

Appendix A

**Reclamation List of
Agreements and Previous Plans**

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The following compilation includes planning documents and legal agreements between the Bureau of Reclamation (Reclamation) and various State agencies and private corporations pursuant to the construction of San Luis Reservoir and related water storage facilities. Documents are categorized by the topical area of subject matter and are further shown chronologically.

General Planning Documents

Previous planning documents dating from 1962 to 1985 are listed in Table A-1 (see next page) along with a description of planned actions in different sections of the Plan Area.

**Table A-1
San Luis Reservoir State Recreation Area Proposed Development by Plan**

USE AREA	RECREATION LAND USE AND ACQUISITION PLAN ¹ (1962)	SAN LUIS RESERVOIR AND FOREBAY RECREATION DEVELOPMENT PLAN ² (1965)	LOS BANOS CREEK RESERVOIR RECREATION DEVELOPMENT PLAN ³ (REVISED 1969)	LOS BANOS RESERVOIR RECREATION DEVELOPMENT PLAN ⁴ (1971)	BOATING PLAN, SAN LUIS RESERVOIR STATE RECREATION AREA ⁵ (1972)	SAN LUIS RESERVOIR STATE RECREATION AREA, GENERAL DEVELOPMENT PLAN ⁶ (REVISED 1973)	AMENDMENT TO GENERAL PLAN ⁷ (1985)
General Information	<p>Recommends acquisition of 13 recreation areas totaling 3,308 acres due to increasing recreational demands (to exceed 4,000,000 visitor-days annually by 2020).</p> <p>Of the 3,308 acres, 768 acres would be specifically for recreational purposes.</p>	<p>Plan for recreational development and facilities at Basalt and San Luis Creek Areas. Future development recommended to occur based on demand with continued emphasis on the bulk of day-use facilities located at the forebay and day-use and camping at main reservoir. Future concession areas on the western shore of the main reservoir could be restaurants and motels. Fishing would be allowed and waterfowl hunting possible.</p>	<p>Plan for staged recreational development of Los Banos Creek Reservoir Area. Plan describes initial development and future development for each decade up to 2020 to accommodate estimated use of 425,000 visitor-days annually. Recreation to include swimming, picnicking, fishing, non-power boating, riding, hiking, camping, and possibly some hunting.</p> <p>Of the 2,666-acre project area, 760 acres have been set aside for fish and wildlife mitigation.</p>	<p>Plan based on Los Banos Creek Reservoir Recreation Development Plan (Revised 1969) and on a memorandum report prepared by the Department of Fish and Game (March 1967, rev. March 1970).</p> <p>Development proposed in 1969 Plan is affirmed and will depend on visitation demands.</p> <p>Includes a Department of Fish and Game proposed corrective fish stocking plan and reference to a wildlife conservation plan for the area.</p>	<p>Plan for development of boating facilities including boating capacities and speed limits, and allowable recreational activities. Major water recreational activities of the lake will consist of fishing, pleasure cruising, water-skiing, sailing, and swimming.</p>	<p>Focuses on development of O'Neill Forebay Unit for all-year recreational use. Proposed development includes a pedestrian interchange over SR 152 to connect the O'Neill Forebay and San Luis Reservoir Units, a comprehensive trail system to provide lakeshore access for fishermen and hikers, paved bicycle trails, and a horse trail between the San Luis Reservoir and the Los Banos Reservoir.</p>	<p>Proposes to change the undesignated land use of the northern portion of the O'Neill Forebay Unit to allow day and overnight use of the Meadows and Grant Line Areas.</p>

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San Luis Creek	<ul style="list-style-type: none"> • 3 Camping Areas (130 acres total) • 2 Picnic Areas (365 acres) • Beach Area (24 acres) • Boat Launching Area (10 acres) • Concession Areas (20 acres) • Administrative Buildings (6 acres) • Buffer Zone (267 acres) 	<p>Picnicking, swimming, group activities, boating and concession facilities (e.g., facilities to dock boats and dispense fuel, fishing tackle, bait) (822 acres)</p>			<ul style="list-style-type: none"> • Boat Launching (3 lanes for day-use area; 4 lanes for boat-in area) • Boat-in Camping Area (100 units) • Swimming Beach • Water Ski Beach 	<ul style="list-style-type: none"> • All-year picnicking, swimming, boat launching, and bank fishing. • Staff Housing and Day-Use Facilities • Parking for cars (642 spaces) and cars with boat trailers (133 spaces) • Access Road (1.5 miles) • Picnic Areas (329 tables and 251 stoves) • 2 Beaches (4 acres each) • Children's Play Areas • Boat Launching Ramp • Lifeguard Tower • Fish Cleaning Table • State Patrol Boathouse • Sanitary Facilities • Utilities • Landscaping 	

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Medeiros	<ul style="list-style-type: none"> • Picnic Area (130 acres) • Boat Launching Ramp and Parking Area (10 acres) • Beach Area (24 acres) • Concessions (5 acres) • Buffer Zone (61 acres) 				<ul style="list-style-type: none"> • Boat Launching (4 lanes) • Marina • Concessions • Facilities Storage Area • Parking Area 	<ul style="list-style-type: none"> • Existing camping area with temporary picnic facilities • Marina for boat mooring, servicing, and equipment sales • Concessions • Permanent Picnic Facilities • Restaurant and Motel • RV Camping Area with complete utility hookups • Campground without utility hookups also considered 	
Basalt	<ul style="list-style-type: none"> • Picnic Area (130 acres) • Beach and Boat Launching Areas (45 acres) • Refreshment Stands and Rental Facilities (20 acres) • Three Overlook Areas (15 acres) • Administrative Area (15 acres) 	Camping, picnicking, swimming, boating, concession facilities, and an overlook (925 acres)			<ul style="list-style-type: none"> • Boat Launching (3 lanes for area to the west; 9 lanes for area to the east) • Boat-in Day-Use Facilities • Picnic Area with Tables and Stoves • Water Ski Beach • Designated Swimming Beach 	<ul style="list-style-type: none"> • Family Campground (100 units) • Hot water showers • Laundry • Group Campsite • Ranger Residence • Entrance Kiosk • 3 Parking Areas along access road for shoreline access • Recreational Swimming Pool • Access road 	

