

RECLAMATION

Managing Water in the West



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Draft Environmental Assessment

Restroom Replacement and Trail Construction - San Luis Reservoir State Recreation Area

EA 07-45



Fresno, California

U.S Department of the Interior
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Mid-Pacific Region
South Central California Area Office

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Acronyms and Abbreviations

ADA	Americans with Disabilities Act
APE	Area of Potential Effect
BMPs	Best Management Practices
CDFA	California Department of Food and Agriculture
CDFG	California Department of Fish and Game
CDPR	California Department of Parks and Recreation
CDWR	California Department of Water Resources
CESA	California Endangered Species Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CIPC	California Invasive Plant Control
CNDDB	California National Diversity Database
CNPS	California Native Plant Society
CSQA	California Stormwater Quality Association
CTS	California Tiger Salamander
CVRWQCB	Central Valley Water Quality Control Board
EA	Environmental Assessment
EC	Environmental Commitment
EIS	Environmental Impact Statement
FESA	Federal Endangered Species Act
GBEPA	Gold and Bald Eagle Protection Act
ITA	Indian Trust Assets
MBTA	Migratory Bird Treaty Act
mi	mile
msl	mean sea level
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
Reclamation	United State Bureau of Reclamation
SHPO	State Historic Preservation Officer
SJKF	San Joaquin Kit Fox
SLC	San Luis Creek
SRA	State Recreations Area
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey

Chapter 1: Purpose and Need for Action

1.1 Background

San Luis Reservoir covers approximately 27,000 acres of Bureau of Reclamation (Reclamation) owned land in Merced County, California between U.S. 101 and Interstate 5 and approximately two hours south of San Francisco.

The project area is owned by Reclamation and was built as part of the water storage and delivery system of reservoirs, aqueducts, power plants, and pumping stations operated under the California State Water Project and Central Valley Project. Construction on the San Luis Reservoir was completed in 1967; Reclamation was the constructing agency and the Department of Water Resources the operating agency. In 1969, Reclamation transferred control of the operation and maintenance of the Reclamation facilities to the California Department of Parks and Recreation (CDPR). Reclamation and CDPR coordinate on the construction of new or replacement recreation facilities.

- The mission of CDPR is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality recreation.

In addition, in July 2005 the CDPR agreed to a legal consent decree, *Tucker v. California Department of Parks and Recreation, Case No. C-984935 CRB*, requiring the department to initiate and implement an accessibility transition plan designed to remove barriers and improve the accessibility of park facilities according to ADA guidelines and recommendations. The Accessibility Transition Plan developed the following criteria as a basis for prioritizing and implementing improvements at state park units.

- Level of Use by the Public
- Number of Activities Offered
- Program Uniqueness
- Park Geographic Distribution

Using these criteria San Luis Reservoir State Recreation Area (SRA) was given a priority level 1, which is the highest priority.

The average number of visitors to San Luis Reservoir is documented at over 500,000 per year. This number and the increasing demand for accessible facilities make rehabilitating the existing non-ADA compliant facilities to accommodate every person visiting the park a high priority.

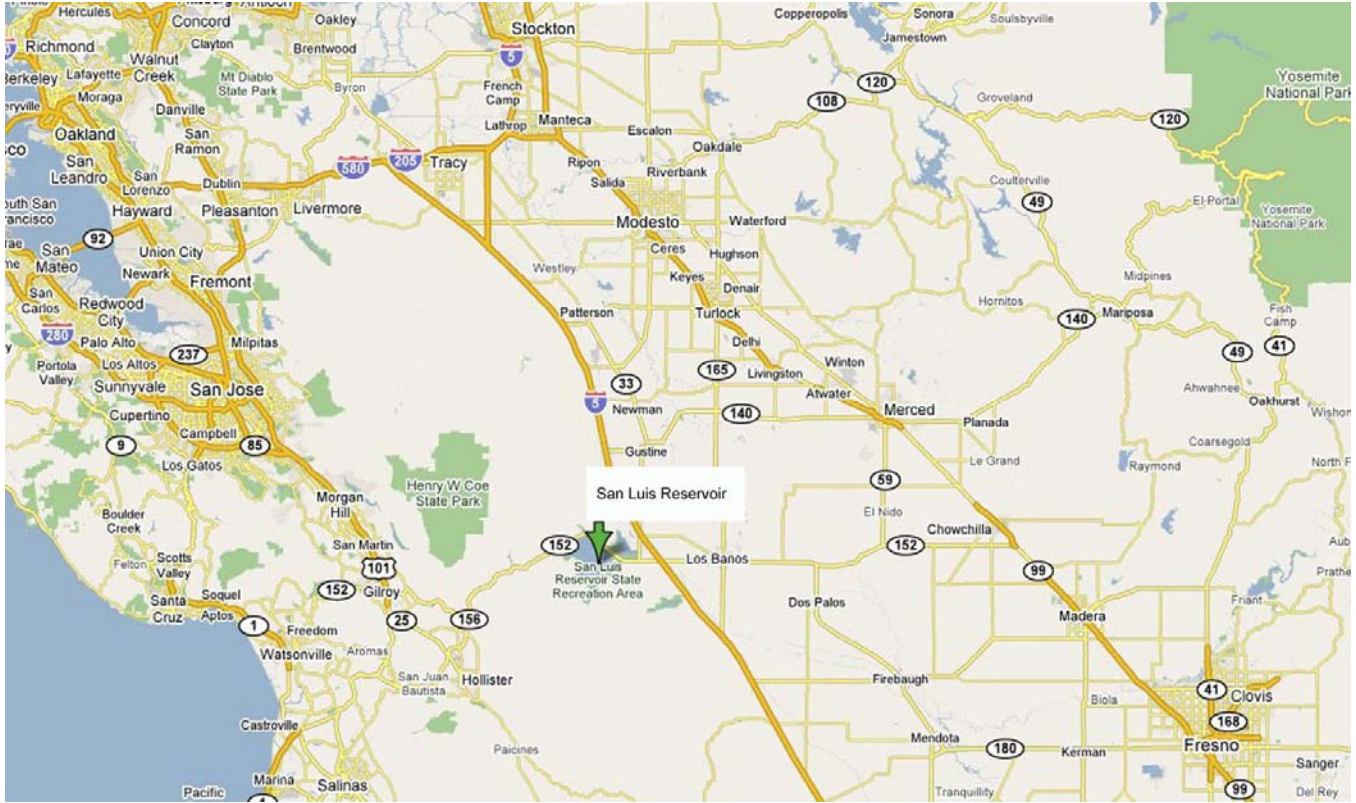


Figure 1-1: Vicinity Map



Figure 1-2: Project Areas

1.2 Purpose and Need

The need for the project is to allow visitors with disabilities to have the same access to recreation amenities (specifically the restroom facilities at Basalt and San Luis Creek Campgrounds and the trail along O’Neill Forebay) as visitors without disabilities have. The purpose of this project is to improve existing facilities and construct a new trail to increase visitor services and to comply with the Americans with Disabilities Act.

The proposed accessibility improvement project and all its components would allow CDPR to meet its mission to provide visitors to San Luis Reservoir SRA a high-quality recreational opportunity and to be in compliance with CDPR’s Consent Decree.

1.3 Scope

This EA has been prepared to examine the impacts on environmental resources as a result of the replacement of five restroom facilities and the improvement of 1.5 miles of trail between two recreation areas within San Luis Reservoir SRA. The area that would be impacted is the Basalt campground, the San Luis Creek Day Use Area and the San Luis Creek Trail. The proposed actions, if implemented, would result in structures that would last until replacement is necessary which is expected to be 40 to 50 years.

1.4 Potential Issues

- Biological Resources,
- Cultural Resources
- Hydrology and Water Quality (surface and groundwater),
- Recreation/Visitor Services
- Indian Trust assets
- Environmental Justice
- Socio-Economic Resources

Chapter 2: Proposed Action and Alternatives

2.1 Alternative 1 (No Action Alternative)

Under the No Action Alternative no trail construction would occur and the park would continue to operate with restrooms that are inaccessible to many park visitors with disabilities. CDPR would be in violation of the consent decree.

2.2 Common Aspects of all Action Alternatives 2 through 5

Construction would occur in Fall 2007, or soon thereafter, and continue for approximately six months. Work would occur only during daylight hours; however, weekend work could be implemented to accelerate construction or address emergency or unforeseen circumstances.

Equipment, such as a small backhoe for excavation; a soil compactor; loader trucks to haul soil and import road base; dump trucks to move soils and dispose of construction debris and import asphalt, and an asphalt paver and rollers to compact the asphalt would be used during construction of the trail. Similar equipment would be used to demolish and rebuild the restrooms. Most equipment would be transported to the site and remain until associated work is completed. Transport vehicles for material or equipment delivery trucks, and crew vehicles would also be present intermittently at the site. Staging areas for equipment would be confined to existing parking areas and unpaved roadways.

Best Management Practices (BMPs) would be incorporated into this project design to ensure that the natural and cultural resources in and around the project area are adequately protected during and after construction. The BMPs discussed in this document (in Appendix A) and used in the implementation of this project were obtained from the *California Stormwater Quality Association (CSQA), Stormwater Best Management Practices Construction Handbook*. Temporary BMPs would be used to keep sediment on-site throughout the duration of the project; during construction, BMPs would be checked daily, maintained, and modified as needed; and BMPs would be used after construction to stabilize the site and minimize erosion.

The Department of Parks and Recreation has consistently referenced CSQA BMPs and has identified them as an acceptable standard for use in all CDPR.

2.3 Alternative 2 – Trail Construction Only

Under Alternative 2 CDPR would construct only the San Luis Creek Trail.

Reclamation proposes to permit CDPR to upgrade and improve the existing San Luis Creek Trail on federal lands. The trail enhancements would improve shoreline access and enhance the visitor experience along the west side of the O'Neill Forebay. Work would improve the existing trail and establish a new route and/or re-route approximately 7,800 linear feet (1.5 mi.) of existing informal earthen trail. The existing San Luis Creek (SLC) trail is located in a heavily used recreation area with developed day-use and camping facilities. Currently, the trail is paved (asphalt) within the SLC North Beach day use area and the SLC Campground on the north end. An informal trail of earthen tread and roadbed sections exists between the two developed sections. This action would construct a similar 5-foot wide asphalt path in order to connect the two developed sections, thus providing a continuous, accessible trail corridor between multiple recreation facilities adjacent to the Forebay. The total length of the accessible trail after construction would be approximately 12,672 linear feet (2.4 mi.).

Existing grades are generally flat and would require minimal re-grading to achieve compliance with the Americans with Disabilities Act (ADA). In addition, three to four locations on the existing trail would require a reroute in order to avoid facilities and to meet slope requirements. The majority of the trail alignment would travel through annual grassland. Accessibility signage and approximately four standard 6-foot park benches comprised of plastic lumber are also proposed along the newly modified trail.

This alternative also includes the following environmental commitments:

Environmental Commitment (EC) #1 - Wetland Zone Avoidance Measures

Prior to the start of construction, a CDPR-approved biologist will flag all wetland and other sensitive natural resources in the project area. All vehicles, equipment routes, staging, and stockpiling areas will be located away from these flagged areas.

EC #2 - Control Introduction and Dispersal of Invasive Plants. To prevent the introduction or spread of invasive plants into previously un-infested areas, the following measures will be implemented:

- All seeding used for erosion control on the site will be from locally-adapted native seed approved by the CDPR's Representative.
- All construction vehicles and equipment will enter and leave the project site free of soil, vegetative matter or other debris that could contain seeds.
- Construction equipment used on the San Luis Creek Trail portion of the project will be cleaned before transport to other areas of San Luis Reservoir State Recreation Area to prevent invasive plant seed dispersal.
- Prior to the start of construction, a CDPR Biologist will flag any yellow starthistle or other invasive species of concern in areas that will require soil disturbance during construction for removal. Plants will be manually removed and hand-bagged for proper disposal off-site.
- The construction contractor will routinely inspect vehicles to verify that construction vehicles are being cleaned of soil and plant material before being moved to or from the project site.

