



December 23, 2019

Ms. Rain Emerson
U.S. Bureau of Reclamation
South-Central California Area Office
1243 N Street
Fresno, CA 93721

Re: Comments on the Draft Environmental Assessment on a 10-Year Use Agreement for the San Luis & Delta-Mendota Water Authority Long-term Storm Water Management Plan for the Grasslands Drainage Area (Draft EA-19- 029)—A Comprehensive EIS is Required and Compliance with the Clean Water Act.

Dear Ms. Emerson,

The undersigned organizations respectfully submit comments on the Draft Environmental Assessment (DEA-19-029) titled, *10-Year Use Agreement for the San Luis & Delta-Mendota Water Authority Long-term Storm Water Management Plan for the Grasslands Drainage Area* (DEA).

We begin by noting the failure of Reclamation to meet the disclosure and transparency requirements of the National Environmental Policy Act (NEPA). Although our organizations have had a long history of involvement with the Grassland Bypass Project (GBP), no official notice of the availability of the DEA was provided, and no press release was issued. The notice of availability for this DEA was posted on

Reclamation's website under NEPA documents¹ on December 9, 2019 for a 2-week comment period ending on December 23, 2019. Furthermore, while the title of the DEA mentions a 10-Year Use Agreement, there is no Use Agreement included with the DEA. In addition, there is no draft FONSI provided with the DEA.² Failure to provide these essential documents, combined with a truncated public review period, prevents the public the opportunity to comment and does not comply with the disclosure and transparency required by the National Environmental Policy Act. Several of the undersigned groups, on December 10, 2019, raised these issues and requested a time extension to review such a significant action which will likely impact areas with pollution for decades.³ Reclamation did not respond.

At the heart of the National Environmental Policy Act review is the objective to clearly define the project so as to ensure informed decision making. Reclamation has failed to include essential elements for the project under review and to disclose the impacts of these project elements. Reclamation @ pg 7 claims *"there is no federal nexus for Reclamation outside use of the Drain. Such non-federal actions include the use of existing and new short-term storage basins to reduce storm-induced discharges to Mud Slough (North), enhancements to existing non-federal facilities, installation of new infrastructure such as new pump/conveyance systems and a remote shut-off system for the tile sumps within the GDA, among other features as shown in Figure 4."* And yet these project elements will be enabled by this federal action. There is no Grassland Bypass Project without use of the San Luis Drain. Logistically this federal action is necessary for the project as a whole to go forward. The project cannot proceed without this federal action thus a complete analysis of the impacts from the entire project is required. Furthermore, the claim of no federal nexus is inconsistent with what Reclamation has asserted in filings to the court under penalty of perjury. For example in 2017, Reclamation asserted to the court that the Grassland Bypass Project use of the federal San Luis Drain, the Demonstration Treatment Plant and San Joaquin River Improvement Program (SJRIIP) along with surface impoundments are *"to provide drainage service to the Northerly San Luis Districts."*⁴ Without a full EIS or compliance with the Endangered Species Act or Clean Water Act, the proposed project will add stormwater to the discharges sanctioned under the as yet to be disclosed use

¹ https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=41544

² Federal law and regulation 'require at least thirty (30) calendar days before making the decision on whether, and if so how, to proceed with a proposed action, the Responsible Official must make the EA and preliminary FONSI available for review and comment to the interested federal agencies, state and local governments, federally-recognized Indian tribes and the affected public. The Responsible Official must respond to any substantive comments received and finalize the EA and FONSI before making a decision on the proposed action. 40 CFR § 6.203 - Public participation.

³ <https://www.restorethedelta.org/wp-content/uploads/Conant-Burman-Ltr-Re-Extension-of-Cmt-Re-SLD-Discharges-Use-Agreement-12-10-19.pdf> PCL et. al. December 20, 2019, to Commissioner Burman and Regional Director Conant: New Information Regarding Deformities in Sacramento Splittail and Drinking Water Quality Raise Significant National Issues for Consideration in the Draft Environmental Assessment for the proposed 10-Year Agreement to Use the San Luis Drain for Discharges to the San Joaquin River and San Francisco-Bay Delta by the San Luis & Delta-Mendota Water Authority--We Seek a Public Hearing, an EIS and Extended Comment Period--2 Weeks Is Insufficient.

⁴ See Dept of Interior Inspector General Report @ <https://www.usbr.gov/mp/docs/northerly-districts-agreement.pdf> pg 7 *"In a 2017 statement to the court, the BOR stated the purpose of the GBP & Demo Plant is, "..... to provide drainage service to the Northerly San Luis Districts... The Demo-Plant's 2012 environmental assessment contained a U.S. Fish and Wildlife Service (FWS) review that expressed several concerns about aspects of the plant, as well as about the San Luis Unit drainage planning documents from 2007 and 2008. Specifically, the FWS believed new information on the performance of the biotreatment system and evaporation ponds, and on mercury in drain water, had become available that should be considered for all future actions."*

agreement contract.⁵ The stated purpose of the Proposed Action is to provide a mechanism to manage storm water flows that cannot be contained within the SJRIP that will by definition include discharging collected polluted sub-surface drain water mixed with stormwater from retention ponds that collect runoff outside of the San Luis Unit service area, along with other mixed drain water and discharge from an expanded SJRIP into the federal San Luis Drain.

Polluted Discharges for 25 Years have been Exempted from Protective Water Quality Standards.

The Grasslands Bypass Project (GBP) began in 1995 as a two-year program, and its Federal Use Agreements for the San Luis Drain have been extended now through Three Use Agreements.⁶ All of these permits and environmental reviews and findings were predicated on zero discharge at the end of each period. First for 5 years, then 10 more and then 10 more. All that time--25 years--the polluted discharge was exempted from meeting protective water quality standards or only required to meet relaxed standards.

Monitoring Has Steadily Been Reduced Without Compliance with Use Agreement Requirements and Too Much Time has Passed Without Adequate Progress.

Furthermore, over that 25 years the project steadily reduced both monitoring of the discharge and compliance with water quality standards. Now the USBR in this DEA and the Grassland Drainers under the GBP Storm Water Plan addressed in a CEQA Addendum⁷ are now proposing a 4th Federal Use Agreement starting in January 2020. Enough is enough. Too much time has already passed without adequate progress on meeting water quality standards. Species are hanging by a thread and migratory bird deformities continue. If the 4th Federal Use Agreement is not approved by December 31, 2019, all discharges (including stormwater) into the San Luis Drain from the GBP are required to cease, and this is what should happen. The cessation of these selenium laden discharges has been promised for the last 25 years and must stop. Further, providing a DEA rather than a full EIR/EIS to accurately inform decision makers does not comply with CEQA and NEPA requirements.

Use of the San Luis Drain to Collect and Discharge Contaminated Stormwater Has Not Been Authorized.

⁵ 3rd Use Agreement pg 7 (K) Agreement No. 10-WC-20-3975 United States Department Of The Interior Bureau Of Reclamation Central Valley Project, California And San Luis & Delta-Mendota Water Authority Agreement For Continued Use Of The San Luis Drain January 1, 2010 Through December 31, 2019.

⁶ 3rd Use Agreement Agreement No. 10-WC-20-3975 United States Department Of The Interior Bureau Of Reclamation Central Valley Project, California And San Luis & Delta-Mendota Water Authority Agreement For Continued Use Of The San Luis Drain January 1, 2010 Through December 31, 2019. 2nd Use Agreement Agreement No. 01-WC-20-2075 United States Department Of The Interior Bureau Of Reclamation Central Valley Project, California And San Luis & Delta-Mendota Water Authority September 2001 to December 21, 2009. The AUTHORITY has entered into Contract No. 8-07-20-X0354 (the "Transfer Agreement"), with RECLAMATION, whereby the AUTHORITY is responsible for, among other things, the operation and maintenance of the San Luis Drain to the extent described in the Transfer Agreement and according to the terms set forth therein;

⁷ Available at these links: http://sldmwa.org/grasslandbypass/NOA_CEQA_GBP%20Addendum%2008-14-19.pdf
<http://sldmwa.org/grasslandbypass/LTSWMP%20Initial%20Study%20080519.pdf>
<http://www.sldmwa.org/grasslandbypass/LTSWMP%20Addendum%20080519.pdf>

The First Use agreement⁸ (1995) for the San Luis Drain authorized use of a 28-mile portion of the Drain by the San Luis Delta Mendota Water Authority (SLDMWA) to carry agricultural drainage water to Mud Slough. There was no stipulation for discharge of stormwater. In fact, in a 1997 report titled, “A Storm Event Plan for Operating the Grassland Bypass Project”⁹ by the Grassland Area Farmers and the SLDMWA, several issues were identified regarding major storm events in the GBP including:

1. *Storm water runoff carries sediment that should not be transported in the Grassland Bypass, or deposited in the San Luis Drain;*
2. *It is not possible during major storm events to separate agricultural drainage water from surface runoff and storm water flows;*
3. *It will not be possible to divert all of the commingled surface runoff, storm water flows, and agricultural drainage water through the Grassland Bypass Channel during major storm events.*
4. *During some storm events, the instantaneous flow rate in Panoche Creek, which carries water from hills adjacent to the agricultural area can exceed 12,000 cubic feet per second, while the average daily flow rate during such events can exceed 2,000 cubic feet per second. These flows can generate more than 40,000 acre-feet of water during a two-week period that includes a storm event.*

Both Congress and the Use Agreements Have Limited Use of the San Luis Drain to Agricultural Drainage--Expanded Use to Include Stormwater is Not A Project Purpose.¹⁰

⁸ See <http://calsport.org/news/wp-content/uploads/GBP-First-Use-Agreement-1995.pdf>

⁹ See pages 2-3: “A Storm Event Plan for Operating the Grassland Bypass Project” by the Grassland Area Farmers and the SLDMWA, 1997.

¹⁰ In 1956, the Bureau of Reclamation delivered to the United States Congress, “A Report on Feasibility of Water Supply Development” for the San Luis Unit (the 1956 Feasibility Report), which recommended constructing a group of water management facilities, called the San Luis Unit, as an addition to the Central Valley Project, in order to bring irrigation waters to an area of approximately 496,000 acres in the San Joaquin Valley. In 1960, Congress passed the San Luis Act, Pub. L. No. 86-488, 74 Stat. 156 (1960). Section 1(a) of the San Luis Act established the obligation of the Secretary of the Interior, prior to construction, to provide drainage and to “construct, operate, and maintain the San Luis unit as an integral part of the Central Valley Project,” for the purpose of furnishing water to approximately 500,000 acres in the San Joaquin Valley See § 1(a). On June 21, 1961, California notified the Secretary of Interior that the State would not provide a master drain. In response, in January 1962, the Secretary of Interior reported to Congress that DOI would construct the San Luis Drain. While the San Luis Drain was still in the planning stages, concerns arose about the potential effect of draining untreated, irrigation waters into the Sacramento-San Joaquin Delta and the San Francisco Bay. Reflecting those concerns, on October 22, 1965, Congress passed Public Law 89-299, 79 Stat. 1096 (1965), which contained an appropriations rider prohibiting selection of a final discharge point for the San Luis Drain until certain conditions were met, including completion of a pollution study and development of a plan to mitigate damage from drainage water on the San Francisco Bay. Those conditions still have not been met. Similar language in the appropriations bill was passed December 2019.

