

**Regional Water Quality Control Board
Central Valley Region
Board Meeting – 30/31 July 2015**

Response to Written Comments for Waste Discharge Requirements for San Luis & Delta-Mendota Water Authority and United States Department of the Interior, Bureau of Reclamation Surface Water Discharges from the Grassland Bypass Project

Order Number R5-2015-xxxx

The California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board or “Board”) has provided the public the opportunity to submit written comments on the tentative Waste Discharge Requirements for Surface Water Discharges from the Grassland Bypass Project (issued to the San Luis & Delta-Mendota Water Authority and the United States Department of the Interior, Bureau of Reclamation), Order R5-2015-xxxx (referred to as the “Tentative GBP Order” or “GBP Order”). This document contains written responses to comments that were timely received on the Tentative GBP Order.

To better inform the development of the Tentative GBP Order, the Board circulated an initial draft of the GBP Order for public review from 29 May 2014 to 30 June 2014, and received oral comments on the initial draft at a public workshop conducted on 8 August 2014. Board staff considered these comments when it developed the revised version of the Tentative GBP Order that is currently before the Board.

The Board circulated the Tentative GBP Order for public comment from 8 May 2015 through 22 June 2015. The Board received nine comment letters by the deadline, which were submitted by:

1. [United States Environmental Protection Agency, Region IX](#)
2. [United States Fish and Wildlife Service](#)
3. [Grassland Bypass Drainers, San Luis & Delta Mendota Water Authority](#)
4. [Contra Costa County](#)
5. [Contra Costa Water District](#)
6. [Stockton East Water District](#)
7. [California Water Impact Network](#)
8. [The Bay Institute](#)
9. [Pacific Coast Federation of Fishermen’s Associations](#)

Several of the letters addressed the same common issues. This document provides the Board staff’s response to the common issues first, under the heading “General Responses”, and then provides Board staff’s response to individual comments under the heading “Specific Responses.” Based on the comments submitted, Board staff has made minor changes to the Tentative GBP Order, including changes to improve clarity and to fix typographical errors. Where minor changes have been made to accommodate commenters, the comments are not noted in this response.

GENERAL RESPONSES

GENERAL ISSUE 1: Selenium limits in proposed GBP Order and in Use Agreement are Different

Several commenters objected to the selenium load limits in the Tentative GBP Order, and pointed out that the annual load limit and monthly load limits in Table 2 are higher than corresponding limits in the Use Agreement. In particular:

- Selenium monthly loads based on water year type in Table 2 appear to authorize selenium concentrations greater than the 5 µg/L water quality objective at Mud Slough (north)
- The commenters contended that selenium load limits should be based on the selenium load tables in the Use Agreement.

- The annual selenium load limit of 8,000 pounds is too high and should be reduced to reflect load value in the Use Agreement

RESPONSE: Table 2 does not authorize increased selenium concentrations and load levels. Total Maximum Monthly Load (TMML) values for selenium from the Grassland Bypass Project (GBP) listed in Table 2 are based upon meeting a 5 µg/L four-day average water quality objective for the San Joaquin River at Crows Landing¹, a site downstream of the Merced River confluence. The water quality objective has been met for the San Joaquin River at Crows Landing since 2004. The *Water Quality Control Plan, Fourth Edition, for the Sacramento River and San Joaquin River Basins* (Basin Plan) also contains a water quality objective of 5 µg/L selenium at Mud Slough (north) and the San Joaquin River from the Mud Slough confluence to the Merced River which becomes effective in 2019.

Board staff agrees that the initial version of Table 2 may have been confusing; edits were made to Table 2 and Finding 12 to clarify that the monthly loads are to meet the objective at Crows Landing, and that the 5 µg/L selenium water quality objective for Mud Slough is more restrictive.

The Use Agreement is a contract between the Bureau of Reclamation and the San Luis & Delta-Mendota Water Authority that is designed to achieve zero discharge by 31 December 2019. Consistent with that zero discharge goal, the load limits in the Use Agreement are based on background selenium loading (i.e., the expected selenium concentrations if there were no discharge). This is why the load limits in Use Agreement are lower than load limits developed to meet a 5 µg/L water quality objective for selenium in the Lower San Joaquin River. The Tentative GBP Order reflects the implementation provisions of the Basin Plan, which require that the water quality objective of 5 µg/L be met in Mud Slough by 31 December 2019 in order to protect beneficial uses. Furthermore, the Tentative GBP Order requires compliance with the overall selenium load reduction strategy in the Use Agreement.

Finally, the Basin Plan specifies that the discharge of selenium from agricultural subsurface drainage in the Grassland watershed to the San Joaquin River cannot exceed 8,000 lbs/year beginning on 10 January 1997. This prohibition is in the Tentative GBP Order, although the selenium load from the Grassland Drainage Area has been below the 8,000-pound limit since 1999. The annual selenium load value in the Use Agreement is not included in the Basin Plan. Both the TMML load limits for the Grassland Drainage Area (GDA) to meet the 5 µg/L water quality objective in the San Joaquin River at Crows Landing (ranging from 1,075 to 4,480 lbs), and the 5 µg/L water quality objective for Mud Slough are more restrictive than the 8,000 lbs limit. Staff revised Findings 11 and 12 to clarify the context for the prohibition.

GENERAL ISSUE 2: The proposed GBP Order should regulate salt discharges

Several commenters recommended that salt load limits be added to the Tentative GBP Order, and asked that the salinity load limits be based on the Use Agreement or be stated as in the Basin Plan.

