

RECLAMATION

Managing Water in the West

Final Environmental Assessment

Vegetation and Sediment Maintenance Program at Los Banos Detention Dam

EA-09-100



U.S. Department of the Interior
Bureau of Reclamation
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List of Acronyms, Abbreviations and Definition of Terms

APE	Area of Potential Effects
CARB	California Air Resources Board
CCAA	California Clean Air Act
cfs	cubic feet per second
CNDDDB	California Natural Diversity Database
CO	Carbon monoxide
CVRWQCB	Central Valley Regional Water Quality Control Board
Corps	United States Army Corps of Engineers
CWA	Clean Water Act
DFG	California Department of Fish and Game
DWR	California Department of Water Resources
GHG	greenhouse gas
ITA	Indian Trust Asset
LBDD	Los Banos Detention Dam
National Register	National Register of Historic Places
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NO _x	Nitrous oxides
NTU	Nephelometric Turbidity Unit
O ₃	Ozone
PM _{2.5}	Particulate matter less than 2.5 microns in diameter
PM ₁₀	Particulate matter less than 10 microns in diameter
ppm	parts per million
Reclamation	Bureau of Reclamation
SHPO	California State Historic Preservation Officer
State Parks	California Department of Parks and Recreation
SO ₂	Sulfur dioxide
USFWS	United States Fish and Wildlife Service
µg/m ³	microgram per cubic meter
VDE	Visible Dust Emissions

Section 1 Purpose and Need for Action

1.1 Background

Los Banos Creek, an intermittent creek, begins in the Diablo Range in San Benito County. It then flows into western Merced County where it is dammed at the Los Banos Detention Dam (LBDD) (Figure 1-1). The dam was built by the Bureau of Reclamation (Reclamation) in 1966 to detain floodwater from Los Banos Creek in order to protect the San Luis Canal (Reclamation-owned portion of the California Aqueduct), the city of Los Banos, and the surrounding farmlands. It is an earthen dam with a height of 167 feet and a length of 1,370 feet, and has a 26,300 acre-foot capacity. Outflow passes through an outlet spillway into the creek with a maximum discharge of 8,600 cubic feet per second (cfs). Please see Figures 1-1 and 1-2 for location information and a photograph. Also, the California Department of Parks and Recreation (State Parks) manages the Reclamation-owned, land at the Los Banos Creek Reservoir, as part of the San Luis Reservoir State Recreation Area.

The LBDD is a joint-use facility owned by Reclamation and operated and maintained by the Department of Water Resources (DWR). The reservoir level is typically maintained at or near the top of its active storage of 327.8 feet. Releases through the outlet works are made according to flood control criteria specified by the United States Army Corps of Engineers (Corps) or through scheduled exercising of the flood gates. The dam has two discharge lines and a spillway that releases water into a basin at the toe of the dam. The outflow from the reservoir passes from the outlet works and/or the spillway into the existing Los Banos Creek channel. The water is then carried under the San Luis Canal by a six barrel culvert. The safe downstream channel capacity below the dam is 1,000 cfs.

Reclamation performs safety inspections on dams that fall under the jurisdiction of the Federal Dam Safety Program. Under the Dam Safety Program, Reclamation regularly monitors, examines and evaluates the performance of dams in its inventory to ensure facilities do not present unreasonable risks to the public, property, or the environment. Issues are evaluated in terms of loading conditions, structural response and the potential consequences of dam failure. When risks are determined to be unreasonable, corrective actions are formulated and implemented.

Both Reclamation and DWR's Division of Safety of Dams have completed numerous inspections of the LBDD and have classified it as high risk. The water is designed to flow away from the dam, following its natural channel. Over time, cattails and tules have grown around this lower basin and the discharge path, preventing proper drainage and causing water to back up into the surrounding area. The dam also has a toe drain which is the primary source of warning if the dam is experiencing problems with holding water. With the heavy growth of vegetation and improper drainage, this valuable tool has been rendered useless.

On August 22, 2008 DWR's San Luis Field Division performed the LBDD Slide Gate exercise. After a small release from LBDD, water backed up on and across Canyon Road, the access road for Los Banos Reservoir. This was caused because the water had dammed up on the road due to the overgrowth of reeds and tules in the spillway channel (the vegetation holds pooled water).

The water that was released ponded and caused two State Park visitors to sustain vehicle damage.

1.2 Purpose and Need

The regional hydrology downstream of the LBDD has been severely altered due to the continual accumulation of debris and sediment, along with rapid vegetation growth and expansion for over 15 years. The elevation design for the maximum flow of 8,600 cfs is 233.5 feet. The deposits have altered the region by increasing the ground elevation along the channel and the surrounding areas. With the increase in ground elevation, water flows at a higher elevation, consequently violating the original plan for the dam. Leaving the ground level at its current state poses a major threat to not only the Ranger Station, the Park Kiosk, Park Staff, the people who intend to use the area for recreational purposes, but can also threaten the structures downstream of the spillway and outlet works.