As part of the San Luis Drain system, USBR began constructing the Kesterson Reservoir, which was originally intended to serve as a reservoir that would regulate water flows in the San Luis Drain prior to their discharge into the Sacramento-San Joaquin Delta, but which instead became the temporary terminal disposal site for the San Luis Drain. By 1975, approximately eighty-three miles of the San Luis Drain and the first stage of the Kesterson Reservoir had been completed. At that time, however, the USBR suspended construction of the San Luis Drain, citing public “concerns.”

In addition, the Congressionally authorized, 1978 Task Force Report further indicated that the United States Environmental Protection Agency, which was responsible for issuing permits for discharge of pollutants into

Both the purpose of the project and previous Use Agreements confirm the use only for agricultural drainage. And such use was for a limited amount of time. For example, the Grassland drainers stated explicitly in 1997, "The Grassland Bypass Channel and the San Luis Drain were designed and constructed explicitly for the purpose of conveying agricultural drainage water. Neither facility can accommodate storm water flows nor surface runoff from major storm events."¹¹ The 1995 First Use Agreement stated clearly, "The AUTHORITY has requested that the UNITED STATES permit it to use a portion of the San Luis Drain consisting of approximately 28 miles from the terminus (Kesterson Reservoir) to Milepost 105.72, Check 19 (near Russell Avenue) for the discharge and transportation of a maximum flow of 150 cubic feet per second (cfs) of drainage water to Mud Slough (said portion hereinafter referred to as the Drain)" highlight added.¹² Finally the NEPA documents all stated the purpose of the project was for "a field experiment designed to evaluate approaches to agricultural drainage management. There is no commitment, at this time, to approve long-term use of the Drain."¹³ (highlight added)

These issues associated with permitting continued discharge of pollutants from the federal San Luis Drain are numerous and complex and can only be assessed with a full Environmental Impact Statement (EIS), especially since the 2009 GBP EIR/EIS was predicated upon zero discharge to the San Luis Drain, Mud Slough and the San Joaquin River after December 31, 2019. The current proposed project would expand the project purposes and use to allow storm water and agricultural drain water laced with selenium (and other toxic drainwater constituents such as salt, sulfates, boron, and mercury) be discharged through the federal San Luis Drain to Mud Slough and the San Joaquin River and the Delta Estuary.

We, the signatory organizations on these comments, recommend that the DEA proposing a 10-year extension of the use of the San Luis Drain to discharge stormwater into Mud Slough (North) and the San Joaquin River from Sack Dam to the Merced River be withdrawn. At a minimum a full Environmental Impact Report/Statement (EIR/EIS) must be completed that includes disclosure of the Use Agreement for the San Luis Drain and addresses the full range of interconnected factors related to the GBP, including storm water detention ponds, the SJRP, the lack of viable treatment options, continued discharge of drainage water from areas not included in the GBP, and so on as further described below.

Below, we detail our concerns in several areas and recommend what we believe is the only reliable and cost-effective solution to this evasive contamination problem--order the cessation of this polluted discharge; stop the delivery of water to these contaminated soils; and retire these drainage impaired lands as determined in study after study by the federal government.¹⁴

navigable waters, had not yet established pollution control requirements for the discharge point of the San Luis Drain.

¹¹ Ibid. page 12.

¹² Op. cit. First Use Agreement 1995 pages 1-2.

¹³ USBR,SLDMWA,EPA& USFWS letter to Karl Longly, CVRWQCB 11-3-95 pg 2
<http://calsport.org/news/wpcontent/uploads/USBR-SLDMWA-EPA-USFWS-11-3-95-Ltr-to-CRWQCB.pdf> and Supplemental Environmental Assessment April 1991 and the FONSI dated October 18,1991.

¹⁴ The San Joaquin Valley Drainage Program (SJVDP) A Management Plan for Agricultural Subsurface Drainage and Related Problems on the Westside San Joaquin Valley, also known as the "Rainbow Report" (September 1990); Also see USGS Technical Analysis of In-Valley Drainage Management Strategies for the Western San Joaquin Valley, California Open-File Report 2008-1210 By: Theresa S. Presser and Steven E. Schwarzbach available at: <http://pubs.usgs.gov/of/2008/1210>; Also see USBR Final Environmental Impact Statement in May 2006 and signed

A DEA is Insufficient under NEPA to Address Impacts of 10+ Years of Expanded Use and Additional Discharges from the Federal San Luis Drain.

Under the proposed GBP Stormwater Plan described in the DEA, selenium-contaminated discharges would continue adding stormwater commingled with subsurface agricultural drainage into the San Luis Drain and downstream surface waters for an additional 10 years. This is a substantial change in the definition of the project (from what was included in the 2009 GBP EIS/EIR) and should be analyzed in a full EIR/EIS. Further, there are numerous impacts that are significant and need to be disclosed, including:

- 1) cumulative impacts to downstream beneficial uses
- 2) the failure to meet protective water quality standards
- 3) impacts to endangered and listed species and
- 4) migratory bird impacts.

Individually and together these significant impacts warrant a full EIR/EIS analysis to adequately inform decision makers of the risks posed by continuing these discharges without proper permits and without compliance with the Clean Water Act, including state and federal non-degradation policies, the Migratory Bird Treaty Act and the Endangered Species Act.

The undersigned organizations have a long-standing concern about the GBP because contaminants in agricultural drainage discharges and the added storm water discharges have profound effects to the environment, including effects to downstream waterways, aquatic life, and migratory birds. We include our previous comments on the 2019 Tentative Waste Discharge Requirements for the GBP, the GBP

Stormwater Plan EIR Addendum, the USEPA's proposed water quality criteria for selenium in California, the GBP EIR/EIS and the Basin Plan Amendment by reference.¹⁵

¹⁵ Comments of Pacific Coast Federation of Fishermen's Associations (PCFFA) and the Institute for Fisheries Resources (IFR), and the signatory organizations Re: Comments on Tentative Waste Discharge Requirements (WDRs) for Surface Water Discharges from the Grassland Bypass Project in Merced and Fresno Counties. November 5, 2019.

Coalition comments on Grassland Bypass Project Long-Term Storm Water Management Plan EIR Addendum and Initial Study--A Full EIR-EIS is Required. September 9, 2019.

Coalition comments of environmental, fishing and environmental justice organizations opposed U.S. EPA's proposed federal water quality criteria for selenium applicable to California. March 28, 2019.

<http://calsport.org/news/wp-content/uploads/PCL-et.-al-Cmt-Letter-EPA-Ca-Selenium-Criteria-Doc-No.-EPA-HQOW-2018-00....pdf>

Comments of the Pacific Coast Federation of Fishermen's Associations Requesting Denial of Proposed Waste Discharge Requirements for Surface Water Discharges from the Grassland Bypass Project, Stephan C. Volker, June 22, 2015.

https://www.waterboards.ca.gov/centralvalley/water_issues/grassland_bypass/wdrs_development_archive/2015may/2015_05_gbp_com_pcffa.pdf

Re: Land Retirement Benefits to Grasslands Bypass Project and Draft Waste Discharge Requirements, Coalition Letter to CVRWQCB Follow-up on Grasslands WDR, September 8, 2014.

<http://calsport.org/news/wp-content/uploads/Coalition-response-letter-to-Longley-re-gbp-land-retirement.pdf>

Coalition Comments Re Draft Waste Discharge Requirements for the Grassland Bypass Project, June 30, 2014. <http://calsport.org/news/wp-content/uploads/Final-coalition-comments-on-Draft-GBP-WDR-6.30.14.pdf>

Coalition Comments: Grasslands Bypass Project -- Violations of the Endangered Species Act and Reduced Monitoring Threaten Endangered Species and Public Health, November 27, 2013.

<http://calsport.org/news/wpcontent/uploads/2013/12/Coalition-Letter-on-GBP-ESA-Violations-Monitoring-Reductions-LTR.Corrected-.pdf>

Coalition Comments: Opposition to the Proposal to Curtail Monitoring at the Grassland Bypass Project. August 11, 2011. <http://calsport.org/news/wp-content/uploads/2011/09/Opposition-To-Grassland-Bypass-MonitoringReductions.pdf>

CSPA, CWIN and AquAlliance submit Comments to State Water Board Regarding Grassland Bypass Project and Basin Plan Amendment. September 22, 2010. <http://calsport.org/news/cspa-cwin-and-aqualliance-submit-comments-to-state-water-board-regarding-grassland-bypass-project-and-basin-plan-amendment/>

Sierra Club et. al. Comments: Grassland Bypass Project & San Joaquin River Selenium Basin Plan Amendments September 22, 2010.

https://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/sjr_selenium/comments092210/jim_metropulos.pdf

Comments of California Sportfishing Protection Alliance and California Water Impact Network on the draft environmental impact report for the Irrigated Lands Regulatory Program and related documents. Also attached are several comments prepared by three expert consultants September 27, 2010.

<http://calsport.org/doclibrary/pdfs/207.pdf>

Now, the GBP Drainers propose to continue to use the federally owned San Luis Drain to convey stormwater commingled with contaminated agricultural drainage water to the San Joaquin River via Mud Slough (North). The GBP Stormwater Plan includes a number of management actions and commitments that will not be sufficient to protect downstream beneficial uses. The DEA and drainers' GBP Stormwater Plan effectively sanction continued excessive pollution, especially during stormwater events, of Mud Slough (North), the San Joaquin River, and ultimately the Sacramento-San Joaquin Delta, by failing to enforce science-based protective water quality standards for selenium and allowing the continued contamination of these water bodies. Excess selenium in streams kills or deforms fish and other aquatic life and is a human-health concern to people who fish or hunt in impacted areas.

Under the proposed GBP Stormwater Plan, selenium (and other drain water constituents, such as salt, sulfates, boron, and mercury) will continue to be discharged from the federally owned San Luis Drain directly into the waters of the state and nation. The failure to enforce protective selenium water quality objectives transfers pollution from these Grassland drainers through this federal drain to the waters of the state, harming beneficial uses of these waters by our members and the public, including but not limited to, domestic water supplies, public health, and other public trust values. In addition, impacts of climate change, which were not considered in previous environmental assessments in concert with implementation of the GBP Stormwater Plan, must be disclosed in a full EIR/EIS review. Also the cumulative impacts from sanctioning this selenium discharge across decades without compliance with the Clean Water Act and the continued discharge without adequate permitting and monitoring must be disclosed. Recent testimony before the California Regional Water Quality Control Board, indicates lethal and deforming selenium levels have accumulated in Sacramento splittail fish in the Delta Estuary downstream.¹⁶

State and Federal Permitting Agencies Are Permitting Different Projects with Different Time Frames--NEPA Requires a Stable Project.

