes to the selenium water quality objectives are not part of this proposed action. Any such changes would need to consider all relevant scientific information, as well as the other factors identified in the California Water Code § 13241. Additionally, to the extent this comment is directed at the GBP EIS/EIR, that environmental document has already been certified and is not the subject of this Board action.

5. The Draft Staff Report is inaccurate in its assertion that all agricultural lands discharging contaminated drainage into the Grasslands Drainage Area are participating in the Grasslands Bypass Project. Some lands do not participate in the Grasslands Bypass Project and continue to discharge into wetland water supply channels.

a) The U.S. Fish and Wildlife Service Biological Opinion for the Grasslands Bypass Project (USFWS BO) identified additional lands within the Almond Drive drain (1,100 acres) and Poso/Rice drain area (7,000 acres). These lands either need to be included under the GDA or individual WDR's issued to reduce or eliminate selenium discharges. These areas continue to contaminate wetland water supply channels with selenium from agricultural drainage. The CVRWQCB incorrectly identifies that all lands within the Grasslands participate in the GBP. C-WIN and CSPA commented on the DEIS/EIR that these lands should be included mandatorily, but there has been no effort to incorporate those lands, and the CVRWQCB has not addressed this issue in the Draft Staff Report either.

The USFWS BO states that the drainage from these 2 areas is above 2 µg/L a majority of the time. The September Monitoring Report for the Grasslands Bypass Project shows elevated selenium levels (26.4 µg/L) in the Agatha Canal (that supplies water to South Grasslands wetlands) during the week of August 10, 2009. The same report also shows elevated selenium levels in the San Joaquin River at Hills Ferry for the week of August 11, 2009 (20.3 µg/L), August 19, 2009 (10.5 µg/L), September 8, 2009 (13.6 µg/L) and September 15, 2009 (29.0 µg/L). These numbers may be indicative of uncontrolled drainage from the Almond Drive and Poso/Rice areas immediately north of the Grasslands Drainage Area.

R5a-C The proposed Amendments do not change the compliance dates for wetland supply channels. Central Valley Water Board staff are considering the most effective method for ensuring the drainage from areas not included in the GBP do not cause or contribute to exceedances. [See also response R1b-C]. Some discharge to the river occurs when groundwater seeps into conveyance channels such as the Agatha Canal. Groundwater seepage is not addressed directly by the selenium control program. The GBP's load limits make no distinction among drainage, seepage and stormwater.

b) The GBP EIS/R in 2001 and the EIS/R for the GBP Extension in 2009 noted that the proposed action may include the addition of approximately 1,100 acres of farmland to the GBP's Drainage Project Area (DPA), found immediately adjacent to the DPA, south of the SLD and east of the Grassland Bypass Channel, that currently drain to wetland channels, in the area identified by Chilcott (2000) as the Poso Rice Drain Area. The EIS/EIR for the GBP Extension noted the following with respect to these lands that continue to discharge drainage directly into the Grassland wetland supply channels that are outside of the DPA:

"The GDA does not include the lands that are described, and they are not under the jurisdiction of the Grassland Basin Drainers (GBD). Additionally the GBD have no authority to compel these lands to become part of the GBP. However, the GBD will work with the landowners in the areas described to encourage management of drain waters that may contain selenium that is entering wetland supply channels and specifically will work with the 1,100 acres of lands that are identified as lands that "... could be annexed to the GDA."

Bureau of Reclamation water contracts specify that the recipient must comply with all applicable water quality standards and requirements, yet there was no discussion in the EIS/EIR of Reclamation's authority, only excuses why the Grasslands Drainers cannot annex those other lands themselves. The CVRWQCB does have the authority to require these discharges to comply with Water Quality Objectives.

The Regional Board should require that the Almond and Rice/Poso landowners participate in the Grasslands Bypass Project or be subject to individual Waste Discharge Requirements and penalties.

R5b-C See response R5a-C.

6. There is ample evidence that the Grasslands Bypass Project and the larger Westside Regional Drainage Plan are concentrating and storing selenium, salt and boron in the shallow aquifers of the region, prolonging the risk of surface water discharges with large selenium loads and regional degradation of groundwater.

The EIS/EIR identifies the following impacts in comparing Existing Conditions to the Proposed Action:

- Increase in selenium and boron soil concentrations
- Unsaturated-zone soil salinity in the GDA doubles
- Projected net increases in the area affected by a shallow water table

The Grasslands 2010-2019 EIS/EIR also fails to mention the problem of boron in treated water and its suitability for irrigation use. Studies conducted to date indicate a need for a 36/1 dilution ratio of fresh water to treated drainage water in order to avoid crop damage. Despite admission that no feasible or cost effective solution exists, the FEIS is optimistically unsubstantiated in its claims for a future solution.

Salt, selenium and boron savings extrapolated from Broadview Contract Assignment EA in the 2004 EA/FONSI on the Broadview contract "assignment" to Pajaro Valley Water Management District et al cites a load reduction of 17,000 tons of salt, 1,500 pounds of selenium, and 52,000 pounds of boron to the San Joaquin River each year (Reclamation 2004) from the cessation of irrigation on 9,200 acres. This amounts to a per acre reduction of 1.85 tons of salt, 0.16 pounds of selenium and 5.65 pounds of boron. Multiplying this times the remaining approximately 60,000 acres irrigated in the Grasslands area, permanent land retirement of the entire area could result in a maximum reduction of 111,000 tons of salt, 9700 pounds of selenium and 339,000 pounds of boron discharges to aquifers, groundwater and the GBP. Given that existing discharges of selenium through the GBP have been below 5,000 pounds for the past several years, it's clear that there is an ongoing accumulation of selenium, salt and boron in the groundwater within the Grasslands area.

USGS scientists forecast that aquifers of the western San Joaquin Valley contain so much selenium that even if the San Luis Drain were built with an annual discharge of 43,500 pounds of selenium/year with no new additions of selenium (no irrigation); it would still take 63 to 304 years to eliminate the

accumulated selenium from the aquifers. This does not account for the remaining upslope selenium in nearby source rock and soils.

R6a-C Most methods of salt management currently used in agricultural areas also address materials associated with the salt such as selenium and boron. The draft staff report notes the dischargers' ongoing participation in CV-SALTS to develop a sustainable regional salinity management plan. This participation is consistent with the USFWS comment on the need to consider the effect of salinity on endangered giant garter snake populations in the drainage area in the commenter's attachment 3. If the Amendments are adopted, staff will consider updates to the GBP's WDRs to more formally link the GBP drainage management effort with the larger regional salt management planning effort.

By ignoring permanent land retirement, the Grasslands Bypass Project through the proposed Basin Plan Amendments will continue to concentrate and store salt, selenium, boron and other toxic substances in the shallow aquifers of the Grasslands area. This creates an ongoing risk of toxic selenium discharges to wetland water supply channels, Mud Slough, the San Joaquin River and the Bay-Delta estuary, especially in wetter years.

R6b-C See response R1a-C.

7. There is strong evidence contained in the U.S. Fish and Wildlife Service's Biological Opinion for the Grasslands Bypass Project and other reports of existing and continued high risk of selenium exposure to listed species and birds protected under the Migratory Bird Treaty Act from the Grasslands Bypass Project.