RESPONSE: Although salinity load limits have not been tabulated in the GBP Order, the Basin Plan provisions have been incorporated by reference (section V.E). Therefore, salinity discharges are regulated under the GBP Order. To comply with the WDRs, the discharge must meet the Basin Plan Salt and Boron Control Program salt load limits for discharges to the Lower San Joaquin River. As an alternative to compliance with the Basin Plan load limits, the Salt and Boron Control Program provides dischargers the opportunity to participate in a Central Valley Water Board-approved Real Time Management Program (RTMP) for salinity, provided the Vernalis water quality objectives continue to be met.

¹ 2001 staff report for the Total Maximum Daily Load (TMDL) for Selenium in the Lower San Joaquin River.

In Resolution R5-2014-0151, the Board approved a real-time salinity management program for implementation by dischargers of irrigated return flows within the lower San Joaquin River to meet the salinity water objectives for the San Joaquin River at Vernalis. The Bureau of Reclamation entered into a revised Management Agency Agreement with the Central Valley Water Board in December 2014. The MAA addresses salt load responsibilities for the Lower San Joaquin River, and the Bureau agreed to actively support a Board-approved RTMP.

Board staff has developed the Tentative GBP Order based on the protection of beneficial uses, in compliance with the Water Code. As was stated above, rather than enforcing the terms of the Use Agreement, the Tentative GBP Order reflects the implementation provisions of the Basin Plan, which will protect beneficial uses.

GENERAL ISSUE 3: Actions after 31 December 2019

Commenters questioned the term of the proposed GBP Order's coverage, and recommended that the Tentative GBP Order contain a discharge prohibition that would be effective on 31 December 2019. A new analysis for compliance with the California Environmental Quality Act (CEQA), a new consultation under the Endangered Species Act (ESA), and a new Use Agreement would be necessary in order for the Board to authorize discharges after 2019.

RESPONSE: Board staff acknowledges that the Use Agreement for the San Luis Drain to transport subsurface drainage from the Grassland Drainage Area to Mud Slough (north) expires on 31 December 2019. Board staff agrees that should the Dischargers propose to continue to discharge to the San Luis Drain after 31 December 2019, a separate evaluation for compliance with CEQA and the ESA may be necessary. Rather than impose a strict prohibition, Board staff have tailored the language of the Tentative GBP to the language of the Basin Plan ("*The discharge of agricultural subsurface drainage water to Mud Slough (north) and the San Joaquin River from the Mud Slough confluence to the Merced River is prohibited after 31 December 2019 unless water quality objectives for selenium are being met.*") and have added a provision specifying that an extension of the GBP Order could only be approved upon a showing that the continued discharge was in compliance with any applicable provisions of CEQA and the ESA.

The Irrigated Lands Regulatory Program (ILRP) has authority to regulate discharges from commercial irrigated agricultural land, including storm runoff. If there are zero discharges to the San Luis Drain, the storm runoff that leaves the Grassland Drainage Area could also be regulated under the ILRP, as another option for regulatory coverage. Agricultural and storm water discharges to groundwater are being addressed under the ILRP with the WDR General Order for Growers in the Grassland Drainage Area, which will also be considered by the Board in July.

GENERAL ISSUE 4: Monitoring of wetland supply channels

Two commenters noted that the water quality in wetland supply channels should be monitored weekly, instead of during storms only.

RESPONSE: Wetland supply channels are located outside the Grassland Drainage Area. With the implementation of the GBP, drainage from the Grassland Drainage Area is no longer routed through wetland supply channels during normal operation. Hence, routine monitoring of the wetland channels is not part of the proposed GBP Order.

The exception is when the capacity of the Bypass Channel and the San Luis Drain may be exceeded due to increased flows during storm events. The overflow consisting of comingled storm drainage and the subsurface drainage may be directed to wetland channels during storms. The proposed GBP Order includes a requirement for daily monitoring of wetland supply channels during storm events, which will adequately characterize water quality during times

when discharges from the GBP may enter wetlands and provide information about any pulses of elevated selenium concentration due to discharges associated with the GBP.

Wetland supply channels are located within the Western San Joaquin River Watershed. Surface water monitoring design under the ILRP Orders includes representative monitoring, such that not all drainages have to be sampled to assess compliance. Staff has initiated discussion with the Westside San Joaquin River Watershed Coalition to determine the needed monitoring to assess compliance in the wetland supply channels during non-storm periods at locations that represent drainage associated with irrigated agricultural operations.

Finally, it is worth noting that besides the requirements in the Tentative GBP Order, broader monitoring and reporting² for the GBP is carried out. The broader monitoring program is developed by the Data Collection and Reporting Team (DCRT) which consists of the agency representatives and contractors. The wetland supply channels continue to be monitored for selenium as a part of the broad monitoring efforts: Stations J and K (South Grassland Water District) are monitored weekly, and Stations L2 and M2 (North Grassland Water District) continue to be monitored monthly by the Grasslands Water District.

GENERAL ISSUE 5: A Basin Plan Amendment is Necessary

Several commenters expressed the need to amend the Basin Plan to revise the selenium water quality objective for Mud Slough to 2 µg/L, and one commenter noted that the annual selenium load limit of 8,000 lbs should also be revised.

RESPONSE: Currently, the Basin Plan water quality objective for Mud Slough is 5 µg/L, effective on 31 December 2019, with an interim performance goal of 15 µg/L to be met by 31 December 2015. The objective was adopted to protect aquatic life in flowing surface water systems and reflects the objective adopted for the lower San Joaquin River. The 5 µg/L water quality objective in Mud Slough has not been achieved yet, and the proposed GBP Order is structured to meet the water quality objective by the applicable deadline in the Basin Plan.