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	<ul style="list-style-type: none"> • Buffer Zones (450 acres) • Camping Area (250 acres) 					connecting existing Boat Launching Ramp and Parking Area for cars with boat trailers (149 spaces) to State Highway.	
Dinosaur Point	Concession development (camping, refreshment stands, and recreation services)				<ul style="list-style-type: none"> • Boat Launching (2 lanes) • Boat-in Day-Use Facilities • Boat-in Day-Use Facilities • Picnic Area with Tables and Stoves • Water Ski Beach • Designated Swimming Beach 	<ul style="list-style-type: none"> • Parking Area • Boat Launching • Comfort Station • Concession-operated Facility • Shoreline Trail for riding and hiking to Basalt Area • Staff Housing 	
Los Banos Creek			<ul style="list-style-type: none"> • Family Picnic Areas (20 temporary units, 290 units) • 2 Group Picnic Areas • Family Camping Area (160 units) • 1 Group Camping Area • 2 Beach Areas (3 acres total) • Boat Ramp (2 	Minor changes to specifications in 1966/1969 plan: <ul style="list-style-type: none"> • 1 or more concessionaires (providing boat rentals, fishing supplies, snacks, groceries and other items) • Access Road • Internal roads 			

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			<ul style="list-style-type: none"> lanes) • Boating Facilities • Concession Area • 15-mile Trail System • 3-acre Pond (plateau above Padre Arroyo Flat) • Equestrian Area on La Plata (plateau above Padre Arroyo Flat) • 4 Vista Points • Amphitheater (La Plata) • 5.5-mile paved access road between SR 152 and entrance kiosk • Internal roads • Parking Areas (605 units) <ul style="list-style-type: none"> • Utilities • Entrance Kiosk • Temporary Staff Residence Area <ul style="list-style-type: none"> • Permanent Staff Residence • Sanitary Facilities 	<ul style="list-style-type: none"> • Revised cost estimates for Parking Areas, Utilities, and Temporary Staff Residence area • Amphitheater (La Plata) no longer included 			
Honker Bay	Concessions					• Boat Access	

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	providing boat rentals, boat mooring, and other recreational services					• Picnic Area	
Quien Sabe Point	• Picnic Area (29 acres) • Buffer Zone (21 acres)					• Boat Hazard Warning Device • Walk-in day use with access by trail only	
Golden Eye	• Overnight Camping (79 acres) • Buffer Zones (45 acres)					• Stop-off Area along riding/hiking trail • Primitive Camping Area • Boat Access not desirable except at full pool	
Harper Lane	• Camping Area (65 acres) • Buffer Zone (55 acres)					• Primitive Camping (few sites)	
Coyote Springs	• Group Camping with Boat Access Only (75 acres) • Buffer Zone (90 acres)				• Boat-in Overnight Use • Camping Area • Swimming Beach • Water Ski Beach	Major Equestrian Camp	

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Whistler Point	<ul style="list-style-type: none"> • Group Camping with Boat Access Only (32 acres) • Buffer Zone (38 acres) 				<ul style="list-style-type: none"> • Boat-in Overnight Use • Camping Area • Swimming Beach • Water Ski Beach 	Boat and Trail access Camping	
Romero Overlook	<ul style="list-style-type: none"> • Views from dam site and reservoir • Parking Area (2 acres) 				<ul style="list-style-type: none"> • Boat Launching (3 lanes) • Boat-in Day-Use Facilities • Boat-in Day-Use Facilities • Picnic Area with Tables and Stoves • Water Ski Beach • Designated Swimming Beach 	<ul style="list-style-type: none"> • Permanent Public Information Building • Boat Hazard Warning Devices 	
San Luis Gonzaga	<ul style="list-style-type: none"> • Concession-developed trailer park (135 acres) • Buffer Zone (85 acres) 						
Wolfsen	<ul style="list-style-type: none"> • Group Camping Area (54 acres) • Buffer Zone (26 acres) 						

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San Luis Pumping Plant and Generating Plant						Existing Visitor Information Room	
State Recreation Area Headquarters						<ul style="list-style-type: none"> • Existing Administration Building • Existing Storage Yard 	
Indian Point						Boat Hazard Warning Device	
Meadows							<ul style="list-style-type: none"> • Camping Area (170 sites) • Group Camp Area (25 sites) • Campfire Center • Ramadas • Comfort Stations • Utilities • Landscaping
Grant Line							<ul style="list-style-type: none"> • Boat-in day-use • Camping Facilities • Picnic Area (approx. 90 sites) • Ramadas • Courtesy Dock • Group Facilities • Comfort Stations • Beach

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							Improvements (grading and dredging) • Utilities • Landscaping
Pacheco					• Boat-in • Overnight Use • Camping Area • Swimming Beach • Water Ski Beach		
Mija					• Boat-in • Overnight Use • Camping Area • Swimming Beach • Water Ski Beach		

Sources:

¹ Resources Agency of California, Department of Water Resources. 1962. *Recreation Land Use and Acquisition Plan*. June.

² Resources Agency of California, Department of Water Resources. 1965. *San Luis Reservoir and Forebay Recreation Development Plan*. May.

³ Resources Agency of California, Department of Parks and Recreation, Division of Beaches and Parks. [1966] 1969. *Los Banos Creek Reservoir Recreation Development Plan*. November 1966, Revised December 1969.

⁴ Resources Agency of California, Department of Water Resources. 1971. *Los Banos Reservoir Recreation Development Plan*. April.

⁵ Resources Agency of California, Department of Navigation and Ocean Development. 1972. *Boating Plan, San Luis Reservoir State Recreation Area*. March.

⁶ Resources Agency of California, Department of Parks and Recreation, Design & Construction Division. [1971] 1973. *San Luis Reservoir State Recreation Area, General Development Plan*. November 1971, Revised 1973.

⁷ Resources Agency of California, Department of Parks and Recreation. 1985. *Amendment to General Plan*. December.

Recreation-Related Agreements and Reports

Date Unknown

Design Analysis for 1972-1973 Capital Outlay Budget Request, San Luis Reservoir State Recreation Area

This analysis describes the completion of the third and final phase of the day use area at the San Luis Creek Section of O'Neill Forebay, the 4.5-mile access road from State Route 152 to the existing boat launching ramp in the Basalt Area, a boat hazard warning device for the Romero Overlook and Quien Sabe Point on San Luis Reservoir, and for Indian Point on O' Neill Forebay. Following the description of the project, the analysis provides explanations of the design features of these facilities.