Black necked stilts and American avocets are two species that are covered by the Migratory Bird Treaty Act (MBTA) and occur in the project area. The recent monitoring report on the Grasslands reuse area by HT Harvey and Associates identified a deformed black necked stilt and abandoned stilt nests, in addition to the findings of selenium contamination. Other migratory waterfowl covered by the MBTA are adversely affected, such as northern shovelers.

The USFWS noted in its Biological Opinion that egg-selenium concentrations in avocet and stilt eggs collected at the San Joaquin River Improvement Project's Drainage-Reuse Area in 2008 exceeded all geometric mean selenium concentrations in similar bird eggs collected at Kesterson Reservoir. Kesterson was ultimately closed due to violation of the Migratory Bird Treaty Act.

The above-referenced HT Harvey monitoring report also identified several nesting Swainson's hawks (a State listed species) in the vicinity of the recently acquired lands for the San Joaquin River Improvement Project's Drainage Reuse Area and just to the south of the Grassland private wetlands.

R7-C Operation of the drainage reuse area is outside the scope of the proposed Amendments, which address a time extension for compliance with the prohibition/objective in Mud Slough (north) and the SJR between the discharge and the Merced River. We will consider this information when the WDRs for the project area are revised.

8. The Existing Basin Plan Water Quality Objectives for selenium are inadequate to prevent bioaccumulation and harm to various terrestrial and aquatic species. The US Environmental Protection Agency is in the process of issuing new selenium water quality criteria nationally and for the Bay-Delta that are more restrictive than the existing 5 µg/l water quality objective.

a) In 2000, the USFWS and NMFS issued a joint Biological Opinion on the Environmental Protection Agency's California Toxics Rule. In that Opinion, the Environmental Protection Agency committed to revise its national 304(a) acute and chronic aquatic life criteria for selenium and will propose revised acute and chronic aquatic life criteria for selenium in California . Further EPA committed to

"...utilize existing information to identify water bodies impaired by selenium in the State of California. Impaired is defined as water bodies for which fish or waterfowl consumption advisories exist or where water quality criteria necessary to protect federally listed species are not met. Pursuant to Section 303(d) of the CWA, EPA will work, in cooperation with the Services, and the State of California to promote and develop strategies to identify sources of selenium contamination to the impaired water bodies where federally listed species exist, and use existing authorities and resources to identify, promote, and implement measures to reduce selenium loading into their habitat."

Consistent with the California Toxics Rule Biological Opinion, the U.S. Environmental Protection Agency will shortly be issuing new national and San Francisco Bay selenium water quality criteria based on Section 304(a) of the Clean Water Act and the Biological Opinion for the California Toxics Rule. The new selenium water quality criteria will be based on consideration of bioaccumulation using the Presser/Luoma (USGS) model. The new water quality criteria are likely to be lower than existing Basin selenium water quality objectives of 2 µg/l and 5 µg/l.

The USFWS GBP BO provides documentation on the extent of contamination of various species. The USFWS BO utilized a "Lemly methodology" selenium

toxicity assessment of the South Grasslands. The score was 20, which is considered a high hazard. The discussion states as follows:

“Given the fact that giant garter snakes forage on fish and tadpoles, and these media are the most selenium-impacted of the media sampled in the South Grasslands, it is reasonable to conclude that the giant garter snake is likely adversely affected by selenium by their diet in this area”.

Selenium sampling among small mammals and insects bodes poorly for the San Joaquin Valley Kit Fox; the USFWS GBP BO reported that:

*“HT Harvey and Associates began small mammal sampling in 2008 at the SJRIP drainage reuse area. That effort yielded the capture of 8 deer mice (*Peromyscus maniculatus*), 7 house mice (*Mus musculus*), and one western harvest mouse (*Reithrodontomys megalotis*) within the portion of the SJRIP Reuse Area that has been receiving drainage water since 2001 (existing project facility). Of those samples, 31.3% were at or above the LOAEC for selenium in dogs (e.g., 7.2 µg/g). It is likely that any kit foxes foraging at the SJRIP drainage reuse area would be exposed to elevated levels of selenium through ingestion of the resident mammal prey species.”*

R8a-C See Response R4-C.

b) To continue waiving the 5 µg/l selenium Water Quality Objective in the Basin Plan for another 9 years and 3 months is inexcusable, given that the existing selenium water quality objectives are already not protective of fish and wildlife, and selenium bioaccumulation in biota is occurring. Recommending a 15 µg/l selenium (monthly mean) performance goal for Mud Slough (North) and the San Joaquin River above the Merced River in the Basin Plan Compliance Table IV- 4 will provide no protection to aquatic life and will result in harm to biological resources using those waters.

R8b-C The 15 µg/L selenium performance goal is the concentration equivalent of the selenium load reduction anticipated by the end of 2015. Selenium concentrations in agricultural subsurface drainage discharge from the Project fluctuates seasonally (see Figure 5, staff report). The performance goal is an interim target that requires the dischargers to demonstrate progress towards meeting the objective at a midpoint in the time extension.

9. Monitoring is inadequate to verify that the claims of success are actually true.

a) There hasn't been enough monitoring to confirm success that in reducing discharges of selenium. Monitoring is currently inadequate to determine if selenium contamination of biota and downstream water quality is decreasing.

In order to better determine impacts on Mud Slough and the San Joaquin River, year-round water quality monitoring and reporting from Site H and Site N should be reinstated. Total selenium loading in the San Joaquin River should be measured at Vernalis, but is not.

R9a-C Site H is not used to monitor regulatory compliance, as under certain conditions it may not reflect river water quality accurately; but selenium concentrations are monitored at sites H (Hill's Ferry), N (Crow's Landing) and Vernalis. See <http://www.sfei.org/grassland/reports/gbppdfs.htm> for data. Flow is also measured at Vernalis so loads can be calculated; however, selenium load values at Vernalis are generally not needed for regulatory planning and enforcement.

b) Waste Discharge Requirements WDR's require public disclosure of information, but there isn't enough information to claim success. To the contrary, the USFWS BO for the GBP indicates that there is an ongoing high hazard level of selenium contamination to the biota. American Avocet eggs in the San Joaquin River Improvement Project Phase 1 area exceeded criteria submitted to USEPA by a factor of 50% and are likely to exhibit reduced reproductive success. Liver selenium levels in shovelers, coots, and black-necked stilts from the South Grasslands during 2005 were also found to be significantly above background levels.

The USFWS BO also indicated that "...selenium concentrations in sediments and invertebrates are likely due to a continuing influx of selenium contamination that has not been fully abated in the area."

The USFWS Biological Opinion for the GBP makes it clear that selenium cycling continues within Grasslands and is attributable to historic use of agricultural drainage resulting in a reservoir of selenium in wetlands and supply channel sediments, stormwater inflows, and unregulated inflows of subsurface drainage directly into wetlands or indirectly into their supply channels.

Monitoring of rodents and aquatic and terrestrial insects in the Grasslands Drainage Area and downstream in the San Joaquin River and the Bay-Delta estuary would provide better information on selenium bioaccumulation in prey species to determine if a finding of No Significant Impacts is actually justified. Reinstatement of year-round monitoring and reporting at Sites H and N would provide better information on selenium concentrations in the Merced River. Measuring total selenium at Vernalis would allow determination the total amount of selenium in the San Joaquin River.