We note that the time frame reviewed in DEA considers use of the San Luis Drain for 10 years. Yet the GBP Stormwater Plan EIR Addendum proposed use of the San Luis Drain is for a period of 25 years (2020-2045).¹⁷ Further, in light new evidence of selenium effects to fish in the Delta, and public comments submitted on a tentative Waste Discharge Requirement (WDR) for the GBP Stormwater Plan, the Central Valley Regional Water Quality Control Board approved a WDR for the GBP Stormwater Plan for 25 years with a mandatory 2-year review of the permit (in end of 2021).¹⁸

There was no Use Agreement provided with the DEA, making it impossible to know what the duration of the proposed action is and compromising the public's ability to review and comment on this action. We therefore recommend that the DEA be withdrawn until a full EIS can be completed which includes the new Use Agreement for the San Luis Drain.

Environmental Coalition Comments on Draft Staff Report for Grasslands Bypass Project Basin Plan Selenium Amendments to The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, April 26, 2010 available at:

https://www.waterboards.ca.gov/centralvalley/water_issues/grassland_bypass/grasslands_bpa_coalition_ltr.pdf

¹⁶ See the Central Valley RWQCB staff testimony before the Central Valley RWQCB, December 5, 2019.

¹⁷ See: <https://ceqanet.opr.ca.gov/Project/2007121110>

¹⁸ https://www.waterboards.ca.gov/centralvalley/water_issues/grassland_bypass/#tentwdrsgbp

A National Pollutant Discharge Elimination System (NPDES) Permit is Required.

On September 6, 2019 the Ninth Circuit Court of Appeals ruled that commingled discharges from the GBP are not exempt from NPDES permitting requirements. *Pac. Coast Fed'n. of Fishermen's Ass'ns v. Glaser*, 937 F.3d 1191, 1199 (9th Cir. 2019). In reaching its decision, the Court issued a landmark ruling under the Clean Water Act's exemption for discharges from irrigated agriculture. First, the Court held that the Defendants had the burden of establishing that their discharges were "composed entirely of return flows from irrigated agriculture." *Id.* at 1197. Second, the Court ruled that only those discharges that are composed entirely of return flows from irrigated agriculture were exempt. *Id.*

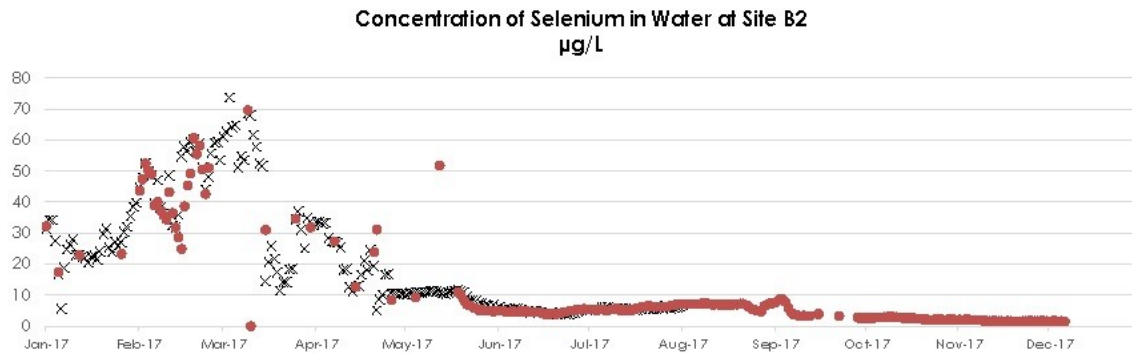
Applying these rulings to the commingled discharges of the GBP, the Court held that all of the Plaintiffs' claims should proceed. *Id.* at 1200. Because those commingled discharges were not composed entirely of return flows from irrigated agriculture, they did not fall within the exemption. In other words, the Court held that the return flow exemption from the Clean Water Act's NPDES permit requirements did not apply based on the fact that non-exempt flows were commingled with discharges from irrigated agriculture. This DEA proposes a Use Agreement that does not conform to federal law and this court ruling.

The US Environmental Protection Agency (USEPA), and by delegation under the Clean Water Act (CWA) and California's Porter-Cologne Water Quality Control Act, the California State and Regional Water Quality Control Boards, have the authority to regulate agricultural drainage under the CWA under comprehensive federal statutory authority for regulating pollutant discharges to the nation's navigable waters. The term "pollutant" under Porter-Cologne includes "agricultural waste discharged into water," and the term "navigable waters" encompasses the San Joaquin River, its principal tributaries, and inflowing ditches and drains.¹⁹ Thus, discharges of agricultural drainage water to the San Joaquin River and its tributaries are subject to regulation under the CWA (Thomas and Leighton-Schwartz, 1990). The GBP Stormwater Plan should be required to obtain a NPDES permit to discharge pollution to navigable waters or to discharge commingled groundwater, surface water and agricultural drainage containing pollutants such as selenium, boron, salt, sulfate and mercury.²⁰

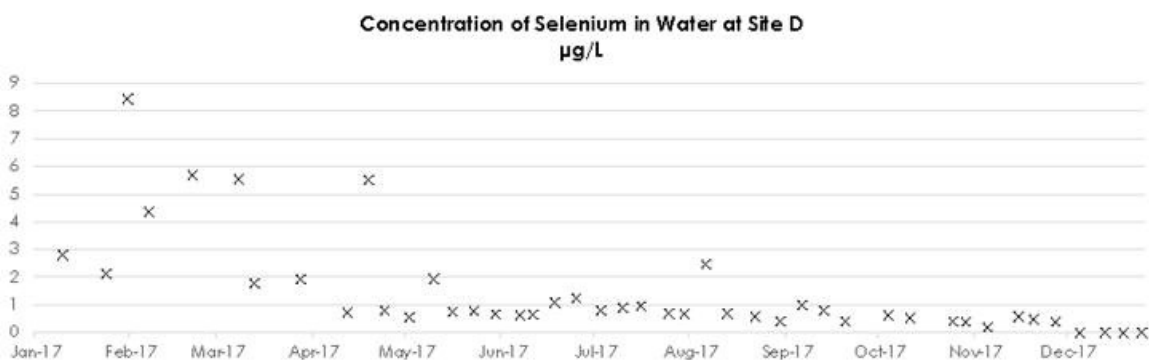
Excessive discharges of selenium-laden drainage and contaminated groundwater still is occurring from the GBP. For example, during the winter/spring of 2017, water quality monitoring data clearly show high selenium concentrations (e.g., 20-40 µg/L) associated with high flow conditions in water entering the San Luis Drain from the GBP. These levels can be lethal to fish and wildlife and accumulate up the food chain, magnifying the impacts to other species. The figure below shows selenium concentrations at Site B2 in the San Luis Drain during 2017.

¹⁹ See, e.g., Karl Phale, *Water Quality Control In California: Citizen Participation In the Administrative Process*, Ecology Law Quarterly 400, 406 (1971), available at: <https://scholarship.law.berkeley.edu/cgi/viewcontent.cgi?article=1011&context=elq> ("Among the items defined as waste prior to the Porter-Cologne Act are agricultural drainage waters containing materials not present prior to use,..and materials used in agricultural operations which are not intentionally applied to waters, such as insecticides, herbicides, and other chemicals.")

²⁰ See, e.g., EPA's NPDES description on its website, available at <https://www.epa.gov/cwa-404/clean-water-act-section-402-national-pollutant-discharge-elimination-system>.



Although the San Luis Drain flow adds a relatively small percentage of flow to Mud Slough, it nevertheless substantially increased the selenium concentrations in Mud Slough in 2017 to unacceptably high levels of 5-10 µg/L (see data for Site D below). Dilution is not the solution to pollution—especially in the case of selenium, which bioaccumulates in the food chain and magnifies impacts on fish, wildlife, migratory birds and terrestrial species (Lemly and Skorupa, 2007; Skorupa 1998; USDI 1998). According to selenium expert Dr. Dennis Lemly, the 5 µg /L water quality objective is an outdated number from the 80's and 90's, which has been shown repeatedly through field case study research to be under-protective. In other words, 5 µg /L won't protect downstream fish and wildlife, including salmon, Sacramento splittail and green sturgeon.



A comprehensive cumulative effects analysis on downstream impacts of the GBP Stormwater Plan in an EIR/EIS is needed.

The DEA and drainers GBP Stormwater Plan will allow continued discharges of a blend of stormwater, polluted groundwater and drainage to Mud Slough (North) and the San Joaquin River. This plan should be analyzed in a full EIR/EIS and the cumulative impacts to downstream anadromous fish, wildlife, and terrestrial species should be included in that analysis. Impacts to the Delta Estuary and its species from the proposed action, as well as other actions, are profound. Continued operation of the CVP and SWP is likely to jeopardize the continued existence of endangered species in the Delta, and stormwater runoff and subsurface agricultural drainage from GBP and nearby CVP-irrigated lands contaminates the San Joaquin River and hence the Delta with selenium and other toxic constituents. See testimony from Restore the Delta on Salinity and Selenium Science and Modeling for the Bay/Delta Estuary.²¹

²¹ Testimony on Recent Salinity and Selenium Science and Modeling for the Bay/Delta Estuary Submitted by Tim Strohane Senior Research Associate California Water Impact Network (CWIN) August 17, 2012
https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/RestoretheDelta/part2/RTD_161.pdf

Further, in a letter from National Marine Fisheries Service (NMFS) to the SWRCB on the San Joaquin River Selenium Control Plan Basin Plan Amendment (dated September 22, 2010), NMFS stated selenium contamination in the San Joaquin River is problematic in restoring spring and fall-run Chinook salmon to the upper reach of the San Joaquin River. The NMFS letter also noted that selenium in the San Joaquin River could negatively affect Central Valley steelhead and the Southern distinct population segment of the North American green sturgeon.²²

Studies by the US Geological Survey have documented elevated levels of selenium in the benthic clam food chain used by the Sacramento splittail and the federally listed green sturgeon.²³ Worthy of note is a photo from Dr. Rachel Johnson, provided to the Central Valley Regional Water Board and presented at the State of the Estuary Conference in 2019²⁴ depicting high numbers of Sacramento splittail (photographed in the Delta with an underwater camera in 2011) with spinal deformities (marked by red dots) typical of selenium contamination. As described in Stewart et al (2019), *“In the spring of 2011, young-of-year Splittail displaying a high incidence (>40%) of spinal deformities characteristic of Se toxicity were discovered at the site of a water diversion station in the San Joaquin Valley of the Delta (U.S. Department of the Interior, Bureau of Reclamation Tracy Fish Collection Facility).”* Dr. Johnson noted at the State of the Estuary conference that, *“It’s actually rare to actually see deformed animals in nature because usually something eats them, and so we wanted to take this opportunity to try and diagnose why it is that we had so many of these fish that had these deformities.”* Although the Sacramento splittail is not currently listed as threatened or endangered by the Federal or State government, they serve as an indicator species for species such as federally listed as threatened Green sturgeon²⁵ which feed on the same species of clam (Asian clam) as splittail.