May 1967

San Luis Unit West San Joaquin Division. Detailed Reports on Fish and Wildlife Resources Affected by Pumping and Reservoir Aspects of the Project (Attachments No. 3 and 4).

Attachment No.3 (May 1, 1967) is a detailed report on the effects that the Los Banos and Little Panoche flood detention reservoirs will have on fish and wildlife.

Attachment No.4 (May 9, 1967) is a detailed report on the effects San Luis Reservoir, O'Neill Forebay, and San Luis Canal will have on fish and wildlife.

Both reports contain assessments of existing fish and wild life environments and populations and estimates of project impacts on fish and wildlife, and both include recommendations to mitigate and minimize impacts.

April 8, 1969 (Amended July 2, 1982)

Agreement between the United States of America and the State of California for the Construction and Operation of the Initial Recreation Facilities of the San Luis Unit (Contract No. 14-06-200-4353A).

This Agreement provides for the construction and operation of initial recreation facilities at the San Luis Unit. The unit includes San Luis Reservoir, O'Neill Forebay, Los Banos Detention Reservoir, and San Luis Canal. The Agreement defines the initial recreation facilities, the construction of those facilities, and the limit of expenditures for the development of the facilities, \$6,700,000 (1982 amendment revised the limit to \$7,120,000). The agreement also outlines park limitations and requirements for water use, quality of water, and water pollution control. In addition, the agreement requires the development of an Area Management Plan to maximize the recreation and fish and wildlife enhancement uses in the recreation area.

July 1982

Amendment No. 1 to Agreement between the United States of America and the State of California Dated April 8, 1969 (Contract No. 14-06-200-4353A Amendment No. 1).

This Amendment acknowledges that the funds provided in the 1969 Agreement are not sufficient to close the construction account for the initial recreation facilities built in

accordance with the Agreement. The first sentence of Article 4(a) of the Agreement was revised and the Agreement was amended such that the United States and the Department will provide \$7,120,000 to complete the initial recreation facilities and close the construction account for the San Luis Unit.

September 1999

Management of the California State Water Project, Appendix D: Costs of Recreation and Fish and Wildlife Enhancement (Bulletin 132-96).

This Report constitutes the Department of Water Resources (DWR) report to the California State Legislature regarding project costs that are allocated to recreation and fish and wildlife enhancement and for acquiring property for recreation development, as required for reimbursement under the Davis-Dolwig Act. An increase of \$12,078,995 for recreation and fish and wildlife enhancement is reported, resulting from costs incurred for the 1995 calendar year, additional accrued interest due to an increase in the interest costs of bonds sold, and additional disbursements for joint capital costs allocated to recreation and enhancement. The report details fish and wildlife enhancement costs and includes comments by the Department of Boating and Waterways, the Department, and DFG.

Letters (Re: Los Banos Creek Reservoir)

March 15, 1974

Letter to Mr. William P. Mott, Jr., Director, Department of Parks and Recreation, from J. Robert Hammond, Assistant Regional Director, Bureau of Reclamation (Attachment No. 5b).

This letter refers to letters dated January 29, 1974, and February 19, 1974. The letter requests the reply and concurrence of the Department in regard to the plan, which would add the balance of the Los Banos Reservoir area lands to the lands covered by Management Agreement No. 1406-200-4353A and deletes the proposed Santa Nella site below O'Neill Forebay. The letter further requests a reply prior to the San Luis Wildlife Agreement Team meeting (April 17, 1974).

May 3, 1974

Letter to Mr. Robert Hammond, Assistant Regional Director, Bureau of Reclamation, from William Penn Mott, Jr., Director, Department of Parks and Recreation (Attachment No. 5c).

This letter refers to the proposal whereby the lands at Los Banos Reservoir that were obtained for wildlife mitigation purposes would be added to the lands covered by the Management agreement No. 14-06-200-4353A, and which would delete from that agreement the Santa Nella site below O'Neill Forebay. The letter states the Department's approval of the proposal.

December 13, 1991

Letter to Roger K Patterson, Regional Director, Bureau of Reclamation, from Kenneth L Mitchell, Chief, Acquisitions Division, Department of Parks and Recreation (Control No.9 10234 10, Folder I.D.5163).

This letter refers to additional lands to be added to Contract No. 14-06-200-4353A. The letter states that the enclosed is a signed letter of intent to add the 760 acres of land at Los Banos Reservoir to San Luis Creek SRA under Contract No. 14-06-200-4353A.

October 28, 1991

Letter to State of California Department of Parks and Recreation from Roger K Patterson, Regional Director, Bureau of Reclamation (MP-401, LND-8.00).

This letter states the intent of Reclamation to revise the Recreation Area at Los Banos Reservoir to be managed by the Department under the terms of Contract No. 14-06-200-4353A. The purpose of this letter is to revise the recreation area for Los Banos Reservoir by adding the former wildlife mitigation area to the recreation area lands at the reservoir.

Wildlife Agreements and Plans

December 1973

Wildlife Habitat Plan for the California Aqueduct in the San Joaquin Valley Memorandum Report

This Report, prepared by DWR, San Joaquin District, details the general plan for development of wildlife habitat adjacent to the California Aqueduct in the San Joaquin Valley and the guidelines developed to govern the preparation of future plans to ensure that suitable habitat is provided and safety, operational, and maintenance requirements of the project are satisfied. The Report details the lands subject to possible wildlife habitat development, experiences with test plots, current activities in the areas subject to possible wildlife habitat development operational requirements, plants suitable for habitat development and the general plan for further development. In addition, the Report includes several figures detailing the project area and landscape.

August 16, 1974

Agreement among the State of California Department of Water Resources, the State of California Department of Fish and Game, and the U.S. Bureau of Reclamation for the Development, Management, and Maintenance of Wildlife Habitat on Project Lands Adjacent to the California Aqueduct in the San Joaquin Valley.

This Agreement states that DWR, the Department, and Reclamation agree to the development, management, and maintenance of wildlife habitat on project lands adjacent to the California Aqueduct in the San Joaquin Valley in accordance with the criteria, guide lines, and general wildlife habitat development plan set forth in the DWR memorandum report entitled, "Wildlife Habitat Plan for the California Aqueduct in the San Joaquin Valley," dated December 1973. The Agreement further states that DFG, in the case that contract labor is required, agrees to incorporate the "Work Hours Standards Act Provision" and any other required articles, and "that any work, requiring funding is contingent upon appropriation or allotment of those funds and no official will be allowed to benefit from the project".

