RECORD OF DECISION

GRASSLAND BYPASS PROJECT

FINAL ENVIRONMENTAL IMPACT STATEMENT AND ENVIRONMENTAL IMPACT REPORT

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
MID-PACIFIC REGION

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Approved:

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Date: 9/28/01

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I. INTRODUCTION

This document constitutes the Record of Decision of the Department of the Interior, Bureau of Reclamation (Reclamation), Mid-Pacific Region, regarding the new Agreement for Use of the San Luis Drain (2001 Use Agreement) that will enable the San Luis & Delta-Mendota Water Authority (Authority) to implement the Grassland Bypass Project (Proposed Action or Project). The proposed action is the subject of the *Final Environmental Impact Statement/Environmental Impact Report, Grassland Bypass Project* (FEIS/EIR, dated May 25, 2001), developed in compliance with the National Environmental Policy Act and the California Environmental Quality Act.

II. RECOMMENDED DECISION

Reclamation recommends execution of the 2001 Use Agreement to implement the proposed action identified in Chapter 2 of the FEIS/EIR. The recommended decision includes the mitigation measures listed in Chapter 14 of the FEIS/EIR and the Biological Opinion. These measures are required to implement the Proposed Action.

The Proposed Action, Grassland Bypass Project, would continue to separate unusable agricultural drain water from private wetlands and state and federal wildlife areas through December 31, 2009. The Project would collect drain water from the 97,400-acre Grassland Drainage Area (GDA) and up to 1,100 acres of an adjacent -area, and place it into the San Luis Drain near South Dos Palos, California. The drain water would travel in the Drain to its northern terminus into Mud Slough (North), a tributary of the San Joaquin River upstream of its confluence with the Merced River.

Features of the Proposed Action include the following:

- Management and consolidation of unusable agricultural drainwater from the GDA, which is comprised of Broadview Water District, Camp 13 Drainage District, Charleston Drainage District, Firebaugh Canal Water District, Panoche Drainage District, Pacheco Water District, Widren Water District, and unincorporated adjacent farmland.

- Continuation of the Grassland Area Farmers, a regional drainage entity.

- Continued separation of agricultural drainwater from 93 miles of conveyance channels in the Grassland Wetland Supply Channels.

- Use of the Grassland Bypass Channel, a 4-mile-long earthen constructed ditch, to convey drain water from the GDA to the San Luis Drain.

- Discharge of drain water into Mud Slough (North) for 6 miles before reaching the San Joaquin River at Hills Ferry, a location 3 miles upstream of its confluence with the Merced River.

- The flow rate of drainwater would be limited to 150 cubic feet per second and velocity of 1 foot per second, primarily to prevent suspension of sediments.

- Execution of a new 2001 Agreement for Use of the San Luis Drain from October 1, 2001 through December 31, 2009, that has been negotiated with other stakeholders.

- Development of an In-Valley Treatment Facility (IVT) on up to 6,200 acres, within the GDA. The facility is now called the San Joaquin River Water Quality Improvement Project.

- Implementation of a Compliance Monitoring Plan to evaluate the effects of the Project on the San Luis Drain, Mud Slough, Grassland Wetland Supply Channels, and the San Joaquin River.

III. OTHER ALTERNATIVES CONSIDERED

In addition to the proposed action, the FEIS/EIR evaluated two other alternatives: No Action and the Mud Slough Bypass alternatives.

No Action

The No Action Alternative is defined as what could be expected to occur in the foreseeable future (after October 1, 2001) if the 2001 Use Agreement is not approved. Under this alternative, the Grassland Area Farmers (GAF) would not exist as a management group and would not have use of the Drain. Agricultural subsurface drainage would not be collected into a single drainage outlet (Grassland Bypass Channel) for conveyance to the Drain.

No Action is not the existing condition (as of September 1999 when the public scoping was initiated). Rather it is a "constructed alternative" based not only upon failing to take the Proposed Action but also upon discontinuing the existing program for drainage management to meet the discharge targets, with no existing alternative practices that will maintain viable agriculture or the environmental benefits that the original Grassland Bypass Project (1995 Use Agreement) has achieved.