EC#3 – Erosion Control

- Prior to the start of construction, CDPR or its Contractor will prepare a Storm Water Pollution Prevention Plan (SWPPP) for this project. The SWPPP will include both temporary BMPs during construction and permanent BMPs for after construction control of erosion and sediment runoff. CDPR-approved BMPs, such as silt fences, weed-free fiber rolls, mulch or other applicable techniques will be utilized and whenever possible, work will be scheduled outside of the rainy season (October 16 to April 15). Information on approved BMPs can be found in the Stormwater Best Management Practice Handbook for Construction, available on-line at www.cabmphandbooks.com. The SWPPP will also include BMPS for construction debris disposal, spill prevention and response for other potential pollutants such as vehicle and equipment fluids, and construction materials.
- The project design plans will include permanent erosion control measures such

as re-compaction and re-vegetation to prevent erosion and sediment release to nearby water bodies.

EC#4 – Trail Erosion Control

All trail construction will follow CDPR-approved Trail Handbook Guidelines. Pathways will be constructed in a manner that will prevent concentration of storm water runoff and resulting erosion. Water should drain evenly under sheetflow conditions, or be channeled into drainage culverts or ditches designed to handle the anticipated flow and with energy dissipation structures or materials.

EC #5 - San Joaquin Kit Fox and Burrowing Owl Avoidance Measures

There is potential for San Joaquin kit fox (SJKF) to move through or near the project area. No detections have been recorded in the vicinity of the project area and no dens were observed during site visits. Pre-construction surveys will ensure that no active dens of San Joaquin kit fox, or other sensitive animals that use burrows, will be impacted by this project. Other animals that may potentially use burrows in the project area include burrowing owl and American badger. The mitigation measures listed below would reduce impacts to the San Joaquin kit fox to the project location.

- No more than 30 days but no less than 14 days before the start of any work, a U.S. Fish and Wildlife Service (USFWS)-approved biologist will conduct a pre-construction survey for SJKF using the standard surveying protocol found in “U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance”. A survey report will be sent to the USFWS within 5 days after the completion of the survey. If any SJKF, active dens, or other listed species are found, the approved biologist will contact the USFWS and request additional guidance on the appropriate measures to implement. A Reclamation biologist will be notified at that time of such findings,
- Prior to the start of construction, a USFWS-approved biologist will conduct a training session for all construction and park personnel involved in construction of the project. At a minimum, the training will include a description of the kit fox and its habitats, the general measures that are being implemented to conserve the species as they relate to the project, and the physical boundaries of the project. The training will include instruction in the appropriate protocol to follow in the event that SJKF are found onsite. Brochures, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions. In the event that a SJKF is found onsite during construction activities, all work in that location will cease immediately until the USFWS-approved biologist has contacted the USFWS. The USFWS-approved biologist will then advise the State’s Representative of any additional avoidance measures, if any that are required by the USFWS. A Reclamation biologist shall be notified of additional measures that the USFWS requires to be implemented.
- Project-related vehicles will observe a 20-mph speed limit in all project areas; equipment staging will be confined to existing parking (gravel and surfaced) areas; construction will be limited to the daylight hours; and construction vehicles

and equipment will enter and leave the project site free of soil, vegetative matter or other debris that could contain weed seeds.

- To prevent accidental entrapment of SJKF or other small animals, all holes and trenches will be covered at the close of each work day or escape ramps (plywood or similar materials) will be provided; unused pipe and culvert openings in all areas will be covered at the close of each work day. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods will be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a fox is trapped, injured, or killed, it will be immediately reported to the USFWS and the California Department of Fish and Game (CDFG). Subsequently, a Reclamation biologist also shall be notified.
- All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed at least once a week from the construction area and properly disposed.
- No person associated with this project will be allowed to possess firearms on the project site, except peace officers.
- No person associated with this project will be permitted to have pets of any kind on the project sites.
- The CDPR's representative will be the contact source for any employee or contractor who discovers a SJKF on or near the Area of Potential Effect (APE), who inadvertently kills or injures a SJKF, or who finds a dead, injured or entrapped SJKF. The State's Representative will be identified during the employee education program and his/her telephone number will be provided to the USFWS.
- The Sacramento Fish and Wildlife Office and CDFG will be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project-related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other related information.

EC #6 - Swainson's Hawks and Other Nesting Raptor Avoidance Measures

The work plan calls for construction activities to commence in September, with 150 days of construction. This schedule will fit in the window before the raptor nesting season starts. All outside noise-generating construction activities will occur between September 1 and January 31 to protect Swainson's hawks (and other nesting raptors), which are known to nest in Basalt campground. If construction activities must occur during the breeding season, surveys will be conducted for nesting raptors in and around the project area, and any nesting raptors will be protected until the young have fledged from the nest. Nesting Swainson's hawks are the highest concern, but other raptor species could potentially nest in the project area, as well.

- To the extent possible, all outside noise-generating activities will occur only during the non-breeding season (September 1 and January 31).
- If outside noise-generating construction activities are necessary during the breeding season (February 1 and August 31), a CDPR-approved biologist will conduct a focused survey during the breeding season at the discretion of the

CDPR-approved Biologist to identify active raptor nests within ¼ mile of the project area.

- If nesting raptors are found, no construction activities will occur within a 250-foot radius of the nest tree during the breeding season, or until the young have fledged (as determined by a CDPR-approved biologist) and there is no evidence of a second attempt at nesting.
- Any non-native tree removal work will occur between September 1 and January 31 to protect nesting raptors, unless otherwise approved by a CDPR-approved biologist.

EC #7 - Migratory Bird Avoidance Measures

- Any non-native tree removal will occur between September 1 and January 31 to protect nesting migratory birds, unless otherwise approved by a CDPR-approved biologist.
- To the extent possible, construction activities will be completed prior to the migratory bird nesting season (April 15-August 31). If construction activities will occur during the migratory bird nesting season (April 15-August 31), a CDPR-approved biologist will conduct a survey for nesting bird species.
- If active nests are located, no construction activities will occur within a minimum 100-foot radius of the nest tree until the nest is vacated, juveniles have fledged, and there is no evidence of a second nesting attempt.

EC #8 Visitation

- CDPR will implement this project during low-visitation (after Labor Day weekend) periods of the year and be completed prior to the high-visitation season.
- Prior to the start of construction, CDPR or its contractor will install temporary, CDPR-standard signage alerting visitors of the trail closure.

2.4 Alternative 3 – Basalt Use Area Restroom Replacement Only

Alternative 3 would replace only the restroom at the Basalt Use Area.

Under this action Reclamation proposes to permit CDPR to provide two new restroom buildings at the Basalt use Area. Two existing restroom buildings would be removed and be replaced with two new restroom buildings with showers. Additional site amenities would be constructed as required to make surrounding facilities ADA-compliant in the two campground loops in Basalt Campground. Specifics include:

- Add two new 6-stall unisex restroom (2 ADA-compliant stalls and 4 standard toilet stalls) and four showers (2 ADA-compliant showers and 2 standard showers) without solar water heating.
- Modify existing grades and orientation of two ADA-compliant parking spaces (one at each restroom)
- Provide an ADA-compliant drinking fountain at each new restroom
- Provide pathway adjustments to the walkway servicing each new restroom
- Connect new restrooms to existing utility lines.

- Replace existing water faucets with new ADA-compliant water stations at each restroom

This alternative also includes the following four environmental commitments as described above as well as three ECs not previously described:

EC #2, #5, #6, #7

EC #9 – Campsite Closure

- As soon as a project alternative is approved, CDPR will remove the Basalt Campground from the statewide campsite reservation system.
- Prior to the start of construction, CDPR or its contractor will install appropriate temporary signage alerting visitors of the campground closure and the access gate will remain closed for the duration of the project.

EC # 10 – California Tiger Salamander Avoidance Measures

- Prior to the start of construction, a CDPR-approved biologist will inspect the work site for California Tiger Salamander (CTS) and other wildlife species. If CTS is found during DPR or other DPR-approved personnel inspections, construction in that location will cease until the animal has moved out of the area of its own accord, or is removed from the site by a USFWS-permitted biologist.
- Vehicle access routes and number and size of staging and work areas will be limited to the minimum necessary as determined by CDPR to achieve the project goals. Equipment staging and vehicle parking will occur only on paved parking areas to avoid any compaction of burrows or potential burrow sites.
- Construction activities will occur only during daylight hours to avoid time periods when CTS generally exhibit dispersal movements.
- To prevent accidental entrapment of CTS or other small animals, all holes and trenches will be covered at the close of each work day or escape ramps (plywood or similar materials) will be provided; unused pipe and culvert openings in all areas will be covered at the close of each work day. All construction pipes, culverts, or similar structures that are stored at a construction site for one or more overnight periods will be thoroughly inspected for CTS before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a CTS is trapped, injured, or killed, it will be immediately reported to the USFWS and the CDFG. Subsequently, a Reclamation biologist also shall be notified.
- No person associated with this project will be permitted to have pets of any kind on the project sites.
- Prior to the start of construction, a CDPR-approved biologist will conduct a training session for all project personnel. Instruction will cover identification of sensitive species and their habitat, and specific measures required to protect and avoid sensitive wildlife.
- The Sacramento Fish and Wildlife Service Office and CDFG will be notified in writing within three working days of the accidental death or injury to a CTS during project-related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other related information.

EC # 11 - Drainage

Drainage from and around the new buildings will either be channeled into drainage culverts or ditches designed to handle the anticipated flow or will drain evenly under sheetflow conditions and allowed to percolate into the surrounding soils.

2.5 Alternative 4 – San Luis Creek Day Use Area Restroom Replacement Only

Under Alternative 4 Reclamation would permit CDPR to replace the three existing dressing room/restroom buildings with new unisex restrooms at the north, south, and boat launch areas of San Luis Creek Area.

Under this action additional site amenities would be constructed as required to make surrounding facilities ADA compliant. Specific Elements include:

- Replace three existing non-compliant restrooms with new six-stall unisex restrooms (two ADA compliant toilet stalls and four standard toilet stalls) at the same location of each existing restroom.
- At the north restroom facility, proposed work would also replace the existing ADA storage area as part of new restroom structure
- At the restroom near the boat launch, proposed work would modify the existing ADA parking and pathway to the restroom to compliance level.
- Provide ADA compliant drinking fountain at each new restroom.
- Provide minor pathway adjustments to each restroom.
- Connect each new restroom to existing utility lines.
- Replace the existing outdoor showers and surrounding drain/concrete drainage areas at all new restrooms with ADA compliant pedestal mounted shower and drains/concrete drainage areas.

This alternative also includes the following five environmental commitments as described above:

EC#2, #5, #6, #7, #8

2.6 Alternative 5 – Complete 1.5 Miles of Trail and Replace the Restroom Facilities at the Above Two Locations Specified Above Project (Proposed Action)

Under this action, Reclamation permits CDPR to complete the projects described in Alternative 2 through 4 above.

This is the preferred alternative and the proposed action. This action, a combination of Alternatives 2-4 would allow the CDPR to replace five non ADA compliant restroom facilities with five ADA compliant facilities and construct a fully ADA compliant trail connecting important recreational sections of San Luis Reservoir.

This alternative also includes all the eleven environmental commitments contained within the three action alternatives above.

Chapter 3: Affected Environment

3.1 Biological Resources

3.1.1 Affected Environment

This section describes the existing conditions of the natural communities; sensitive plant communities; wetlands and other waters of the United States; threatened, endangered and other special-status species of plants and animals; and invasive species of plants and animals in and around the project area.