R9b-C See Responses R4-C, R7-C, R9a-C and R4-FWS. Biological monitoring of the reuse area and elsewhere in and near the Grassland Bypass Project area is outside the scope of the

proposed Amendments. These comments will be considered when the WDRs for the GBP are revised.

10. Land retirement and cost effectiveness were not considered in the FED at all as the Best Available Technology. There are no financial or technical assurances that the Basin Plan selenium objectives will EVER be met. The Public Trust is not being met.

Numerous government studies identify the high economic and environmental cost of continuing to irrigate these lands, and that the only reliable Public Trust solution to reverse the drainage problem is to halt irrigation of these lands. The National Economic Development Cost/Benefit Summary for the San Luis Drainage Feature Re-Evaluation, disclosed that the alternative with the least amount of land retirement (100,000 acres for the In-Valley Groundwater Quality Land Retirement Alternative) had a negative benefit/cost summary amounting to \$15.603 million/year in 2050 dollars, or a negative \$780.15 million over the 50 year life of the project. Conversely, the alternative with the greatest amount of land retirement (300,000 acres- In Valley Drainage Impaired Land Retirement Alternative) had a positive benefit/cost summary of \$3.643 million/year in 2050 dollars, or a positive \$182.15 million over the 50 year life of the project. Reclamation's preferred alternative with 194,000 acres of land retirement and over 180,000 acres remaining in production, including the Grasslands (In-Valley Water Needs Land Retirement Alternative) lost \$10.149/million/year, or a loss of over half a billion dollars (\$507.4 million) over 50 years.

The National Economic Development Report Summary for the San Luis Drainage Feature Re-evaluation Record of Decision (SLDFR ROD) concluded that any alternative with less than 300,000 acres of land retirement would be a net economic loss. The Grasslands Bypass Project 2010-2019 EIS/EIR, by contrast, refuses to look at the overall economics through a National Economic Development-like approach, let alone consider land retirement. It narrowly looks at costs to local farmers only.

The U.S. Geological Survey has been clear that any solution to drainage problems must include land retirement. In relation to the San Luis Feature Re-Evaluation and subsequent settlement negotiations convened by Senator Feinstein, the USGS has stated that:

“Land retirement is a key strategy to reduce drainage because it can effectively reduce drainage to zero if all drainage-impaired lands are retired.”

USGS goes on to state that *“The treatment sequence of reverse osmosis, selenium biotreatment and enhanced solar evaporation is unprecedented and untested at the scale needed to meet plan requirements.”*

Reclamation's CVPIA land retirement program has demonstrated that there can be a rapid reduction in shallow groundwater from cessation of irrigation.

The Feasibility Report for the San Luis Drainage Feature Re-evaluation (SLDFR) recommended significant increases in subsidies for San Luis Unit contractors in order to implement the Preferred Alternative for the SLDFR, which did not include maximum land retirement. The Feasibility Report also concluded that the Preferred Alternative which included providing drainage to continued irrigated agriculture the Grassland area was not financially feasible or economically justified (p 97). The report concluded that the technology was feasible, but admitted as follows:

"Though the reverse osmosis treatment plants are not at a feasibility level design, this does not affect the finding of technical feasibility. Reverse osmosis technology is continually evolving and improving over time. The Report anticipates these improvements will be incorporated as they become available over the 50-year life of the project."

The CVRWQCB Draft Staff Report (p 7) states as follows regarding reverse osmosis treatment:

"The EIS/EIR for the 2001 Use Agreement between the Bureau and Authority anticipated that appropriate drainage treatment technology could be identified within a few years of adoption of the agreement. Several technologies were tested but results have been mixed, with no clear Best Practicable Treatment and Control option emerging. The operators now have more information than they did in 2001, but treatment technology must still be tested and validated as appropriate for the GBP."

Reclamation requested and was approved a National Economic Development waiver for the SLDFR preferred alternative, the In-Valley-Water Needs Land Retirement Alternative, which had an annual net loss of \$10,149,000 (\$507,450,000 over 50 years) and only retired 194,000 acres. We believe this was an economically unjustified decision to select an alternative which has a negative cost-benefit of over half a billion dollars over the 50 year life of the project compared to one that has a positive cost-benefit of over \$182 million. More land retirement should have been selected. The 79,000 acres in the Grasslands was not analyzed for land retirement in the SLDFR or the Grasslands 2010-2019 EIS/R. The only option considered for Grasslands under that process was continued reuse and eventual (and uncertain) reverse osmosis treatment, thus ensuring a negative cost/benefit economic analysis.

The economic analysis contained in the GBP EIS/EIR completely ignores land retirement and simply looks at costs to growers from the proposed action and concludes that the project is cost effective, although implementation costs will somewhat reduce farm profits.

Reclamation's subsequent San Luis Drainage Feature Re-Evaluation (SLDFR) Feasibility Report concludes for Panoche, Pacheco, San Luis and Westlands water districts that:

"None of the four water districts have the ability to fully repay its assigned capital costs of drainage service facilities. The implementation of either action alternative would far exceed their ability to repay the associated costs of the project when coupled with their existing obligations... None of the San Luis Unit contractors would be able to pay the Restoration Fund charges if [the] action alternative is implemented."

An adequate economic analysis by Reclamation, San Luis Delta-Mendota Water Authority and the Regional Board should include all costs to society of the proposed action, including, but not limited to water subsidies, loss of water-related resources elsewhere (salmon, recreation, etc.), crop subsidies, CVP Project Power Use subsidies, realistic reverse osmosis treatment costs, California Water Bond subsidies (Props 50 and 84), sediment management and disposal, and the costs of offsite environmental pollution such violation of Delta salinity standards and the need for and cost of freshwater dilution flows from New Melones to meet San Joaquin River salinity requirements. This level of accounting and analysis would provide the fullest accounting of the costs of alternatives associated with Grasslands Drainage Area problems, and would meet the disclosure requirements of NEPA and CEQA. As presented in the Grasslands 2010-2019 EIS/EIR and the Regional Board's Draft Staff Report, however, we contend that the economic analysis fails to meet the NEPA and CEQA requirement to provide full disclosure of proposed project impacts, including economic effects related to physical changes to the environment. A more thorough economic analysis for the GBP 2010-2019 would show that this project just doesn't make sense and that land retirement is the only cost effective and realistic alternative that would pass the balancing test of the Public Trust.

The SWRCB should consider the broadest economics approach of continued irrigation of these lands as it balances Public Trust Doctrine issues with the Grassland drainers' request of the SWRCB for continued delay in having to meet Mud Slough and San Joaquin River water quality standards for salt, boron and selenium. The EIS/EIR's optimistic claims for a future solution are unsubstantiated. Land retirement is the Best Available Technology and the most cost effective option, not the GBP's reliance on reverse osmosis.

R10-C See R1a-C. Water Code section 13141 requires cost estimates to be developed for any agricultural water quality control program. This is an ongoing program. The Basin Plan includes a cost estimate for the selenium control program with potential sources of funding and neither the cost nor the sources need to be revised.