No Action would require infrastructure improvements, which are not currently planned or financed, at both the district and farmer level. For example, GAF farmers and district managers indicate that it is not realistic to assume that 100 percent of subsurface water generated by sumps would be recycled, due to physical constraints and to the mismatch in certain months between the volumes of water for which recirculation would be required and the capacity of cropped land to receive such water, without significant crop damage. Without the Grassland Bypass Project and the management of agricultural drain water in the GDA, uncontrolled seepage into Grassland Wetland Supply Channels would occur, and unmanageable ponding of high selenium water at the

lower elevations of the GDA would occur.

Mud Slough Bypass

The Mud Slough Bypass Alternative is similar to the Grassland Bypass Project in several features. However, it would not discharge drainwater from the GDA into Mud Slough (North), a major difference. Instead, the San Luis Drain would be extended to the San Joaquin River below its confluence with the Merced River. The 15-mile drain extension would be either a canal or an underground pipeline with a flow capacity of 100 cfs, enough to convey GDA water under normal conditions but not drainage from other areas or other projects.

The Mud Slough Bypass Alternative would avoid or substantially lessen potentially significant impacts of the Proposed Action on special-status species. The Mud Slough Bypass Alternative's greatest environmental benefit (in comparison to the Proposed Action) is that it would permit habitat restoration in Mud Slough (North) prior to 2010, an area identified as being suitable habitat for the giant garter snake once drainage is removed. Impacts from pipeline or canal construction would be short term and temporary. However, there is a question as to whether bypassing Mud Slough would increase the selenium load reaching the San Joaquin River.

IV. BASIS OF DECISION AND ISSUES EVALUATED

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;
2. No Action would cause a significant adverse environmental impact by allowing the drainage from the GDA to seep into Grassland Wetland Supply Channels, and the impact is unavoidable;
3. No Action would allow uncontrolled seepage and unmanageable ponding of high selenium water at lower elevations of the GDA to occur;
4. No Action would allow soil and groundwater salinity in the GDA to increase and would cumulatively impact soil and groundwater resources adversely;
5. No Action would cause a significant adverse economic impact due to trends in declining crop yields and these would be inconsistent with county general plan policies, and the impact is unavoidable;
6. No Action would result in land in the GDA taken out of production immediately due to ponding of drainwater on the surface and in the long term due to economic impacts, and the impacts are unavoidable;
7. No Action would cause a significant adverse environmental impact due to the reduction in net annual farm income, and the impact is unavoidable.

The Mud Slough Alternative is not the preferred alternative for the following reasons:

1. The Mud Slough Bypass Alternative would be more costly to implement than the Grassland Bypass Project;

2. There is substantial public opposition to any extension of the San Luis Drain, even one that is sized only to handle drainage from the GDA;
3. The limited size of the Mud Slough Bypass could preclude the use of the San Luis Drain as a regional conveyance solution to San Luis Unit drainage. Conveyance is one alternative that is possible for evaluation in Reclamation's study of drainage alternatives for the San Luis Unit; and
4. The Mud Slough Bypass Alternative would allow for the direct discharge of drainwater to the San Joaquin River; at issue is the extent that wetlands adjacent to Mud Slough (North) bioaccumulate selenium and lessen the selenium load from the discharge when it reaches the San Joaquin River.

The recommended action was determined to have the following potentially significant impacts. These impacts can be mitigated such that it is the least environmentally damaging practicable alternative.

Impact: Sediment accumulation in the San Luis Drain

The FEIS/EIR discusses sediment accumulation in the San Luis Drain on page 4-42 and the impacts on page 4-84. The velocity of water in the Drain will be limited to 1 foot per second to prevent disturbance of existing sediments. The flow rate will be limited to 150 cubic feet per second. At the current rate, the total average accumulation of sediment in the Drain is estimated to be 8 to 16 inches over the life of the project. The additional sediment constitutes a potentially significant impact.