Board staff notes that the commenters are correct that the annual limit of 8,000 lbs of selenium from the GDA is somewhat obsolete. The TMML load limits for the GDA to meet the 5 µg/L water quality objective in the San Joaquin River at Crows Landing is in effect and are more restrictive than the 1997 limit of 8,000 lbs per year. The TMML limits depend on the type of the water year (ranging from 1,075 to 4,480 lbs) and are therefore more protective. However, the more stringent limit is reflected in the Tentative GBP Order; the load limit is not being relaxed.

Revision of the water quality objectives for Mud Slough would require a Basin Plan amendment. This Order implements the provisions of the Basin Plan. Amending the Basin Plan is outside the scope of this Order.

GENERAL ISSUE 6: Sediment Disposal

Commenters contend that the GBP Order should require compliance with the sediment management mitigation measures in the Sediment Management plan of the 2009 Bypass Project EIR/EIS.

² The effort conducted is by private, State, and Federal agencies whose authority or activities overlap in one or more aspects of the project. These agencies include the Grassland Water District, the Authority, the Central Valley Water Board, the California Department of Fish and Wildlife, Bureau, U.S. Fish and Wildlife Service, and U.S. Geological Survey. Technical guidance is provided by staff of the U.S. Environmental Protection Agency (US EPA) and the National Marine Fisheries Service (NMFS).

RESPONSE: The discharge limits apply to selenium in the sediment as well as selenium in drainage water from the Grassland Drainage Area (section II. C.1). The GBP Order requires that the San Luis Drain be operated such that sediments in the Drain are not mobilized and the sediment not exceed hazardous waste levels for any constituents. Sediments in the drain will be monitored and removed before concentrations of chemicals exceed hazardous waste levels. However, removal and disposal of any dredge material will be handled in a permitting process separate from the Tentative GBP Order.

SPECIFIC RESPONSES

Comment Letter 1 - United States Environmental Protection Agency

1-1. Table 2 authorizes increased selenium concentrations and load levels

The allowable monthly maximum selenium mass-based loads appear to relax selenium controls, allowing selenium concentrations up to 20 µg/L in Mud Slough (north) to Merced River, and up to 12 µg/L in the San Joaquin River from Merced River to Vernalis. The allowed mass loads are 350-460% higher. The relaxed selenium control will delay progress in TMDL implementation, prolong elevated selenium concentrations in receiving waters, and inadequately protect applicable beneficial uses. Especially given the drought conditions and the reduced dilution capacity, selenium control requirements should not be relaxed.

RESPONSE: The proposed GBP Order does not relax selenium discharge limitations. In fact, the 5 µg/L objective for Mud Slough applies, and the TMDL implementation is not delayed. The applicable 5 µg/L objective for Mud Slough is more stringent than the mass based loads for the San Joaquin River at Crows Landing in Table 2.

Staff believes that the commenter's reference to high allowable mass loads is with respect to differences in selenium loads in Table 2 of the Tentative GBP Order and in the Use Agreement in years 2018 and 2019. Staff clarified that the selenium loads in Table 2 were designed to meet the 5 µg/L selenium water quality objective in San Joaquin River at Crows Landing. Additionally, the selenium load reduction assurances in the Use Agreement apply and are a part of the Tentative GBP Order requirements. See Response to General Issue 1.

1-2. The proposed GBP Order should include more incremental performance goals

The Order should be revised to include more incremental performance goals that would apply between now and 2019 to support more robust tracking of interim program towards meeting the monthly and annual selenium loading limits and the applicable water quality objective.

RESPONSE: The Basin Plan includes an interim selenium performance goal of 15 µg/L to be met by 31 December 2015. The water quality objective 5 µg/L must be met at Mud Slough (north) and in the San Joaquin River above the Merced River confluence by 31 December 2019. The Order includes the Basin Plan's interim performance goal, and monitoring required by the GBP Order will track the progress towards meeting the water quality objective. Additional incremental performance goals are not included in the Basin Plan, are not required, and are unnecessary to ensure attainment of the water quality objectives.

Comment Letter 2 - United States Fish and Wildlife Service

2-1. Load limits in Table 2 would not allow meeting the 5 µg/L objective for Mud Slough

The Mud Slough Objective for selenium of 5 µg/L would not be achievable with the selenium load limits specified in Table 2.

RESPONSE: The commenter is correct that the loads in Table 2 are not designed to meet the water quality objective in Mud Slough; staff edited text to clarify what Table 2 refers to. See Response to General Issue 1.

2-2. The proposed GBP Order should require weekly monitoring of the wetland supply channels

Weekly monitoring for selenium at the Grassland wetland water channels (Stations J, K, L2 and M2) is warranted as exceedances of the 2 µg/L objective for selenium are still occurring in those channels and could result in harm to federally listed species as even short-term pulses of elevated concentrations can have lasting effects due to rapid bioaccumulation of selenium.

RESPONSE: See Response to General Issue 4.

2-3. Requirements from the Sediment Management Plan should be included in the GBP Order

Sediment disposal requirements in the proposed GBP Order should include the environmental commitments specified in the Sediment Management plan of the 2009 Bypass Project EIR/EIS.

RESPONSE: See Response to General Issue 6.

Comment Letter 3 – Grassland Basin Drainers

The Grasslands Basin Drainers proposed a number of typographical suggestions which were all incorporated into the Tentative GBP Order by Board staff.