11. Cumulative effects of water transfers and increased groundwater pumping are not considered. There has been no evaluation or consideration of what is the best type and amount of groundwater pumping combined with land retirement to reduce high salty/seleniferous groundwater in the region, as recommended in the Rainbow Report.

There are several projects in the vicinity of Grasslands to pump shallow and deep groundwater into various aqueducts to provide irrigation water and water transfers. These are primarily Warren Act pumping or pumping by the San Joaquin River Exchange Contractors (10 and 25 year programs). While the Rainbow Report states that land retirement and selective groundwater pumping are suitable tools to be used to reduce or eliminate drainage and high groundwater, there has been no evaluation of how existing groundwater pumping and associated water transfers affects drainage and groundwater in the Grasslands watershed.

Most of the signatories to this letter sent in a comment letter on March 29, 2010 outlining concerns with the most recent groundwater transfer Environmental Assessment by Reclamation. Concerns include

- No Evaluation of Water Quality Impacts – Selenium & Other Contaminants
- Public Involvement has been curtailed
- The analysis relies on flawed data
- The need for the project is misleading
- The location of the over 23 CCID groundwater supply wells are not disclosed, along with an accurate description of the depth from which water is extracted
- There is no description or map of which conveyance facilities will be used for the water transport of this tainted water
- Neither hydrological data, nor peer-reviewed groundwater modeling of the volumes to be pumped, nor actual water quality data are provided to support the Bureau's conclusions of no significant impact
- The project does not adequately consider groundwater quality degradation
- The DEA does not provide any data to support the conclusion there will be no impact to threatened species such as the Giant garter snake, to Central Valley steelhead, winter-run Chinook salmon, or migratory birds
- The impacts to the San Joaquin River Restoration Program are not considered
- No data or analysis is provided regarding the cumulative impacts from the project

The U.S. Fish and Wildlife Service also sent in comments on the above referenced Draft EA/FONSI for transfer of up to 20,500 acre-feet of CVP water from CCID to certain irrigation districts and 5,000 acre-feet of water from Firebaugh Canal Water District to certain irrigation districts. USFWS expressed similar concerns to those in the Coalition letter referenced above. The USFWS also recommended:

“In addition, due to likely effects to water quality of wetland water supplies and associated adverse effects to giant garter snakes in the project area, the Service recommends that Reclamation initiate consultation with the Service pursuant to section 7(a) of the ESA for this project.”

Some of the irrigation districts in the region have standards for water quality of pumped groundwater for water transfers, but others do not. There is no overall limitation or prescription for the volume, depth of pumping, and quality of groundwater pumped in the region. There is no evaluation of the water quality effects of groundwater pumping on the water quality of the confined or semi-confined aquifers.

While USGS states that groundwater pumping is part of the proposed solution for drainage problem lands by lowering high groundwater, there is no discussion or evaluation of groundwater pumping parameters in either the EIS/EIR or the Regional Board’s Draft Staff Report Environmental Checklist. This is a glaring error that must be rectified prior to approval of the proposed Basin Plan Amendments for selenium in order to ensure that ongoing activities such as groundwater pumping and water transfers into and out of the region to not exacerbate poor water quality conditions, especially as it relates to selenium, salt and boron discharges through the Grasslands Bypass Project.

R11-C Groundwater pumping, water transfers and land use decisions are outside the scope of the proposed Amendments.

12. The mitigation water supply for additional wetland habitat within federal and State refuge areas has not been assured to be free of selenium because it would draw from local groundwater within drainage impaired areas. This violates the National Wildlife Refuge System Improvement Act of 1997 (PL 105-57), which stipulates that the Secretary of Interior shall under Sec 5 4(a) “assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the Refuge System and the purposes of each refuge.” A more suitable mitigation water supply would be Delta Mendota Canal water from the Delta.

The proposed mitigation for impacts to Mud Slough, wetlands and wildlife refuges is to provide water supplies for additional wetland and marsh habitat on federal and state wildlife refuges and lands. The mitigation areas would likely be the China Island Unit of the North Grasslands State Wildlife Area and an as-yet unnamed unit of the federal wildlife refuge system. However, the plan is to use local groundwater. Groundwater in the Grasslands area is highly contaminated with selenium and is an inadequate source of water for refuges. There is no discussion in the EIS/EIR or the Regional Board’s Environmental Checklist regarding selenium standards for these wetland mitigation water supplies. This is then an unmitigated impact without such a standard. Clean water supplies of Delta-Mendota Canal water from the Delta

would be a suitable water supply, but that is not the proposed mitigation water supply.

Therefore, there is an unmitigated significant impact for loss of aquatic habitat in Mud Slough from the Proposed Project. The Regional Board should require mitigation water supplies of adequate water quality, or its FED will be deficient in mitigating this impact to less than significant levels.

R12-C The commenter is incorrect in assuming that all Grasslands area groundwater is highly contaminated with selenium. Selenium concentrations vary with depth, with highest concentrations occurring in the shallow groundwater. There is a selenium water quality objective of 2 µg/L in the Grassland area wetland water supply channels (see the Basin Plan's Appendix 40). Groundwater or surface water put in these channels to supply wetland mitigation habitat areas must comply with the objective.

13. There is no regional enforcement plan by the Regional Board or State Board to control the upslope hydraulic gradient of contaminated subsurface drainage created by irrigation of the northerly area within the Westlands Water District.

On October 22, 2008, Regional Board Executive Office Pamela Creedon wrote to Westlands Water District General Manager Tom Birmingham regarding the lack of resolution for San Luis Unit drainage problems:

“These discussions have raised concerns regarding the potential impact irrigation in the Westlands Water District may have on groundwaters of the State and its threat of exposure to wildlife. Irrigation water when applied to leach salts from the root zone possesses a threat to ground water quality both in the immediate area of application and adjacent areas where groundwater migrates.”

It is our understanding that the Regional Board has taken the position that the irrigated lands waiver of discharge applies and therefore stringent Waste Discharge Requirements are unnecessary. This is contrary to information about the hydrogeology of the western San Joaquin Valley. The State Board's Water Rights Decision 1641 states as follows:

“The drainage problem may not be caused entirely by the farmer from whose lands the drainage water is discharged. In the western San Joaquin Valley, the salts originate from the application of irrigation water and from soil minerals, which dissolve as water flows through the soil. The salts are stored in groundwater. As more water is applied, hydraulic pressures increase, water moves downgradient, and salt-laden waters are discharged through existing drainage systems and directly to the river as groundwater accretion. (SJREC

5a.) Drainage found in a farmer's field may originate upslope and may not have risen into the tile drains on the downslope farmer's land but for the pressures caused by upslope irrigation." (SJREC 5a, pp. 27-29.)"

The Draft Staff Report ignores the upslope hydraulic gradient as a key source of contaminated irrigation drainage water that contains not only elevated salts and boron, but also selenium created by irrigation of the northerly area of Westlands and simply allows continued degradation of groundwater of the Grasslands watershed, ultimately resulting in continued excessive discharges of selenium into Mud Slough and the San Joaquin River, exceeding Basin Plan selenium water quality objectives.