As discussed on page 4-84 and in Section 14, monitoring the accumulation and removing the sediments, if they become a problem can mitigate the impacts. A Sediment Management Plan is under development by Lawrence Berkeley Laboratory and should be completed by 2002. The plan 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.

Finding: Reclamation finds that this mitigation measure is feasible and will avoid or substantially lessen the potentially significant environmental impact of sediment accumulation in the San Luis Drain. The impact will be mitigated by monitoring the accumulation and removing the sediments in compliance with the Sediment Management Plan.

Impact: Selenium bioaccumulation may exceed the toxicity threshold in fish species, possibly including the Sacramento splittail, a federally listed threatened species

The impacts of selenium bioaccumulation on special status species are discussed on page 6-41 of the FEIS/EIR. Selenium bioaccumulation in the reach between the outfall of the San Luis Drain at Mud Slough (North) and the confluence of the Merced River with the San Joaquin River is expected to exceed the toxicity threshold in fish species, possibly including the Sacramento splittail, a federally listed threatened species. The Grassland Bypass Project, therefore, may affect special-status species that use aquatic habitat in Mud Slough (North).

As discussed on page 6-41 and in Section 14, Reclamation has engaged in Section 7 consultation with the U.S. Fish and Wildlife Service (Service) to determine if there is a significant effect to listed species and to identify specific measures to avoid such effects. The consultation resulted in a Biological Opinion, issued by the Service in September 2001.

Reclamation, together with the Service and other appropriate agencies, will either seek from CALFED direct funding or will prepare a proposal through the CALFED proposal solicitation process to develop a selenium budget, to determine the fate and impact of proposed selenium discharges to presently impaired downstream water bodies used by Sacramento splittail. This effort will track selenium loading from the GDA into the San Joaquin River, the Sacramento-San Joaquin Delta, and the North Bay (e.g., Suisun Bay). Monitoring will provide spatial coverage and will be at a frequency relevant to determine trends in selenium contamination.

Biological monitoring and chronic toxicity testing are important components of the Compliance Monitoring Program. The Data Collection Review Team (DCRT) will provide monthly and annual progress reports to the Oversight Committee.

Finding: Reclamation finds that meeting the requirements of the Service's Biological Opinion will avoid or substantially lessen the potentially significant environmental impacts to special status species in Mud Slough. The impacts will be mitigated through specific measures to avoid such effects that would be implemented by Reclamation and the San Luis and Delta-Mendota Water Authority (Authority).

Impact: Socioeconomic impacts on personal income and industry output may be individually insignificant but cumulatively significant when combined with other areas

The cumulative effect of impacts on socioeconomic resources is discussed on pages 8-20 and 8-21. 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). 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 area 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.

Finding: Reclamation finds that the valley-wide economic effects of drainwater management and treatment may include reductions in personal income and industry output. The specific mitigation measures identified above are feasible, and some or all should be incorporated into a project to resolve the valley-wide drainage problem. Reclamation and 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.

V. IMPLEMENTING THE DECISION AND ENVIRONMENTAL COMMITMENTS

Reclamation and the Authority have adopted all practicable means to avoid or to minimize adverse environmental impacts. Chapter 14 of the FEIS/EIR is the Mitigation Monitoring and Reporting Program for the preferred alternative. It includes two principal environmental commitments by Reclamation and the Authority, the Compliance Monitoring Plan and Storm Event Plan for Operating the Grassland Bypass Project.

Compliance with the terms and conditions in the 2001 Use Agreement requires a monitoring plan and reporting of the results. Section V, paragraph A of the 2001 Use Agreement states that the Authority shall be responsible for implementing a comprehensive monitoring program that meets the following objectives:

1. to provide water quality data for purposes of determining the Draining Parties' compliance with Selenium Load Values and Salinity Load Values as set forth in this Agreement;

2. to provide biological data to allow an assessment of whether or not any environmental impacts constitute Unacceptable Adverse Environmental Effects that have resulted from this Agreement; and

3. to provide data on sediment levels, distribution, and selenium content.

