

RESOLUTION NO 2009-314

RESOLUTION OF THE SAN LUIS & DELTA-MENDOTA AUTHORITY ADOPTING FINDINGS PURSUANT TO THE CALIFORNIA ENVIRONMENTAL QUALITY ACT, APPROVING MITIGATION ACTIVITIES, AND AUTHORIZING EXECUTION OF AGREEMENT FOR USE OF THE SAN LUIS DRAIN 2010- 2019, AND AUTHORIZING RELATED ACTIONS

WHEREAS, the Board of Directors of the San Luis & Delta-Mendota Water Authority (the "Board" and the "Authority," respectively) by Resolution No. 1996-115 authorized execution of that certain First Amended and Restated Grassland Basin Drainage Management Activity Agreement between the Authority and certain of its member agencies, by means of which a regional drainage entity was formed to implement the Grassland Bypass Project to manage subsurface drainage within the Grassland Drainage Area.

WHEREAS, since 1996, the Authority has entered into a continuous series of agreements between the United States, Department of the Interior, Bureau of Reclamation (the "Bureau"), by the terms of which the Bureau has authorized the Authority to use a portion of the San Luis Drain to convey agricultural drainwater around adjacent wildlife management areas to Mud Slough, a tributary of the San Joaquin River.

WHEREAS, the current Agreement for Use of the San Luis Drain will expire on December 31, 2009.

WHEREAS, in order to continue the separation of unusable agricultural drainwater discharges from the Grassland Drainage Area from wetland water supply conveyance channels, facilitate drainage management that maintains the viability of agriculture within the Grassland Drainage Area (also referred to as the "Project Area" or the "GDA"), to promote continuous improvement in water quality in the San Joaquin River, and to allow the Grassland Basin Drainers (the "GBD") time to acquire funds to develop feasible drainwater treatment technology to meet revised Basin Plan objectives and waste discharge requirements, the Authority proposes to enter in to a Use Agreement for the continued use of the San Luis Drain with the United States for the period January 1, 2010, through December 31, 2019 (the "2010 Use Agreement").

WHEREAS, the Authority as Lead Agency under the California Environmental Quality Act ("CEQA"), together with the Bureau as Lead Agency under the National Environmental Policy Act ("NEPA"), has prepared and certified the *2010-2019 Grassland Bypass Project Final Environmental Impact Statement/Environmental Report, Final August 2009 (EIS/EIR)*.

WHEREAS, the Authority has developed a sediment management plan for sediments including a portion of the San Luis Drain utilized by the Grassland Bypass Project and has reviewed reports prepared for the Bureau by the Lawrence Berkeley Laboratory and other consultants, which findings project that accumulated sediment in the San Luis Drain can be locally reused through land application or disposed of without the requirements for such disposal being subject to the requirements for disposal of hazardous materials, and that sediment management plan has been included as Appendix B of the EIS/EIR.

WHEREAS, the general counsel to the Authority has submitted her report to the Board, on file with the Secretary hereof, summarizing the analysis contained in the Biological Assessment for the Grassland Bypass Project prepared by the Bureau and submitted to the U.S. Fish and Wildlife Service ("Service") on July 21, 2009, including provisions for a monitoring program.

WHEREAS, in addition to the monitoring program described in the Biological Assessment and other mitigation measures described in Chapter 15 of the EIS-EIR, the Authority will implement terms and conditions included in biological opinions issued to the Bureau applicable to ongoing operations of the Grassland Bypass Project and the San Joaquin River Improvement Project reuse areas that are within the jurisdiction of the Authority.

WHEREAS, the Board has considered that certain Agreement for Use of the San Luis Drain Between the United States and the Authority attached as Appendix "A" to the EIS/EIR.

NOW, THEREFORE, BE IT RESOLVED, AS FOLLOWS:

Section 1. The facts stated in the recitals above are true and correct, and the Board so finds, orders and determines.