R13-C See also response R5-C. Regulation of upgradient areas is outside the scope of the proposed Amendments; nevertheless, the Grassland Area Farmers are responsible for compliance with their selenium load limits regardless of how the selenium entered into their discharge.

14. There is no plan for monitoring or remediation of the excessive levels of mercury which Mud Slough discharges to the San Joaquin River. Mud Slough discharges 50% of the methylated mercury to the San Joaquin River at Vernalis, yet only provides 10% of the river's flow during the non-irrigation season.

According to the San Joaquin Basin Mercury Study funded by CalFed (Stephenson et. al., 2005), Mud Slough contributes about 50% of the methylated mercury at Vernalis, but only provides 10% of the total water volume during the September-March period. The project in no way attempts to monitor, let alone improve water quality for mercury discharges, despite requests by various commenters, including the U.S. Environmental Protection Agency.

The USFWS BO documents the mercury problem very well. Eighteen miles of Panoche Creek and the San Joaquin River from Bear Creek to the Delta boundary are listed under the 2006 Clean Water Act Section 303(d) as water quality limited for mercury impairment. Mercury levels in fish from the lower San Joaquin River and Mud Slough have been found to have elevated mercury levels.

The Regional Board should require the Grasslands Farmers to initiate monitoring to determine the source of mercury in the Grasslands Drainage Area and initiate appropriate remediation.

R14-C Monitoring of mercury is outside of the scope of these proposed Amendments. However, your comments will be considered when the WDRs for the GBP are revised.

15. There is no watershed plan to prevent or reduce selenium contaminated runoff from the upper watershed during storm events. There is strong evidence that periodic overland sheet flow causes substantial spikes of selenium in the Grasslands area that persist and bioaccumulate.

The EIS/EIR fails to incorporate a watershed/sediment management plan to prevent further sedimentation of the San Luis Drain and the subsequent need to remove sediment from the Drain, as requested by various commenters. Upslope land management activities such as overgrazing, cultivation of seasonal watercourses and lack of erosion control actions all contribute to periodic loading and concentration of selenium of sediment and water into the San Luis Drain, Mud Slough and the San Joaquin River.

Much of the selenium that comes into the Grasslands area is periodic storm-induced sheet flow from the northern portion of Westlands in the Panoche and Silver creek watersheds, as discussed in the USFWS BO, and upslope BLM lands. Stormwater discharges into the Grasslands area are specifically exempted in the Use Agreement from having to pay penalties, yet these periodic spikes of selenium are significant and in 1998, Presser and Luoma estimated that the cumulative El Nino year discharge of selenium from Panoche Creek was 8,000 lbs. Discharges range from 4 µg/L to 155 µg/L selenium during a February 1998 storm. These discharges contaminate wetland water supply channels, Mud Slough and the San Joaquin River.

The EIS/EIR fails to require development of a Watershed Plan to reduce the amount of toxic sediment that accumulates in the Drain. The Sediment Management Plan is complete, but does not include preventative Watershed Management Plan to prevent sedimentation in the first place. The Sediment Management Plan only deals with the contaminated sediment in 28 miles of the San Luis Drain. In some cases, the sediment in the San Luis Drain could be classified as Hazardous Waste (> 1000 µg/L). A Watershed Plan would be mitigation for use of the San Luis Drain and wetland water supply channels, and should be included as part of the project. It should be part of the decision and certainly required before the CVRWQCB approves the proposed Basin Plan Amendment.

Examples of measures in the watershed plan to prevent additional selenium inputs to Grasslands would be a limitation of cultivation of seasonal watercourses, sediment catchment basins, revegetation of erosive seasonal waterways, etc. Watershed protection programs are common throughout California. CalEPA and the Resources Agency have created a California Watershed Council to assist with such efforts. This is not rocket science.

R15-C A flood control plan for the upper watershed is outside the scope of the proposed Amendments; however, if the Amendments are adopted, the Use Agreement calls for

development of a long-term stormwater management plan, which could potentially address flood control in the upper watershed.

16. There is no federal Fish and Wildlife Coordination Act Report for this project; therefore, the project is not in compliance with the Fish and Wildlife Coordination Act.

Although the FEIS/R states that, “*A Fish and Wildlife Coordination Act report will be provided at the conclusion of the NEPA process with recommendations, to Reclamation*”, the public record for the project contains no record of a Fish and Wildlife Coordination Act (FWCA) Report from the U.S. Fish and Wildlife Service for this project. Since the FWCA requires such a report for activities that affect fish and wildlife, the project cannot possibly be in compliance with that law. The USFWS Biological Opinion for the Grasslands bypass Project is limited to review of listed species and is not a substitute a FWCA report.

R16-C This comment will be provided to the lead agencies for CEQA/NEPA compliance for the GBP – the U.S. Bureau of Reclamation and San Luis & Delta-Mendota Water Authority.

US Environmental Protection Agency (26 April 2010)

1

Thank you for the opportunity to comment on the proposed Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins to Address Selenium Control in the San Joaquin River Basin (Selenium Basin Plan Amendment) and the accompanying Draft Staff Report, both dated March 2010. As we discussed with you earlier, we have determined that this amendment, if adopted, is reviewable under Clean Water Act (CWA) section 303(c) due to the extension of compliance time schedule for meeting the 4-day average and monthly mean water quality objective for selenium in Mud Slough (north) and the San Joaquin River from Sack Dam to the Merced River. We would also like to provide the following comments regarding the Draft Staff Report:

2

R1-USEPA The proposed extension of the compliance time schedule for meeting the water quality objective for selenium applies in the narrow context of a non-point source discharge. If adopted, the State Water Resources Control Board will next consider the Basin Plan Amendments in accordance with the requirements of California Water Code section 13245 and the Regional Board will defer to State Board's determination as to the need for USEPA approval under Clean Water Act section 303(c).

We have some concerns regarding the feasibility of the Grasslands Bypass Project (GBP) operators being able to implement appropriate drainage treatment technologies by December 31, 2019. We are encouraged that the Board staff report expects that in addition to planned treatment of drainage, the Grassland Area Farmers (GAFs) will be utilizing a more comprehensive suite of drainage services actions including source control measures and other projects described in the Westside Regional Drainage Plan. However, since there is substantial uncertainty about whether the GBP operators can find a treatment technology that works, scales up, and is economically feasible by 2019, we believe it would be prudent for the Board to consider other approaches to drainage management that could provide alternative means of meeting the proposed performance goal by 2015 and the final water quality objective by 2019. For example, while the drainage plans look to remove lands with drainage problems on a voluntary basis, a more effective approach would be to target lands that contribute high selenium inputs (e.g. upslope lands not necessarily within the Grasslands). In addition, rotational land fallowing to meet loads should also be considered.

R2-USEPA See response to comment R1c-C. The Basin Plan establishes water quality objectives and prohibitions. The proposed Amendments modify the time schedule for implementation of the selenium objective/prohibition of discharge in a portion of Mud Slough (north) and a portion of the San Joaquin River. The Basin Plan does not prescribe the means by which dischargers meet the objective. Dischargers must comply with the Basin Plan and their Waste Discharge Requirements but the Board does not dictate how compliance is achieved.