Comment Letter 4 – Contra Costa County, Water Agency

4-1. The proposed GBP Order should be set to expire on 31 December 2019

The proposed GBP Order allows the discharge of agricultural drainage water to Mud Slough beyond 2019 although the Use Agreement requires cessation of all discharges by the end of 2019. The proposed GBP Order should apply only through 2019. The EIR/EIS for the GBP analyzed environmental impacts through 2019. Another set of WDRs should address discharges after 2019: all agricultural discharges from the GBP should be prohibited, only intermittent storm flows may be allowed; a new Use Agreement, EIR/EIS and biological opinion would be needed.

RESPONSE: See Response to General Issue 3.

4-2. Table 2 allows greater selenium load than allowed in Use Agreement

Values in Table 2 are greater than the loads for selenium for 2018 and 2019 in the Use Agreement. The proposed WDR should match the Use Agreement loads or provide an explanation for the discrepancy. In fact, given the zero discharge expected under the Use Agreement, the TMML should be zero after 2019.

RESPONSE: The Use Agreement is a contract between the Bureau of Reclamation and the San Luis & Delta-Mendota Water Authority. This agreement requires incremental reductions in drain usage ultimately to “zero discharge,” and is mindful of changing environmental conditions (wet/dry years). The agreement also allows credits to be carried over and applied year to year. Essentially, where the drain management reduces selenium beyond what is required, this “credit” may be carried over and applied to the following discharges. The result is an agreement that provides incentive to reduce selenium loads beyond what is required. WDRs are not legally required to implement the Use Agreement, and doing so may actually inhibit the “incentive-based” nature of the agreement. The Tentative GBP Order requires compliance with the load reduction strategy and requirements in the Use Agreement. See Responses to General Issues 1 and 3.

4-3. Selenium water quality objective in Mud Slough should be set at 2 µg/L

The Basin Plan should be amended to require a 2 µg/L objective for Mud Slough, and revisions should be made to reflect a smaller annual selenium load limit. Instead of loads designed to meet the 5 µg/L selenium objective, the selenium loads in Table 2 should be based on meeting the 2 µg/L objective.

RESPONSE: See Response to General Issue 5 for information about changing water quality objectives. It should be noted that Table 2 contains loads designed to meet the objective in the Lower San Joaquin River, not Mud Slough (see Response to General Issue 1).

4-4. The 2008 Report of Waste Discharge (ROWD) is insufficient

The 2008 ROWD cites only a draft version of the EIR/EIS, and contains no details of the past operation of the GBP. Detailed ROWD should be required before the proposed GBP Order is issued.

RESPONSE: The 2018 ROWD is sufficient; the ROWD constitutes an application for Waste Discharge Requirements. The outcome of the application process is the proposed GBP Order.

Details requested by the commenter are provided in the 2008 ROWD as an attachment: Draft EIR/EIS (characterization of the discharge, a map and other details required by the ROWD).

4-5. Annual selenium load limit of 8,000 lbs is too large.

The annual load limit from the 1997 Basin Plan is too large and selenium discharges decreased significantly such that reduction of the annual load is needed to reflect the progress made.

RESPONSE: See Response to General Issue 1.

4-6. Salinity and boron control program requirements should be included

The proposed GBP Order should include salinity load limits based on those in the Use Agreement, or Base Salt Load Allocations, whichever is smaller. Actions to reduce selenium are not necessarily effective in reducing salt loads. While both selenium and salt loads have decreased, selenium concentrations have decreased but electrical conductivity (EC) and boron concentrations exhibited increases in the recent years. The proposed GBP Order states that salinity control efforts will be coordinated under the umbrella of CV-SALTS, the process is taking a long time, and participation in the real-time management program is not sufficient to control salt and boron.

RESPONSE: See Response to General Issue 2. The Order implements the Basin Plan's Salt and Boron Control Program. WDRs implement the requirements of the Basin Plan, not the Use Agreement. Any additional salinity and boron requirement must be considered as part of Basin Planning and the CV-SALTS process. Staff also notes that salt loads have continued to decrease, but not as fast as the selenium loads. The proposed GBP Order requires compliance with the water quality objectives for salt, boron and molybdenum (Tables 1 and 3 in the Order). By omission the boron water quality objective from Sack Dam to the Mouth of Merced River was not included in Table 3 – the correction has been made.

Comment Letter 5 – Contra Costa Water District

5-1. Selenium load allocations are greater than in the Use Agreement

The selenium load allocations in the proposed GBP Order are greater than the loads in the Use Agreement. The selenium load objectives should be revised to achieve the 5 µg/L objective in Mud Slough.

RESPONSE: See Response to General Issue 1.

5-2. Selenium objective for Mud Slough should be set at 2 µg/L

The 2 µg/L water quality objective for selenium in Mud Slough, protective of wildlife, would be more appropriate for Mud Slough than the 5 µg/L objective that becomes effective in 2019. The TMML should be updated to reflect the updated water quality objective.

RESPONSE: See Response to General Issue 5.

5-3. The end date for the GBP Order coverage should be clarified

Any drainage discharge after 2019 is not covered by the GBP EIS/EIR. The Tentative GBP Order should include the end date for the allowable discharge, and a new CEQA/NEPA analysis would be required for discharges after 2019.

RESPONSE: See Response to General Issue 3.

5-4. Salt should be regulated by the proposed GBP Order

Although the CV-SALTS program is intended to solve the regional salinity issue, salt discharges should be regulated consistent with the values in the Use Agreement until CV-SALTS is implemented. If appropriate, a reopener clause relating to CV-SALTS should be included.