Methodology

All sensitive species and their habitats were evaluated for potential impacts from this project. Existing available data was collected and reviewed to determine the proximity of sensitive plants, animals, and their habitats to the project area. A query of the California Department of Fish and Game's Natural Diversity Database (CNDDDB 2007) was conducted for nine 7.5-minute USGS quadrangles surrounding and including the San Luis Dam quad. These included: San Luis Dam, Howard Ranch, Crevison Peak, Pacheco Pass, Volta, Ingomar, Mariposa Peak, Los Banos Valley, and Ortigalita Peak NW. These nine quads were also used to generate a USFWS species list. Special-status plant species potentially occurring in the nine quadrangle map area were derived from the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2007). The Preliminary General Plan for San Luis Reservoir SRA was consulted for specific information on species located in the vicinity of the project area (RECLAMATION and CDPR 2005). In addition, several species that were not recorded in the databases queried, but which have the potential to occur in the project area or surrounding lands, were included in this analysis.

Information on special-status species was obtained through discussions with on-site CDPR and Reclamation biologists, consultation with USFWS staff, and on-site reconnaissance-level surveys. Two visits by CDPR biologists were conducted to survey for vernal pools, other water sources, and potential habitat for raptors, plants and other sensitive species. Two additional on-site visits with USFWS staff were conducted to review the project, examine potential impacts to special-status species, and discuss appropriate avoidance measures. A site visit was also conducted by CDPR staff to locate nesting Swainson's hawks in the project area.

3.1.2 Natural Communities

Conditions in the area result in very dry soil that typically only supports annual grasslands and scrub-type vegetation. Riparian vegetation types along stream corridors

and reservoir margins also occur in the project vicinity; however, the campground and day use areas have been planted with non-native trees for shade. The naming system used in *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995) was used to address the vegetation types in this report.

California Annual Grassland

This grassland vegetation type occurs extensively throughout the areas surrounding San Luis Reservoir and O'Neill Forebay. California annual grassland is an herbaceous upland plant community composed of non-native annual grasses and native and non-native forbs. Different species dominate the grassland in different areas. Most of the dominants are non-native species but the native species, purple needlegrass (*Nasella pulchra*), occurs in various densities throughout the recreation area. It occasionally grows as a dominant species on the slopes of San Luis Reservoir, but not in the project area. Non-native dominants include ripgut brome (*Bromus diandrus*), hare barley (*Hordeum murinum* ssp. *leporinum*), wild oats (*Avena* sp.), and Italian ryegrass (*Lolium multiflorum*). Tarweed species also occur in various densities throughout the grassland habitats, mostly as subdominant species. These include Fitch's spikeweed (*Hemizonia fitchii*), common spikeweed (*Hemizonia pungens*), and San Joaquin tarweed (*Holocarpha obconica*).

Black Willow Riparian Woodland

Black willow riparian woodland occurs at the edges of O'Neill Forebay. This vegetation type consists of black willow (*Salix goodingii*) trees, which average 8 to 12 inches in diameter at breast height (4.5 feet, dbh) and up to 40 feet tall, although generally much shorter near the project area. The trees grow from 6 to 10 feet apart and occur in a very small strip along the shoreline adjacent to the San Luis Creek Day Use and San Luis Trail locations. Other trees that may occur in small numbers in this vegetation type include Fremont cottonwood (*Populus fremontii*), western sycamore (*Platanus racemosa*), and sandbar willow (*Salix exigua*).

The shrub understory consists of mulefat (*Baccharis* sp.) and infrequent salt cedar plants (*Tamarisk* sp.). Herbaceous species in the understory are dominated by crabgrass (*Cynodon dactylon*), cocklebur (*Xanthium strumarium*), and Italian thistle (*Carduus pycnocephalus*).

Mesic Herbaceous

Mesic herbaceous vegetation occurs along the edges of O'Neill Forebay. It consists of species adapted to both seasonally or permanently wet conditions. The mesic herbaceous vegetation adjacent to the project area consists of small patches of mainly short vegetation types such as crabgrass and knotgrass (*Paspalum distichum*). Other potential species that may occur in small patches between the black willow riparian woodland along O'Neill Forebay include Mexican rush (*Juncus mexicanus*) and broad-leaved pepper grass (*Lepidium latifolium*).

Ornamental Trees

The Basalt Campground and San Luis Creek Day Use Area have been planted with ornamental trees to provide shade for the public. These trees include red ironbark gum

(*Eucalyptus sideroxylon*), other eucalyptus (*Eucalyptus* spp.), allepo pine (*Pinus halpensis*), false pine (*Casurina* sp.), Chinese pistache (*Pistachia chinensis*), and others. The ADA restroom projects at Basalt Campground and San Luis Creek Day Use Area are entirely contained within this non-native, heavily compacted and groomed landscape. The San Luis Creek Day Use area also has extensively planted and watered lawn throughout.

3.1.3 Sensitive Plant Communities

The sensitive vegetation types present on the SRA include black willow riparian woodland, mesic herbaceous vegetation, iodine bush scrub, and native grasslands. The later two do not occur in or near the project area. Black willow riparian woodland and mesic herbaceous vegetation occur in a thin strip along the shore of O'Neill Forebay. No activities would occur in this zone and Best Management Plans (BMP's) would be used to prevent sediment or surface water from entering this zone from adjacent grassland areas. The primary location of the mesic herbaceous vegetation type is along the shore of the group campground area, midway along the proposed trail route. The trail would be diverted around the campground and a minimum of 250 feet away from the shore at this site. In addition, this project would eliminate the current vehicle traffic along the road portion of the project by converting this portion to trail. This would reduce the potential of habitat degradation and introduction of pollutants and exotics that can occur with vehicles operating on dirt roads near the shoreline.

3.1.4 Wetlands and Other Waters of the United States

The thin strip of land along the shore of O'Neill Forebay north of San Luis Creek Day Use Area and adjacent to the San Luis Creek Trail Project qualifies as wetland habitat. No activities would occur in this zone and no sediment or surface water would enter this zone from adjacent grassland areas.

Vernal pools are a wetland type that provides essential habitat for a wide range of threatened, endangered, and sensitive plant and animal species in the San Joaquin Valley and Coast Range foothills. However, no vernal pools have been identified on state park lands and no vernal pools were located at or near the project vicinity.

3.1.5 Plant Species

No special status plant species were listed in the CNDDDB (2007) as occurring within the nine-quad area surrounding the project location. The CNPS On-line Inventory (2007) query resulted in 16 species which are addressed in TABLE 4-2. Plant species on this list with the potential to occur in or near the project area are discussed below; however, no special status plant species were detected on SRA lands during reconnaissance-level field surveys conducted in 2003 during preparation of the General Plan (RECLAMATION and CDPR 2005).

Round-leaved Filaree (*California macrophylla*) – A CNPS list 1B plant species which occurs in cismontane woodland and grasslands with clay soils. The majority of SRA consists of California annual grassland habitat with clay soil types. The nearest known occurrence of this species is in Pacheco State Park. This plant species is often found in open, friable clay soil areas with low cover of native and exotic species, but often in

proximity to other rare species. The small area of grassland that would be impacted by this project is in California annual grassland habitat that is almost entirely non-native species with heavy grass cover. It is highly unlikely that this project would impact round-leaved filaree.

Lemmon's Jewelflower (*Caulanthus coulteri* var. *lemmonii*) – A CNPS list 1B plant species which occurs mainly in pinyon and juniper woodland, but also in grassland habitats. This plant often occurs along dry rocky bands of soil, which do not occur in the project area. No observations of this species have been documented in Merced County. It is highly unlikely that this project would impact Lemmon's jewelflower.

Slender-leaved Pondweed (*Potamogeton filiformis*) – A CNPS list 2 plant species which occurs in marshes, swamps and freshwater wetlands, including reservoirs. This species occurs above 300 meters and the project area is at an elevation less than 100 meters. Additionally, no aquatic or wetland habitat would be impacted by this project.

3.1.6 Animal Species

A list of 4 federal special-status wildlife species was generated with the potential to occur in SRA and surrounding lands. These species are addressed in Table 4.2. Species with the potential to occur in or near the project area are discussed below.

Birds

Golden Eagle (*Aquila chrysaetos*) (**nesting and wintering**) – The golden eagle is a California Species of Special Concern, a California Fully Protected Species, and is protected by the Bald and Golden Eagle Protection Act (GBEPA) and the Migratory Bird Treaty Act (MBTA). Golden eagles build large platform nests in isolated sites on cliffs, ledges and large trees in open areas. There are no detections in the CNDDDB (2007), but golden eagles have been observed on rare occasions in the SRA. No known nesting habitat is present in or around the project vicinity and suitable foraging areas would not be disturbed by this project, so there would be no impacts to golden eagles.

Tricolored Blackbird (*Agelaius tricolor*) – This Federal bird Species of Concern and California Species of Special Concern occurs in freshwater marshes, riparian habitats, and agricultural fields. Tricolored blackbirds are known to nest in the O'Neill Forebay Wildlife Area. Suitable nesting habitat does not occur along the west side of O'Neill Forebay and no aquatic or wetland habitats would be disturbed, so this project would not impact tricolored blackbirds.

Other Raptors and Migratory Birds

The following species are known to nest in or near the project area and could be affected during construction of the project, although documented resident pairs have become adapted to an increased noise level during the breeding season as a result of heavy human use of the sites:

Red-Tailed Hawk (*Buteo jamaicensis*) – The red-tailed hawk is a common raptor that breeds from March through July throughout California. It feeds on rodents, birds,

reptiles, and insects. Red-tails usually nest in large trees with an open view and are known to occur in and around the project area.

Great Horned Owl (*Bubo virginianus*) – Great horned owls are common in forests and woodlands throughout the state. They are opportunistic feeders, but mainly prey on medium-sized mammals. Breeding generally occurs February through June. Great horned owls are known to nest in Basalt Campground in at least one stick nest location.

3.1.7 Threatened and Endangered Species

Threatened and Endangered Plant Species

Database searches revealed no state or federally listed plant species in the nine USGS 7.5 minute quadrangles surrounding the project site. The CNDDDB (2007) lists no state or federally listed plants in western Merced County where the project location is. The only listed plant species in the CNDDDB for Merced County was **San Joaquin Valley orcutt grass** (*Orcuttia inaequalis*), a State Endangered and Federal Threatened vernal pool grass, which occurs along the east side of Merced County. No suitable habitat for San Joaquin Valley orcutt grass occurs in or near the project area.

Threatened and Endangered Wildlife Species

California Tiger Salamander (*Ambystoma californiense*) – This Federally Threatened and California Species of Special Concern breeds in vernal pools, artificial ponds and other seasonal water sources. California tiger salamanders (CTS) require suitable upland habitat in grassland and oak savannah plant communities that contain burrows for refuge during most of the year. Adult CTS mate and lay their eggs in water. The larval stage of the CTS usually lasts three to six months as most seasonal pools dry up during summer. Metamorphosed juveniles leave the breeding sites in the late spring or early summer and do not typically return to the breeding pools until they reach sexual maturity, which can take up to four or five years. After breeding, the adults leave the water body and return to small mammal burrows in surrounding upland habitat where they spend most of their lives.

A CTS was documented in the Basalt Campground area in the late 1990's. There is a seep approximately 0.3 miles to the west of the campground that may have potentially provided a water source capable of supporting breeding CTS in the past. This seep has since been heavily degraded by wild pigs. A known CTS breeding pond lies approximately 2 miles south of Basalt Campground in a stock pond along Billie Wright Road. The closest critical habitat to the project area is 3.5 miles southwest of Basalt Campground. Although research shows that 95% of adult and subadult CTS move less than 0.4 miles (630 meters), some have been documented to move much further (Trenham and Shaffer, 2005).

Basalt Campground was established in open grassland habitat and converted to open canopy woodland planted with mostly non-native trees dominated by eucalyptus, introduced pine trees, and non-native shrubs. The floor of the campground is paved or very solidly compacted earth which is regularly groomed. While there are areas around the periphery of the campground that provide suitable upland habitat, no suitable burrow sites are located in the confines of the campground. However, since CTS are known to

occasionally move long distances between upland and breeding sites, there is a potential for a CTS to move through the campground.