March 3, 1976

Agreement Among the United States of America, the Department of Fish and Game of the State of California, and the Department of Water Resources of the State of California for the Administration and Operation of Wildlife Lands at San Luis Reservoir, O'Neill Forebay, and Utile Panoche Reservoir (Contract No. 14-06-200-7451A).

This Agreement is a 50-year agreement between the United States, DFG, and DWR with the purpose of providing the basis for protecting, preserving, or replacing pre-project wildlife populations at San Luis Reservoir, Los Banos Reservoir, and Little Panoche Reservoir. Under the terms of the Agreement, DFG is authorized to exercise limited control of certain lands of the San Luis facilities for wildlife purposes defined under Article 2(e). The administration and operation provisions detail the substitution of lands in the General Plan: DFG's authority and responsibility; the Development, Operation, and Maintenance Plans for lands at the San Luis Reservoir, O'Neill Forebay, and Little Panoche Reservoir, supply, use, and measure of water, financial provisions, and general provisions. Included in the Agreement are the construction schedule and figures detailing the affected areas.

Transportation and Utilities Agency Agreements

California Department of Transportation

October 12, 1956

Contract and Grants of Easements Covering Crossings of State of California Highway Facilities and Features of Central Valley Project.

This Agreement between the Reclamation and the State of California allows both parties perpetual joint use of areas within the right of way of either party at each of the crossings of the parties' respective facilities. The Agreement details the provisions and limitations of joint use of common areas, as well as the areas subject to the agreement at the time it was written. Finally, included in attachment to the Agreement are several resolutions passed by affected irrigation and utilities districts, all of which approve the Agreement.

June 21, 1968

Contract for Box Culvert Construction and Joint Use of Right of Way of Highway Route 152 (10 Mer 152) San Luis Drain. Central Valley Project, San Luis Unit (U.S. Contract No. 14-06-2003765A).

This Agreement between Reclamation and the State allows Reclamation to construct, operate, and maintain the San Luis Drain where it crosses land previously acquired by the State for the Right of Way for State Highway Route 152 (10 Mar 152). Furthermore, the Agreement states that the State will coordinate the construction of the affected section of the San Luis Drain, for which it will be fully reimbursed by right-of-way. The Agreement details the affected area and construction schedule and payment/reimbursement provisions.

Pacific Gas & Electric

February 8, 1951

Contract for Relocation of Certain Facilities of Pacific Gas and Electric Company and for Crossings of Right of Ways. United States Department of the Interior, Bureau of Reclamation. Central Valley Project, California (U.S. Symbol and No. 175r-2602).

This Agreement between Reclamation and PG&E states that PG&E will allow Reclamation the use of land in its right of way, and furthermore will relocate existing facilities, when requested by Reclamation, out of necessity for facilities associated with the Central Valley Project. The Agreement details the conditions under which Reclamation can request right of way, the details of right of way transfer, the responsibility for operations and maintenance following right of way transfer and facility construction, and all provisions for payment.

April 24, 1953

Supplement to Contract for Relocation of Certain Facilities of Pacific Gas and Electric Company and for Crossings of Rights of Way (U.S. Symbol and No. I75r-2606).

This Supplement expands the list of facilities covered under the previous agreement to include Folsom Power Plant, Nimbus Dam and Reservoir, the Folsom-Elverta 230kV transmission line, the Folsom-Nimbus interconnecting lines and access road, and the water distribution and lateral systems of respectively, the Madera Canal, the Contra Costa Canal, and the Delta-Mendota Canal.

December 23, 1953

Second Supplement to Contract for Relocation of Certain Facilities of Pacific Gas and Electric Company and for Crossings of Rights of Way (U.S. Symbol and No. I75r-2602).

This Supplement expands the list of facilities covered under the previous agreement and supplement to include the Sacramento Canals Unit of the Central Valley Project and the Solano Project of the United States.

May 1, 1957

Third Supplement to Contract for Relocation of Certain Facilities of Pacific Gas and Electric Company and for Crossings of Rights of Way (U.S. Symbol and No. 175r-2602).

This Supplement expands the list of facilities covered under the previous agreement and supplements and expands the nondiscrimination protections previously placed on hiring and employment. Finally, this supplement adds requirements governing working hours and conditions.

October 13, 1960

Fourth Supplement to Contract for Relocation of Certain Facilities of Pacific Gas and Electric Company and for Crossings of Rights of Way (U.S. Symbol and No. I75r-2602).

This Supplement expands the list of facilities covered under the previous agreement and supplements, and it updates the provisions of paragraph 12, Grant of License or Consent.

February 21, 1963

Fifth Supplement to Contract for Relocation of Certain Facilities of Pacific Gas and Electric Company and for Crossings of Rights of Way (U.S. Symbol and No. I75r-2602).

This Supplement expands the list of facilities covered under the previous agreement and supplements, and it expands the nondiscrimination protections placed on hiring and employment

October 10, 1966

Sixth Supplement to Contract for Relocation of Certain Facilities of Pacific Gas and Electric Company and for Crossings of Rights of Way (U.S. Symbol and No. I75r-2602).

This Supplement expands the list of facilities covered under the previous agreement and supplements, and it expands the nondiscrimination protections placed on hiring and employment.

March 24, 1976

Seventh Supplement to Contract for Relocation of Certain Facilities of Pacific Gas and Electric Company and for Crossings of Rights of Way (U.S. Symbol and No. I75r-2602).

This Supplement expands the list of facilities covered under the previous agreement and supplements, the nondiscrimination protections placed on hiring and employment, and the restrictions governing working hours and conditions.

Standard Oil

March 1, 1947

Contract for Protection, Alternation, Re-arrangement, and/or Relocation of Certain Facilities of Standard Oil Company of California (175r1328).

This Agreement between Reclamation and the Standard Oil Company of California states that Standard Oil will allow Reclamation the use of land in its right of way and furthermore will relocate existing facilities, when requested by Reclamation out of necessity for facilities associated with specified projects under the Central Valley Project. The Agreement states that Reclamation will attempt to avoid all disruption to Standard Oil pipelines: in the case that disruption is necessary, Reclamation will permit Standard Oil to lay temporary pipelines to provide service during interruptions. The Agreement also details the payment of costs and expenses, rights of way and consent for joint rights of way, conveyance of relocated rights of way, and general terms of the agreement.

March 17, 1948

Resolution by the Standard Oil Company of America.