²² https://www.waterboards.ca.gov/water_issues/programs/tmdl/docs/sjr_selenium/comments092210/howard_brown.pdf

²³ See Stewart et al, Dec 7, 2019, *Resolving selenium exposure risk: Spatial, temporal, and tissue-specific variability of an endemic fish in a large, dynamic estuary* in Science of the Total Environment, available at: <https://www.sciencedirect.com/science/article/pii/S0048969719359145>

²⁴ See Mavens Notebook summary of Dr. Johnson’s presentation at the 2019 State of the Estuary Conference: <https://mavensnotebook.com/2019/12/05/state-of-estuary-standing-too-close-to-the-elephant-addressing-scales-in-restoration-and-fisheries-conservation/>

²⁵ <https://www.fisheries.noaa.gov/species/green-sturgeon>



R. Johnson, 22 Oct 2019 State of the Estuary Conference

Greater outflow of the San Joaquin River associated with CVP and SWP operations in the Delta could result in even further transport of selenium and sulfate from agricultural drainage discharges in the San Joaquin River and into the Delta (Lucas and Stewart 2007). Also, note the Lucas and Stewart (2007) discussion on seasonal trends of bivalve selenium concentrations in the North Delta and its relationship to the San Joaquin River, “*Several explanations for the temporal trends in bivalve Se concentrations (which did not exist in the 1980’s) are possible. One possibility is that refinery inputs of selenium have been replaced by San Joaquin River inputs. Models indicate that if SJR inflows to the Bay increase, as they may have in recent years with barrier management, particulate Se concentrations in the Bay could double, even with no increase in irrigation drainage inputs to the SJR. The fall increase in Se in C. amurensis also occurs during the time period when the ratio of SJR/Sac River inflow is highest. Further changes in water management could exacerbate these trends...*”.

Stormwater runoff from GBP and its upstream watershed can also contain elevated concentrations of mercury. Results from the CalFed Mercury study found elevated levels of mercury in fish from the lower San Joaquin River and Mud Slough (Davis et al. 2000; Slotton et al. 2000). A significant finding of the CalFed Mercury Study in the San Joaquin Basin was that Mud Slough contributes about 50% of the methylated mercury at Vernalis (legal boundary of the Delta), but only 10% of the water volume during the non-irrigation season (September to March) (Stephenson et. al., 2005).

Sulfate loading in the San Joaquin River from the GBP discharges in concert with Delta operations could result in downstream environmental impacts that should be considered in a full EIR/EIS. Sulfate reducing bacteria are the primary agents responsible for the methylation of mercury in aquatic ecosystems. Wood et al. (2006) found that sulfate concentrations are about seven times higher in the San Joaquin River than in the Sacramento River, and that addition of sulfate is predicted to stimulate methylmercury production when it is limiting. Two factors influencing sulfate concentrations in the Bay-Delta are the electrical conductivity (EC) and the ratio of San Joaquin River to Sacramento River water.

Since these impacts are potentially significant, an EIS must be prepared²⁶ along with a complete CEQA analysis to accurately inform decision-makers before allowing these pollutants to be spread downstream.

²⁶ See 40 C.F.R. § 1508.27(b)(9).

The 5 ppb Se water quality performance goal in Mud Slough and San Joaquin River upstream of Merced is not protective of downstream beneficial uses and public trust resources.

The 5 µg/L selenium water quality objective in the Basin Plan for Mud Slough (North) and the San Joaquin River from Sack Dam to Vernalis and referenced in the DEA and in Table 5.2 of Attachment A in the Tentative WDRs for the GBP Stormwater Plan is not protective of downstream beneficial uses including fish and wildlife resources that use those surface waterways. The USEPA in the 1990's had proposed a 5 µg/L selenium water quality objective for California in the California Toxics Rule (CTR). Pursuant to the Endangered Species Act (ESA), and prior to the USEPA promulgating water quality objectives (including selenium) for the CTR, the USEPA was required to consult with the US Fish and Wildlife Service and the National Marine Fisheries Service (collectively, "Services") and obtain the Services' concurrence that none of the proposed criteria would jeopardize any ESA-listed species. Upon that review, the Services found that the 5 µg/L chronic criterion for selenium proposed by USEPA in the CTR would likely jeopardize 15 ESA-listed species (Emphasis added). To avoid a final "Jeopardy Opinion" from the Services, and the associated legal ramifications, the USEPA agreed to reevaluate their CWA criteria guidance for selenium by 2002 (FWS and NMFS 2000).²⁷

To comply with the Service's 2000 Biological Opinion on the CTR, the USEPA in November 2018 proposed new water quality objectives for California (lentic and lotic water, and fish tissue) that would be protective of listed species: Federal Selenium Criteria for Aquatic Life and Aquatic Dependent Wildlife Applicable to California Docket RIN, 2040-AF79 EPA-HQ-OW-2018-0056 FRL-9989-46-OW. The USEPA's proposed rule did not include waters within known selenium-contaminated geographical areas, including tributary flows into the San Francisco Bay Delta system such as, the San Joaquin River from Sack Dam to Vernalis, Mud Slough, Salt Slough, along with the water supply channels in the Grassland watershed, and the Grasslands Ecological Area in Fresno and Merced Counties. Instead, the USEPA proposed rule defers to existing State established water quality objectives for Mud Slough (North) and the San Joaquin River upstream of the Merced River of 5 µg/L 4-day average (as defined in the Regional Board's June 2010 Basin Plan Amendment to address Selenium Control in the San Joaquin River Basin²⁸).

From page 30 of Attachment A for the Tentative WDRs:

Table 5.2: Selenium Numerical Objectives

4-day Average	Maximum	Location
5 µg/L	20 µg/L	Mud Slough (north) and the San Joaquin River from the Mud Slough confluence to the Merced River
5 µg/L	12 µg/L	San Joaquin River, mouth of the Merced River to Vernalis

The selenium objectives for Mud Slough and the San Joaquin River are not based on the current science of selenium toxicology and are not protective of beneficial uses. Both the Canadian government and the

²⁷ Final Biological Opinion on the effects of the U.S. Environmental Protection Agency's "Final Rule for the Promulgation of Water Quality Standards: Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California (March 24,2000), available at <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OW-2018-0056-0144&contentType=pdf>

²⁸ https://www.waterboards.ca.gov/centralvalley/water_issues/grassland_bypass/sac_sj_basins_salinity_staffrpt.pdf

USEPA have established water quality criteria to protect aquatic life that are substantially lower than the 5 µg/L Basin Plan selenium objectives for Mud Slough and the San Joaquin River. Even the new EPA criteria are unlikely to be adequately protective. A recent Canadian study²⁹ concluded “that fish exposed to aqueous selenite concentrations at levels similar to the current CCME [Canadian Council of Ministers of the Environment] water quality guideline for the protection of aquatic life (1 µg /L) can exceed tissue guidelines for the protection of fish populations established by the USEPA and that there is potential for adverse effects particularly in developing embryos.” The authors also state: “*In Canada, Se bioaccumulation exceeding the toxicity threshold for fish tissues set by the USEPA and the BC MoE (there are currently no federal tissue-based guidelines in Canada) have been documented recently in areas downstream of coal, uranium, and metal mining operations, even in cases where aqueous selenium concentrations have not exceeded the current CCME guideline of 1 µg g/L (Muscatello et al. 2008; Kuchapski and Rasmussen 2015; Ponton and Hare 2015).*” In addition, USGS and USEPA recently reported on fish sampling downstream of Libby Dam in Montana, USA, where every sample of Mountain Whitefish ovaries had selenium concentrations were well in excess of EPA's new (2016) ovary tissue criterion, even though all water samples (along 100+ river miles of sampling) were at < 1.2 ppb selenium. Also, it was confirmed that the chemical form of selenium in that stretch is predominantly selenate, the same speciation of selenium present in the San Joaquin River watershed.

To comply with the Service's 2000 Biological Opinion on the CTR, the USEPA in July 2016 proposed selenium water quality criteria that would be protective of federally-listed species in the San Francisco Bay Delta (Establishment of Revised Numeric Criteria for Selenium for the San Francisco Bay and Delta, State of California, Docket RIN 2040–AF61, EPA–HQ–OW–2015–0392; FRL–9946–01–OW). Supporting documentation for this USEPA Docket for Selenium in California includes 2 reports by USFWS: *Species at Risk from Selenium Exposure in California Inland Surface Waters, Enclosed Bays and Estuaries, for a list of species considered most at risk for selenium exposure in CA*³⁰ and *Species at Risk from Selenium Exposure in the San Francisco Estuary*³¹. The species identified at most risk for selenium exposure in the San Joaquin Valley and San Francisco Estuary were denoted as:

- Mammals: Buena Vista Lake Ornate Shrew;
- Birds: Bald Eagle, California Black Rail, California Clapper Rail, California Least Tern, Greater Scaup, Lesser Scaup, White-winged Scoter, Surf Scoter, Black Scoter;
- Reptiles: Giant Garter Snake;
- Fish: Chinook Salmon, Steelhead, Green Sturgeon, White Sturgeon, Delta Smelt, and Sacramento Splittail.

²⁹ <https://www.ncbi.nlm.nih.gov/pubmed/31145497> *Distribution of Experimentally Added Selenium in a Boreal Lake Ecosystem* *Environ Toxicol Chem.* 2019 Sep;38(9):1954-1966. doi: 10.1002/etc.4508. Epub 2019 Jul 26. Pg 1955 and USGS and USEPA reported on fish sampling downstream of Libby Dam in Montana, USA, where every sample of Mountain Whitefish ovaries had Se concentrations well in excess of EPA's new (2016) ovary tissue criterion even though all water samples (along 100+ river miles of sampling) were at < 1.2 ppb Se. Also, it was confirmed that the chemical form of selenium in that stretch is predominantly selenate, the same speciation as in the San Joaquin River watershed.