RESPONSE: See Response to General Issue 2 and comment 4-6. The GBP Order requires compliance with the Basin Plan. If CV-SALTS changes the means of compliance, or if the Basin Plan is amended, the Dischargers will be required to implement the necessary changes (Finding 34 and section IV.1).

Comment Letter 6 – Stockton East Water District (Herum/Crabtree/Suntag)

6-1. Effects of GBP on salinity and New Melones releases should be discussed

A discussion regarding how the discharges from the GBP affect salinity downstream and how releases from the New Melones reservoir are used to "dilute" the pollution or provide mitigation should be discussed. Salinity in Mud Slough, Salt Slough and in the San Joaquin River should be added. As full implementation of the Real-Time Management Program for salinity is not expected for 10 years, any Management Plans must address how drainage will meet the Basin Plan objectives for salinity in the San Joaquin River.

RESPONSE: The Information Sheet contains a figure showing the annual salt load limits and actual salt discharges at the start of the Bypass Channel (Station A). Flows from the GBP contribute to the salinity in the Lower San Joaquin River between the Merced River and Vernalis. This salinity is diluted by flows from the Merced, Tuolumne, and Stanislaus Rivers. State Board Water Right Decision 1641 assigns responsibility for meeting the Vernalis salinity water quality objectives to the Bureau of Reclamation. If standard freshwater flows are not sufficient to meet the salinity water quality objectives at Vernalis, the Bureau provides additional dilution water from the New Melones Reservoir. Per the Basin Plan's requirements, the GBP Order specifies that salt load limits adopted as part of the Salt and Boron Control Program be met or that dischargers participate in a Board approved salinity Real Time Management Program (RTMP). A discussion of the Board-approved RTMP has been added to the information Sheet.

The annual salt loads from the GDA have been below the salt load limits calculated based on the methodology in the Use Agreement. Additional information with detailed concentration, flow and load data are available on the San Francisco Estuary Institute's webpage <http://www.sfei.org/gbp/reports> (also referenced in the Information Sheet).

6-2. Monthly and annual salt loads should be added to the proposed GBP Order

Monthly and annual salt load limits should be included in the proposed Order so they are enforceable by the Central Valley Board. The salt loads are included in the Use Agreement. Once Basin Plan is updated to include salinity objectives from Merced River to Vernalis, the GBP Order should be revised to include objectives and a time table for compliance.

RESPONSE: See Response to General Issue 2. In accordance with Provision IV.1 of the proposed GBP Order, the water quality objectives in the GBP Order will be updated.

Comment Letter 7 – California Water Impact Network

7-1. Inconsistency with the selenium load limits in the Use Agreement

Comment summary: The selenium discharge limits in Table 2 are inconsistent with the Use Agreement and are a significant weakening of limits of prior agreements, commitments and promises to eliminate discharges from the GBP into Mud Slough. The 8,000-pound annual limit for selenium discharge should be reduced to the load values in the Third Use Agreement.

RESPONSE: The proposed GBP Order implements the Basin Plan. Response to General Issue 1 explains why the selenium limits in Table 2 are different from the Use Agreement, addresses the 8,000-pound limit, and explains how the GBP Order complies with the Basin Plan and requires load reduction assurances in the Use Agreement. Staff clarified that the monthly loads in Table 2 are to meet the objective in the San Joaquin River at Crows Landing.

7-2. Salinity regulation in the proposed Orders is inadequate

The commenter states that the contribution of the discharges from the Grassland Drainage Area to salinity violations downstream in the Delta and San Joaquin River is not adequately disclosed, discussed or regulated. The commenter goes on to state that the proposed Order should regulate salt discharges, and that the salinity crisis is exacerbated by inadequate regulation of discharges and due to drought. The comment letter lists salinity violations from 2013 to 2015 in the San Joaquin River at Vernalis, Old River near Tracy, Old River near Middle River and San Joaquin River at Brandt Bridge.

RESPONSE: The proposed GBP Order *does* regulate salt discharges consistent with the the Basin Plan's Salt and Boron Control Program and the Board's approach for addressing salinity; see Response to General Issue 2. The Information Sheet, Figure 15 shows actual annual salt loads from the GBP compared to salt limits. The loads are a function of salt concentration and flow, and have been below the limits. However, increases in salinity are a consequence of irrigated agricultural operations, and the issue is being addressed regionally through the Board's CV-SALTS initiative. The Dischargers are participating in the Board-approved real-time management program to address salinity and to meet water quality objectives at in the San Joaquin River at Vernalis.

Regarding the list of EC-based values that represent salinity exceedances from 2013 to 2015, staff is only aware of two periods of salinity excursion above the water quality objectives in 2015. The first was 11-24 January, when EC reached 1,055 $\mu\text{S}/\text{cm}$. The second was 17-25 February, during which EC reached 1008 $\mu\text{S}/\text{cm}$. However, the Salt and Boron Control Program in the Basin Plan does not require compliance during critically dry years until 2018. The "exceedances" listed fall within a critically dry year so represent anticipated elevated concentrations but not a violation of a water quality objective.

7-3. “Regulatory capture” and inadequate regulation

The commenter states that regulation of agricultural drainage from the Grassland Drainage Area is inadequate. The letter alleges that the Central Valley Water Board is dominated by the agricultural industry and acts to benefit the industry it is supposed to be regulating instead of acting in the public's interest, an example of so called “regulatory capture”.