This Resolution states that the President, any Vice President, Treasurer, or CE. Bultman (contract agent), together with the Secretary or Assistant Secretary, is empowered to execute all papers required by Standard Oil. Exempted are oil leases to others covering fee lands and deeds conveying real estate other than rights of way and similar easements.

April 26, 1951

Amendment of Contract for Protection, Alteration, Rearrangement, and/or Relocation of Certain Facilities of Standard Oil Company of California (175r1328).

This Amendment expands the list of projects covered under the previous agreement (Paragraph 2) to include other features of the Central Valley Project expands the provisions of "Right of Way or Consent to Joint Use of Right of Way" (Paragraph 13); and expands the Agreement's protections against benefit by Delegates and Commissioners through projects resulting from the Agreement.

May 10, 1951

Resolution by the Standard Oil Company of California.

This Resolution states that the President, any Vice President, Treasurer, or CEO Bultman (contract agent), together with the Secretary or Assistant Secretary, is empowered to execute all papers required by Standard Oil. Exempted are oil leases to others covering fee lands and deeds conveying real estate other than rights of way and similar easements. This resolution reaffirms the resolution made March 17, 1948.

September 25, 1962

Third Amendment of Contract for Protection, Alteration, Rearrangement, and/or Relocation of Certain Facilities of Standard Oil Company of California (175r1328).

This Amendment expands the list of facilities covered under the previous amendment (Paragraph 2), expands protections against covenant fees (Paragraph 15), expands the conditions requiring appropriation of funds (Paragraph 16), and expands protections ensuring nondiscrimination in employment (Paragraph 18).

December 14, 1962

Resolution by the Standard Oil Company of California.

This Resolution states that the President, any Vice President, Treasurer, or CEO Bultman (contract agent), together with the Secretary or Assistant Secretary, is empowered to execute all papers required by Standard Oil. Exempted are oil leases to others covering fee lands and deeds conveying real estate other than rights of way and similar easements. This resolution reaffirms the resolution made March 23, 1961.

August 28, 1963

Consent to Crossing by an Electrical Transmission Line over Facilities of Standard Oil Company of California.

This Agreement details the consent by Standard Oil to allow Reclamation to construct and perpetually operate and maintain an electric transmission line through its right of way in Contra Costa County, California. Consent is subject to the condition that the United

States may not interfere with the operations of Standard Oil as they are now conducted and may not place any pole or tower or footing on Standard Oil right of way.

January 9, 1968

Easement to Standard Oil Company of California.

This Indenture provides Standard Oil with rights of way for pipeline relocated during construction of features of the San Luis Unit (San Luis Canal) by the United States. This document details the easement in Merced County to be granted to Standard Oil, the acceptable future uses by Standard Oil, and the conditions of use and transfer.

January 9, 1968

Perpetual License for Joint Use of Right of Way.

This document grants the United States a license for construction and perpetual operation and maintenance of the San Luis Canal on a parcel of land owned by Standard Oil, detailed in the document. This license is granted by Standard Oil under provisions of the Contract for Protection, Alteration, Rearrangement, and/or Relocation of Certain Facilities of Standard Oil Company of California (March 1, 1947).

January 9, 1968

Quitclaim Deed.

This document releases, remises, and quitclaims to Reclamation the right, title, and interest as granted to Standard Oil Company and Standard Gasoline Company. The document further details the parcel of land in question.

August 29, 1968

Easement to Standard Oil Company of California.

This Indenture provides Standard Oil with rights of way for pipe line relocated during construction of features of the San Luis Unit (San Luis Canal) by Reclamation. This document details the easement in Merced County to be granted to Standard Oil, the acceptable future uses by Standard Oil, and the conditions of use and transfer.

August 9, 1968

Perpetual License for Joint Use of Right of Way.

This document grants the United States a license for construction and perpetual operation and maintenance of the San Luis Canal on a parcel of land owned by Standard Oil, detailed in the document. This license is granted by Standard Oil under provisions of the Contract for Protection, Alteration, Rearrangement, and/or Relocation of Certain Facilities of Standard Oil Company of California (March 1, 1947).

August 29, 1968

Quitclaim Deed.

This document releases, remises, and quitclaims to the United States the right, title, and interest as granted to Standard Oil Company and Standard Gasoline Company. The document further details the parcel of land in question.

Miscellaneous Agreements

December 11, 1984

Agreement for Temporary Water Service, Transportation, and Utilization to Provide Wildlife Habitat Related to the San Luis Drain.

This agreement between the State, Reclamation and U.S. Fish and Wildlife Service made water temporarily available to be used to manage and maintain waterfowl habitat and grassland in the San Joaquin Basin.

Operations and Maintenance Agreements and Reports

January 12, 1972 (Amended September 4, 1991)

Supplemental Agreement between the United States of America and State of California for the Operation of the San Luis Unit (Supplement No. 1).

This agreement is a supplement to the original agreement of December 30, 1961, between the two parties, which provides that the State shall operate and maintain the San Luis Unit facilities, but leaves for future agreement, details relating to operation and maintenance. This supplemental agreement provides those details concerning operation and maintenance of O'Neill Forebay, San Luis Reservoir, Dos Amigos Pumping Plant, San Luis Canal, and detention dams and associated reservoirs. The agreement also identifies "operational requirements associated with power supply and generation; exchange of water, power, and capacities; reactive power; state operation of federal-only facilities; emergencies; federal participation in operation, maintenance, and replacement; water measurement responsibilities, water quality responsibilities and monitoring; power measurement responsibilities; federal water contractors; replacement water and mitigation responsibilities; visitor accommodations; various costs; and employment." The 1991 amendment revised Sub-article 25(b) in the agreement.

September 4, 1991

Amendment No. I to the Supplemental Agreement Between the United States of America and the Department of Water Resources of the State of California for the Operation of the San Luis Unit (Supplement No.1).

This Amendment revises a sub-article of the prior Agreement, while otherwise continuing the agreement "in full force and effect." Specifically, this Amendment revises Sub-article 25(b) of the Agreement by deleting "and (4) into the Coalinga Canal" and by adding "and" prior to (3) in that sub-article.

March 19, 1996

Concession Contract. Cattle Grazing. Located at San Luis Reservoir State Recreation Area. Medeiros Area in Merced County.

This is a legal contract between the State and Chet Vogt, granting Mr. Vogt the right, privilege, and duty to graze cattle on an approximately 1,000-acre tract of the Medeiros Area located south of O'Neill Forebay, for a period of 8 months. Attached to the contract is a CEQA project evaluation.