See: <https://www.epa.gov/newsreleases/epa-and-partners-release-data-and-findings-kootenai-riversampling-effort>
 See: <https://www.sciencebase.gov/catalog/item/5d3b6ef1e4b01d82ce8d7aef>

³⁰ <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OW-2018-0056-0144&contentType=pdf>

³¹ <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OW-2018-0056-0265&contentType=pdf>

The proposed GBP Stormwater Plan and DEA is seeking to comply with the selenium water quality objectives specified in the 2010 Basin Plan Amendment (5 µg/L, 4-day average), but the proposal is lax, allowing for high spikes of selenium contaminants that will bio-accumulate throughout the ecosystem. The Stormwater plan includes mitigation measures that establish a Mud Slough (North) water quality “goal” of 3 µg/L Se, 4-day average. For every 3 months that the drainers meet this 3 µg/L performance goal, one exceedance of 5 µg/L 4-day average is allowed. These goals and objectives would likely result in harm to aquatic fish and wildlife as denoted in the Service’s 2000 Biological Opinion on the CTR. We recommend that State and Federal Fish and Wildlife agencies be consulted on the effects of implementation of the GBP Stormwater Plan and relaxed standards that are not protective of migratory birds and endangered anadromous fish populations and that these consultations be included in a full EIS.

Short term spikes of selenium in a waterway can have longer lasting effects in an ecosystem. Beckon (2016) noted that when a bioaccumulative substance such as selenium is introduced into or removed from the environment, the processes by which it is assimilated into upper trophic levels of the ecosystem may be complex and prolonged. These processes include several levels of trophic transfer, each entailing the time required to consume food, assimilate the substance of interest, and the time span during which the organism continues to survive before being eaten by a member of the next higher trophic level. Beckon noted that for some species of piscivorous fish the lag time for selenium exposure to bioaccumulate in the upper trophic level of fish is over one year from the initial exposure. Thus, short-term exceedances of the 5 µg/L selenium objective can continue to have deleterious effects to the upper trophic level species several months to over a year after the event.

Our organizations have submitted several comment letters on protective selenium objectives in California.³² In March 2019, PCFFA and others provided comments to the USEPA on their proposed selenium criteria for California.³³ We recommended that a chronic, legally binding selenium objective of no greater than 2 µg/L (4-day average) be included in the GBP Stormwater Plan for receiving waters of stormwater/drainage discharges. That comports with the recommendations of several experts that the criterion should be 2 µg/L or less (DuBowoy 1989; Lemly and Skorupa 2007; Peterson and Nebeker 1992; Swift 2002). Exceeding the water criterion should trigger additional biological monitoring to determine if the tissue criteria for selenium proposed by USEPA has also been exceeded. Allowing higher contaminant levels would require reinitiation of consultation under the State and Federal Endangered Species Acts.

Environmental Assessment of the Use Permit & Continued Pollution Discharges Must Consider Effects GBP Discharges on Compliance with USEPAs Proposed Selenium Criteria for The Bay-Delta Estuary.

On July 15, 2016, the USEPA proposed selenium water quality criteria applicable to the San Francisco Bay and Delta to ensure that the criteria are set at levels that protect aquatic life and aquatic-dependent wildlife, including federally listed threatened and endangered species. Establishment of Revised Numeric

³² See <http://calsport.org/news/wp-content/uploads/EPA-Selenium-Cmt-LTR-Re-Docket-No.-EPA-HQ-OW-20040019.pdf> and <http://calsport.org/news/wp-content/uploads/Technical-Review-2004-EPAs-Draft-Tissue-BasedSelenium-Criterion.pdf>

³³ Coalition comments of environmental, fishing and environmental justice organizations oppose U.S. EPA's proposed federal water quality criteria for selenium applicable to California. March 28, 2019. <http://calsport.org/news/wp-content/uploads/PCL-et.-al-Cmt-Letter-EPA-Ca-Selenium-Criteria-Doc-No.-EPA-HQOW-2018-00....pdf>

Criteria for Selenium for the San Francisco Bay and Delta, State of California, Docket RIN 2040–AF61, EPA–HQ–OW–2015–0392; FRL–9946–01–OW.³⁴ The USEPA proposed rule established selenium criteria based on fish tissue values, prey (clam) tissue values, and dissolved and particulate water column values. As USEPA noted in their technical support document for the proposed selenium criteria, “Since the most significant exposure pathway of selenium to species of concern in the San Francisco Bay and Delta is through diet, the currently applicable criteria for selenium from the NTR [5 µg/L] no longer adequately protect species in the estuary.”

The San Francisco Bay and Delta ecosystem is at risk due to environmental degradation, including impacts from elevated levels of selenium. Waterways in the North Bay and Delta, including the Carquinez Straits, Suisun Marsh, and Sacramento-San Joaquin Delta, are listed as impaired for selenium on the 303(d) list (being addressed by a USEPA approved TMDL).³⁵ Sources of selenium contamination include agricultural drainage from the Central Valley and effluent discharges from oil refineries (Linares et al 2015; Presser and Luoma 2010). Several endemic species are listed under the ESA as threatened or endangered, including green sturgeon, Chinook salmon, steelhead trout, delta smelt, and the California Ridgway’s rail, as well as many migratory bird species that use the estuary as a wintering ground, including greater and lesser scaup, and white-winged, surf, and black scoters. The USEPA noted on page 46036 of the Federal Register Notice 81(36) that “[t]he analyses to develop the fish tissue and the avian egg tissue benchmarks used in the modeling, and the modeling results used to derive the proposed water column criteria, indicate the health of these species would be negatively impacted from exposure to selenium water column concentrations above 0.2 µg /L, which would be allowed to occur under the existing NTR selenium criterion of 5.0 µg /L. Accordingly, EPA finds that it is necessary to propose revised and more protective criteria for selenium in order to help ensure the continued protection of these vulnerable species and associated designated uses.”

Our organizations submitted comments to USEPA on the proposed selenium water quality and tissue criteria for the Bay Delta supporting more protective water quality criteria and hereby incorporate those comments by reference.³⁶ Reclamation should consider how the selenium discharges allowed in the DEA GBP will affect the Bay-Delta ecosystem and could affect compliance with EPA’s proposed water quality criteria for San Francisco Bay and Delta. The 5.0 µg /L Basin Plan selenium objective for Mud Slough and the San Joaquin River will result in non-compliance with proposed water quality criteria and cause deleterious effects to fish and wildlife in the Bay-Delta.

³⁴ Available at <https://www.federalregister.gov/documents/2016/07/15/2016-16266/water-quality-standards-establishment-of-revised-numeric-criteria-for-selenium-for-the-san-francisco>

³⁵ Available at https://www.waterboards.ca.gov/water_issues/programs/tmdl/2014_16state_ir_reports/category4a_report.shtml

³⁶ Coalition comments of environmental, fishing and environmental justice organizations on EPA’s Water Quality Standards for the Establishment of Revised Numeric Criteria for Selenium for the San Francisco Bay and Delta. October 28, 2016. Available at: <https://www.regulations.gov/document?D=EPA-HQ-OW-2015-0392-0246>

Table 2. Proposed Selenium Water Quality Criteria for the San Francisco Bay and Delta

Media Type	Tissue		Water Column ¹		
			Dissolved		Particulate
Criteria	Fish Whole Body or Muscle	Clam	Chronic	Intermittent Exposure ²	Chronic
Magnitude	8.5 µg/g dw whole body or 11.3 µg/g dw muscle	15 µg/g dw	0.2 µg/L	$WQC_{int} = \frac{0.2 \mu\text{g/L} - C_{bkgrnd}(1 - f_{int})}{f_{int}}$	1 µg/g dw
Duration	Instantaneous measurement	Instantaneous measurement	30 days	Number of days/month with an elevated concentration	30 days
Frequency	Not to be exceeded	Not to be exceeded	Not more than once in three years	Not more than once in three years	Not more than once in three years

¹ Dissolved and particulate water column values are based on total selenium (includes all oxidation states, i.e., selenite, selenate, organic selenium and any other forms) in water.

² Where C_{bkgrnd} is the average background selenium concentration in µg/L, and f_{int} is the fraction of any 30-day period during which elevated selenium concentrations occur, with f_{int} assigned a value ≥ 0.033 (corresponding to one day).

Effects on Drinking Water Supplies in the Delta Need to be Disclosed and Analyzed.

The Contra Costa Water Agency in their oral comments to the Regional Board on the GBP WDR on December 5, 2019 also voiced concerns over increases in salinity from GBP discharges. Contra Costa WA pumps their drinking water from the south Delta and increases in EC(salinity) can have real deleterious effects to their drinking water supply, and these effects should be addressed in a full EIS.

Electrical conductivity (EC) at Station R was as high as 4,000 µs/cm in 2015 and 1,700 µs/cm in 2018, exceeding the 1,600 µs/cm EC objective in Basin Plan.

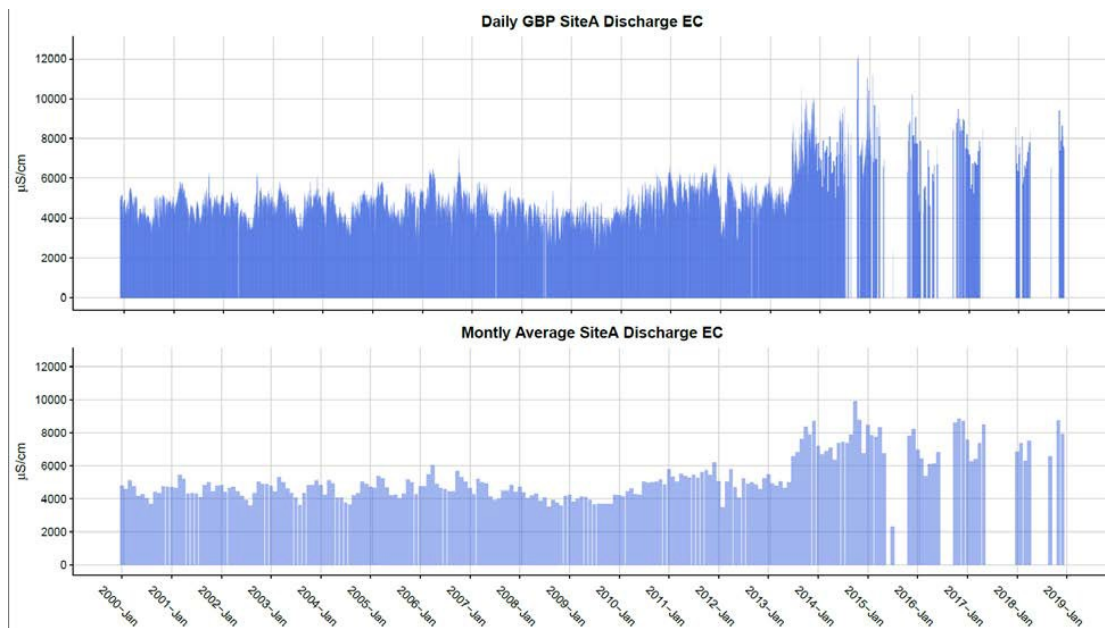


Figure 1 Electrical conductivity (EC) of discharges from Grassland Bypass Project (GBP) (2000 – 2019)

The Proposed and Existing Monitoring and Reporting Programs for the GBP are not sufficient to assess Environmental Impacts and Protect Beneficial Uses.

