December 8, 2021

Federico Barajas
Executive Director
Via Email

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Dear Mr. Barajas:

We object to the adoption of the Mitigated Negative Declaration and Notice of Determination with regard to the Mud Slough Restoration project that proposes to alter the stream bed, construct a major dam barrier and dredge the slough stream bed to allow for increased flows from the westside of the San Joaquin Valley to enter Newman Lake and other wetland and refuge areas, the San Joaquin River and Delta Estuary.

There is substantial evidence that supports a fair argument that the proposed dredging and dam barrier construction project will have a significant impact on endangered species, fish and wildlife along with beneficial uses of water. The response to our comments are deficient. They did not address these significant issues, did not consider a full range of alternatives including treating this stormwater and drain waters that can contain damaging levels of selenium, mercury, boron, salt and other contaminants. Further, the cumulative impacts of this project need to be mitigated and addressed.

The basic CEQA principle that a "full EIR" must be prepared whenever a project may have any significant environmental effect has been ignored.

We urge the SLDMWA Board to reject the MND and Notice of Determination and complete a full EIR as required along with providing USFWS and CDFW consultation and biological assessments for public review and comment.

Project Impacts Support a Fair Argument Environmental Impacts are Significant: An EIR is required.

The Proposed Project is located in the China Island Unit of the North Grasslands Wildlife Management Area that is managed by the California Department of Fish and Wildlife (CDFW). The area is comprised of wetlands, riparian habitat, and uplands. Newman Lake is owned by the Newman Land Company and operated for duck hunting and is kept full of water from September 5 through January10. For this Project, the area includes approximately 368 acres: 78 acres on Newman Land Company and the remainder in the China Island Unit of the North Grasslands Wildlife Management Area. The China Island Unit is part of the 7,400-acre North Grasslands Wildlife Area that is comprised of wetlands, riparian habitat, and uplands that are managed by CDFW for waterfowl habitat and hunting. The project would alter the southern portion of the China Island Unit that is predominantly floodplain. This area serves the Pacific Flyway, many sensitive and endangered fish and wildlife and plant species. Water from Mud Slough flows into the San Joaquin River and on to the San Francisco_Sacarmento Delta Estuary.

Four special-status plants have been documented to occur on the Study Area in the CNDDB (CDFW 2020): alkali milk-vetch (*Astragalus tener* var. *tener*), vernal pool smallscale (*Atriplex persistens*), Delta button-celery (*Eryngium racemosum*), and spiny-sepaled button-celery (*Eryngium spinosepalum*). In addition, numerous other special-status plant species have been documented within three miles of the Study Area.

Without physical surveys, SLDMWA identified twelve special-status fish species were identified as having potential to occur within the lower San Joaquin River and were assumed to potentially occur in Mud Slough or inhabit areas downstream and therefore would be potentially affected by changes in San Joaquin River hydrology or water quality as a result of the Proposed Project construction and operations.

According to SLDMWA, fish Species that are assumed to be impacted by the project are the Central Valley spring-run Evolutionarily Significant Unit (ESU) and Central Valley fall-run ESU of Chinook salmon, Pacific lamprey, Sacramento hitch and hardhead. In 2019 & 2020, based on the site reconnaissance, review of available databases and literature, and familiarity with local fauna, a total of 76 special-status fish and wildlife species were considered as part of this assessment (USFWS 2019a,b; CDFW2019a,b; CNDDB 2020). Based on the field investigations, review of available databases and literature, familiarity with local flora, and assessment of habitat suitability, 11 federally- or State-listed, Proposed, Candidate, or Fully Protected wildlife species have the potential to occur within the Study Area: Conservancy fairy shrimp, longhorn fairy shrimp, vernal pool fairy shrimp, vernal pool tadpole shrimp, California tiger salamander (Central California Distinct Population Segment (DPS)), giant garter snake, greater sandhill crane, Swainson's hawk, tri-colored blackbird, white-tailed kite, and San Joaquin kit fox (*Appendix C*).

Construction-related activities associated with removal of the existing water control structures and removal of the Los Banos Creek spill structure, cofferdam installation and dewatering, installation of the new Mud Slough Diversion Structure, installation of a culvert in the Connection Channel, and reinforcement of the Newman Lake dam will utilize heavy machinery

which could potentially injure or kill fish, including special-status fishes such as spring-run and fall-run Chinook salmon, hardhead, Pacific lamprey or hitch, should they be present in the vicinity of the Proposed Project during construction. SLDMWA assumed the BMPs will be implemented and thus protect water resources that would effectively minimize or avoid impacts on special-status fishes. No data or surveys or monitoring are provided to confirm this assumption.