3

We also believe that the “No Project Alternative” scenario which projects a potential collapse in cooperative work in the grasslands absent the Grasslands WDR may be overstated. Although the Grasslands Use Agreement is innovative and has encouraged positive interagency cooperation, there are other programs and commitments that could step in if necessary. These include:

- Involvement in implementation of the Westside Drainage Plan as a component of the San Luis Unit program;
- Possible inclusion in the Irrigated Lands Regulatory Program. Although the Grasslands farmers don't currently participate because they are subject to a separate waste discharge requirement, this situation could be reevaluated.

R3-USEPA The Westside Regional Drainage Plan is not a regulatory document. If the cooperative regional drainage management effort dissolves, staff will consider all regulatory options, including issuance of individual WDRs or inclusion of the Grassland farmers in the ILRP. See also response R1d-C.

4

Page 22 of the Draft Staff Report outlines some important mitigation measures, but does not include any monitoring activities that could ensure that the measures are working. We support the mitigation measures, but request that the Board also include appropriate monitoring and assessment needed to evaluate results and adjust implementation accordingly. EPA is committed to supporting development of an integrated water quality monitoring and assessment in the San Joaquin Basin.

R4-USEPA The Grassland Bypass Project has a well-documented monitoring history (see <http://www.sfei.org/grassland/reports/gbpdfs.htm> for reports), and adaptive management when monitoring reveals potential problems (for examples see the 2009 update to the Long-Term Drainage Management Plan and Storm Event Plan posted on the selenium program's webpage: http://www.waterboards.ca.gov/centralvalley/water_issues/grassland_bypass/). In 2001, the Board issued Waste Discharge Requirements (WDRs) which include a Monitoring and Reporting Plan (MRP) for the Project to address water quality. The MRP will be updated as needed, but this is only one aspect of a much broader monitoring, assessment and adaptive management effort. If the Board adopts the proposed Amendments, the GBP's multi-agency Data Collection and Reporting Team, which USEPA participates in, will also consider whether monitoring changes beyond the MRP issued by the Board are needed.

5

We would also like to inform you that EPA will publish in the very near future, revised draft CWA 304(a) aquatic life criteria for selenium. Our approach will be to express the chronic criterion as both an egg-ovary concentration and two water column concentrations, one for lentic waters and one for lotic waters. The egg-ovary concentration is the principal criterion because it is the most scientifically defensible toxicity endpoint that is consistent across the largest range of fish species. The two water column concentrations have been derived using conservative translations of the egg-ovary concentration to water concentrations for lentic and lotic waters and are intended to be protective in the vast majority of cases. We believe that states and authorized tribes might find it advantageous to adopt both the egg-ovary concentration and water column concentrations into their water quality standards as the selenium criterion. The water column concentrations will allow the development of permits without the need for tissue-to-water translations, whereas the egg-ovary criterion concentration can be used as the basis for developing translations of the egg-ovary criterion concentration to site-specific water concentrations if desired. Both the lentic and lotic water column concentrations are more stringent than the current California Toxics Rule chronic freshwater criterion of 5 ug/l.

Additionally, EPA is working on developing statewide wildlife criteria for selenium, pursuant to our Endangered Species Act consultation with the U.S. Fish and Wildlife Service and National Marine Fisheries Service, for the California Toxics Rule. These criteria will most likely be more stringent than the revised draft national CWA 304(a) criteria, since they will be designed to protect threatened and endangered species in California.

- R5-USEP** Staff appreciates the information. Since site specific selenium water quality objectives have been adopted by the Central Valley Water Board and approved by U.S. EPA, those objectives are applicable even if national CWA 304(a) guidelines change. Should the national selenium criteria change; the Regional Board will consider changes to our selenium objectives as part of the triennial review process. It should also be noted that the Use Agreement load limits bring the Grassland Bypass Project discharge into compliance with the Basin Plan prohibition/objective by eliminating the agricultural subsurface drainage discharge. Should those limits be successfully achieved, revised selenium water quality objectives would not be necessary to drive further reductions.

Grassland Basin Drainers (27 April 2010)

1

On table IV-4 it seems it would be useful to leave in the current objectives to better explain that these water qualities objectives are currently being met.

- R1-GBD** The basin plan is a regulatory planning instrument and as a general rule, it is not used to document past achievements. It is therefore appropriate for the time schedule to reflect only future milestones.

2

Page 2, 1.2, The Grasslands – the paragraph describing ownership of the San Joaquin River Water Quality Improvement Project needs to be updated in the final sentence. It would correctly read, "The 6,200-acre In-Valley drainage reuse area, called the San Joaquin River Improvement Project, is owned by Panoche Drainage District (as to 4,200 acres) and 2,000 acres by Panoche Drainage District and Firebaugh Canal Water District. Panoche Drainage District operates the reuse area in coordination with Firebaugh Canal Water District."

Page 5, paragraph 1.3.1 – the correct citation should be Panoche Drainage District instead of Panoche Water District and Camp 13 Drainage District instead of Camp 13 Water District.

Page 6, middle paragraph – it might be useful to note that the negotiated loads after 2014 are less than the basin plan adopted TMDL selenium loads.

Page 9, Figure 4 – the title says yearly averages but I believe probably the numbers are monthly averages. Same with Figure 5.

Page 12, first paragraph – The numbers should be edited. Our December 29, 2009 annual report indicates that 11,109 acre feet were used on the SJRIP reuse area with a discharge out of the San Luis Drain of 13,166 acre feet. Therefore the sentence should read "In 2009 the drainage area generated approximately 24,000 acre feet of drainage after source control and recycling with the reuse area capable of managing approximately 11,000 acre feet."

Page 16, middle paragraph – in addition to Panoche Silver Creek flood flows, local flood flows that fall on the saturated soils within the Grassland Drainage Area follow the natural slope downstream and can cause ponding and break into canals and/or wetland channels.

R2-GBD The recommended corrections and updates will be made.

3

Page 16-17: The recommended Alternative 2 establishes a performance goal by December 31, 2015 in Mud slough (north) and the San Joaquin River from Sack Dam to the Merced River. Alternative 2 also indicates that the GAF must either have a treatment system fully in place by 2015 or if treatment is not fully identified by 2012, identify an alternative in the January 1 2013 update report. The same requirements appear in the Reporting section on page 17. The Use Agreement, page 12, Item III.G.1., requires "By the end of Year Four (2013), a Report to the Oversight Committee provided at a noticed meeting regarding the Draining Parties' plan to meet loads in Years Six through ten (2015-2019)." We request that the identification of alternate and/or supplemental drainage management strategies that will be investigated and employed be delayed until the January 2014 Long-Term Drainage Management Plan Update which would allow the same information to be provided on the same schedule as required in the Use Agreement.

R3-GBD A drainage treatment feasibility determination date would appear in the resolution and not the Basin Plan itself. The 2013 time frame provides more than two additional years to determine whether drainage treatment is feasible. If such a determination cannot be made by then, it is unclear how the necessary planning, funding, and construction can occur to meet the compliance date.