The GBP monitoring and reporting program was revised by USBR³⁷ in violation of the terms of the current San Luis Drain Use Agreement contract which states on @ pg 19-20 of Appendix A of the Final GBP EIS/R: *“The monitoring program shall consist of the monitoring program established by the parties during the 2001 Use Agreement, as such program may be modified by the parties after consultation with the agencies represented by the Oversight Committee. The Oversight Committee in consultation with the AUTHORITY shall resolve disagreement as to proposed modifications.”*³⁸ The Oversight Committee was never convened to address the concerns raised by USFWS and submitted to the Regional Board (discussed below). Further in violation of Federal Advisory Management Committee rules, despite requests for notification and participation, the public was excluded from the few meetings of Data Technical Group that were held along with the Oversight Committee.

The monitoring and reporting requirements for GBP were revised by the Regional Board in 2015³⁹ without compliance with the current Use Agreement contract provisions. These monitoring revisions are not adequate to determine the level of pollution being discharged by the GBP and adjacent agricultural lands, and the harm it is causing to the environment. We have provided comments three times on the inadequacies of the Revised Monitoring and Reporting Program for the GBP. We hereby incorporate by reference our coalition letters of August 11, 2011, April 22, 2013, and November 26, 2013, and June 22, 2015. We also refer to comments submitted to the Regional Board by USFWS on the Revised Monitoring

³⁷ See https://www.usbr.gov/mp/grassland/documents/gbp_2013_rev_mon_plan.pdf

³⁸ See Appendix A, Agreement for Continued Use of the San Luis Drain for the Period January 1, 2010 through December 31, 2019 available at: https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=3513

³⁹ https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/fresno/r5-2015-0094.pdf

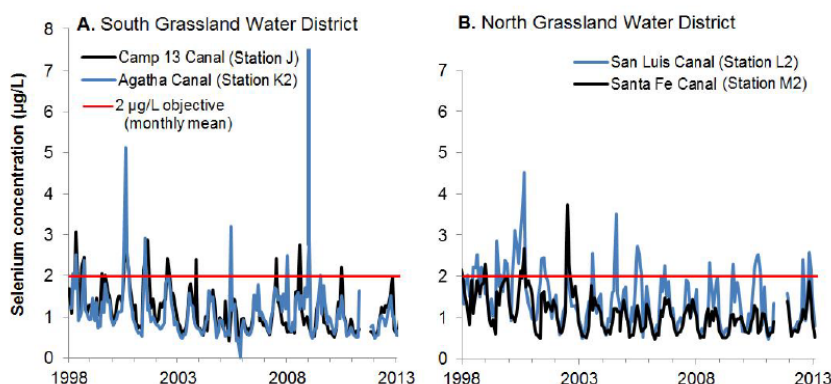
and Reporting Program for the GBP dated June 22, 2015 and June 25, 2015.⁴⁰ The USFWS recommended that the Regional Board reinstate weekly water quality monitoring for selenium at GBP Stations J, K, and L2 as exceedences of 2 µg/L are still occurring in those wetland channels, those channels are listed on the State's 303(d) list as impaired for selenium, and elevated selenium in those channels could be resulting in harm to federally listed species.

Absent compliance with the existing Use Agreement, as part of Regional Board **ORDER R5-2015-0094**, Waste Discharge Requirements for the GBP (2015 WDR), sampling frequencies for Mud Slough, Grasslands wetland channels, and Salt Slough were reduced or completely eliminated. Stations A, B, C, I2, F, J, K, L/L2, M/M2, G and H have all been eliminated from required monitoring. The Grasslands Marshes (wetland supply channels) remain on the 303(d) list as impaired for selenium, so reducing water quality monitoring in these channels to only during stormwater events is inexplicable. As denoted in Figure 12 of Attachment A to the Tentative WDRs for the GBP Stormwater Plan, significant spikes of selenium above water quality objectives in the Grasslands wetland channels were still being documented up through 2013 when monitoring in those channels ended.⁴¹

Attachment A to Order R5-2015-0094-01 (TENTATIVE)
Grassland Drainage Area
Information Sheet

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Figure 12: Selenium Concentrations in Wetland Supply Channels



In 2002 the Regional Board issued a report reviewing selenium concentrations in the Grasslands wetland water supply channels (Eppinger and Chilcott 2002). This report documented sources of selenium contamination in these channels that are not being monitored or addressed by the GBP:

⁴⁰https://www.waterboards.ca.gov/centralvalley/water_issues/grassland_bypass/wdrs_development_archive/2015may/2015_05_gbp_com_usfws.pdf and see this link for a copy of the USFWS letter to Ms. Margaret Wong Regional Water Quality Control Board, Central Valley Region: USFWS Comments on the May 2015 Draft Waste Discharge Requirements for the Surface Water Discharges from the Grassland Bypass Project and the Discharges to Groundwater from the Growers in the Grassland Drainage Area @ <http://calsport.org/news/wpcontent/uploads/Exhibit-5.pdf>

⁴¹Available at these links:

https://www.waterboards.ca.gov/centralvalley/board_decisions/tentative_orders/grassland/r5-2015-0094-01_tent_wdr.pdf
https://www.waterboards.ca.gov/centralvalley/board_decisions/tentative_orders/grassland/r5-2015-0094-01_tentwdr_noph.pdf

"Two areas have been identified where agricultural subsurface drainage can enter wetland water supply canals from farmland not contained in the DPA [Grasslands Drainage Area]. One area is west of the wetland water supply channels and historically drained into the Almond Drive Drain. Since Water Year 1999, these discharges have been collected in the CCID Main Drain and diverted into the CCID Main Canal downstream of internal supply channels. Data for Water Years 1999 and 2000 is not available for the Almond Drain site.

The second area where agricultural subsurface drainage can enter wetland water supply canals from outside the DPA is a triangle-shaped area of approximately 7,000 acres south of the Poso Drain (also known as the Rice Drain) and north of the DPA. This area historically drained into the Poso Drain, entering South Grassland Water District from the east. Three sites on the Poso (Rice) Drain were monitored for selenium during Water Years 1999 and 2000. Selenium concentrations at all three sites were above 2 ug/L a majority of the time, though a change in tail water management after June 1999 has apparently helped to reduce and stabilize concentrations...

During Water Year 1999, selenium concentrations in the Poso Drain were highly variable with concentrations at the upstream Russell Boulevard site ranging from <2 ug/L to 39 ug/L and concentrations at the downstream site (Mallard Road) ranging from <2 ug/L to 24 ug/L...After June 1999, more tail water was discharged through the Rice [Poso] Drain at Russell...Mean selenium concentrations continued to remain above 2 ug/L at all the Rice Drain sites."

The 2009 EIS/R for the GBP 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."

Unfortunately, nothing has been done to bring these lands into the jurisdiction of the GBP and they are not included in the DEA or the GBP Stormwater Plan. With the exception of stormwater events, these sources of drainage-water contamination in wetland supply channels are currently not being regulated or monitored. The additive effects of these uncontrolled discharges on Salt Slough and the San Joaquin River need to be considered together with the effects of the San Luis Drain discharges to Mud Slough as allowed in the Use Agreement.

In addition, we specifically protested the change in the Hills Ferry monitoring site (Site H) to China Island (Site R). There is a comprehensive database with documented selenium water quality violations at Hills Ferry. Site R appears closer to the mouth of the Merced River than Site H, allowing for greater dilution and underrepresenting the contaminant threat in the San Joaquin River upstream of the Merced River.

We also opposed Reclamation's changes to the GBP monitoring and reporting program in 2013 and recommended a more robust monitoring plan similar to the required 2001 GBP monitoring requirements under the existing use agreement. The reduction in monitoring frequency and locations will prevent the collection of necessary data sufficient to protect public trust values, endangered species and evaluate compliance with water quality standards. Here we reference and reiterate our previous comments and recommend a vigorous monitoring program that does not hide or understate the discharge of selenium and other toxins through stormwater discharges into Mud Slough and the San Joaquin River.

We further recommend that monitoring and reporting for total mercury and methyl-mercury concentrations in water and biotic tissue be required at all sampling locations of the GBP to establish a mass-balance of sources of mercury in this watershed.

The DEA fails to Disclose All the Sources and Impacts of the Proposed Discharges into San Luis Drain

The DEA only assesses the effects of GBP discharges into the San Luis Drain. The GBP's San Joaquin River Improvement Project (SJRIIP) drainage reuse area and proposed expansion and proposed stormwater detention basins in the GBP Stormwater Plan are inexplicably excluded from the scope of the DEA. Reclamation arbitrarily eliminated the SJRIIP and stormwater detention basins from their analysis in the DEA, even though the SJRIIP has been part of previous GBP NEPA reviews. Although the GBP drainers are receiving State funds to implement some improvements at the SJRIIP, Reclamation continues to fund drainage activities through contract agreements⁴², and USBR is obligated to provide drainage service through the CVP water contracts. Further, six drainage sumps that historically discharged drainage into the Delta Mendota Canal were diverted to be managed in the SJRIIP. This action is included in a License to Panoche Drainage District to connect the Firebaugh Sumps to the SJRIIP⁴³ and is an included activity as part of the San Luis and Delta Mendota Water Authority's Operations and Maintenance Activities on federal facilities.⁴⁴

The proposed GBP Stormwater Plan includes use of an unspecified acreage of existing ponds and the addition of up to 200 acres of stormwater detention basins (regulating reservoirs) to store and regulate disposal or distribution of stormwater. How is such a basin different from an evaporation pond? Proposed use of regulating ponds to help control flow as a part of the engineered reuse system and ponding during flood events in the GBP area also may create a potential wildlife exposure risk similar to those originally realized at Kesterson National Wildlife Refuge (Presser and Ohlendorf, 1987). Ponding of stormwater and agricultural drainage will support an aquatic food chain and be attractive hazard to birds within a short period of time.

Selenium poses a hazard to fish and wildlife because of its toxicity at environmentally relevant concentrations and its tendency to accumulate in food chains (Skorupa, 1998). The San Joaquin Valley provides critically important habitat for wintering waterfowl of the Pacific Flyway. Eight to twelve million ducks and geese, along with hundreds of thousands of shorebirds and other marsh birds annually winter or pass through the valley. The history of the ecological impacts of disposal of selenium at Kesterson National Wildlife Refuge within the valley is well documented (e.g., Presser and Ohlendorf, 1987; SJVDP, 1990a, b). Additionally, from 1986 to 1993, the National Irrigation Water-Quality Program (NIWQP) of the U.S. Department of the Interior (USDOI) studied whether contamination was induced by irrigation drainage in 26 areas of the western United States. This program developed guidelines to interpret effects on biota of selenium (USDOI, 1998). These guidelines, along with revisions based on more recent studies and modeling, can be used to interpret and guide management and mitigation of the

⁴² See Federal Status Report of October 1, 2019 Case 1:88-cv-00634-LJO-SKO Document 1037 Filed 10/01/19.