California Red-legged Frog (*Rana aurora draytonii*) – This Federally Threatened and California Species of Special Concern is found in ponds and intermittent streams that retain year-round pools of water and contain emergent and submergent vegetation. They may move out of the riparian zone and aestivate during non-breeding periods. California red-legged frog critical habitat adjoins the west shore of San Luis Reservoir, where they occur in many stock ponds in and around Pacheco State Park. Suitable habitat does not occur in or near the project vicinity as the only water sources are heavily stocked with non-native predatory fish species.

Bald Eagle (*Haliaeetus leucocephalus*) – This Federally Threatened and California Endangered species generally nests near coastlines, rivers, and large lakes or reservoirs with an adequate food supply. They usually nest in large, mature trees, in snags, or on cliffs. In northern California, bald eagles primarily feed on fish. However, waterfowl also supplement their diet, especially in winter.

Bald eagle populations have been steadily increasing primarily due to habitat protection and a reduction in the levels of certain pesticides (DDT) occurring in the environment. Currently the bald eagle is designated as threatened by U. S. Fish and Wildlife Service (USFWS), however because their populations have increased the USFWS proposes to remove the bald eagle from the “List of Threatened and Endangered species.” If the federal listing is removed, the bald eagle would still be protected by the GBEP, the MBTA, and the current state listing as California Endangered.

Although no perch sites have been documented around the reservoir, bald eagles may occur occasionally in winter around the SRA. There are no known bald eagle nest sites in Merced County and no Merced County records of bald eagles in the CNDDDB (2007). Although bald eagles are not expected to occur in or around the project area, future potential breeding habitat may be present if the species continues to increase in numbers and range.

San Joaquin Kit Fox (*Vulpes macrotis mutica*) – This Federal Endangered and California Threatened species occurs in annual grasslands with scattered shrub components throughout portions of the San Joaquin Valley. The San Joaquin kit fox (SJKF) diet consists mostly of small mammals, including the California ground squirrel (*Spermophilus beecheyi*). Dens are used for breeding, shelter from weather, predator avoidance, and for thermoregulation. SJKF can dig dens, can use burrows of other animals, or use artificial sites such as culverts or pipes.

There are numerous records of SJKF surrounding SRA, primarily to the north, east, and south. Although there are few documented records of SJKF within the boundaries of the SRA, they are known to occur in small numbers at least moving through the area.

3.1.8 Invasive Plant and Animal Species

Several invasive plant species are known to occur, or have the potential to occur in or near the project area; these are addressed below.

Yellow starthistle occurs in a small area along the dirt road that is part of the San Luis Creek Trail project. Yellow starthistle is rated by the California Invasive Plant Council (CIPC) as having an overall threat rating of “high” for degree of impacts to wildlands, degree of invasiveness, and ecological distribution. This species is also listed with the California Department of Food and Agriculture (CDFA 2007) as having “C” status (i.e., state endorsed holding action only when found in a nursery). CDFA ratings reflect the state department’s view of the statewide importance of the plant pest, the likelihood that eradication or control efforts would be successful, and the present distribution of the species within the state.

Italian starthistle occurs along the San Luis Creek Trail portion of the project. Italian thistle is rated by the CIPC as having an overall threat rating of “moderate” for degree of impacts to wildlands, degree of invasiveness, and ecological distribution. Italian thistle is also listed with the CDFA (2007) as having “C” status.

Red brome (*Bromus madritensis ssp. rubens*) may occur in the trail portion of the project. It is rated by the CIPC as having an overall threat rating of “high” for degree of impacts, but has not received a rating from CDFA.

Other potential invasive plants species in the project area include **slender wild oat** (*Avena barbata*) and **ripgut brome**, which are rated by CIPC as having an overall threat rating of “moderate” for degree of impacts.

All project work would occur within the existing and already disturbed footprint of the current campground, day use area, and non-native grassland habitat. The grassland areas surrounding O’Neill Forebay consist almost entirely of non-native species. Project implementation would not involve the disturbance of any native vegetation types.

Sensitive resources outside of the project area could be affected by the movement of construction vehicles, equipment and materials unless routes, as well as staging and stockpiling areas are clearly designated prior to the start of construction.

3.1.9 Invasive Animal Species

Only one invasive animal species is known to occur in or near the project area.

Wild Pigs (*Sus Scrofa*) occur in the vicinity of the project area. The seep to the west of Basalt Campground which may have been used by CTS in the past had obvious signs of pig activity. The ground and vegetation in the waterway was heavily impacted. Project implementation is not expected to alter the current distribution of this non-native species.

3.2 Cultural Resources

3.2.1 Affected Environment

This section discusses the potential for the Restroom Replacement and Trail Construction Project to affect cultural resources. The term “cultural resources” is used to describe archaeological sites, illustrating evidence of past human use of the landscape, the built environment, represented by structures such as dams, roadways, and buildings, and traditional resources, including, but not limited to, structures, objects, districts, and sites. A cultural resource that is greater than 50 years old qualifies for consideration as a historic property. The criteria used to determine whether a cultural resource is a historic property, and therefore eligible for inclusion on the National Register of Historic Places (NRHP), are defined in 36 CFR Part 60.

The Area of Potential Effects (APE) for cultural resources was identified as the construction corridor in which pipe will be installed, staging areas, and the access roads to the work area. This section summarizes the prehistory, ethnography, and history of the project region; the study methods and results; and the effects of the Alternative Intakes Rehabilitation Project upon historic properties.

Prehistoric Archaeological Context

During the 1960s, in anticipation of the construction of the San Luis and Los Banos reservoirs, the federal government authorized archaeological surveys and excavations that resulted in the recordation of numerous early Native American sites. During these studies, archaeologists collected artifacts of varied typology and technology. The varying occurrences of distinct artifacts have provided archaeologists with estimated dates for the prehistoric cultural sequence of the area. The general sequence of cultural change over time includes eras of Paleo-Indian (ca. 12,000-7,500 BP), Positas (ca. 5,300-4,600 BP), Pacheco (ca. 4,600 BP-1,700 BP), Gonzaga (ca. 1,700-1,000 BP), and Panoche (ca. 500-150 BP) complexes. The causes of these changes tend to be complex, varied, intricately interrelated and can include factors such as climate change and shifting degrees of external cultural contact (Olsen and Payen 1969 and Moratto 1983).

As Spanish, Mexican, and later American travelers used Pacheco Pass, Native Americans largely abandoned the pass and the area around the present-day SRA. The Native Americans started to leave the area during the Spanish and Mexican period when military expeditions made incursions into the area in search of runaway coastal mission Indians or in search of new workers. After the mission era, cattle ranchers and horse thieves may have used the pass.

Ethnographic Setting

Ethnographic and archaeological evidence indicates that, at least in later prehistoric and early historic times, Native American populations residing in the San Luis area belonged to the Northern Valley Yokuts. Although the Yokuts appear to have been the predominant group in the region, evidence suggests strong coastal influences by

Ohlone groups. The presence of routes through Pacheco Pass, providing for an easy exchange of goods and cultural traits in prehistoric and early historic times facilitated such contact between tribal groups (Wallace 1978:462-470; Kroeber 1925, Olsen and Payen 1968; 65-66).

Yokuts and Ohlone groups lived in small seasonal camps geared towards hunting or the gathering and processing of acorns and a variety of grasses. Larger settlements centered around perennial streams or springs. Material culture and technological systems were as varied as the environments in which they resided and reflected the diversity of the resources available for their use. Both groups used mortars and metates for the processing of acorns and other gathered seeds and nuts. They produced baskets in a wide variety of sizes and shapes; each suited to a particular task and used exotic materials such as marine shell ornaments, ocean fish and obsidian from distant sources.

Historic Setting

In 1806 when Gabriel Moraga and Father Pedro Munoz traveled through the area they became the first Europeans to document an expedition into the Pacheco Pass. This expedition cleared the way for future development of the pass as a transportation route. Throughout the early decades of the 19th century, the pass served as a route for Native Americans attempting to escape the coastal missions or, conversely, using it as a route to attack coastal missions. During the Gold Rush of 1849, the San Luis Reservoir area saw a dramatic increase in the number of travelers. Its remote location provided a perfect environment for bandits and outlaws including Joaquin Murietta and his gang who reportedly frequented the "San Luis waterhole". It was at this location in 1853 that Captain Harry Love and a contingent of State Rangers cornered Murietta and his gang who barely managed to escape. In the late 1850s Andrew Firebaugh built the original Pacheco Pass toll road. One of at least four formal roads constructed through Pacheco Pass in historic times, the Pacheco Pass toll road formed the basis for future road building efforts. When the state constructed a highway through the area in the early 1900s, the construction followed Firebaugh's general route. As the state upgraded the road in the 1930s and built Highway 152 in the 1960s, the route remained unaltered.

The history of the San Luis Reservoir area is also linked with the history of the Rancho Gonzaga. In 1843, Jose Mejia and Juan Perez Pacheco petitioned the governor for rights to over 48,000 acres in and around the pass as an "aid in the defense against hostile Indians". In November 1843 the Mexican government granted the Pacheco family the Rancho San Luis Gonzaga and by 1846 they had constructed the area's first adobe building. Complete with gun ports, this substantial structure served as the headquarters for the Rancho well into the 20th century. In later years it served as a gas station and roadside stop for travelers through Pacheco Pass (Hill et al. 1996). The construction of the San Luis Reservoir Dam and facilities destroyed the original location of the adobe and most of the Rancho complex.

Cultural Resources in the APE

The APE for the San Luis ADA Three Projects is the Basalt Campground., the San Luis Creek Day Use area and the San Luis Creek Trail area. The APE is entirely located on Reclamation land. The trail and the San Luis Creek restroom retrofit are in the San Luis

Creek area which is immediately to the west of Section 12 of Township 10 South and Range 8 East. The Basalt Campground is within Section 26 of Township 10 South and Range 8 East. California Department of Parks and Recreation archaeologists conducted a Class III survey of the entire Area of Potential Effect (APE) for the proposed ADA improvement projects. These identification efforts and findings are documented in three separate archaeological survey reports (Brooke 2007, Wulzen 2007a, 2007b) (Appendix D) The reports illustrate that there were no previously recorded cultural resources within the APE and no new resources were identified during the surveys.

Regulatory Setting

Cultural resources situated within the San Luis SRA are protected primarily by the provisions of Section 106 of the National Historic Preservation Act (NHPA) of 1966 and, in the case of Native American human remains, the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990. In addition, as a state agency, the Department of Parks and Recreation is obligated to conform to the cultural resource provisions of CEQA. However, CEQA standards are, in large part, superseded by the Federal regulatory framework in San Luis as the SRA is situated entirely on Federal property; in this case United States Bureau of Reclamation land.

The NHPA of 1966, as amended (16 USC 470 *et seq.*), is the primary Federal legislation that outlines the Federal Governments' responsibility for the preservation of cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on historic properties. Historic properties are defined as those cultural resources listed, or eligible for listing, on the National Register of Historic Places.

Compliance with Section 106, outlined at 36 CFR Part 800, follows a series of steps that are designed to identify interested parties, determine the area of potential effects (APE), conduct cultural resource inventories, determine if historic properties are present within the APE, and assess effects on any identified historic properties. Pursuant to 36 CFR Part 800, Reclamation conducted a records search for the APE to identify all previously recorded cultural resources.

Native American tribes were invited to participate in the Section 106 process. The regulations require federal agencies to consult with federally recognized tribes to determine if sites of religious or cultural significance are present within the APE for a specific action. Non-federally recognized tribes may also have concerns and Reclamation involves such tribes as interested members of the public pursuant to 36 CFR Part 800.2(d).

The State Historic Preservation Officer (SHPO) is also consulted pursuant to 36 CFR Part 800. Federal agencies are required to seek the SHPOs' concurrence to ensure that historic properties are taken into consideration at all levels of project planning and development.