4

Page 22, Mitigation Measures, 2nd paragraph: The statement beginning after the semicolon that adoption or not adopting the Basin Plan Amendment will not affect mitigation activities is not correct. If the Basin Plan Amendment is not adopted, the Use Agreement will terminate and those environmental mitigation actions that have been negotiated, as well as those under Biological Opinions, will no longer have any effect.

R4-GBD While measures, such as the development of alternative habitat to mitigate impacts of the time extension to Mud Slough wildlife will only take place if the Amendments are adopted, other mitigation actions mentioned in the EIS/EIR will continue, such as those measures used to avoid wildlife exposure in the drainage reuse area. The EIS/EIR indicates that the reuse area will continue to operate as long as is feasible even under the No Project Alternative. The paragraph will be revised for clarification.

US Fish and Wildlife Service

1

The U.S. Fish and Wildlife Service (Service) submits these comments on the California Central Valley Regional Water Quality Control Board's (Regional Board) Draft Staff Report (Staff Report) concerning the proposed Basin Plan Amendments to the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins to Address Selenium Control in the San Joaquin River Basin (Basin Plan Amendment), dated March 2010. We accessed a copy of the Staff Report from your website on March 16, 2010. The Notice of Filing regarding the Staff Report notes that written comments must be submitted by April 26, 2010, in order to be included in the written response to comments that is a part of the final administrative record. The Service contacted Rudy Schnagl on April 19, 2010, and again on May 4, 2010, to notify the Regional Board that the Service's comments would be submitted after the comment deadline listed in the notice. The Service committed to providing comments to the Regional Board by May 7, 2010, and we appreciate the additional time provided for our review of the Staff Report. We ask that these comments as well as previously transmitted comments by the Service submitted during the scoping phase for the Staff Report be included in the official response to comments that is part of the final administrative record.

R1-USFWS Comments received during scoping were considered as the staff report was drafted, and the report includes the only written response that will be provided. Scoping comments will appear in the appropriate section of the administrative record.

2

The Staff Report focuses largely on allowing the continuation of the Grassland Bypass Project (GBP) by proposing to modify the compliance time schedule in the current Basin Plan for meeting selenium objectives in Mud Slough (north) and the San Joaquin River between Sack Dam and the Merced River. Our primary concerns regarding the Staff Report are related to: 1) the environmental impacts associated with deferring compliance of water quality objectives in Mud Slough (north) and the San Joaquin River are not adequately addressed; and 2) the inputs of selenium contamination (outside of the GBP) in the Grasslands wetland supply channels that result in continued exceedences of water quality objectives in those channels and environmental harm are not addressed. We recommend the Regional Board broaden the analysis in the Staff Report and associated Basin Plan, by assessing the selenium water quality impairments mentioned above and remedying those impairments in order to achieve water

quality objectives and protect beneficial uses in impacted waters in the Grasslands and San Joaquin River.

R2-USFWS See also response R5a-C. It should be noted that the proposed change in the compliance schedule conforms with the time frame in the Grassland Bypass Project Use Agreement. The proposed Amendments merely allow the Use Agreement to be implemented while remaining in compliance with our Basin Plan. The environmental analysis conducted by the Bureau of

Reclamation for the third Use Agreement made a determination of no effect on threatened and endangered species and/or critical habitat potentially within the GBP area, with the exception of San Joaquin kit fox and giant garter snakes: species which they asked US Fish and Wildlife Service to investigate. In rendering a biological opinion on the Use Agreement, the US F&WS found that “continuation of the GBP and execution of the third Use Agreement for use of the SLD, as described, is not likely to jeopardize the continued existence of the giant garter snake and the San Joaquin kit fox” with the agreed upon mitigation. The letter of concurrence issued by National Marine Fisheries Service similarly found that the agreed-upon mitigation actions for continued use of the Drain were sufficient, citing their previous consultation with the Bureau during interim CVP contract renewals in the San Luis Unit, stating: “In accordance with the analysis presented in the previous Biological and Conference Opinion, NMFS further determined that renewal of the existing Use Agreement allowing GDA drainwater to be conveyed through the GBP, which expires on December 31, 2009, was a reasonable and prudent measure necessary and appropriate to minimize the incidental take of listed fish associated with the execution of the interim renewal contracts. Given the US F&WS biological opinion and NMFS determination that the Use Agreement includes adequate mitigation and is not likely to adversely affect steelhead and Chinook salmon, the potential environmental impacts have been adequately analyzed.

3

The Staff Report includes a revised compliance schedule for meeting selenium water quality objectives in Mud Slough (north) and the San Joaquin River (from Sack Dam to the Merced River). This revised compliance schedule includes a Performance Goal of 15 µg/L monthly mean by December 31, 2015, and a 5 µg/L 4-day average for these reaches of Mud Slough and the San Joaquin River by December 31, 2019. In an analysis of the effects of San Luis Unit selenium contamination on federally listed species, Beckon and Maurer (2008) found that seepage and flood flows carrying agricultural drainwater from the San Luis Unit to the San Joaquin River may adversely impact Chinook salmon and steelhead and could impair efforts to restore them to upstream reaches of this river. Central Valley Chinook salmon and steelhead are among the most sensitive fish and wildlife to selenium exposure. They are especially vulnerable during juvenile life stages when they migrate and rear in selenium-contaminated Central Valley

rivers and the San Francisco Bay/Delta estuary. Rivers and sloughs that carry agricultural drainwater have been found to concentrate selenium in invertebrates, small (prey) fish, and larger predatory fish. Selenium concentrations in the food-chain of these impacted waters have often reached levels that could impact or even kill a substantial proportion of young salmon (Beckon *et al.* 2008) if the salmon, on their downstream migration, are exposed to those selenium-laden food items for long enough for the salmon themselves to bioaccumulate selenium to toxic levels. Based on existing water quality data for selenium in specific reaches of the San Joaquin River, Beckon and Maurer (2008) concluded that there remains a substantial ongoing risk to migrating juvenile Chinook salmon and steelhead in the San Joaquin River as noted in Attachment E. The Service asks that the Regional Board consider the protection of Chinook salmon and steelhead in the San Joaquin River, including the reach between Sack Dam and the Merced River, in this Basin Plan Amendment. The Service believes that as written, the revised compliance schedule and lack of an enforceable water quality objective for selenium in the San Joaquin River upstream of the Merced River until December 31, 2019, is not protective of salmonids and could result in the loss of or harm to outmigrating young salmon in the San Joaquin River.

R3-USFWS The report cited above as Attachment E was considered in drafting the staff report; however modifications to the national criterion for selenium on which the San Joaquin River objective is based are outside the scope of the proposed Amendments. See also R2-USFWS.