Section 2. Based on substantial evidence contained in the Final EIS/EIR, the Authority makes the following findings:

I. Findings on Project Alternatives Considered in the EIS/EIR

- A. The Authority hereby finds that the No Action Alternative is not a feasible alternative for the following reasons:
1. No Action would require extraordinary efforts by individual farmers to reduce and recycle drainwater within the GDA;
 2. No Action would cause a significant adverse environmental impact by allowing some unmanaged subsurface drainage from agricultural lands to flow into wetland water supply channels, and the impact is unavoidable;
 3. No Action would have significant adverse impacts to soil and groundwater resources due to: (a) a decrease in water table depth corresponds to an increase in drainwater production, (b) an increase in bare-soil evaporation rate, (c) seepage into unlined ditches more than doubles and unmanaged flows would not be collected and impact adjacent areas, and (d) soil salinity could increase threefold;
 4. No Action could have potentially significant impacts to special-status species: (a) species foraging in current agricultural land would occur as selenium accumulates, land fallows, and ponding occurs; and (b) species utilizing wetland channels from unmanaged flows and seepage that would occur as selenium and salt loads increase to wetlands.
 5. No Action would have significant adverse impacts to wetland water quality in Area 1 (GDA) and Area 2 (wetland channels, Salt Slough, and San Joaquin River within the Grassland Water District) which could modify a substantial portion of the vegetation community, i.e., reduced iodine bush scrub habitat.
 6. No Action may increase selenium bioaccumulation in aquatic and associated upland communities upslope of the San Luis Drain terminous.
 7. No Action would result in following significant impacts to land uses: (a) declines in crop yield and retirement of land currently in agricultural production over the long term that would conflict with County General Plan policies for the vitality and viability of agriculture, (b) impacts to wildlife refuges from unmanaged flows

of high Se water and soil salinity problems in adjacent areas would not be consistent with County General Plan policies for preservation and protection of wildlife habitat and water resources, and (c) constraints on fishing from unmanaged flows of drainwater into the wetlands are inconsistent with General Plan policies on recreation and open space.

8. No Action would cause a significant adverse economic impact due to reductions in total present value of farm profits over the 10-year period by 15 percent, personal income would decline by \$17.7 million, and total industry output would decline by \$26.6 million.
9. Under No Action, income and employment losses would affect Hispanics who are disproportionately represented in the Project Area.

B. The Authority hereby finds that the 2001 Requirements Alternative is not a preferred alternative for the following reasons:

1. The 2001 Requirements Alternative is similar to the Grassland Bypass Project; however, it would retain the selenium and salt loads discharged to Mud Slough in the 2001 Use Agreement (i.e., less stringent allowances).
2. The 2001 Requirements Alternative would not enhance the performance incentive system.
3. The 2001 Requirements Alternative would not enhance Mud Slough mitigation.
4. The 2001 Requirements Alternative would result in water quality objectives for selenium in the sloughs and San Joaquin River upstream and downstream of the Merced River being achieved less frequently than for the Proposed Action.
5. The 2001 Requirements Alternative would result in water quality objectives for molybdenum in the sloughs and San Joaquin River upstream of the Merced River being achieved less frequently than for the Proposed Action.

II. Findings on the Significant Adverse Environmental Impacts of the Proposed Project

These findings on the Grassland Bypass Project are made by the Authority, pursuant to the CEQA Guidelines (California Code of Regulations, Title 14, section 15091). All significant adverse impacts of the Project identified in the Final EIS/EIR (August 2009) are included herein. For each significant impact, a finding has been made and after each finding, a discussion of the supporting facts is provided.

A. Impact: Sediment Accumulation in San Luis Drain

Additional sediment would accumulate in the Drain over the duration of the Proposed Action, 2010-2019. This is a potentially significant impact compared to existing conditions. After mitigation, the impact is less than significant.

Finding: The Authority hereby finds that mitigation through implementation of the Sediment Management Plan is feasible and will avoid or substantially lessen the potentially significant environmental impact of sediment accumulation in the San Luis Drain.

Facts Supporting the Finding: As explained in Section 4.2.2.4.7 (page 4-65) of the Final EIS/EIR, sediment accumulates at the rate of 1 to 2 inches per year spread through the entire Drain. This rate corresponds to a total average accumulation of between 8 and 16 inches of sediment over the life of the Project. Currently, the Drain has greater than 1 foot of freeboard during the peak flows of 150 cfs. Mitigation is to monitor the accumulation and remove the sediments in accordance with the Sediment Management Plan (Appendix B). The Grassland Area Farmers (GAF) will consult with the Central Valley Regional Water Quality Control Board on preferred application area for the sediments. The SMP will be implemented with additional sampling as necessary, and the Lawrence Berkeley Laboratory along with the (GAF) will provide progress reports to the Oversight Committee.

B. Impact: Soil Salinity and Boron

In the GDA, the increase in selenium and boron concentrations relative to existing conditions is a significant unavoidable impact of irrigating western San Joaquin Valley soils.

Finding: The Authority finds there is no feasible mitigation for this impact, and it is unavoidable.