3.3 Hydrology and Water Quality

3.3.1 Affected Environment

San Luis Reservoir (Reservoir) is located within the eastern foothills of the Diablo Range just above the San Joaquin Valley. The San Luis Reservoir SRA is part of the Panoche-San Luis Reservoir watershed, approximately 1,213 square miles in area (Reclamation and CDPR 2005). The watershed is part of the larger San Joaquin River basin that flows into San Francisco Bay and ultimately discharges into the Pacific Ocean. The hydrology and floodplain of the watershed have been significantly altered by the development of the reservoirs. The Reservoir captures flow from San Luis Creek, Salt Creek, Hidden Creek, Cottonwood Creek, and approximately 20 named and/or unnamed springs and streams (HTL 2006). Springs are located on either side of the Basalt Day Use Area; the only named spring, Domengine Spring, is on the west side of the campground (Topozone 2006), as shown on Basalt Area Topo map in Appendix C.

Surface Water

The streams, creeks, and springs surrounding the Reservoir display typical hydrology for the area. At the beginning of the year, groundwater aquifers are replenished and flow is high and rises higher after a precipitation event. By late spring and summer flow is fed by groundwater and upper watershed springs. By the end of the summer there is almost no surface water flow. At Basalt Campground, the surrounding small streams that surround it are ephemeral. At the San Luis Creek area, there are no designated stream channels according to the topographic maps for the area (Topozone 2006). Manmade ditches convey stormwater runoff into the O'Neill Forebay. The surface water within the Reservoir and O'Neill Forebay is used for a number of beneficial uses such as municipal water supply, agriculture, electricity, recreation, warm fresh water habitat, and wildlife habitat (CVRWQCB 2006).

Water Quality

The Central Valley Regional Water Quality Control Board (CVRWQCB) defines the quantitative and qualitative water quality objectives in their Basin Plan. The Panoche-San Luis Reservoir watershed is a part of the Central Valley Region (Central Section) and is classified as a Category I (impaired) priority watershed. Major water quality issues identified throughout the basin include pesticide contamination, high nutrient concentrations in smaller tributaries, native fish habitat disruption, poor water chemistry, high salinity, and high agricultural runoff. The State Water Resources Control Board (SWRCB) has set a goal of zero toxicity throughout the basin and has designated the Panoche-San Luis Reservoir watershed as a target area for habitat restoration.

Groundwater Resources

The CDWR lists two groundwater basins within two miles of the project areas. Northeast of the project area is the Delta-Mendota Sub-Basin that encompasses 747,000 acres (CDWR 2003). This sub-basin is one of nine that make up the San Joaquin Valley hydrologic region. The second groundwater sub-basin, Los Banos

Creek Valley, covers 4,840 acres and is located south of the Basalt Campground. As it is a smaller basin, very little information is available.

The groundwater quality found with in the Delta-Mendota sub-basin is suitable for urban and agricultural uses after treatment to reduce the concentration of total dissolved solids (TDS). Impacts to groundwater quality are likely a result of high salinity, nutrients, pesticides, and other constituents of concern in surface water.

3.3.5 Water Supply

The water supply for San Luis SRA comes from surface water drawn from the San Luis Reservoir system. Basalt Campground and the San Luis Creek area have separate surface water treatment systems utilizing disinfection and filtration, permitted by the California Department of Health Services as transient/non-community systems. The Basalt Campground system supply is drawn from a submersible pump located at elevation 330 feet above msl (3 feet above the minimum pool) within San Luis Reservoir. The water is pumped to a treatment plant located at an elevation of 620 feet above msl. From the plant, the treated water is then pumped up to a 100-gallon storage tank. A gravity flow distribution system delivers water to the Basalt Campground facilities. The San Luis Creek system draws water from O'Neil Forebay. The intake for the system is at approximate elevation 210 feet above msl and the treatment plant is located on a hill about elevation 340 feet above msl (Skram 2007).

3.4 Recreation

3.4.1 Affected Environment

Although primarily a water storage facility, San Luis Reservoir offers numerous recreational opportunities. Activities include: boating, windsurfing, camping, hiking, picnicking and fishing. The table below demonstrates the popularity of San Luis Reservoir as a destination for recreation enthusiasts.

Table 3-1, Visitor Attendance by Calendar Year,

Year	Paid Day Use	Free Day Use	Overnight Camping	Total Attendance
1996	380,702	72,036	52,278	505,017
1997	365,299	61,941	48,789	476,029
1998	383,615	54,894	35,840	474,349
1999	286,125	39,914	27,490	353,529
2000	699,265	96,814	39,108	835,187
2001	468,860	55,146	36,258	560,264
2002	508,740	61,517	58,051	628,308
2003	510,151	57,215	46,559	613,925
2004	442,924	50,126	38,931	531,981

2005	353,141	43,628	31,828	428,597
2006	206,869	23,858	17,220	247,947
Total Attendance	4,605,692	617,089	432,351	5,655,132
Average Attendance	418,699	56,099	39,305	514,103

The U.S. Census Bureau indicates that there were approximately 29,000 persons in Merced County ages 16 through 64 that were considered physically or mentally disabled, accounting for 23% of the population in that age group. (Merced Co. GP) The likelihood of physically or mentally challenged persons using the facilities at San Luis Reservoir is significant.

The proposed actions would occur in the two of the seven separate areas available in the park: the Basalt Use Area and the San Luis Creek Use Area.

The Basalt Use Area is located at the southeastern corner of San Luis reservoir and includes 79 tent/RV campsites with piped supplied water, fire grills, picnic tables and storage lockers as well as trail access, a campfire center, a four-lane boat launch with a 60-foot boarding dock and close proximity to a grocery store and laundry facilities making it a popular destination.

The San Luis Creek Use Area is located on the west side of O'Neil Forebay directly northeast of San Luis Dam. The area provides two large beaches with beach platforms, large irrigated lawn with 148 shade structures with barbeques, three-lane boat launch ramp with 80-foot boarding dock, fish-cleaning station, restrooms and changing area, picnic area, and 171 parking spaces for vehicles with boat trailers and 390 spaces for single vehicles. In addition, camping facilities include 53 tent and RV campsites (including six ADA accessible) with electric and water hookups, fire pits, and picnic tables. San Luis Creek has two group campsites. The first, which can accommodate 60 campers, provides a large cooking/gathering shelter with lights and electricity, eight shade structures with fire rings and picnic tables, and restrooms with showers. The second, which can accommodate 30 campers, provides a smaller cooking shelter with lights and electricity, five shade structures with fire rings and picnic tables, and restrooms with showers. The group campsites also share an irrigated lawn area and a parking area with approximately 36 single-vehicle spaces.

3.5 Socio-Economic Resources

The San Luis SRA averages approximately 500,000 visitors per year. The volume of visitors at the SRA affects both the economic stability of the recreation area facility operations and the tourism in the surrounding cities. The cities most likely benefiting from visitors to San Luis SRA are Santa Nella and the City of Los Banos.

3.6 Indian Trust Assets

Indian trust assets (ITAs) are legal interests in assets that are held in trust by the U.S. Government for federally recognized Indian tribes or individual Indians. The trust relationship usually stems from a treaty, executive order, or act of Congress. The Secretary of the Interior is the trustee for the United States on behalf of federally recognized Indian tribes. “Assets” are anything owned that holds monetary value. “Legal interests” means there is a property interest for which there is a legal remedy, such a compensation or injunction, if there is improper interference. Assets can be real property, physical assets, or intangible property rights, such as a lease, or right to use something. ITAs cannot be sold, leased or otherwise alienated without United States’ approval. ITAs may include lands, minerals, and natural resources, as well as hunting, fishing, and water rights. Indian reservations, rancherias, and public domain allotments are examples of lands that are often considered trust assets. In some cases, ITAs may be located off trust land.

Reclamation shares the Indian trust responsibility with all other agencies of the Executive Branch to protect and maintain ITAs reserved by Indian tribes, or individual Indians by treaty, statute, or Executive Order.

3.7 Environmental Justice

Executive Order 12898, dated February 11, 1994, requires Federal agencies to ensure that their actions do not disproportionately impact minority and disadvantaged populations. The market for seasonal workers on local farms draws thousands of migrant workers, commonly of Hispanic origin from Mexico and Central America. The population of some small communities typically increases during late summer harvest.

Chapter 4: Environmental Consequences

4.1 Biological Resources

4.1.1 Natural Communities, Vegetation, Wetlands and Invasive Species

Alternative 1: No Action

Under the no action alternative, there would be no change in current conditions with regard to natural communities, plants, or wetlands, as no new facilities would be constructed. The trail portion of the project would continue to be used by recreational vehicles to access the lakeshore, and associated erosion and spread of invasive species would continue. In addition, small amounts of pollutants associated with vehicles would continue to be introduced into the lakeshore environments.

Alternative 2: San Luis Trail Construction Only

Alternative 2 would convert a dirt road that is currently used by vehicles to access the lakeshore to a paved hiking and wheel-chair access trail, removing future vehicle traffic and associated impacts to the area. There would be minor disturbance to non-native grassland to correct the slope of the trail, and connect brief portions where the dirt road does not exist. The non-native grassland is the only vegetation that would be impacted by this project as no sensitive, rare, threatened, or endangered plant species occur in the project area. These areas of disturbance total less than $\frac{3}{4}$ of an acre and the disturbed acreage would be replanted with native grass seed. No natural communities or wetlands would be directly impacted by this project. The potential for indirect impacts to wetlands and natural communities that could have occurred from increased sedimentation or surface runoff would be reduced, and would not be significant with implementation of the SWPPP and the flagging of wetlands and other natural resources. Indirect effects could also occur if invasive and noxious weeds were introduced into neighboring wetlands or natural communities. These impacts would be reduced and consequently would not be significant with implementation of Environmental Commitment #2 by cleaning construction equipment prior to leaving the site, making sure that equipment enters and leaves the project free of extraneous debris that could contain seeds and removing and disposing of any invasive species in areas that would be disturbed.

Alternative 3: Basalt Campground/Day Use Area Restroom Replacement Only

Alternative 3 would provide ADA accessible restroom facilities at Basalt Campground. This project lies entirely within a campground planted with non-native tree and shrub species. The base of the campground consists of paved parking spaces or heavily compacted bare ground. No natural communities or wetlands occur in or near the project area. There are also no sensitive, rare, threatened or endangered plant species that occur in the project area and there would be no direct impacts to these resources.

Alternative 4: San Luis Creek Day Use Area Restroom Replacement Only

Alternative 4 would provide ADA accessible restroom facilities in place of non-compliant buildings currently on site. The three restrooms lie entirely within a heavily used, heavily landscaped, irrigated area. The base of the use area consists of lawn, pavement, picnic area, and sand beach. The tree species are nearly all non-native eucalyptus and pine species. There are also no sensitive, rare, threatened or endangered plant species that occur in the project area and there would be no direct impacts to these resources.

Alternative 5: Proposed Action

Alternative 5 would provide ADA restroom access in both the Basalt Campground and San Luis Creek Day Use Area. An ADA accessible trail would also be established along the northwest shore of O'Neill Forebay. There are no sensitive, rare, threatened or endangered plant species in the areas discussed in Alternatives 2-4 above and there would be no cumulative impacts to plant species. No natural communities or wetlands would be directly impacted by the projects in Alternatives 2-4 above. The implementation of these three projects together would temporarily increase construction

related vehicle traffic, but these vehicles would not be entering or affecting any natural communities or wetlands.

Cumulative Impacts

The proposed project would provide ADA access to restrooms in the campground and day use areas, and convert a dirt road into an ADA trail. This would not result in a net increase in parking or a projected increase in use at any of the project locations. No natural communities, wetlands, or sensitive plants would be impacted at any of the project locations. The conversion of the dirt road into an ADA trail would reduce the amount of vehicle traffic along the lakeshore, which would benefit vegetation and natural communities adjacent to those areas because of reduced traffic. Other impacts associated with vehicle use, including erosion and introduction of exotics, would be reduced as well. There would be a temporary increase in construction vehicle traffic; however, campgrounds would be closed during construction, which would reduce recreational traffic.