4

Recent GBP monthly monitoring reports (August through November 2009) identified elevated selenium concentrations in a Grassland wetland supply channel (Station K, Agatha Canal) and in the San Joaquin River upstream of the Merced River (Station H, San Joaquin River at Hills Ferry). Some of this data is provided in Tables 1 and 2 below. These exceedences in selenium concentrations in water are likely a result of continued unregulated discharges into the Grassland wetland channels (as described in our March 19, 2009, comments to the Regional Board) and low flow conditions likely associated with effects of water transfer and groundwater exchange programs in the GBP vicinity that can reduce flows in the Grassland wetland channels. A more detailed description of these water transfers and exchanges is provided in the GBP BO, Environmental Baseline Section, pages 107-111. The Service also incorporates by reference a comment letter dated April 9, 2010, to the U.S. Bureau of Reclamation on the Draft Environmental Assessment 10-12 on the Transfer of up to 20,500 acre-feet of CVP water from Central California Irrigation District to San Luis, Panoche, Del Puerto and Westlands Water Districts, and up to 5,000 acre-feet of CVP water from Firebaugh Canal Water District to San Luis and Wetlands Water Districts (Service File No. 2010-TA-0527). Substantive spikes of selenium in water at Station H on the San Joaquin River, with water concentrations exceeding 20 µg/L occurred during at least 4 months in 2009 (August through November). Elevated concentrations of selenium in the San Joaquin River associated with the GBP will likely be problematic to efforts to restore salmon runs to the upper San Joaquin River ecosystem through the San Joaquin River Restoration Program. The Service asks that the Regional Board review this new water quality information, and assess the cumulative effects of water transfers and groundwater exchange programs in the GBP vicinity that can reduce the flows in the Grasslands wetlands channels and San Joaquin River and impact compliance with water quality objectives. The Service believes that the proposed revisions to the Basin Plan in the Staff Report could adversely impact efforts to restore salmon to the upper San Joaquin River.

R4-USFWS Water transfers and groundwater exchange programs are outside the scope of the proposed Amendments. The original GBP Use Agreement established a multi-agency Oversight Committee, which established a Data Collection and Reporting Team. The 2010 Use Agreement requires continued oversight by the OC and assumes DCRT participation in GBP monitoring and reporting (USFWS is an OC and DCRT member). The Central Valley Water Board will work with the DCRT to investigate the potential causes of the elevated selenium levels referenced above and discuss any corrective actions that may be needed. We will continue to coordinate with the US Bureau of Reclamation's San Joaquin River Restoration Program to ensure our actions support the restoration efforts.

5

The Staff Report focuses largely on allowing the continuation of the GBP by proposing to modify the compliance time schedule in the Basin Plan for meeting selenium objectives in Mud Slough (north) and the San Joaquin River between Sack Dam and the Merced River. However, the Service believes that the Regional Board's action in the Staff Report and Basin Plan Amendment to control selenium in the San Joaquin River basin should more broadly address: 1) the impacts associated with deferring compliance of water quality objectives in Mud Slough (north) and the San Joaquin River; and 2) all sources of selenium contamination that are impairing water quality and associated beneficial uses in the Grasslands wetlands and San Joaquin River. The Regional Board should assess, remedy, monitor, or otherwise address the water quality impairments associated with delaying the compliance time schedule for selenium in Mud Slough (north) and the San Joaquin River upstream of the Merced River, in order to achieve objectives and protect beneficial uses. Further, the Regional Board should ensure that the Staff Report and associated Basin Plan Amendment are consistent with the seven points that apply to water quality objectives identified in the 1998 Basin Plan. In order to protect the quality of water delivered to wetland areas within the Grassland watershed, to protect federally listed species in the Grassland wetlands, and to protect existing and future runs of anadromous fish in the San Joaquin River, the Service recommends that the Regional Board include the following in the Basin Plan Amendment, or by means of some other Board action:

1. Inclusion of lands north of the GBP's Drainage Project Area into the GBP that continue to discharge directly into the south Grasslands wetland supply channels;

R5-USFWS Grassland area wetland water supply channels have a selenium water quality objective of 2 µg/L. Irrigated lands and wetlands near but not within the GBP are regulated through a conditional waiver. The waiver does not exempt these areas from compliance with water quality objectives. Central Valley Water Board staff will work with the Westside San Joaquin River Watershed Coalition and other interested parties to determine appropriate follow-up actions to address any selenium discharge issues associated with areas outside the GBP.

6

2. Elimination of discharges into the Delta Mendota Canal from the drainage sumps in the Firebaugh Canal Water District owned by the U.S. Bureau of Reclamation;

R6-USFWS Management of the drainage sumps is outside the scope of the proposed Amendments; however, USBR has told staff that it is investigating options for rerouting the discharge from the Firebaugh sumps to avoid the Delta Mendota Canal, including routing sump drainage to the drainage reuse area. This issue should be discussed at a future meeting of the GBP Data Collection and Reporting Team.

7

3. Evaluation of alternative routes of disposal and/or storage of excess drainage flows that occur during heavy rainfall events and that have historically been discharged into the Grasslands wetland water supply channels;

R7-USFWS Stormwater management is outside the scope of the Amendments, but the 2010 Use Agreement requires the dischargers to develop a long-term stormwater management plan. This should include protocols for dealing with routine high rainfall events and the extreme events that now trigger use of the wetland water supply channels. If the Amendments are not adopted, the Use Agreement terminates (unless amended); eliminating the requirement for a regional long-term stormwater management plan.

8

4. Assessment of the effects of continued selenium inputs into the San Joaquin River on existing and future runs of anadromous fish, and remedies of those impairments in order to achieve water quality objectives and protect beneficial uses in the San Joaquin River including the reach upstream of the Merced River.

R8-USFWS See R2-USFWS and R3-USFWS.

9

5. Addition of RARE beneficial use designation for protection of the giant garter snake in the public and private wetlands of the Grasslands, and consideration and protection of that beneficial use in the Staff Report and Basin Plan Amendment.

R8-USFWS Beneficial use designation is outside the scope of the Amendments. Resources for Basin Planning activities are limited and directed towards priorities established through the triennial review process. The Board is currently in the process

of conducting its triennial review. Your comment has been provided to our Basin Planning staff.

10

Further, the Staff Report should include additional analysis, beyond what was considered in the GBP DEIS/DEIR on:

- 1 Consistency of the proposed modifications of the compliance time schedule for meeting water quality objectives for selenium provided in the Staff Report with the other Regional Board requirements for limits to salt and boron (Total Maximum Daily Loads) in the San Joaquin River;

R8-USFWS The proposed Amendments have no effect on salt and boron load allocations established in the Basin Plan. Modification of table IV-4 would not release the dischargers from their obligation to meet salt or boron load limits for their area.

11

2. Cumulative effects of water transfers and groundwater exchange programs in the GBP vicinity that that can reduce the flows in the Grasslands wetlands channels and San Joaquin River and impact compliance with water quality objectives.

R8-USFWS See R4-USFWS.

Comments received by phone

Ed Petri

Mr. Petri commented that the key to managing selenium in the San Joaquin River was to control it at the source, and recommended that the Bureau of Reclamation build a retention dam to hold back floodwaters coming from the Panoche/Silver Creek area that carry selenium-laden soil to the Valley floor.

R-Petri The comment goes outside the scope of the proposed basin plan Amendments. However, the recommendation has been forwarded to the US Bureau of Reclamation.

Contra Costa Water District

The district was concerned that the draft staff report seems to indicate that the objectives for Salt Slough and the wetland water supply channels would be dropped from the Basin Plan.

R-CCC The deletions update Table IV-to include only future milestones (see also R1-GBD). The proposed Amendments

modify the implementation chapter of the Basin Plan only; not the objectives chapter.