Without actual surveys, SLDMWA states that construction-related activities will cause only short-term and localized impacts on aquatic habitats within the immediate vicinity of the construction. The area of construction is estimated to be approximately 1.4 acres for the new Mud Slough diversion structure and 2.4 acres of disturbance for other elements of Project construction. Largely due to operations of the Grasslands Bypass Project habitat conditions in Mud Slough and Los Banos Creek are generally poor. Without data or current surveys SLDMWA assumes during the summer months sensitive species of special concern are not expected to be in the vicinity of the proposed Project site. As noted contaminants like selenium in dredge materials and water bio-accumulate and can have lasting impacts long after the immediate construction impacts may have subsided.

SLDMWA goes on to assume without surveys or data that the construction-related activities associated with recontouring and installation of the new diversion structure in Mud Slough would have temporary and localized impacts on the aquatic, riparian, and benthic habitats in the Study Area and immediately downstream. And state that the proposed will only provide some protections fish and their habitat, the direct and indirect impacts of construction of the Proposed Project on resident and migratory fish, including special-status fishes and their habitats including EFH2 for Pacific salmon, inhabiting Mud Slough were considered to be significant without mitigation. The assumptions, lack of data and surveys lend credible doubt to the assertion that these significant impacts are mitigated.

SLDMWA assumes without surveys, data or water quality monitoring that increases in turbidity or temperature associated with in-water construction would be small, highly localized to within a short distance of the construction area, and temporary (lasting hours or days). This assumption relies upon undisclosed pollution prevention and water quality monitoring would be required by the Clean Water Act (CWA) Section 401 Water Quality Certification issued by the Regional Water Quality Control Board (RWQCB) for the Proposed Project to ensure that construction-related activities do not cause turbidity, temperature, or dissolved oxygen concentrations within or downstream of the Project site to exceed thresholds for maintaining aquatic life. The long term and cumulative impacts from potentially releasing contaminant laden sediments into downstream water ways has not been examined and is likely to have significant impact on downstream fisheries and water quality.

SLDMWA without data or surveys, assumes the construction of the new Mud Slough Diversion Structure, that will span the entire width of Mud Slough with a crest elevation 8 feet high will not have significant impacts because the diversion structure is expected to be a complete barrier to the upstream passage of migratory fish including Chinook salmon, steelhead, and sturgeon when the control gate is closed during the fall and winter diversion period and during summer re-filling, and providing an impediment to migration.

SLDMWA assumes without data or surveys, that operation of the new diversion structure is not anticipated to have any significant impacts on water quality of the San Joaquin River in the vicinity of the Proposed Project in Mud Slough, including EFH for Chinook salmon. SLDMWA does disclose that routine maintenance of the diversion structure has the potential to cause short-term and localized increases in suspended sediment loads and debris removal from the diversion structure. This impact is assumed to be mitigated with best management practices but no actual surveys or monitoring to confirm the claim.

No alternatives to the present project are provided, including an alternative that would continue to provide good quality water to Newman Lake that is pumped groundwater. Admittedly the diversion of surface water by the Proposed Project during high flow winter months from Mud Slough will result in a reduction in flow passing downstream into the lower San Joaquin River. But without monitoring, surveys or data this diversion of water to the San Joaquin River is assumed to be insignificant.

SLDMWA indicates that a US Army Corps of Engineers (USACE): Section 404 permit for discharge of fill into waters of the US State Water Resources Control Board (SWRCB): Section 401 water quality certification from the Central Valley Regional Water Quality Control Board (CVRWQCB) CDFW: Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife are all needed to complete the project. None of these permits were made available for public review so the impacts of the proposed project and monitoring is not disclosed. No ESA or CESA consultations have been conducted. Thus, the impacts to endangered species also have not been fully assessed or disclosed.

We adopt our previous comments. And find that there is substantial evidence that supports a fair argument that the project may have a significant impact on endangered species, fish and wildlife along with beneficial uses of water from the proposed permanent diversion structure to be constructed in Mud Slough, approximately 300 feet downstream of the confluence with Los Banos Creek with this diversion structure that would span the width of Mud Slough (approximately 80 feet) and will raise the water level in Mud Slough to match the operating water level in Newman Lake. The impacts from this structure that will consist of a reinforced concrete broad crested weir check with a top width of 8 feet and armored upstream and downstream faces have not been sufficiently disclosed. This includes the operation of the structure that will include an overshot spill gate to control water levels and maintain downstream flows. The structure and concrete lining will extend over the 52-foot length of Mud Slough, with 10 linear feet of riprap embedded in the channel upstream and downstream of the structure. The crest elevation is designed to pass normal high flows without exceeding the Mud Slough channel capacity. Extreme high flows would spill and inundate the adjacent floodplains, which is consistent with current conditions. Supposedly the "self-cleaning operation and design of the Mud Slough diversion structure" are assumed to halt suspended sediment or turbidity at elevated to levels that would cause impacts on fish or habitat suitability in Mud Slough or the San Joaquin River. No data, monitoring or surveys are provided to confirm these assumptions of insignificance.