4.1.2 Wildlife

Alternative 1: No Action

Under the No Action Alternative, there would be no change in current conditions in regard to sensitive, rare, threatened or endangered animal species, as no new facilities would be constructed. The trail portion of the project would continue to be used by recreational vehicles to access the lakeshore and associated disturbance to general wildlife species in the area would continue. In addition, introduction of pollutants associated with vehicles would continue to be introduced into the area and these could potentially impact wildlife species.

Alternative 2: San Luis Trail Construction Only

Alternative 2 would convert a dirt road that is currently used by vehicles to access the lakeshore to a paved trail, removing future vehicle traffic and associated impacts to the area. There would be minor disturbance to non-native grassland to correct the slope of the trail, and connect brief portions where the dirt road does not exist. Direct impacts to wildlife species, particularly San Joaquin kit fox, in the small area of disturbance would be reduced through implementation of the kit fox avoidance measure committed to as Environmental Commitment # 5. The potential for nesting raptors in close proximity to the project area also exists; this disturbance would be reduced through implementation of Environmental Commitment #6. Common wildlife species would be temporarily exposed to construction-related noise and human activity within a localized area centered on the dirt road to trail conversion. Staging would occur at the mid-point of the trail project in a group camping area. These levels of noise associated with the construction activities would be greater than existing off-season ambient levels. Daily and seasonal restrictions on construction activities will limit these impacts to the non-breeding season (where possible) and daytime hours to protect general and sensitive wildlife species.

Alternative 3: Basalt Campground/Day Use Area Restroom Replacement Only

Alternative 3 lies entirely within a campground planted with non-native tree and shrub species. This project would only impact areas that are currently developed and would

not directly impact any wildlife habitat. The same measures in place to protect wildlife species in Alternative 2 would be in place at Basalt Campground. No outside noise-generating activities will occur between February 1 and August 31 in order to protect Swainson's hawks, which are known to nest in the campground. This will require that all noise-generating activities are completed before Swainson's hawks return to the site to breed. In addition, there is the potential for California tiger salamanders to move through the campground on dispersal to or from distant breeding ponds. Incorporation of CTS avoidance measures described in Environmental Commitment # 10 would reduce potential impacts to long-distance dispersing CTS to a minimal level.

Alternative 4: San Luis Creek Day Use Area Restroom Replacement Only

The action area of Alternative 4 lies entirely within a heavily used, heavily landscaped, irrigated area. The base of the use area consists of lawn, pavement, picnic area, and sandy beach. The access road for this portion of O'Neill Forebay lies between non-native grassland habitat and the western portion of the day use area. The restrooms all lie on the eastern portion of the day use area. The tree species are nearly all non-native eucalyptus and pine species. The same actions and avoidance measures in place to protect wildlife in Alternatives 2 and 3 would be in utilized at San Luis Creek Day Use Area.

Alternative 5: Proposed Action

Alternative 5 would result in the same minimal level of effects to wildlife as described in each of the Alternatives 2 through 4 above.

Cumulative Impacts

The proposed projects in Alternative 5 would not directly impact any natural communities. There would be no removal or alteration of habitat in Alternatives 3 and 4. The only habitat alteration in Alternative 2 consists of very minor impacts to non-native grassland. These areas would be replanted with native grasses and the area would benefit in the long-term from the restriction of vehicle traffic access to this portion of the lakeshore, which is the current situation. These combined projects would not remove any habitat for sensitive plant or animal species. For this reason, the projects would not contribute to direct cumulative impacts of past or future projects which may occur in the area.

These projects would result in a temporary increase in construction equipment traffic, but recreational traffic would be reduced because campgrounds would be closed during construction. This increase in traffic may result in the short-term indirect effect of wildlife species avoiding the areas of high use or noise. However, the projects are far enough apart that noise generation from one project area would not contribute to noise levels at the other areas. Measures are also in place to limit these disturbance activities to the non-breeding season for birds and to provide protections for other sensitive animal species that are located near the project area by conducting pre-construction surveys.

Common wildlife species would be temporarily exposed to construction-related noise and human activity within the local project areas of Alternatives 2-4. The only additional

impact from implementation of Alternative 5 would be a short-term increase in traffic between sites. The levels of noise associated with construction activities would be greater than existing off-season ambient levels. Daily and seasonal restrictions on construction activities would limit these impacts to the non-breeding bird season (where possible) and daytime hours to protect general and sensitive wildlife species.

Conclusion

Implementation of Alternative 5 would result in short-term, negligible to minor, adverse, direct and indirect impacts to general wildlife species from noise and human activity related construction activities. The only added impact of conducting all three portions of the project together (Alternative 5) would be the increased traffic between sites. This would result in a short-term impact to any wildlife species on or along the roadway. Implementation of measures to protect wildlife species of concern would reduce potential impacts to sensitive wildlife species.

4.2 Cultural Resources

Alternative 1: No Action

Under the No Action Alternative, CDPR would not proceed with the project and facilities would continue to be non-compliant with the Americans with Disabilities Act.

Alternative 2: San Luis Trail Construction Only

CDPR archaeologists conducted physical survey of the entire Area of Potential Effect (APE), and documented the work in three separate archaeological survey reports (Brooke 2007, Wulzen 2007a, and 2007b). There were no previously recorded cultural resources within the proposed ADA projects at San Luis Reservoir SRA APE and no new resources were identified during the surveys.

No Effect - no minimization or mitigation measures are necessary.

Alternative 3: Basalt Campground/ Day Use Area Restroom Replacement Only

CDPR archaeologists conducted physical survey of the entire Area of Potential Effect (APE), and documented the work in three separate archaeological survey reports (Brooke 2007, Wulzen 2007a, and 2007b). There were no previously recorded cultural resources within the proposed ADA projects at San Luis Reservoir SRA APE and no new resources were identified during the surveys.

No Effect - no minimization or mitigation measures are necessary.

Alternative 4: San Luis Creek Day Use Area Restroom Replacement Only

CDPR archaeologists conducted physical survey of the entire Area of Potential Effect (APE), and documented the work in three separate archaeological survey reports (Brooke 2007, Wulzen 2007a, and 2007b). There were no previously recorded cultural resources within the proposed ADA projects at San Luis Reservoir SRA APE and no new resources were identified during the surveys.

No Effect - no minimization or mitigation measures are necessary.

Alternative 5: Proposed Action

CDPR archaeologists conducted physical survey of the entire Area of Potential Effect (APE), and documented the work in three separate archaeological survey reports (Brooke 2007, Wulzen 2007a, and 2007b). There were no previously recorded cultural resources within the proposed ADA projects at San Luis Reservoir SRA APE and no new resources were identified during the surveys.

No Effect - no minimization or mitigation measures are necessary.

4.3 Hydrology and Water Quality

Alternative 1 – No Action

If the proposed project is not implemented, CDPR would not proceed with the project. The No Action Alternative would result in the continued use of the current facilities at San Luis Reservoir SRA and would have no effect on groundwater levels, surface runoff, or water quality in the project area.

The No Action Alternative would result in the continuation of baseline conditions, which have no local and regional, short and long-term, major, direct, and indirect adverse impacts to hydrology and water quality conditions.

Alternative 2 - San Luis Trail Construction Only

The construction of the San Luis Trail would upgrade and expand the trail and allow all park visitors an O'Neill Forebay shoreline view as they utilize the trail connecting the San Luis Campground to the San Luis Day Use Area. A formal, designated trail would prevent the formation of non-designated trails and would result in the stabilization of areas prone to erosion, including decommissioning of volunteer trails.

Construction activities could result in ground disturbance leading to erosion and would include the use of construction materials and potential vehicle and equipment fluids that, if released, could impact water quality. The environmental commitments to control erosion and to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) incorporated into the alternatives, would prevent the potential release of these materials into water ways.

In addition, construction of new trail segments and paving of trails would create a direct impact by increasing the amount and location of impermeable surfaces, with a resultant increase in storm water runoff in some areas. As part of the project description, trail construction would follow the DPR-approved Trail Handbook Guidelines. The trail would be constructed in a manner that would prevent volumes of storm water runoff which could result in erosion.

Facilities related to surface water and groundwater resources would not be changes and therefore there would be no impact to these resources.

Alternative 3 – Basalt Campground Replacement Only

The Basalt Campground project would remove the existing combination buildings and replace them with new ADA-compliant combination buildings.

This project would potentially have minor direct impacts to hydrologic and water quality resources. Most work would occur within the footprint of the existing buildings so construction impacts would be limited. Ground disturbance during demolition and construction of the new restrooms; grading of pathways; trenching for utility lines; and any other ground disturbing activities would be done in accordance with the BMPs in the Stormwater Best Management Practice Handbook for Construction and scheduled outside of the rainy season. Implementation of these BMPs would prevent construction related water quality impacts. Spills of vehicle and equipment fluids and releases of raw sewage that may otherwise have impacted water quality would be eliminated by the implementation of the SWPPP.

Paving of walkways and the new restroom buildings would not result in a large increase of impermeable surfaces. Environmental commitments relating to drainage including the commitment to construct channels which would divert drainage into culverts or ditches would eliminate erosion due to increased stormwater run off.

Facilities related to surface water and groundwater resources would not be changes and therefore there would be no impact to these resources.

Alternative 4 - San Luis Creek Day Use Area Restroom Replacement Only

The replacement of these facilities would bring the San Luis Creek Day Use Area into ADA compliance. The San Luis Creek Day Use amenities are primarily in open areas that are easily accessible by construction machinery.

All of the potential direct impacts described under Alternative 3 would be applicable for Alternative 4. These impacts would be addressed by utilizing the BMPs, SWPPP and alteration of the construction period as described under Alternative 3. There would not be any direct impacts to water quality from construction-related pollution.

Facilities related to surface water and groundwater resources would not be changes and therefore there would be no impact to these resources.

Alternative 5 - Proposed Action

Implementing the entire project would eliminate the need to complete each of these projects separately at later dates. By combining the projects, the time required to construct the different components can be consolidated and the work completed during one off-peak season. Completing all the projects together would also reduce the amount of time that potential construction-related impacts could occur. Impacts to hydrologic or water quality resources are not anticipated as described for Alternatives 2, 3 and 4 above.

Cumulative Impacts

Past and current developments and land uses both within and adjacent to San Luis Reservoir State Recreation Area have contributed to erosion and increased runoff of sediments into the Reservoir. With the SWPPP and other erosion control and drainage

management techniques in use, the proposed action would not result in temporary or long term impacts to hydrology and water quality.

4.4 Recreation

The availability of services and inconvenience to the park visitor are the primary factors for potential to impact recreation and visitor services during implementation of this project.

Alternative 1: No Action

Under the No Action Alternative, CDPR would not proceed with the project and facilities would continue to be non-compliant with the Americans with Disabilities Act. Existing conditions would remain the same.

Alternative 2: San Luis Creek Trail Construction Only

The temporary closures to foot traffic of the connection between San Luis Creek Area facilities would inconvenience some park visitors however visitors would continue to be able to access the separate areas by vehicle. Project construction is expected to take approximately 5 months. Within the 40-year life of the trail this is a small percentage of time for the trail to be closed and would result in an upgrading of the trail so that future trail use experiences would be enhanced. Additionally, the implementation of this project would enable CDPR to upgrade its facilities to meet ADA compliance requirement and allow all park visitors a quality recreational experience. CDPR would implement this project during low-visitation (after Labor Day weekend) periods of the year and be completed prior to the high-visitation season. Prior to the start of construction, CDPR or its contractor would install temporary, CDPR-standard signage alerting visitors of the trail closure.

Overall there would be a beneficial impact to recreation at the San Luis SRA as a result of the trail construction. In the context of all of the recreation available at the recreation area which predominantly is water related the temporary trail closure and trail improvement impacts on recreation would be minor.