⁴³ See https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=18761

⁴⁴ See <https://www.usbr.gov/mp/sccao/water-contracting.html>

risk of selenium in food chains and wildlife.⁴⁵ The GBP reuse areas present opportunities for wildlife use and selenium exposure. Proposed use of regulating ponds to help control flow as a part of the engineered reuse system and ponding during stormwater events in the GBP area also may create a potential wildlife exposure risk similar to those originally realized at Kesterson National Wildlife Refuge⁴⁶ (Presser and Ohlendorf, 1987).

The GBP has been monitoring and reporting annual bird use from April thru June at the SJRIP drainage reuse area since 2008. Many of those reports are posted on the SFEI website, however, no reports have been posted since the 2015 report. We note that additional reports were made available during the public comment period at this website.⁴⁷

The 2017 wildlife monitoring report for the GBP drainage reuse area (SJRIP) documented 50 avian species were observed at the drainage reuse area between April 13 and June 21, 2017. Eighteen species either were observed nesting or were suspected of nesting, including Swainson's hawk, a species listed by the State of California as a threatened. Twelve of the species observed—spotted sandpiper, least sandpiper, whimbrel, western wood-peewee, willow flycatcher, American pipit, savannah sparrow, White-crowned sparrow, common yellowthroat, yellow warbler, Wilson's warbler, and western tanager—were present only as spring Migrants.⁴⁸

The 2019 CEQA Addendum for the GBP Stormwater Plan notes that the filling of these stormwater detention basins will begin with the first significant storm (typically December), and basins will be emptied by May. So, the potential is that stormwater commingled with drainage water will be stored in basins for up to 6 months! If these basins will hold water longer than 30 days, a state water permit is required (CCR, Title 23, Sec. 657-658). As described in Skorupa et al (2004), low winter temperatures substantially increase the toxicity of dietary selenium to birds, fish, and mammals (referred to as winter stress). And the SJRIP wildlife monitoring reports do document use of the drainage reuse area by a large number of avian species (50 in 2017), including twelve species that are spring migrants.

It appears evident that there is a federal nexus to the SJRIP and associated drainage activities. We recommend, therefore, that the effects of disposal of selenium in the SJRIP and stormwater detention basins be included in a full EIS analysis. Such an analysis should include an assessment of the effects of selenium exposure and associated winter stress to migratory birds using the SJRIP or detention basins.

NEPA Compliance Demands Biological Monitoring Requirements, Performance Standards, and Enforcement and Mitigation Provisions for Disposal of Agricultural Drainage at the SJRIP Reuse Area and Stormwater Detention Basins.

The GBP Stormwater Plan EIR Addendum includes a proposed expansion of the existing drainage reuse area from 6,100 acres analyzed in the 2009 EIR/EIS to 7,550 acres of reuse area and increase in acreage of 1,450 acres. The addition of acreage was not analyzed in the 2009 EIR/EIS. Reuse of polluted drainage in reuse areas does not eliminate the loading of wastes. It simply stockpiles wastes on land. The continued recycling of agricultural drainage will ultimately turn vast areas of the Central Valley into salted up

⁴⁵ See <https://pubs.usgs.gov/pp/p1646/>

⁴⁶ See <https://pubs.usgs.gov/of/2008/1210/>

⁴⁷ <http://www.summerseng.com/grasslandbypassproject.htm>

⁴⁸ <https://drive.google.com/file/d/1mudCtShFmoQ-RW0YJaVF2-oia2TIXqn5/view>

wastelands. The practice of drainage reuse is not sustainable and will inevitably lead to permanent fallowing of more and more land.

One significant environmental concern at the SJRIP is ponding of seleniferous drainage water within the fields of the reuse area. The GBP Stormwater Plan EIR addendum includes mention of a contingency plan in the event of inadvertent flooding, but only a reference to the plan, not the plan itself, is included in the EIR Addendum. Bird use, already showing impacts under current acreage, would increase in the vicinity of the SJRIP with the addition of stormwater detention basins. This expansion of the SJRIP should be included as part of the proposed action in a full EIS for the Use Agreement.

The GBP SJRIP reuse area already poses exposure risks to wildlife from selenium exposure. The use of regulating ponds to help control flow as a part of the engineered reuse system and ponding during stormwater events in the GBP area also creates a potential wildlife exposure risk similar to those originally realized at Kesterson National Wildlife Refuge (Presser and Ohlendorf, 1987).⁴⁹

Further, the 2017 SJRIP Wildlife Monitoring Report noted that the mitigation site for the SJRIP, which was supposed to provide compensation for avian exposure at the SJRIP, documented extremely elevated selenium concentrations in some bird eggs collected there. This suggests that the mitigation site is not providing compensation benefit for the SJRIP and also highlights the breadth of selenium contamination and wildlife exposure in this area.⁵⁰

Table 5. Selenium Concentrations in Recurvirostrid Eggs from the Mitigation Site in 2017

ID Number	Field Number ¹	Date	Embryo ²		Embryo Age (days)	Selenium (ppm, dry wt) ³	Log	
			Condition	Status			Base 10	Anti-Log
Black-Necked Stilt								
PM-01	MS-01	June 9	U	U	1	3.74	0.5729	
PM-02	MS-02	June 9	L	N	13	4.52	0.6551	
PM-03	MS-03	June 9	U	U	1	5.54	0.7435	
American Avocet								
PM-04	MA-01	June 9	L	N	9	51.1	1.7081	
PM-05	MA-02	June 9	U	U	1	8.7	0.9395	
Arithmetic/ <i>geometric mean</i>						14.7	0.9238	8.4
Standard deviation						20.4	0.4591	2.9
Standard error							0.2053	1.6
Lower limit of 95% confidence interval							0.5214	3.3
Upper limit of 95% confidence interval							1.3263	21.2

¹ See Appendix H.

² L = live; N = normal; U = unknown.

³ ppm, dry wt = parts per million dry weight.

⁴⁹ Available at: <https://pubs.usgs.gov/of/2008/1210/> *Technical Analysis of In-Valley Drainage Management Strategies for the Western San Joaquin Valley, California* by Theresa S. Presser and Steven E. Schwarzbach, U.S. Geological Survey Open-File Report 2008-1210 version 1.0.

⁵⁰ *Ibid.* page 20.

NEPA Demands Full Disclosure of Treatment Methods that Have Not Operated Effectively.

The 2006 EIS for SLDFR and the 2009 EIR/EIS for the GBP included treatment as a significant component of the plan to manage drainage and reduce brine volumes to be discharged or disposed of. Reclamation has promoted and funded drainage treatment solutions for decades with repeated operational failures and unreliable results. Both the 2006 SLDFR EIS and the 2009 GBP EIS/R included a bio-treatment plant to reduce the selenium load being discharged, and to ultimately achieve zero discharge of agricultural drainage to the San Luis Drain and San Joaquin River.

In 2012, construction began of the SLDFR Demonstration Treatment Plant (Demo-Plant) in Panoche Drainage District. The purpose of the Demo-Plant was to demonstrate and operate water treatment processes to collect cost and performance data for the design of a full-scale water treatment facility to be constructed in Westlands. The Demo-Plant was completed in 2014 but did not operate consistently due to operational failures and faulty design. The treatment plant has yet to become operational.⁵¹

The Department of Interior's Inspector General issued a report in November 2019 that finalized their investigation on the Demo-Plant.⁵² The Inspector General found that the Demo-Plant did not provide the agricultural drainage service that is required by statute and it did not consistently meet operational performance criteria. In addition, the USBR was found to not have provided effective oversight of the cooperative agreement for operation and maintenance of the Demo-Plant. As a result, USBR spent a reported \$67.8 million for a project that does not meet its legal obligation and that had not consistently met operation performance goals. Warned of fraud, the Inspector General found that "work at the "pilot" Demo-Plant included: "invalid single audits, conflicts of interest with key personnel, a general absence of project oversight, and questionable use of a cooperative agreement as the legal instrument." The Inspector General also raised federal fraudulent funding issues, stating: "*We also question how and why the project grew from a pilot-scale \$15 million demonstration and research and development plant to a full-size \$37 million plant. Further, we have been told that the costs to operate and maintain the plant could outweigh the benefits of the treated water produced.*"⁵³

All action alternatives in the SLDFR FEIS included bio-treatment and reverse osmosis treatment as a large part of the schematic to manage drainage for the San Luis Unit. Since the Demo-Plant has yet to work reliably, the viability and costs of the drainage plans put forth in the SLDFR ROD and in the GBP Stormwater Plan are questionable. Without treatment, how will drainage volumes and selenium loads be managed into the future?

Upper Watershed Selenium Monitoring System Never was Implemented in Violation of the Current Use Agreement.

Appendix G of the 2010 Use Agreement @ pg 42 references an "Upper Watershed Exemption" that requires an "Upper Watershed Selenium Monitoring System". The Use Agreement stipulates that "no amount of discharge will be exempted pursuant to Appendix G until an Upper Watershed Selenium Monitoring System has been developed as described in this Appendix and submitted to and approved by

⁵¹ Federal Status Report of October 1, 2019 Case 1:88-cv-00634-LJO-SKO Document 1037 Filed 10/01/19.

⁵² See <https://www.doioig.gov/reports/bureau-reclamation-did-not-effectively-manage-san-luis-demonstration-treatment-plant>

⁵³ See https://www.doioig.gov/sites/doioig.gov/files/ManagementAdvisory_ProposedModification_112717.pdf

the Oversight Committee.” Yet the Oversight Committee has not met in over a decade, and there is no mention of this Upper Watershed Selenium Monitoring System in the WDR.

Long term viability and legality of GBP Drainers' Proposed Actions.

The DEA authorizing 10 years of adding the discharge of polluted stormwater raises questions regarding the long-term viability of the actions proposed in the GBP Stormwater Plan. The 2009 EIR/EIS relied on unproven treatment technologies to treat and reduce the volume of drainage from the GBP that would need to be disposed of. These treatment technologies have yet to prove reliable or cost effective. Without treatment, how will drainage volumes and selenium loads be managed at the SJRIP? Can the SJRIP remain viable after 25 additional years (the time period considered in the GBP Stormwater Plan EIR Addendum) of irrigation with selenium and salt-laden drainage? What is the life of the reuse area before too much salt accumulation prevents future agricultural use? Where is the selenium and salt that is accumulated in the SJRIP ultimately disposed of? All of these questions need to be evaluated in a full EIR/EIS. Dubbed a treatment area, the SJRIP is looking more and more like an unpermitted selenium and salt disposal facility.