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Appendix B

Biological Survey Forms and Project Area Vegetation

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Biological Survey Forms

The following forms are from reconnaissance-level field surveys by EDAW in September 2002 and June 2003.

San Luis Reservoir State Recreation Area Survey Form	
Date: <u>September 12, 2002</u> Surveyors: <u>Leo Edson, Linda Leeman</u>	
Park: <input type="checkbox"/> Pacheco SP <input type="checkbox"/> SLR <input checked="" type="checkbox"/> LBC <input type="checkbox"/> other: _____	
Survey location: <u>Los Banos Reservoir</u>	
Water feature type: <input type="checkbox"/> stockpond <input type="checkbox"/> intermittent drainage <input type="checkbox"/> perennial stream <input type="checkbox"/> lacustrine <input checked="" type="checkbox"/> other: <u>Artificial wetland (overflow/leakage from dam)</u>	
Map ID #: <u>LB-1</u> Photo #: <u>Ø</u>	
Weather	
Time: <u>1020</u>	
Air Temp: <u>80°</u>	
Wind Speed: <u>Ø</u>	
Cloud Cover: <u>Ø</u>	
Vegetation Adjacent to Water Feature	
<input checked="" type="checkbox"/> grassland <input type="checkbox"/> oak woodland <input checked="" type="checkbox"/> riparian woodland (circle dominant trees: willow, cottonwood, sycamore, mixed) <input type="checkbox"/> freshwater marsh <input type="checkbox"/> vernal pool <input type="checkbox"/> other: _____	
Notes: <u>mulefat</u>	
Site Quality	
Degradation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Evidence of cattle? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Evidence of pigs? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Grazing? <input type="checkbox"/> Severe <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> None Weed infestation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Species: _____	
Notes: _____	
Special-status Amphibians/Reptiles	
Foothill Yellow-legged Frog Observed during survey? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, number of individuals: _____ Size class observed: _____ Suitable habitat present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cobble? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Shallow, flowing water? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
California Red-legged Frog Observed during survey? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, number of individuals: _____ Size class observed: _____ Suitable habitat present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Slow water? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Permanent water in area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Riparian veg <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Submergent or emergent veg? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
California Tiger Salamander Suitable habitat present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Temp. pools? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Fish present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Western Spadefoot Suitable habitat present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Temp. pools? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Fish present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Western Pond Turtle Observed during survey? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, number of individuals: _____ Size class observed: _____ Suitable habitat present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Slow water? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Basking sites? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Other wildlife observations/comments: <u>Bass observed in pond.</u>	
_____ _____ _____ _____	
San Luis Reservoir SRA Resource Management Plan/Preliminary General Plan B-1	

San Luis Reservoir State Recreation Area Survey Form

Date: 8 June 2003 **Surveyors:** Edson

Park: Pacheco SP SLR LBC other: _____

Survey location: Medeiros use area located on the south shore of the O'Neill Forebay

Water feature type: stockpond intermittent drainage perennial stream
 lacustrine other: N/A

Map ID #: SL-1 **Photo #:** _____

Weather	
Time:	_____
Air Temp:	_____
Wind Speed:	_____
Cloud Cover:	_____

Vegetation Adjacent to Water Feature

grassland oak woodland riparian woodland (circle dominant trees: willow, cottonwood, sycamore, mixed)
 freshwater marsh vernal pool other: _____

Notes: An adult Swainson's hawk was observed perched on a fence post approximately 1/4-mile south of the forebay shoreline.

Site Quality

Degradation ? Yes No **Evidence of cattle?** Yes No **Evidence of pigs?** Yes No
Grazing? Severe Moderate None **Weed infestation?** Yes No **Species:** _____

Notes: Grazing activity limited to the area south of the Mediros use area.

Special-status Amphibians/Reptiles

Foothill Yellow-legged Frog
Observed during survey? Yes No If yes, number of individuals: _____ Size class observed: _____
Suitable habitat present? Yes No Cobble? Yes No Shallow, flowing water? Yes No

California Red-legged Frog
Observed during survey? Yes No If yes, number of individuals: _____ Size class observed: _____
Suitable habitat present? Yes No Slow water? Yes No Permanent water in area? Yes No
Riparian veg Yes No Submergent or emergent veg? Yes No

California Tiger Salamander
Suitable habitat present? Yes No Temp. pools? Yes No Fish present? Yes No

Western Spadefoot
Suitable habitat present? Yes No Temp. pools? Yes No Fish present? Yes No

Western Pond Turtle
Observed during survey? Yes No If yes, number of individuals: _____ Size class observed: _____
Suitable habitat present? Yes No Slow water? Yes No Basking sites? Yes No

Other wildlife observations/comments: This was the only Swainson's hawk observed at Medeiros. At least one Swainson's hawk was also observed at O'Neill Forebay, where they have been documented as nesting in previous years.

B-2

San Luis Reservoir SRA
Resource Management Plan/Preliminary General Plan

**San Luis Reservoir State Recreation Area
Survey Form**

Date: 8 June 2003 **Surveyors:** Edson

Park: Pacheco SP SLR LBC other: _____

Survey location: Medeiros use area located on the south shore of the O'Neill Forebay

Weather
Time: _____
Air Temp: _____
Wind Speed: _____
Cloud Cover: _____

Water feature type: stockpond intermittent drainage perennial stream
 lacustrine other: _____

Map ID #: SL-2 **Photo #:** _____

Vegetation Adjacent to Water Feature
<input type="checkbox"/> grassland <input type="checkbox"/> oak woodland <input checked="" type="checkbox"/> riparian woodland (circle dominant trees: willow, cottonwood, sycamore, mixed)
<input checked="" type="checkbox"/> freshwater marsh <input type="checkbox"/> vernal pool <input type="checkbox"/> other: _____
Notes: <u>The shoreline has a nearly contiguous, narrow band of willows. Patches of emergent vegetation (dominated by cattails and tules) are present at several locations. The only large area of emergent vegetation at Medeiros is found in a large depression, possibly artificial, that is located adjacent to the forebay and just east of the overhead transmission lines.</u>

Site Quality
Degradation ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Evidence of cattle? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Evidence of pigs? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Grazing? <input type="checkbox"/> Severe <input type="checkbox"/> Moderate <input checked="" type="checkbox"/> None Weed infestation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Species: _____
Notes: <u>Degradation limited to roads and vegetation management activities.</u>