Alternative 3: Basalt Use Area Restroom Replacement Only

Replacement of Basalt Use Area Restrooms only would occur in both loops of the Basalt Campground area. The demolition of the old restroom facilities and construction of the new, ADA compliant facilities would require that the campground area be closed to all users for public health and safety reasons. This project area is well removed from the main use areas and project-related construction inconveniences would be minimal. Although this campground would be closed to public use, the park has three other locations (San Luis Creek, Los Banos Creek and Medeiros Day Use Areas) available for camping. As soon as a project alternative is approved, CDPR would remove the Basalt Campground from the statewide campsite reservation system.

Prior to the start of construction, CDPR or its contractor would install appropriate temporary signage alerting visitors of the campground closure and the access gate would remain closed for the duration of the project.

Similar to the other alternatives, this action would allow CDPR to upgrade its facilities to appropriate ADA compliance and allow all park visitors a quality recreational experience. This would be considered a minor beneficial effect.

Alternative 4: San Luis Creek Use Area Restroom Replacement Only

Implementation of this Action requires the demolition and reconstruction of three combination dressing room/restroom buildings at the north, south and boat launch areas of the San Luis Creek Use Area. Alternate restrooms are available nearby. Similar to all alternatives, this action allows CDPR to upgrade its facilities to appropriate ADA compliance and allow all park visitors a quality recreational experience, creating a beneficial impact. Staging areas for this action would require areas of the parking area located near the boat launch which may inconvenience some visitors. This would be temporary. CDPR would implement this project during low-visitation (after Labor Day weekend) periods of the year and be completed prior to the high-visitation season. Prior to the start of construction, CDPR or its contractor would install temporary, CDPR-standard signage alerting visitors of the trail closure. Since the replacement would be done during low visitation times and signage would inform visitors of the requirement to use alternative nearby restroom facilities there would be minor effects detrimental to recreation. There are also minor beneficial effects as the restroom facilities would be made accessible to visitors with disabilities.

Alternative 5: Proposed Action

Implementation of the Proposed Action, all action alternatives, would eliminate the need to complete each of these projects separately at a later date and therefore reduce the length of time construction crews are in the park, allow work to occur in one off-peak season, and reduce inconveniences to park visitors while allowing CDPR to upgrade its facilities to appropriate ADA compliance and allow all park visitors a quality recreational experience, a beneficial impact. For each of the projects separately, CDPR estimates construction to take a total of 15 months (450 days) however by combining the three projects the estimation for total completion is 180 days.

Cumulative Impacts

As CDPR rehabilitates its aging facilities to comply with the Americans with Disabilities Act, projects would continue to cause minor inconveniences to visitors and reduce recreational opportunities in minor and temporary ways. However, as the mentioned in each of the alternatives above, the inconveniences are temporary and the outcomes are beneficial to visitors. Implementation of all aspects of the alternatives including the environmental commitments would effectively reduce impacts to visitors and actions would not significantly spoil the recreational experience.

4.5 Socioeconomic Resources

Alternative 1: No Action

Without the upgrading of the facilities to bring them into compliance with ADA and CDPR's Consent Decree closure of the recreational facilities in the Basalt Campground and decreased restroom facilities in the San Luis Creek Day Use area may occur. The day use experience in the San Luis Creek area may be degraded due to large numbers of visitors utilizing a more limited number of restroom facilities. Fewer campsites would be available for visitors. Decreased campsites and the potential decrease in day use caused by diminished facilities could result in reductions of fees for the CDPR to operate the SRA. There could also be a slight decrease in tourism revenues in the surrounding cities of Santa Nella and Los Banos due to decreases in visitors to the SRA.

Alternative 2: San Luis Creek Trail Construction Only

The completion of the 1.5 miles of trail between two existing recreational facilities is unlikely to change the volume of visitation at the SRA or the surrounding communities and therefore there would be no effect on the socioeconomics of the area or individuals based on this action. Although there would be a three-month construction period, employment opportunities would not undergo long-term or major changes.

Alternatives 3 through 5

The upgrading of restroom facilities to meet ADA standards would allow the Basalt campgrounds to remain open and the retrofit at the San Luis Creek day use facilities would allow the same level of restroom facilities as currently are in existence. Although bringing these facilities up to compliance with ADA standards would allow 23% of the recreating population in Merced County additional opportunities, San Luis SRA's facilities have a limited capacity to receive increased visitors. Additionally the potential increase in visitorship (with its ancillary increase in revenues for both the CDPR and the surrounding city's tourism) is within the variability already experienced at the SRA. The average annual paid use is 418,699 per year however the peak has been 699,265 (an increase of 67% above the average) and the lowest paid visitorship has been 206,869 (a reduction of 50% from the average.) This historic variation would mask the potential increased use of up to 23%. The potential increased use would also be tempered by the capacity of the facilities which are already maximally put to use during holidays and other high use time periods. Since the potential increase in use is within the normal variation of the baseline and would be limited by current peak use patterns, any additional use by persons with disabilities may have a minor positive impact on the gate receipts for the SRA and a minor positive impact on tourism.

4.6 Indian Trust Assets

Alternative 1: No Action

Under the No Action Alternative there are no impacts to Indian Trust Assets, since conditions would remain the same as existing conditions.

Alternatives 2 through 5

There are no tribes possessing legal property interests held in trust by the United States in the action area for these alternatives. The nearest Indian trust assets to this action are located at the about 27 miles away. This action would have no adverse effect on Indian trust assets.

Cumulative Effects

The proposed action has no impacts on ITAs, and therefore does not contribute to cumulative effects on those resources.

4.7 Environmental Justice

Alternative 1: No Action

Under the No Action Alternative there would be no impacts to low income or disadvantaged populations. Recreational opportunities will be available to all populations equally.

Alternatives 2 through 5

The Alternative would not cause dislocation, changes in employment, or increase flood, drought, or disease. The Alternatives would not disproportionately impact economically disadvantaged or minority populations. There would be no changes to existing conditions. Employment opportunities for low-income wage earners and minority population groups would be within historical conditions. Disadvantaged populations would not be subject to disproportionate impacts.

Cumulative Effects

The Alternatives have no impacts on Environmental Justice, and therefore do not contribute to cumulative effects on this resource.

Chapter 5: Regulatory Guidance

5.1 Fish and Wildlife Coordination Act (16 USC § 651 et seq.)

The Fish and Wildlife Coordination Act requires that Reclamation consult with fish and wildlife agencies (federal and state) on all water development projects that could affect biological resources. The implementation of the CVPIA, of which this action is a part, has been jointly analyzed by Reclamation and the FWS and is being jointly implemented. The Proposed Action is not a water development project and therefore the FWCA does not apply.

5.2 Endangered Species Act (16 USC 1521 et seq.)

Section 7 of the Endangered Species Act requires Federal agencies, in consultation with the Secretary of the Interior, to ensure that their actions do not jeopardize the continued existence of endangered or threatened species, or result in the destruction or adverse modification of the critical habitat of these species. Reclamation has requested a concurrence from the Fish and Wildlife Service that the proposed action will not adversely affect endangered species. The Environmental Assessment will not be finalized until the coordination and consultation with the USFWS has been completed.

5.3 National Historic Preservation Act (15 USC 470 et seq.)

Section 106 of the National Historic Preservation Act requires federal agencies to evaluate the effects of federal undertakings on historical, archaeological and cultural resources. Reclamation is reviewing the proposed action for any effects to historical, archaeological or cultural resources and will be coordinating with the State Historic Preservation Officer (SHPO). The Environmental Assessment will not be finalized until the coordination and consultation with the SHPO has been completed.

5.4 Migratory Bird Treaty Act (16 USC Sec. 703 et seq.)

The Migratory Bird Treaty Act implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior (Secretary) may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic value, breeding habits and migratory flight patterns.

The Proposed Action would have no effect on birds protected by the Migratory Bird Treaty Act.

5.5 Executive Order 11988 – Floodplain Management and Executive Order 11990-Protection of Wetlands

Executive Order 11988 requires Federal agencies to prepare floodplain assessments for actions located within or affecting flood plains, and similarly, Executive Order 11990 places similar requirements for actions in wetlands. The project would not affect either concern.

A complete list of environmental commitments can be found in Appendix A.

Chapter 6: List of Preparers and References

6.1 Preparers

California Department of Parks and Recreation

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6.2 References

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Appendix A: Environmental Commitments

This appendix provides a comprehensive list of commitments that would be implemented by CDPR relating to the alternatives described in this EA.

Best Management Practices

Best Management Practices (BMPs) will be incorporated into the project design to ensure that the natural and cultural resources in and around the project area are adequately protected during and after construction. The BMPs discussed in this document and used in the implementation of this project were obtained from the *California Stormwater Quality Association (CSQA), Stormwater Best Management Practices Construction Handbook*. Temporary BMPs will be used to keep sediment on-site throughout the duration of the project; during construction, BMPs will be checked daily, maintained, and modified as needed. BMPs will be used after construction to stabilize the site and minimize erosion.

Specific Temporary BMPs include, but are not limited to:

- **Scheduling:** the development of a written plan that includes sequencing of construction activities and the implementation of BMPs while taking local climate (rainfall, wind, etc.) into consideration.
- **Silt Fencing:** silt fencing is made of a filter fabric that has been entrenched, attached to supporting poles, and sometimes backed by a plastic or wire mesh for support. The silt fence detains sediment-laden water, promoting sedimentation behind the fence.
- **Fiber Roll:** a fiber roll consists of straw, flax, or other similar materials bound into a tight tubular roll. When fiber rolls are placed at the toe and on the face of slopes, they intercept runoff, reduce its flow velocity, release the runoff as sheet flow, and provide removal of sediment from the runoff. By interrupting the length of a slope, fiber rolls can also reduce erosion.
- **Rice Straw:** rice straw wattles are used to temporarily stabilize barren slopes by reducing soil creep, shortening the slope length and steepness, and by slowing, spreading and filtering overland water flow. They help to prevent sheet erosion as well as rill and gully development, both of which occur when run-off flows uninterrupted down a slope. Rice straw carries little weed seed and what it does carry will only germinate in standing water, not on the slopes it's designed to protect. Rice straw produces an excellent high density material, along with its natural high silicon content. It's slow to decompose; giving rice straw an advantage in durability, and an on-the-job life span that can easily last three to five years.
- **Erosion Control Blanket:** A temporary protective blanket laid on top of bare soil vulnerable to erosion, commonly made of mulch, wood fibre or synthetics.

Specific Permanent BMPS include, but are not limited to:

- **Hydro-Seed** with Native Grass: typically consists of applying a mixture of wood fiber, seed, fertilizer, and stabilizing emulsion with hydro-mulch equipment to temporarily protect exposed soils from erosion by water and wind.
- **Fiber and Straw:** (as a final treatment)

Environmental Commitment (EC) #1 - Wetland Zone Avoidance Measures

Prior to the start of construction, a CDPR-approved biologist will flag all wetland and other sensitive natural resources in the project area. All vehicles, equipment routes, staging, and stockpiling areas will be located away from these flagged areas.

EC #2 - Control Introduction and Dispersal of Invasive Plants.

- All seeding used for erosion control on the site will be from locally-adapted native seed approved by the CDPR's Representative.
- All construction vehicles and equipment will enter and leave the project site free of soil, vegetative matter or other debris that could contain seeds.
- Construction equipment used on the San Luis Creek Trail portion of the project will be cleaned before transport to other areas of San Luis Reservoir State Recreation Area to prevent invasive plant seed dispersal.
- Prior to the start of construction, a CDPR Biologist will flag any yellow starthistle or other invasive species of concern in areas that will require soil disturbance during construction for removal. Plants will be manually removed and hand-bagged for proper disposal off-site.
- The construction contractor will routinely inspect vehicles to verify that construction vehicles are being cleaned of soil and plant material before being moved to or from the project site.