Facts Supporting the Finding: Section 5.2.3.2.2, page 5-14, of the Final EIS/EIR states that in the GDA, estimated soil selenium increases from 11 $\mu\text{g/L}$ in 2008 to 21 $\mu\text{g/L}$ in 2019, and boron increases from 0.9 to 1.3 mg/L. In the SJRIP during the same time period, soil selenium concentrations increase from 73 to 124 $\mu\text{g/L}$, and boron concentrations increase from 3.4 to 5.5 mg/L. The increase in selenium and boron concentrations relative to existing conditions is considered to be a significant unavoidable impact of irrigating western San Joaquin Valley soils. The concentrations will not affect agricultural productivity, but may with time influence selenium concentrations in underlying shallow groundwater and agricultural drainwater. However, the drainwater is treated by the San Joaquin River Water Quality Improvement Project (SJRIP), which will include salt and selenium treatment as part of its Phase III development.

C. Impact: Selenium Bioaccumulation for Special Status and Other Species

Special-status species that forage in the SJRIP reuse area may experience significant adverse impacts as compared to existing conditions, due to increases in Se soil concentrations and potential for increased ponding resulting in increased Se bioaccumulation. These special status species include the San Joaquin kit fox, bald eagle, Swainson's hawk, burrowing owl, northern harrier, tricolored blackbird, loggerhead shrike, and mountain plover, giant garter snake, and pallid and western red bats. The effects from the Proposed Action on waterbirds and terrestrial birds utilizing reuse areas would be potentially significantly adverse relative to existing conditions.

Finding: The Authority finds that there are feasible mitigation measures the GBD can implement to reduce or avoid impacts to identified special status and bird species.

Facts Supporting the Finding: As explained in Sections 6.2.2.2.1 and 6.2.2.2.4 of the Final EIS/EIR (pages 6-37, 44), to achieve the Se load reductions that are required, the GAF are expected to continue to implement drainage recycling and drainage reuse at the SJRIP, which involves application of subsurface drainwater on the surface of fields to irrigate salt-tolerant crops. Drainage reuse has the potential to result in highly seleniferous subsurface drainwater ponding in fields at the reuse

facility, which can create a hazard to birds. However, careful management of irrigation water and tailwater may be sufficient to avoid or minimize the potential for ponding. Operation of the reuse areas could also increase the risk of Se exposure for some terrestrial species (e.g., seed- and insect-eating species and the larger species that prey on them), potentially resulting in significant effects such as decreased reproduction.

1. The significant adverse effects from the Proposed Action on terrestrial species, waterbirds, and terrestrial birds utilizing reuse areas can be mitigated to less-than-significant by the following measures discussed in Sections 6.2.2.1.4 and 6.2.2.4 and 15:
 - a) Those measures to be identified in Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service.
 - b) Reduce exposure potential by reducing attractiveness of irrigation ditches for nesting.
 - c) Reduce exposure potential by hazing birds from nesting near, and foraging in, irrigation ditches.
 - d) Implement flooded field contingency plan.
 - e) Provide compensation breeding habitat if other measures fail.
2. To reduce impacts to nesting shorebirds in drainwater SJRIP reuse areas, facility managers will:
 - a) Dredge the bottom of open drains that had been consistently used by shorebirds to eliminate potential feeding and nesting substrates.
 - b) Discharge cracker shells to discourage shorebird use where shorebird nesting had been concentrated in the past.
 - c) Enhance habitat for nesting shorebirds outside the project site at a site with clean (non-seleniferous) water.
3. To avoid or minimize the potential for ponding at the SJRIP, careful management of irrigation water and tailwater may be sufficient. These practices include:

- a) Installation of subsurface drains.
 - b) Draining tailwater from SJRIP that is not recycled into the Grassland Bypass Channel.
 - c) Application rates that handle crop needs and avoid overwatering.
 - d) Drainage treatment.
 - e) Cessation of irrigation (temporary).
 - f) Development of a contingency plan.
4. Implementation of these measures will be accomplished as required by the U.S. Fish and Wildlife Service, consistent with the Biological Opinion expected to be issued in November, 2009, and as required by the California Department of Fish and Game, consistent with an extension or amendment of the current Memorandum of Understanding. The GAF are to provide progress reports to the Oversight Committee.

D. Impact: Construction Impacts to Special Status Species

Construction and ground disturbance activities associated with the expansion of the SJRIP reuse areas could reduce the breeding success of burrowing owl or San Joaquin kit fox if burrows or dens that are utilized by these species are present within ground disturbance areas. Therefore, the reuse areas would have unlikely but potentially significant adverse impacts to burrowing owl and San Joaquin kit fox, if these species are present, compared to existing conditions.