RESPONSE: The tentative Orders regulating discharges to surface water and groundwater from the Grassland Drainage Area are based on provisions of the Basin Plan, a regulatory document developed through a robust and transparent public process. The characterization of the Central Valley Water Board as a “captured” regulatory agency beholden to agricultural interests is inaccurate and without foundation.

7-4. Require implementation of mitigation measures in EIR/EIS, Use Agreement and Biological Opinion

The WDR fails to implement required mitigation measures in the above documents, perpetuating a chronic pattern of non-compliance by the Drainers in violation of the Basin Plan. There is noncompliance with the mitigation measures in the Use Agreement.

RESPONSE: The Tentative GBP Order requires implementation of mitigation measures identified in the EIR/EIS that fall within the scope of the Board's jurisdiction. The GBP Order requires the status of mitigation measures to be reported to the Board in the Annual Monitoring Report, and the Board can institute a prohibition of discharge for non-compliance with the mitigation measures under its authority. However, the Board does not enforce implementation of measures that are beyond its authority. The Bureau of Reclamation is responsible for implementation of mitigation measures in the EIR/EIS and Biological Opinion. The mitigation measures in the Use Agreement are to be implemented by the San Luis & Delta-Mendota Water Authority.

7-5. New activities are not evaluated under CEQA or NEPA

The commenter states “as a condition of meeting the WDR objectives, the Drainers propose new activities that do not have WDR's and have never been evaluated under CEQA or NEPA.”

RESPONSE: The commenter appears to be referring to a letter dated 26 December 2013 where the Grassland Basin Drainers commented on agricultural practices that could lower selenium loads from 2015 to 2019. The substitution of one on-farm agricultural practice with another is not a change that would trigger a CEQA analysis, nor does the GBP Order dictate the specific suite of practices required for compliance.

7-6. Inadequate monitoring

The proposed monitoring and reporting program for the GBP Order is inadequate to determine the level of pollution being discharged by the Drainers, the impact to beneficial uses, harm to downstream uses and compliance with the Clean Water Act. Elimination of monitoring for the wetland water supply channels is a new weakening of the WDR's compared to a year ago.

RESPONSE: The proposed GBP Order contains monitoring requirements sufficient to determine the water quality discharged from the Grassland Drainage Area. The monitoring design focuses on waterbodies directly affected by the GBP, and requires monitoring of key locations and parameters to assess compliance, such as the discharge from the San Luis Drain and receiving water monitoring in Mud Slough and the San Joaquin River. Monitoring not necessary to assess compliance has been removed from the monitoring program under the Tentative Order, and the changes are described in the Information Sheet (Attachment A, section VI.A). Additionally, the broader monitoring program developed by the DCRT

continues, and monitoring of discharges associated with irrigated lands continues as a part of ILRP General Orders. The table below summarizes rationale for site changes in the Tentative GBP Order and the monitoring effort that is ongoing.

In response to comments received on the draft GBP Order in 2014, additional monitoring of the wetland supply channels is incorporated in the current version of the proposed Order (Stations L2 and M2). Response to General Issue 4 addresses the monitoring of the wetland supply channels during major storm events only, when the capacity of the Bypass Channel and the San Luis Drain may be exceeded.

Table 2. Summary of site removals and substitutions compared to 2001 monitoring program

Station	Monitoring Status	Rationale for change in Tentative GBP Order
Sites upstream of the discharge - eliminated from the Order's monitoring program as they are not needed to evaluate compliance		
Station C	Mud Slough (north) upstream of the San Luis Drain discharge <ul style="list-style-type: none"> continues to be monitored by the Westside Coalition 	The station was used to monitor the baseline concentration in Mud Slough; very few exceedances of the 2 µg/L selenium water quality objective were observed since 2000. Any exceedances after the San Luis Drain confluence will be the responsibility of the Dischargers under the GBP Order.
Station G	San Joaquin River u/s of Mud Slough (Fremont Ford) <ul style="list-style-type: none"> USGS real-time monitoring funded by the Bureau 	The station was used to monitor Salt Slough contributions to the San Joaquin River. Any exceedances after the Mud Slough confluence will be the responsibility of the Dischargers under the GBP Order.
Wetland channel monitoring - eliminated as subsurface drainage is no longer routed to wetlands (<i>with the exception of storm events, when daily monitoring is required</i>)		
Station F	Salt Slough <ul style="list-style-type: none"> continues to be monitored by the Westside Coalition at Lander Avenue 	Drainage is no longer routed to Salt Slough, and concentrations are very low (selenium in Salt Slough has been removed from the 303(d) list).
Station J Station K2 Station L2 Station M2	Wetland supply channels (South and North Grassland Water District)	Daily monitoring during storm events when the combined storm runoff and subsurface drainage exceed the drainage capacity of the Grassland Bypass/San Luis Drain.
Substitutions within the same water body - problems with access or due to other factors that showed a monitoring site not to be representative of the discharge or water body		
Station H	San Joaquin River at Hills Ferry <ul style="list-style-type: none"> USGS real-time monitoring funded by the Bureau 	Replaced due to access issue (located on private property) and influence from the Merced River. Monitoring required at Station R (within the China Island Unit) which has good access, and is closer to the Mud Slough confluence (no Merced influence)

Station B2	Mud Slough terminus	Replaced due to sampling personnel safety concerns. Monitoring required at an upstream Station B3
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7-7. The GBP should be under an NPDES permit

Pursuant to Basin Plan policies, the proposed project should be subject to an NPDES permit.

RESPONSE: The subsurface drainage is from agricultural return flows and is exempt from the Clean Water Act and NPDES permits, and the draft GBP Order is being issued under the California Water Code.