Reuse of polluted drainage in the GBP's SJRIP drainage reuse area won't eliminate the loading of wastes. It is simply stockpiling wastes on land. The continued recycling of agricultural drainage will ultimately turn vast areas of the Central Valley into wastelands. The practice of drainage reuse is not sustainable and will inevitably lead to having to permanently fallow more and more land.

Land Retirement is the Most Effective Management Strategy.

Our organizations have previously submitted comments to the Regional Board about the success of land retirement in relation to the GBP's drainage volume load reductions.⁵⁴ The USBR's 2004 Broadview Water Contract Assignment Draft Environmental Assessment cites Summer's Engineering as predicting 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 from the cessation of irrigation on 9,200 acres of agricultural land in Broadview Water District as per Table 4-1 below (USBR 2004). This amounts to a per acre reduction of 0.28 AF of drainage, 1.85 tons of salt, 0.16 pounds of selenium and 5.65 pounds of boron.

**TABLE 4-1
DRAINAGE AND WATER QUALITY EFFECTS OF PROPOSED ACTION ON THE
SAN JOAQUIN RIVER**

	Existing Conditions	Under Proposed Action Conditions	Estimated Reduction Attributable to Proposed Action
BWD Drainage to San Joaquin River (afy)	3,700	1,100	2,600
BWD Estimated Salt Production (tons/yr)	24,300	7,300	17,000
BWD Estimated Selenium Production (lbs/yr)	2,140	640	1,500
BWD Estimated Boron Production (lbs/yr)	74,000	22,000	52,000

Source: Summers Engineering, 2003

⁵⁴ See Coalition letter to CVRWQCB on Selenium Basin Plan Amendment, April 26, 2010, p 15-16; available at http://www.waterboards.ca.gov/centralvalley/water_issues/grassland_bypass/grasslands_bpa_coalition_ltr.pdf, and Coalition letter to Karl Longley on Land Retirement Benefits to Grasslands Bypass Project and Draft Waste Discharge Requirements: available at <http://calsport.org/news/wp-content/uploads/Coalitionresponse-letter-to-Longley-re-gbpland-retirement.pdf>.

Land retirement likely accounted for most of the reductions in selenium, and the majority of reductions in drainage volume, boron, and salt claimed by the Grasslands Bypass Project in the 2009 EIR/EIS.

The USEPA, in a letter regarding the Bay Delta Conservation Plan,⁵⁵ strongly recommended the USBR's Land Retirement Program be revived to save water and prevent further selenium contamination and impacts to endangered species (page 13):

Recommendations: *To mitigate for the project's impacts to selenium levels in the estuary as a result of the BDCP operations, consider reviving and funding the Bureau of Reclamation's Land Retirement Program¹⁷ to remove from cultivation and irrigation large areas of selenium laden lands on the West side of the San Joaquin Valley. This would save irrigation water, reduce discharges of selenium into the San Joaquin River basin, and advance attainment of selenium reduction targets¹⁸ set by EPA and the Central Valley Regional Water Quality Control Board. Evaluate the extent to which restoration of these "retired" lands to the native plant community could also contribute to the recovery of threatened and endangered plants and animals listed by FWS. Consider analyzing the cost/benefit of implementing treatment technologies vs. land retirement. Although cost/benefit analyses are not required under NEPA, such an analysis may be useful to decision makers and the public in this case."*

Further, the USBR's San Luis Drainage Feature Re-Evaluation (SLDFRE) Final EIS in 2006 found that land retirement was the most cost-effective solution to managing drainage in the San Luis Unit. Three land alternatives were evaluated in the SLDFRE EIS, 306,000 acres, 194,000 acres and 100,000 acres, respectively. The Final EIS found that the only environmentally and economically preferred alternative was to retire 306,000 acres (In-Valley/Drainage Impaired Area Land Retirement).⁵⁶ It's clear from the NED findings in Table N-10 below that additional land retirement would provide increased net economic benefits.

Table N-10
Benefit/Cost Summary
Changes Relative to the No Action Alternative (\$/year in 2050)

Subarea	In-Valley Disposal	Out-of-Valley Disposal	In-Valley/ Groundwater Quality Land Retirement	In-Valley/ Water Needs Land Retirement	In-Valley/ Drainage- Impaired Area Land Retirement
Total NED Benefit	\$37,962,000	\$38,430,000	\$31,164,000	\$20,629,000	\$9,931,000
Total NED Cost	51,225,000	51,370,000	46,767,000	30,778,000	6,288,000
Net NED Benefit	-\$13,263,000	-\$12,940,000	-\$15,603,000	-\$10,149,000	\$3,643,000

Notes:

Values represent net NED benefits relative to No Action.

Values rounded to nearest \$1,000. Totals may not add due to rounding.

Moreover, the US Fish and Wildlife Service, in their Fish and Wildlife Coordination Act Report (FWCAR) for SLDFRE, recommended that all of the northerly area within the San Luis Unit (GBP Drainage Area) be retired as well,⁵⁷ though USBR did not consider that alternative. The Service concluded on page 67 of the FWCAR that, "[t]o avoid and minimize risks and effects to fish and wildlife

⁵⁵ Available at <http://calsport.org/news/wp-content/uploads/bay-delta-conservation-plan-deis.pdf>.

⁵⁶ SLDFRE Final EIS, Appendix N, Table N-10, page N-17, accessed at https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=2240

⁵⁷ SLDFRE Final EIS, Appendix M, USFWS FWCAR, accessed at https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=2236

resources in the San Joaquin Valley and Pacific Flyway, the Service recommends land retirement on all drainage impaired lands in the SLU. This approach would maximize the elimination of drainage at its source, and therefore avoidance of adverse fish and wildlife effects.”

By ignoring permanent land retirement and the associated benefits of reducing water exports to these toxic soils, the DEA, and GBP Stormwater Plan Addendum and associated Tentative WDRs will continue to kick the can down the road and 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.

Conclusion

We urge that all polluted discharges of agricultural drainwater and stormwater cease as required under the 2009 GBP EIS/R. We recommend land retirement and curtailing the importation of additional water supplies that mobilize these contaminants on the west side of the Southern San Joaquin Valley. Despite repeated promises, no viable treatment has been developed in the more than two decades. Before proceeding to load even more contaminants on downstream beneficial uses, we recommend no new Use Agreement for the San Luis Drain authorizing further discharges of either stormwater, agricultural drainage, or contaminated groundwater be permitted until a full EIS/EIR be completed. That EIS/EIR should include:

- A copy of the new Use Agreement for the San Luis Drain;
- Copies of the ESA consultations from NMFS and USFWS;
- Expansion of the scope of the proposed action to include drainage management activities at the SJRIP and stormwater detention basins;
- A National Pollutant Discharge System Permit prior to any additional use of the federal San Luis drain for discharge of contaminants from the west side into the San Joaquin River and Delta Estuary;
- A comprehensive cumulative effects analysis of stormwater and drainage disposal into Mud Slough and the San Joaquin River and Delta Estuary;
- A chronic, legally binding selenium objective of no greater than 2 µg/L (4-day average) for receiving waters of stormwater/drainage discharges;
- No exceedance of the 2 µg/L selenium water criterion should be allowed. If it is exceeded, enforcement mechanisms should trigger all discharges to cease and require additional biological monitoring to determine if there are downstream effects to meeting tissue criteria for selenium proposed by USEPA in 2016 (for the Bay Delta);
- An analysis of effects to wildlife, including factors such as winter stress, of disposal of selenium in the SJRIP and stormwater detention basins;
- Environmental commitments that include biological monitoring, performance standards, consequences if those performance standards are exceeded, and mitigation provisions for disposal of agricultural drainage at the SJRIP reuse area and stormwater detention basins;
- A description of the status and viability of drainage treatment at the SJRIP;
- A description and evaluation of the long-term viability of drainage disposal strategies at the SJRIP and a description of where salt, selenium, and other contaminants accumulate and are ultimately disposed of. This should not become an unregulated dumping ground for west-side contaminants.

Finally, Congress in its authorization of the San Luis Unit in 1960 never envisioned use of the

San Luis Drain for stormwater discharge. Congress provided its authorization under specified conditions, including approval by the State of California⁵⁸ for “...provision for constructing the San Luis interceptor drain to the Delta designed to meet the drainage requirements of the San Luis unit...” *Senate Report No 154, page 2, San Luis Unit, Central Valley Project, California, April 8, 1959.*⁵⁹ This brings into question whether the “Drain” can be legally used for storm water discharge without Congressional approval. And further Section 3404 of the Central Valley Project Improvement Act requires the Secretary to administer all existing, new and renewed contracts in conformance with the requirements and goals of the CVPIA. A full NEPA review is required along with mitigation measures and adherence to water quality standards to protect fish and wildlife.

The use of the federal San Luis Drain for stormwater also raises consistency questions with existing State Board orders. The California State Water Resources Control Board (SWRCB 1985), following the Kesterson debacle, issued its Order WQ 85-1 in February 1985. The SWRCB found that agricultural drainage and wastewater reaching Kesterson Reservoir “is creating and threatening to create conditions of pollution and nuisance” (Emphasis added). The Order then warned, “[i]f the Bureau closes Kesterson Reservoir and continues to supply irrigation water to Westlands Water District without implementing an adequate disposal option, continued irrigation in the affected area of Westlands Water District could constitute an unreasonable use of water” (Emphasis added). We urge Reclamation to not repeat the mistakes made at Kesterson Reservoir in the 1980’s. The continued irrigation of toxic soils in the GBP area constitutes an unreasonable use of water and continued and future disposal of agricultural drainage in ponds, on land, and in surface waters will cause significant harm to public trust resources and violates non-degradation policies.

Thank you for your consideration,



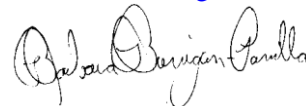
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⁵⁸ See PL86-488 San Luis Act June 3, 1960: Proviso: (2) *received satisfactory assurance from the State of California that it will make provision for a master drainage outlet and disposal channel for the San Joaquin Valley,which will adequately serve, by connection therewith, the drainage system for the San Luis unit or has made provision for constructing the San Luis interceptor drain to the delta designed to meet the drainage requirements of the San Luis unit as generally outlined in the report of the Department of the Interior, entitled "San Luis Unit, Central Valley Project," dated December 17, 1956.* The State of California has not made such a provision and Congress never consider the use of the drain for stormwater.

⁵⁹ See H. Rpt 399, available at <http://calsport.org/news/wp-content/uploads/Exhibit-3.pdf> S. Rpt 154...<http://calsport.org/news/wp-content/uploads/Exhibit-4.pdf>.



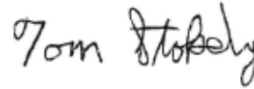
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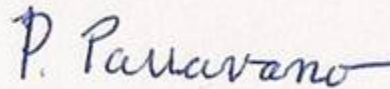
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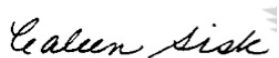
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