Finding: The Authority finds that there are feasible mitigation measures the Grassland Basin Drainers can implement to reduce or avoid impacts to identified special status species.

Facts to Support Finding: As described in Section 6.2.2.2.1, page 6-37, kit fox dens were not identified in 2007 for expansion of the reuse area by 2,900 acres, but given the U.S. Fish and Wildlife Service's concern over possible presence in the future, Reclamation would engage in Section 7 consultation on measures to avoid or reduce potential effects to kit fox. Burrowing owls are known to breed within the GDA. Section 6.2.2.4 describes mitigation and minimization measures to avoid impacts to burrowing owls at the SJRIP site, beginning with a preconstruction

survey in conformance with California Department of Fish and Game (CDFG) recommendations. If breeding or resident owls are located on, or within 250 feet of, the proposed construction site, then a 250-foot buffer will be maintained between project activities and nesting burrowing owls. This protected area will remain in effect until August 31, or may be terminated earlier at the CDFG's discretion based upon monitoring evidence that indicate that young owls are foraging independently. Also, owls may be evicted from the construction area to avoid take of individual owls via construction activities. However, CDFG does not permit the eviction of burrowing owls from burrows during the nesting season (February 1 through August 31). Eviction outside the nesting season may be permitted pending evaluation of eviction plans and receipt of formal written approval from the CDFG authorizing the eviction. If accidental take (disturbance, injury, or death of owls) occurs, the CDFG will be notified immediately.

E. Impact: Farm Profits

Annual farm profit would decline by 11 percent from \$61.4 million in 2007 to an average of \$54.4 million from 2010 to 2019. The total present value of farm profits over the 10-year period is also expected to decline by 11 percent compared to existing conditions. This adverse impact is significant because it is greater than 5 percent.

Finding: The Authority finds this impact to farm profits is unavoidable based on the uncertainty associated with potential mitigation measures.

Facts to Support the Finding: Farm profits are discussed in Sections 8.2.2.2 and 8.3 of the Final EIS/EIR. The decline in farm profits compared to existing conditions is primarily because of the costs to treat drainwater from 2015 through 2019 but also due to incentive and mitigation fees. Nearly 99 percent of land in the GDA is projected to remain in production during the project period, although the cropping mix will likely change as farmers attempt to maximize profit and as land is taken out of irrigated agriculture in the GDA and placed into reuse at the SJRIP. Farm-level revenues and profits would decline under the Proposed Action because of both acreage changes at the SJRIP, the cost of treating drainwater, and fees, but these declines are fewer than the projected declines under No Action.

Uncertainty is associated with implementing feasible mitigation for these impacts which are, therefore, unavoidable. To the extent that treatment costs can be implemented for less than \$1,500 per acre-foot

of drainwater, the impact to farm profits and revenues and regional income and employment would be reduced. Also, the water produced from treatment would have value and offset some of the treatment costs. Furthermore, the GAF would apply for grants, but uncertainty is associated with obtaining these funds.

F. Cumulative Impact: Personal Income and Industry Output

Socioeconomic impacts on personal income and industry output may be individually insignificant to the Grassland Subarea (of the Westside Plan) but cumulatively significant when combined with other subareas.

Finding: The Authority finds that the Grassland Bypass Project has a positive economic effect when compared to the other alternatives considered, but the valley-wide economic effects of drainwater management and treatment may include reductions in personal income and industry output compared to existing conditions. The Grassland Bypass Project, which provides for continued discharges to minimize on-farm drainage reuse, also includes the SJRIP/In-Valley Treatment facility which will help to resolve the valley-wide drainage problem without constraining other subareas from implementing alternative drainwater treatment or reuse facilities. Except for the mitigation measures incorporated into the Project for the GDA, implementation of other mitigation measures is within the responsibility and jurisdiction of other public agencies and not the Authority. The Authority will cooperate with the proponents of a valley-wide project and ensure that the Grassland Bypass Project does not preclude development and implementation of a long-term, valley-wide solution to drainwater management. Monitoring of progress will be reported to the Oversight Committee.

Facts to Support Finding: The cumulative effect of impacts on socioeconomic resources is discussed on page 8-15 of the Final EIS/EIR. The Project Area is covered by a management plan for agricultural subsurface drainage on the west side of the San Joaquin Valley covering 500,000 acres (SJVDP 1990) and components of the Westside Regional Drainage Plan and San Luis Drainage Feature Re-evaluation discussed on page 1-5 of the Final EIS/EIR. Other areas within the San Joaquin Valley may also be successful in managing drainage discharge for salts and selenium so that the effect on personal income and industry output may be individually insignificant to the Grassland Subarea but significant when combined with other areas in the San Joaquin Valley who would also be implementing drainage reuse and treatment.