Special-status Amphibians/Reptiles
Foothill Yellow-legged Frog Observed during survey? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, number of individuals: _____ Size class observed: _____ Suitable habitat present? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Cobble?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Shallow, flowing water?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
California Red-legged Frog Observed during survey? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, number of individuals: _____ Size class observed: _____ Suitable habitat present? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Slow water?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Permanent water in area?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Riparian veg</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Submergent or emergent veg?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
California Tiger Salamander Suitable habitat present? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Temp. pools?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Fish present?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
Western Spadefoot Suitable habitat present? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Temp. pools?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Fish present?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No
Western Pond Turtle Observed during survey? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, number of individuals: _____ Size class observed: _____ Suitable habitat present? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Slow water?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No <i>Basking sites?</i> <input type="checkbox"/> Yes <input type="checkbox"/> No

Other wildlife observations/comments: _____
Approximately 1,000 tricolored blackbirds observed during this one-day survey. Most were found in groups of 50+ foraging along the shoreline or perched in the cottonwoods and willows. Approximately 200 were found nesting in the depression described above. Many fledging were observed in the willows surrounding the depression. Adults returning with food to the emergent marsh indicated that some of the nestling had not yet fledged their nests.

Project Area Vegetation

The following describes the vegetation of San Luis Reservoir State Recreation Area and the DFG-managed wildlife areas. These areas include land around San Luis Reservoir, the O'Neill Forebay, Los Banos Reservoir and the San Luis and O'Neill Forebay Wildlife Areas. The vegetation of these areas consists of riparian woodland, blue oak woodland and savanna, coast live oak woodland, ornamental trees, California sagebrush scrub, grasslands, mesic herbaceous (wetland), iodine bush scrub (alkali sink scrub), and ruderal (non-native and weedy) plant communities. The grassland is the dominant vegetation of the park with the only woodland observed outside park boundaries on distant hills. The riparian woodland and mesic herbaceous types occur at the edge of the reservoirs and along watercourses. The iodine bush scrub occurs at Salt Spring, a tributary to Los Banos Reservoir. Where appropriate, the naming system used in *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995), was incorporated into the name of the vegetation types in this report.

Black Willow Riparian Woodland

Black willow riparian woodland occurs at the edges of San Luis Reservoir, Los Banos Reservoir, and O'Neill Forebay; along watercourses but below the level of high water at San Luis Reservoir; and along Los Banos Creek as it flows into Los Banos Reservoir. It also occurs at O'Neill Forebay Wildlife Area. The black willow riparian woodland is particularly well developed along Los Banos Creek immediately upstream from Los Banos Reservoir. It consists of black willow trees (*Salix goodingii*) trees, which are 8 to 12 inches in diameter at breastheight (4.5 feet, dbh) and up to 40 feet tall. The trees grow from 6 to 10 feet apart with a canopy cover that varies from 60 to 100 percent.

The shrub understory consists of mulefat (*Baccharis sp.*) and a few salt cedar plants (*Tamarix sp.*). Herbaceous species in the understory are dominated by crabgrass (*Cynodon dactylon*), cocklebur (*Xanthium strumarium*), and Italian thistle (*Carduus pycnocephalus*). Below the high water mark of San Luis Reservoir, black willow riparian scrub occurs in watercourses. The willow trees are able to survive inundation during years of normal rainfall and years of drought. These willows are able to persist from upstream runoff flowing in the watercourses for at least part of the spring and summer. The trees are typically 3 to 6 inches in diameter and 20 feet tall. During wet winters, the reservoir remains full for a long duration and the willow trees die because they cannot survive such prolonged inundation. This vegetation is generally thick, with 100 percent cover, but is narrow in width.

The riparian vegetation at the edge of the shore of the reservoirs includes a mixture of black willow, Fremont cottonwood (*Populus Fremontii*), western sycamore (*Platanus racemosa*), sandbar willow (*Salix exigua*), and mulefat. These species grow mostly sparsely along the edge of the shore of the reservoirs, but occasionally they will grow in clumps. The understory of these areas consists of mesic herbaceous vegetation. In some areas, broad-leaf pepper-grass (*Lepidium latifolium*) occurs beneath or at the edge of the canopy of the riparian trees.

California Sycamore Riparian Woodland

The California sycamore riparian woodland occurs in a limited area along one of the watercourses at San Luis Wildlife Area. This woodland consists of mature western sycamore trees growing in a sparse array along the watercourse. Canopy cover approximates 70 percent. The sycamores grow to 40 feet tall and at least 24 inches in diameter at breastheight (4.5 feet, dbh). The understory consists of coyote brush (*Baccharis pilularis*) and poison oak (*Toxicodendron diversilobum*).

Blue Oak Woodland and Savanna

The blue oak woodland and savanna occurs in San Luis Wildlife Area. Blue oak (*Quercus douglasii*) is the dominant tree of this woodland. An occasional coast live oak (*Quercus agrifolia*) also occurs in the blue oak woodland. The blue oak woodland occurs on the tops and sides of the ridges in small clumps. This cover of the blue oak woodland ranges from 80 to approximately 20 percent. Nevertheless, the blue oak woodland also grades into the blue oak and savanna vegetation type, which consists of a sparse cover of trees growing within grassland.

The understory of the blue oak woodland mostly consists of various species of non-native grasses and occasional native species of forbs (non-grassy plants). The non-native species of grass include wild oats (*Avena fatua*) and ripgut brome (*Bromus diandrus*). Blue dicks (*Dichelostemma capitatum*) and clarkia (*Clarkia* sp.) also occur in the understory. Understory shrubs include California sagebrush (*Artemisia californica*), redberry (*Rhamnus crocea*), and eriophyllum (*Enophyllum confertiflorum*).

Coast Live Oak Woodland

The coast live oak woodland occurs in San Luis Wildlife Area. It consists of both blue and coast live oak trees with California bay (*Umbellularia californica*), valley oak (*Quercus lobata*), and California buckeye (*Aesculus californica*). Stands of this woodland type are generally not very large and occur in the canyon bottoms and on the shadier slopes. This oak woodland is very similar to the blue oak woodland except that the blue oaks are much fewer.