7-8. Waste transport in wetland channels

The commenter states waste is being transported using wetland channels, Mud Slough and the San Joaquin River, and cites the Clean Water Act that waste transport or waste assimilation is prohibited as a designated use for any waters of the United States.

RESPONSE: The commenter seems to be citing to a provision in the federal regulations that relates to the designation of beneficial uses for waters of the US. This provision states, “[t]he classification of the waters of the State must take into consideration the use and value of water for public water supplies, protection and propagation of fish, shellfish and wildlife, recreation in and on the water, agricultural, industrial, and other purposes including navigation. In no case shall a State adopt waste transport or waste assimilation as a designated use for any waters of the United States.” (40 C.F.R. § 131.10.) The fact that there are wastes in agricultural return flows does not imply that the Central Valley Water Board, by regulating these agricultural discharges, has de facto designated a “waste transport or waste assimilation” beneficial use in the receiving waters.

7-9. The WDR fails to protect water quality and endangered and threatened species

The draft WDR does not ensure the protection and improvement of the quality of the waters of the San Joaquin River along with endangered and threatened species including salmon, steelhead, sturgeon and other aquatic species that are adversely impacted.

RESPONSE: The proposed GBP Order requires that the discharges meet water quality objectives specified in the Basin Plan. Upon the review of the EIR/EIS for the GBP, the USFWS released a Biological Opinion on the effects of the GBP on endangered and threatened species. The USFWS review initiated mitigation measures that the Bureau of Reclamation made a part of its Record of Decision. The Record of Decision is binding and must be implemented by the Bureau of Reclamation. The Dischargers are required to provide habitat mitigation measures for the segment of Mud Slough and of the San Joaquin River where the water quality objectives are not being met.

7-10. Plan to cease discharge by the end of 2019

The draft GBP Order should ensure there is a viable plan to cease discharges by the 2019 compliance deadline. The plan was supposed to have been submitted by 2013. The current demonstration waste treatment systems being tested have not worked, the Panoche Demonstration Treatment Plant is given as an example.

RESPONSE: The Water Code and Basin Plan do not require that all discharge cease by 2019; therefore, such requirement has not been included in the Order. Instead, the Order requires compliance with Basin Plan objectives and protection of beneficial uses. The

comment letter refers to commitments in the Use Agreement, which is not enforced under the Basin Plan or the Water Code. See also response to General Issue 3.

Comment Letter 8 – The Bay Institute

8-1. Increased selenium loading to the San Joaquin River basin

The commenter is concerned that the proposed GBP Order allows increased selenium loading, and requests that the Order is amended to make its monthly load limits and annual discharge limit fully consistent with the current Use Agreement.

RESPONSE: The proposed GBP Order does not authorize increased selenium loading. However, the proposed Order is consistent with the Basin Plan water quality objectives and implementation program for selenium, and requires compliance with the selenium load reduction assurances described in the Use Agreement. Please see Response to General Issue 1.

8-2. The Order should prohibit discharge from GBP after 2019

The GBP Order should prohibit discharge from the GBP starting in 2020, except for storm runoff under specific conditions to be determined in any future agreement. Alternatively, the proposed GBP Order could be set to expire and a new set of WDRs could be issued to cover the period starting in 2020; a new environmental review would be needed.

RESPONSE: See Response to General Issue 3 and comment 7-10.

8-3. Salt load limits should be included

The proposed GBP Order should incorporate salt load limits based on the Use Agreement.

RESPONSE: Please see Response to General Issue 2.

8-4. Selenium objective for Mud Slough should be 2 µg/L no later than the 2018-2020

The Basin plan should be amended to require the 2 µg/L selenium objective for Mud Slough no later than 2018-2020, consistent with the goal of the Use Agreement for that period.

RESPONSE: See Response to General Issue 1. Response to General Issue 5 addresses any modification of the current Basin Plan water quality objectives.

Comment Letter 9 – the Pacific Coast Federation of Fishermen’s Association

9-1. Relaxation of selenium load targets

The Use Agreement contains selenium load targets established in the 2010-2019 GBP EIS/EIR and mandates decreases starting in January 2015 to zero discharge by the end of 2019. Hence, the proposed GBP Order cannot rely on the 2010-2019 GBP EIS/EIR without implementing loads specified in the Use Agreement.

RESPONSE: The commenter would be correct if the Tentative GBP Order were the means by which the selenium load reduction targets are enforced. However, this is not the case; under the terms of the Use Agreement, if the selenium load reductions are not met, the Bureau will terminate the Use Agreement, thereby prohibiting the continued use of the San Luis Drain (see Attachment K to the Use Agreement, a table entitled “Mandatory Termination for Selenium Exceedance”).

Although the selenium limits in the Tentative GBP Order do not correspond with the selenium load values in the Use Agreement, the Tentative GBP Order does require implementation of selenium load reduction assurances in the Use Agreement. Since the WDRs do not authorize any new significant impacts that were not fully analyzed in the EIS/EIR, the Board may continue to rely on that document.

9-2. The Tentative GBP Order is not consistent with the Basin Plan

The GBP Order lacks boron and molybdenum water quality objectives. The GBP Order should also contain water quality objectives for salt, mercury, and arsenic. The GBP Order violates mitigation measures requirements in the Basin Plan.