Newman Lake Dam Reinforcement: There is also not sufficient disclosure of the impacts from the removal of the five hydraulic structures within the Grasslands Bypass Project (L2, L11, L13, L14 and L15) along with the use of construction equipment (excavators, backhoe, grader, roller-compactor, bottom-dump truck, side-dump truck, and water trucks) for the installation of a reinforced concrete diversion structure, installation of a culvert and clean out of approximately 200 feet of existing ditch, reinforcement of an existing dam, and the removal of five abandoned water control structures.

Specific Responses to PCL et. al. MND Comments:
In response to our comments [PCL et. al. Comment 3-4, on page 30 of Attachment A to the MND], SLDMWA claims:

"Only stormwater flows (no agricultural drainage) will continue to be routed to Mud Slough from January 1, 2020 through December 31, 2035 under new WDRs."

Yet in response to PCL et. al. Comment 3-8, pgs 33-34 of Attachment A to MND SLDMWA says:

"Since July 2019, when daily selenium sampling began in Mud Slough, selenium concentrations have been below 2 ppb in 87% of the measurements (660 out of 763 samples) and only once in 763 samples was there a detection above 5 ppb (5.41 ppb, February 2021)."

From the data presented, since July 2019 SLDMWA admits they have exceeded 2 ppb 13% of the time, and one sample exceeded 5 ppb Se. These numbers document that the stormwater discharges are indeed commingling with agricultural drainage. As mentioned in our comments and not addressed is the fact these levels of selenium are significant. They likely will impact migratory birds reproduction, endangered species and cumulatively will magnify through the food chain

Also with respect to PCL et. al. Comment 3-8, SLDMWA further states that the:

"5 ppb 4-day average water quality objective from the WDRs has not been exceeded since daily sampling began."

The MND does not address nor analyze the serious impacts from this water quality objective at Newman Lake or other adjacent wetland areas. There is no analysis or data to confirm the lack of impacts from such a water quality objective for Se in Newman Lake. Certainly the 5 ppb objective should NOT be the appropriate number. It should at a minimum be 2 ppb as has been adopted for the Grassland Wetland Channels in the Basin Plan. Newman Lake is part of a State Wildlife Area that includes wetland habitat. To protect the beneficial uses at the China Basin Wildlife Area, the objective should consider protection of wetland resources. Selenium at 5 ppb is a non-protective number. Also the GBP Ecological Risk Guidelines list Se in water between 2-5 ppb as a Level of Concern, and above 5 a level of Toxicity.

Table 1. Recommended Ecological Risk Guidelines for Selenium Concentrations

Medium	Effects on	Units	No Effect	Concern	Toxicity
Water (total recoverable selenium)	fish and bird reproduction	µg/L	< 2	2 – 5	> 5
Sediment	fish and bird reproduction	µg/g (dry weight)	< 2	2 – 4	> 4
Invertebrates (as diet)	bird reproduction	µg/g (dry weight)	< 3	3 – 7	> 7
Warmwater Fish (whole body)	fish growth/condition/survival	µg/g (dry weight)	< 4	4 -- 9	> 9
Avian egg	egg hatchability (via foodchain)	µg/g (dry weight)	< 6	6 -- 10	> 10
Vegetation (as diet)	bird reproduction	µg/g (dry weight)	< 3	3 – 7	> 7

Notes:
1/ These guidelines, except those for avian eggs, are intended to be population based. Thus, trends in means over time should be evaluated. Guidelines for avian eggs are based on individual level response thresholds (e.g., Heinz, 1996; Skorupa, 1998)
2/ A tiered approach is suggested with whole body fish being the most meaningful in assessment of ecological risk in a flowing system.
3/ The warmwater fish (whole body) concern threshold is based on adverse effects on the survival of juvenile bluegill sunfish experimentally fed selenium enriched diets for 90 days (Cleveland *et al.*, 1993). It is the geometric mean of the "no observable effect level" and the "lowest observable effect level."
4/ The toxicity threshold for warmwater fish (whole body) is the concentration at which 10% of juvenile fish are killed (DeForest *et al.*, 1999).
5/ The guidelines for vegetation and invertebrates are based on dietary effects on reproduction in chickens, quail and ducks (Wilber, 1980; Martin, 1988; Heinz, 1996).
6/ If invertebrate selenium concentrations exceed 6 mg/kg then avian eggs should be monitored (Heinz *et al.*, 1989; Stanley *et al.*, 1996).

Thank you for the opportunity to comment.

Sincerely,

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