The understory of the coast live oak woodland tends to support shrubs and forbs as opposed to grass. Species present in the understory include woodland sanicle (*Sanicula crassicaule*), blue wildrye (*Elymus glaucus*), miner's lettuce (*Claytonia perfoliata*), fiesta flower (*Pholistoma auritum*), chickweed (*Stellaria media*), sweet pea (*Lathyrus* sp.), and bedstraw (*Galium aparine*). Shrubs that occur in the understory are poison oak, toyon (*Heteromeles arbutifolia*), and redberry.

Ornamental Trees

Ornamental trees have been planted at the Basalt Campground, on the Madeiros site, and the picnic areas of the San Luis Creek site. These trees include red ironbark gum (*Eucalyptus sideroxylon*), allepo pine (*Pinus halpensis*), false pine (*Casurina* sp.), Chinese pistache (*Pistachia chinensis*), eucalyptus (*Eucalyptus* spp.), and others. The trees at Madieros are planted in a rectangular array, while those in the other areas conform to picnic tables or campsites.

Iodine Bush Scrub

Iodine bush scrub occurs at Salt Spring, a tributary to Los Banos Reservoir. This area is very distinctive because of the presence of water and the pronounced salt deposits along the banks of the watercourse. The vegetation occurs within the banks of the watercourse at Salt Spring. This vegetation is dominated by iodine bush (*Allenrolfea occidentalis*), quail bush (*Atriplex lentiformis*), alkali heath (*Frankenia salina*), and salt grass (*Distichlis spicata*). Other species present include bassia (*Bassia hyssopifolia*), Fitch's spikeweed (*Hemizonia fitchii*), and various species of saltbushes (*Atriplex* spp.).

California Sagebrush Scrub

California sagebrush scrub occurs on the shallow soils of hillsides above Los Banos Reservoir and Los Banos Creek in dry areas. It is dominated by California sagebrush (*Artemisia californica*) and California buckwheat (*Enogonum fasciculatum*). The cover of the California sagebrush scrub

varies between 25 and 50 percent and the height of the vegetation is generally less than 3 feet. The understory of the California sagebrush scrub mainly consists of grassland growing between the shrubs. The area beneath the shrubs is bare.

Mesic Herbaceous

Mesic herbaceous vegetation occurs in seeps, within watercourses, and at the edges of the reservoirs. It consists of species adapted to seasonally, as well as permanently, wet conditions. This mesic herbaceous vegetation consists of tall vegetation such as cattails and tules to short vegetation such as crabgrass and knotgrass (*Paspalum distichum*). The cattails (*Typha latifolia* and unidentified species) and tules (*Scirpus acutus* spp. *occidentalis*) grow in extensive patches along the edges of the reservoirs within standing water. These stands can be small patches 10 by 20 feet in size to several hundred feet long and 30 feet wide. Often water parsley (*Oenanthe sarmentosa*) and water smartweed (*Polygonum punctatum*) occur with the cattails and tules.

Mexican rush (*Juncus mexicanus*) commonly occurs at the edges of the reservoirs above the reservoir's edge. The iris-leaved rush (*Juncus xiphioides*) also occurs in watercourses, and seeps. The rushes often grow as dense mats of single species stands. Meadow barley (*Hordeum brachyantherum*) and creeping wildrye (*Leymus triticoides*) are adapted to drier conditions than the iris-leaved rush and grow at the edge of seeps and other wet areas.

Cocklebur often grows in dense aggregations at the areas where watercourses flow into stock ponds, and spiny clot-bur (*Xanthium spinosum*) occurs in low-density aggregations within drawdown and disturbed areas.

Seeps and watercourses often support water cress (*Rorippa nasturtium-aquaticum*) growing in areas of ponded water. Rabbit's foot grass (*Polypogon monspeliense*) and curly dock (*Rumex crispus*) also grow in wet areas onsite.

Grassland

The grassland vegetation type occurs extensively throughout the areas surrounding San Luis and Los Banos reservoirs and O'Neill Forebay. This grassland varies in height from a few inches and 25 to 50 percent cover in sites with shallow soils, to 1.5 feet and 100 percent cover in the sites with deeper soils.

Different species dominate the grassland in different areas. The occurrence of a particular species as a dominant may be the result of particular edaphic, climatic, and moisture conditions. Most of the dominants are non-native species but purple needlegrass (*Nasella pulehra*), a native species, occurs throughout the park in various densities. It occasionally grows as a dominant on the slopes of San Luis and Los Banos reservoirs. The other dominants include ripgut brome, hare barley (*Hordeum murinum* ssp. *leporinum*), wild oats (*Avena* sp.), and Italian ryegrass (*Lolium multiflorum*). Various species of tarweeds also occur in various densities ranging from low to high in the grassland. They also occur as dominant or subdominant species of small areas. The species of tarweeds are Fitch's spikeweed, common spikeweed (*Hemizonia pungens*), and San Joaquin tarweed (*Hololepta oregonia*). Big tarweed (*Blepharizonia plumosa* ssp. *viscida*) occasionally occurs in the grassland and vinegar weed (*Trichostemma lanceolatum*) often occurs as a subdominant in the grassland.

Some portions of the grassland are dominated by native species of grass. Often these native areas are correlated with sloping areas and shallow soil. Natives such as pine bluegrass often grow beside the California sagebrush scrub on the slopes of Los Banos Reservoir. Creeping wildrye, a native species, can dominate moist areas.

Ruderal

Ruderal vegetation consists of non-native species of plants. It is commonly associated with herbaceous species but the non-native salt cedar will also be discussed here. The ruderal vegetation occurs in disturbed areas such as campground and picnic areas, It also occurs at the edge of the reservoirs.

Herbaceous Species. The most common ruderal species are broad-leaved pepper-grass, cocklebur, spiny clot-bur, yellow star-thistle (*Centaurea solstitialis*), Italian thistle (*Carduus pycnocephalus*), bristly ox-tongue (*Picris echioides*), and short-pod mustard (*Hirschfeldia incana*). The broad- leaved pepper-grass, cocklebur, spiny clot-bur, and bristly ox-tongue occur within or at the edge of wet lands, often at the edge of the reservoirs. Yellow star-thistle, Italian thistle, and short-pod mustard occur in drier areas.

Woody Species. Salt cedar grows abundantly at Los Banos Reservoir often in dense thickets at the edge of the reservoir and often adjacent to the riparian vegetation. It also occurs as an occasional plant in the black willow riparian woodland along Los Banos Creek Two individual salt cedar plants were observed along the shore of O'Neill Forebay.

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