RESPONSE: The proposed GBP Order includes water quality objectives for boron and molybdenum that are consistent with the Basin Plan (Table 3), and addresses salt discharges (see Response to General Issue 2). The Dischargers are required to implement water quality management practices as necessary to protect water quality and to achieve compliance with applicable water quality objectives. Monitoring of mercury and arsenic is not required under the Tentative Order, because mercury and arsenic are not typically constituents of concern for the ILRP. However, trace metals, including mercury and arsenic, are analyzed in monthly grab samples from the San Luis Drain terminus, and in receiving waters downstream of the discharge (Mud Slough and the San Joaquin River) are a part of the broader monitoring program designed by the DCRT.

Consistent with the Basin Plan, the proposed GBP Order requires reporting of mitigation measures, and provides for the prohibition of discharge if the compliance is not timely and adequate. Attachment A (Information Sheet) provides information on the required habitat mitigation measures from Appendix L of the Use Agreement (see Specific Response 7-4 above).

9-3. Discharges after 2019 violate CEQA

The proposed GBP Order would allow the continued discharge of agricultural subsurface drainage to Mud Slough after 31 December 2019, as long as water quality objectives for selenium are being met. Allowing the GBP to continue discharging selenium beyond 2019 violates CEQA because environmental review covered GBP operation only through 2019.

RESPONSE: See Response to General Issue 3.

9-4. Achieving the 5 µg/L selenium objective

The load limits for selenium specified in the proposed GBP Order are too high to meet the 5 µg/L over a 4-day average for Mud Slough (north) and the San Joaquin River between Sack Dam and the Merced River.

RESPONSE: The proposed GBP Order requires meeting selenium objectives for Mud Slough and the San Joaquin River by 2019, as prescribed in the Basin Plan (see Response to General Issue 1). The commenter correctly notes that the load limits would not allow meeting the water quality objective for Mud Slough. However, the letter incorrectly states that the loads would allow selenium concentrations up to 15 µg/L at Crows Landing – the load values in Table 2 are expressly designed to achieve the 5 µg/L objective in the San Joaquin River at Crows Landing.

9-5. Mitigation measures from the Use Agreement have not been achieved

The Use Agreement includes three items of “mitigation for the Continued Use of Mud Slough,” including habitat mitigation and mitigation fees. The Board cannot permit continued discharges without first ensuring required mitigation measures in the Use Agreement has been achieved.

RESPONSE: See Specific Response 7-4 above.

9-6. The GBP Order's selenium standards are not protective of aquatic species

Existing water quality criteria are inadequate. New information on selenium toxicity to aquatic species has become available since the completion of the EIR/EIS in 2009 and must be considered before a new Order is issued.

RESPONSE: Staff appreciates the new information shared by the commenter. If water quality criteria need to be revised, the Board's Basin Plan amendment process must be initiated (See Response to General Issue 5). It is beyond the scope of the proposed Order to reassess adequacy of the water quality criteria.

9-7. Sediment disposal issues

Sediment disposal issues must be resolved by 2019 according to the Use Agreement. The GBP Order must include sufficient compliance with the sediment management mitigation from the GBP EIR/EIS.

RESPONSE: See Response to General Issue 6.

9-8. Unauthorized discharges from unincorporated agricultural lands

The GBP Order does not address lands that discharge into the GBP but are not part of the Project. Efforts to halt these unauthorized or illegal discharges should be investigated. The unauthorized or illegal discharges must be quantified and taken into account when calculating monthly and annual loads.

RESPONSE: Presumably, the comment refers to Poso and Almond drains which are adjacent to the Grassland Drainage Area; monitoring of adjacent drains that convey agricultural drainage from lands outside the GDA is beyond the scope of the GBP Order. The GBP involves the use of the San Luis Drain to transport subsurface drainage and storm water from the Grassland Drainage Area to Mud Slough (north). The water and irrigation districts construct/operate the drains and pumps so that only drainage from the Grassland Drainage Area flows to the bypass channel into the San Luis Drain.

However, ILRP staff will be conducting outreach in the surrounding areas to get growers to sign up for regulatory coverage under appropriate ILRP General Orders if they operate commercial irrigated lands. In addition, staff has initiated discussion with the Westside San Joaquin River Watershed Coalition about how areas adjacent to the Grassland Drainage Area are represented, and if additional monitoring is required to assess compliance in the wetland supply channels during non-storm periods.

Finally, staff will follow up with surveys and inspections on any information about the alleged illegal discharges.

9-9. Monitoring and reporting program is inadequate

Monitoring should not be reduced until the Project demonstrates long-term success. Discontinuing weekly monitoring in wetland channels and the San Joaquin River is unacceptable. Monitoring should include both biological and water quality for selenium and other pollutants. Management Plan should include daily monitoring requirement.

RESPONSE: The proposed GBP Order focuses on waterbodies directly affected by the GBP, and requires monitoring of key locations and parameters to assess compliance, such as the discharge from the San Luis Drain and receiving water monitoring in Mud Slough and the San Joaquin River. Sites not necessary to assess compliance have been removed. For instance, Station G was used to monitor Salt Slough contributions to the San Joaquin River. The Grassland Bypass Project rerouted drainage, and no discharges from the GDA go into Salt Slough. Due to demonstrated water quality improvements, Salt Slough has been removed from the 303(d) list for selenium, and any exceedances after the Mud Slough confluence will be the responsibility of the Dischargers under the GBP (see Response to Specific Issue 7-6). Conversely, monitoring of wetland channels focuses on periods when GBP discharges could possibly influence water quality (see Response to General Issue 4).

Aquatic toxicity and water quality monitoring are required in receiving waters in Mud Slough after the San Luis Drain discharge. However, the Order focuses on monitoring selenium levels in the discharge, and compliance with the Order's requirements will ensure wildlife protection.