EC#3 – Erosion Control

- Prior to the start of construction, CDPR or its Contractor will prepare a Storm Water Pollution Prevention Plan (SWPPP) for this project. The SWPPP will include both temporary BMPs during construction and permanent BMPs for after construction control of erosion and sediment runoff. CDPR-approved BMPs, such as silt fences, weed-free fiber rolls, mulch or other applicable techniques will be utilized and whenever possible, work will be scheduled outside of the rainy season (October 16 to April 15). Information on approved BMPs can be found in the Stormwater Best Management Practice Handbook for Construction, available on-line at www.cabmphandbooks.com. The SWPPP will also include BMPS for construction debris disposal, spill prevention and response for other potential pollutants such as vehicle and equipment fluids, and construction materials.
- The project design plans will include permanent erosion control measures such as re-compaction and re-vegetation to prevent erosion and sediment release to nearby water bodies.

EC#4 – Trail Erosion Control

- All trail construction will follow CDPR-approved Trail Handbook Guidelines. Pathways will be constructed in a manner that will prevent concentration of storm water runoff and resulting erosion. Water should drain evenly under sheetflow conditions, or be channeled into drainage culverts or ditches designed to handle the anticipated flow and with energy dissipation structures or materials.

EC #5 - San Joaquin Kit Fox and Burrowing Owl Avoidance Measures

- No more than 30 days but no less than 14 days before the start of any work, a U.S. Fish and Wildlife Service (USFWS)-approved biologist will conduct a pre-construction survey for SJKF using the standard surveying protocol found in “U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance”. A survey report will be sent to the USFWS within 5 days after the completion of the survey. If any SJKF, active dens, or other listed species are found, the approved biologist will contact the USFWS and request additional guidance on the appropriate measures to implement. A Reclamation biologist will be notified at that time of such findings,
- Prior to the start of construction, a USFWS-approved biologist will conduct a training session for all construction and park personnel involved in construction of the project. At a minimum, the training will include a description of the kit fox and its habitats, the general measures that are being implemented to conserve the species as they relate to the project, and the physical boundaries of the project. The training will include instruction in the appropriate protocol to follow in the event that SJKF are found onsite. Brochures, books and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions. In the event that a SJKF is found onsite during construction activities, all work in that location will cease immediately until the USFWS-approved biologist has contacted the USFWS. The Service-approved biologist will then advise the State’s Representative of any additional avoidance measures, if any that are required by the USFWS. A Reclamation biologist will be notified of additional measures that the USFWS requires to be implemented.
- Project-related vehicles will observe a 20-mph speed limit in all project areas; equipment staging will be confined to existing parking (gravel and surfaced) areas; construction will be limited to the daylight hours; and construction vehicles and equipment will enter and leave the project site free of soil, vegetative matter or other debris that could contain weed seeds.
- To prevent accidental entrapment of SJKF or other small animals, all holes and trenches will be covered at the close of each work day or escape ramps (plywood or similar materials) will be provided; unused pipe and culvert openings in all areas will be covered at the close of each work day. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods will be thoroughly

inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a fox is trapped, injured, or killed, it will be immediately reported to the USFWS and the California Department of Fish and Game (CDFG). Subsequently, a Reclamation biologist also shall be notified.

- All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed at least once a week from the construction area and properly disposed.
- No person associated with this project will be allowed to possess firearms on the project site, except peace officers.
- No person associated with this project will be permitted to have pets of any kind on the project sites.
- The CDPR's representative will be the contact source for any employee or contractor who discovers a SJKF on or near the Area of Potential Effect (APE), who inadvertently kills or injures a SJKF, or who finds a dead, injured or entrapped SJKF. The State's representative will be identified during the employee education program and his/her telephone number will be provided to the USFWS.
- The Sacramento Fish and Wildlife Office and CDFG will be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project-related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other related information.

EC #6 - Swainson's Hawks and Other Nesting Raptor Avoidance Measures

- To the extent possible, all outside noise-generating activities will occur only during the non-breeding season (September 1 and January 31).
- If outside noise-generating construction activities are necessary during the breeding season (February 1 and August 31), a CDPR-approved biologist will conduct a focused survey during the breeding season at the discretion of the CDPR-approved Biologist to identify active raptor nests within ¼ mile of the project area.
- If nesting raptors are found, no construction activities will occur within a 250-foot radius of the nest tree during the breeding season, or until the young have fledged (as determined by a CDPR-approved biologist) and there is no evidence of a second attempt at nesting.
- Any non-native tree removal work will occur between September 1 and January 31 to protect nesting raptors, unless otherwise approved by a CDPR-approved biologist.

EC #7 - Migratory Bird Avoidance Measures

- Any non-native tree removal will occur between September 1 and January 31 to protect nesting migratory birds, unless otherwise approved by a CDPR-approved biologist.

- To the extent possible, construction activities will be completed prior to the migratory bird nesting season (April 15-August 31). If construction activities will occur during the migratory bird nesting season (April 15-August 31), a CDPR-approved biologist will conduct a survey for nesting bird species.
- If active nests are located, no construction activities will occur within a minimum 100-foot radius of the nest tree until the nest is vacated, juveniles have fledged (as determined by a CDPR-approved biologist), and there is no evidence of a second nesting attempt.

EC #8 Visitation

- CDPR will implement this project during low-visitation (after Labor Day weekend) periods of the year and be completed prior to the high-visitation season.
- Prior to the start of construction, CDPR or its contractor will install temporary, CDPR-standard signage alerting visitors of the trail closure.

EC #9 – Campsite Closure

- As soon as a project alternative is approved, CDPR will remove the Basalt Campground from the statewide campsite reservation system.
- Prior to the start of construction, CDPR or its contractor will install appropriate temporary signage alerting visitors of the campground closure and the access gate will remain closed for the duration of the project.

EC # 10 – California Tiger Salamander Avoidance Measures

- Prior to the start of construction, a CDPR-approved biologist will inspect the work site for California Tiger Salamander (CTS) and other wildlife species. If CTS is found during CDPR or other CDPR-approved personnel inspections, construction in that location will cease until the animal has moved out of the area of its own accord, or is removed from the site by a USFWS-permitted biologist.
- Vehicle access routes and number and size of staging and work areas will be limited to the minimum necessary as determined by CDPR to achieve the project goals. Equipment staging and vehicle parking will occur only on paved parking areas to avoid any compaction of burrows or potential burrow sites.
- Construction activities will occur only during daylight hours to avoid time periods when CTS generally exhibit dispersal movements.
- To prevent accidental entrapment of CTS or other small animals, all holes and trenches will be covered at the close of each work day or escape ramps (plywood or similar materials) will be provided; unused pipe and culvert openings in all areas will be covered at the close of each work day. All construction pipes, culverts, or similar structures that are stored at a construction site for one or more overnight periods will be thoroughly inspected for CTS before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a CTS is trapped, injured, or killed, it will be immediately reported to the USFWS and the CDFG. Subsequently, a Reclamation biologist also will be notified.
- No person associated with this project will be permitted to have pets of any kind on the project sites.

- Prior to the start of construction, a CDPR-approved biologist will conduct a training session for all project personnel. Instruction will cover identification of sensitive species and their habitat, and specific measures required to protect and avoid sensitive wildlife.
- The Sacramento Fish and Wildlife Service Office and CDFG will be notified in writing within three working days of the accidental death or injury to a CTS during project-related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other related information.

EC # 11 - Drainage

- Drainage from and around the new buildings will either be channeled into drainage culverts or ditches designed to handle the anticipated flow or will drain evenly under sheetflow conditions and allowed to percolate into the surrounding soils.

Additional Controls

The following environmental commitments are associated with Best Management Practices and are conditions placed on the project in consideration of local air quality, seismic safety, fire safety, spill prevention, noise, and erosion control guidelines

Air Quality

- All active construction areas will be watered at least twice daily during dry, dusty conditions.
- All trucks hauling soil, sand, or other loose materials on public roads will be covered or required to maintain at least two feet of freeboard.
- All equipment engines will be maintained in good condition, in proper tune (according to manufacturer's specifications), and in compliance with at State and federal requirements.
- Excavation and grading activities will be suspended when sustained winds exceed 25 miles per hour, instantaneous wind gusts exceed 35 miles per hour, or dust from construction could obscure driver visibility on public roads.
- Earth or other material that has been transported onto paved streets by trucks, construction equipment, erosion, or other project-related activity will be promptly removed.

Erosion Control (Basalt Use Area)

- Prior to the start of construction, CDPR or its Contractor will prepare a Water Pollution Control Plan (WPCP) for this project (project site is less than 1 acre). The WPCP will include both temporary BMPs during construction and permanent BMPs for after construction to control erosion and sediment runoff. CDPR-approved BMPs, such as silt fences, weed-free fiber rolls, mulch or other applicable techniques will be utilized and whenever possible,

work will be scheduled outside of the rainy season (October 16 to April 15). Information on approved BMPs can be found in the Stormwater Best Management Practice Handbook for Construction, available on-line at www.cabmphandbooks.com.

- Preservation of existing vegetation (trees and shrubs) will be a required BMP - construction crews will avoid, as much as possible, the disturbance or destruction of vegetation during their work. The WPCP will also include BMPs for construction debris disposal, spill prevention and response for other potential pollutants such as vehicle and equipment fluids, and construction materials.
- The project design plans will include permanent erosion control measures such as re-compaction and re-vegetation of disturbed areas with native species using seed collected locally, where possible, or non-invasive grasses and forbs, or sterile erosion-control seed mix. A qualified CDPR Environmental Scientist will be consulted for appropriate plant species.

Seismic Safety

- The new combination buildings will be designed and constructed in accordance with the applicable seismic criteria in the current edition of the California Building Code.

Hazardous Materials

- Prior to the start of construction, the contractor will inspect all equipment for leaks and regularly inspect thereafter until equipment is removed from park premises.
- Refueling, lubrication, and equipment maintenance areas will be located at least 100 feet from any bodies of water, including but not limited to the San Luis Reservoir and any nearby water drainages or streams.
- In the event of any spill or release of any chemical in any physical form at the project site or within the boundaries of San Luis Reservoir State Recreation Area during construction, the contractor will immediately notify the appropriate CDPR staff (e.g., project manager, supervisor, or State Representative) and implement appropriate spill containment procedures, as identified in the SWPPP for Spill Prevention and Control.
- Equipment will be cleaned and repaired (other than emergency repairs) outside state park boundaries. Prior to the start of construction, all equipment will be cleaned before entering park boundaries. All contaminated water, sludge, spill residue, or other hazardous compounds will be contained and disposed of outside park boundaries, at a lawfully permitted or authorized destination.

Fire Safety

- Prior to the start of construction, the contractor will develop a fire safety plan for CDPR approval. This plan will include the emergency calling procedures and any required employee training.
- Spark arrestors or turbo-charging (which eliminates sparks in exhaust) and fire extinguishers will be required for all heavy equipment.

- Construction crews will be required to park vehicles away from flammable material, such as dry grass or brush. At the end of each workday, heavy equipment will be parked over asphalt, gravel, or concrete to reduce the chance of fire.
- Fire suppression equipment (fire extinguishers, fire hoses, etc.) will be available and located on park grounds. CDPR staff will be required to have a State Park radio on site, which will allow direct contact with the CDF and a centralized CDPR dispatch center, to facilitate the rapid deployment of control crews and equipment in case of a fire.

Noise

- Construction activities will generally be limited to the daylight hours, Monday – Friday. If weekend work is necessary, no work will occur on those days before 8:00 a.m. or after 6 p.m.
- Internal combustion engines used for any purpose at the job site will be equipped with a muffler of a type recommended by the manufacturer. Equipment and trucks used for construction will utilize the best available noise control techniques (e.g. engine enclosures, acoustically-attenuating shields, or shrouds, intake silencers, ducts, etc.) whenever feasible and necessary.
- Stationary noise sources and staging areas will be located as far away from sensitive receptors as possible. If they must be located near sensitive receptors, stationary noise sources will be muffled to the extent feasible and/or, where practicable, enclosed within temporary sheds.