Mitigation for these valley-wide effects could include measures to remove salt from the soils, minimize drainage reuse, or subsidize costs of treatment facilities to improve farm profits.

III. Statements of Overriding Consideration

There are two unavoidable significant impacts associated with Grassland Bypass Project: (A) Significant Adverse Effect on Farm Profits and (B) Significant Adverse Effect on Soil Selenium and Boron. The Authority has considered such unavoidable risks and has determined that the environmental benefits of the Grassland Bypass Project outweigh these unavoidable adverse effects for the reasons stated below.

A. Significant Adverse Effect on Farm Profits

The effects on farm profits occur principally in the later years of the Project when the costs to treat drainwater occur (from 2015 through 2019) and higher incentive fees and mitigation fees become operational under the terms of the Use Agreement. These higher costs are intended to provide incentives to achieve in-valley management of the GDA drainage prior to such later years. While a significant unavoidable adverse effect of the Project, the projected decrease in net farm profits is much less than the projected declines under No Action (resulting from increased soil salinity and resulting declines in crop yields). In addition to the regional economic benefits of increased crop production (Table 8-9, page 8-13 of the Final EIS/EIR), construction of the treatment component of the SJRIP facility would result in additional economic activity. The costs of the facility reduce farm profitability, but costs would be at least partially offset by the construction activity that would spur job creation and increase local income. The adverse impact is outweighed by the benefits of access to use of the Drain for discharges for the continuing period as compared to No Action and by the significant environmental benefits of the Project.

B. Significant Adverse Effect on Soil Selenium and Boron.

This adverse impact is outweighed by the beneficial impacts of improvement to groundwater quality beneath the SJRIP reuse area, beneficial impacts to surface water quality (selenium in Sloughs and SJR Upstream of Mud Slough; selenium, salt, and boron in SJR Downstream of Merced River; molybdenum in Sloughs/SJR Upstream of Merced River; and decreases in unmanaged seepage and other discharges). The concentration of soil selenium and boron in the reuse

area is a localized adverse effect that will be managed with monitoring to avoid consequent environmental effects, which will be lessened by periodic application of fresh water and which is offset by the regional benefit of the reuse area for the overall Grassland Drainage Area.

IV. Approval of the Mitigation Reporting Program

The Mitigation Monitoring and Reporting Program is explained in Section 15 of the Final EIS/EIR and includes the monitoring plan contained in the proposed 2010 Use Agreement, as such plan may be modified in coordination with Reclamation, the USFWS and the NMFS-NOAA. The Grassland Bypass Project Oversight Committee is responsible for monitoring implementation of the mitigation measures identified in Table 15-1: Sediment Management Plan and the Biological Opinion for special status species, waterbirds, and terrestrial birds.

V. Location and Custodian of Records

The documents and other materials that constitute the record of proceedings on which the San Luis and Delta-Mendota Water Authority's findings are based are located at the Authority's office: 842 Sixth Street, Suite 7, Los Banos, CA 93635. The custodian for these records is Susan Mussett, Executive Secretary. This information is provided in compliance with Public Resources Code § 21081.6(a)(2) and 14 Cal. Code Regs. §15091(e).

Section 3.

- A. The Authority hereby adopts the Mitigation Monitoring and Reporting Program contained in Chapter 15 in the Final EIS/EIR.
- B. The Agreement for the Continued Use of the San Luis Drain for the Period January 1, 2010 through December 31, 2019, is hereby approved and the Executive Director is authorized and directed to sign the agreement on behalf of the Authority in substantially the form contained as Appendix A to the Final EIS/EIR, subject to such additions, deletions or revisions as said executing officer shall approve prior to execution, said execution to constitute conclusive evidence of such approval.
- C. The Authority hereby adopts the Sediment Management Plan included as Appendix B of the Final EIS/EIR.

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I, DANIEL G. NELSON, Secretary of the Board of Directors of the SAN LUIS & DELTA-MENDOTA WATER AUTHORITY, do hereby CERTIFY that the foregoing is a full, true and correct copy of a resolution duly adopted at a regular meeting of said Board of Directors held this 8th day of October, 2009.



Daniel G. Nelson, Secretary
San Luis & Delta-Mendota Water Authority