The 2001 Use Agreement provides that on a regular basis, and in no event less frequently than monthly, the results of the monitoring program, including the monitoring results pertaining to the discharges of selenium and salts being delivered from the San Luis Drain to Mud Slough, will be submitted to the U.S. Bureau of Reclamation, the Oversight Committee, and other interested parties. (Section V, Paragraph B)

Data Collection and Review Team (DCRT) on behalf of the Oversight Committee will review results of the monitoring program monthly. If unacceptable problems or impacts are identified, appropriate corrective actions to address the problems will be recommended to the Oversight Committee by the interagency Technical and Policy Review Team. The definition and identification of adverse impacts and need for corrective action will consider applicable laws (e.g., Migratory Bird Treaty Act, Endangered Species Act, Clean Water Act) as well as the impacts in all channels affected by implementation of the Project. The costs of corrective actions will be borne by the draining parties.

Key features of the Compliance Monitoring Plan include:

- Daily monitoring for flow and water quality in the San Luis Drain and San Joaquin River at Crows Landing;

- Continuous flow measurements at six sites in the Drain, Mud Slough, Salt Slough, and the San Joaquin River;

- Weekly water quality analyses at ten stations to identify project impacts;

- Quarterly sampling of biota and sediment for selenium in Mud Slough, Salt Slough, and the San Joaquin River;
- Annual sediment volume estimates in the San Luis Drain;
- Monthly toxicity testing using three freshwater (saline tolerate) species in chronic screening design;
- Quality assurance, data management, and reporting program;
- Data collection and reporting team meetings and coordination.

A Storm Event Management Plan has been developed describing how the Project will operate during storm events. The major concerns with managing storm water flows include: 1) the discharge of contaminated flood water into wetlands water supply channels in Grassland Water District; 2) the accumulation of sediments in the Drain and 3) the scour of previously accumulated sediment from the Drain into the receiving waters due to high water velocities. In addition, structural integrity of the Grassland Bypass Channel and the Drain is of concern. The major components of the storm event plan include the following:

- Notification of regulatory and system users of the intent to operate under the storm event plan when Project flows are to be affected by impending storm events
- Opening of gates to Grassland Water District supply channels (Agatha Canal and Camp 13 Ditch) when anticipated flows exceed 100 cubic feet per second and precipitation is imminent
- In-field decisions on how much to divert to Grassland Water District and how much to allow into the Project during event conditions
- Closing gates to Grassland Water District when flow falls below 100 cubic feet per second and no further threat of imminent precipitation exists
- Daily monitoring of bypassed flows to the Grassland Water District for quantity and quality
- Modification of sump pump operations as practical to minimize the production of drainwater

Section III, paragraph H of the 2001 Use Agreement contains environmental commitments pertaining to operations, spill prevention, downstream users notification, regional archaeology, protection of China Island, Mud Slough, sediment, and load reduction assurances.

The Authority will develop an In-Valley Treatment (IVT) Facility on up to 6,200 acres in the GDA. The Negative Declaration on Phase I commits the Grassland Area Farmers/Panoche Drainage District to a biological monitoring program that would be capable of detecting migratory bird impacts and, if necessary, capable of providing the data for project adjustments to avoid such impacts.

Reclamation and the Authority will implement the reasonable and prudent measures specified in

the Biological Opinion to minimize the incidental take of San Joaquin kit fox, mountain plover, giant garter snake, Delta smelt, Sacramento splittail, Conservancy fairy shrimp, longhorn fairy shrimp, vernal pool fairy shrimp, and vernal pool tadpole shrimp.

VI. COMMENTS RECEIVED ON THE FEIS/EIR

The Notice of Availability of the Final EIS/EIR was published in the Federal Register on May 31, 2001. Between that date and the execution of this ROD, no comments were received.