Leaving the vegetation unchecked could contribute to potential problems relating to the underground chutes and culverts downstream of the LBDD. During major water releases, trees, brush, sediments and other debris could be dislodged and be transported to the chutes and culverts which could result in blockage. The blockage of the chutes and culverts could pose a structural hazard to the San Luis Canal and the Interstate-5 freeway.

The purpose of this project is to improve water flow downstream from the dam. This would improve DWR's ability to monitor drainage from the toe drain which would allow them to detect problems with the dam and to protect downstream facilities including the San Luis Canal and the City of Los Banos, and prevent loss of access and unsafe access conditions for the recreation area.

1.3 Applicable Regulatory Requirements

The Proposed Action would require avoidance measures to protect State and Federally listed species, and compliance with the Migratory Bird Treaty Act. The DWR would obtain a Streambed Alteration Agreement with the California Department of Fish and Game (DFG). The Proposed Action must also comply with the Clean Air Act and the San Joaquin Valley Unified Air Pollution District's Regulation VIII, Fugitive PM₁₀ Prohibitions. A section 404 of the Clean Water Act (CWA) permit would be needed for the Proposed Action, and therefore, a section 401 water quality certification would also be required. A section 402 National Pollutant Discharge Elimination System (NPDES) permit would be needed for aquatic herbicide application.

1.4 Potential Issues

- Aesthetics
- Air Quality and Global Climate Change
- Biological Resources
- Cultural Resources

- Hydrology and Water Quality
- Recreation
- Wetlands/other Waters

The proposed action area does not include any minority or disadvantaged populations that would require compliance with Executive Order 12898 on Environmental Justice (see page 31) or any Indian Trust Assets (ITAs) in the proposed action area (see page 32), these resources are not considered further in this environmental assessment.



Figure 1-1. Los Banos Detention Dam and surrounding areas.



Figure 1-2. Photo of Los Banos Detention Dam and Reservoir, looking west.

Section 2 Alternatives Including Proposed Action

2.1 No Action

Under the No Action Alternative, DWR would not conduct vegetation and sediment removal activities over the next 10 years. DWR would continue to access the site to monitor flood releases at LBDD, although these monitoring activities would be increasingly difficult. Problems with released water ponding and blocking off the access road would likely continue.

2.2 Proposed Action

The objectives of this project are: 1) to remove vegetation, which includes trees that were pre-approved for removal from the outflow channel and the basin and 2) to restore the 'horseshoe' area (see Figure 2-1) close to original design and specifications.

Reclamation and DWR propose to implement a 10-year program to remove accumulated vegetation and sediment at the LBDD. The maintenance program would be conducted by DWR's Civil Maintenance Branch of the San Luis Field Division Operations and Maintenance once every three to five years. Work would include the removal of vegetation and sediment from: the spillway of LBDD, the creek, and the Dam face (Figure 2-1). Maintenance activities would involve removal of emergent wetland vegetation, primarily cattails (*Typha* sp.). A biannual herbicidal spray program using Rodeo (no surfactant), or similar products, would be established.

The estimated project footprint, excluding the quarry areas, is 12.25 acres. The Basalt Hill quarry is approximately 150 acres in size. The channel clearance, including the box culvert, would encompass an area of 3.38 acres. Total area of all the access roads would have an area of 0.84 acres. The riprap would have an area of 0.25 acres. The remainder, 8.78 acres, would be used as spoil area with two habitat areas included. These habitat areas would consist of piled mesquite branches, etc. that can be used for cover by wildlife. Assuming an average excavation depth of four feet, the volume of displaced material coming out of the channel clearance is approximately 79,000 cubic yards. A total of about 1,200 cubic yards of riprap material would be used to completely restore the rip rap area.

Two upland, disturbed areas (Spoil Areas 1 and 2) would be used to deposit material collected from the channel restoration. This area has been used in the past to create a habitat area. Cleared brush has been piled in the area to create habitat for birds and other wildlife. This area would be extended. A bulldozer would be used to distribute the materials taken during channel clearance within the spoils area. Spoil Area #1 is located to the south of the channel. It has an area of more than five and a half acres. Spoil Area #2, located north of the channel, has an area of almost three acres. Woody vegetation would be placed in low level piles to create a habitat area in either of the two designated areas within the spoil areas (Figure 2.2).

Project Location

The Proposed Action area for vegetation and sediment removal activities is located in Los Banos Creek, southwest of Los Banos, and southeast of the San Luis Reservoir, in western Merced County in the Ortigalita Peak USGS quadrangle map, Township 11.0 South, Range 9.0 East, Section 12. Los Banos Creek drains about 160 square miles of the Diablo Range. The dam site is located at a constriction in the Los Banos Creek Canyon where the creek leaves the Coast Range and emerges onto the San Joaquin Valley. The LBDD and project area is immediately below Los Banos Reservoir (Figures 2-1 and 2-2). The site can be accessed by taking CA-99 to CA-152 West, turning left onto Ortigalita Rd., right onto Pioneer Rd., and left onto Canyon Rd. Basalt Hill, which would be used to obtain fill for the work at LBDD, is located on the south side of the San Luis Reservoir (see Figure 2-3). Basalt Hill is in the San Luis Dam quadrangle, Township 10.0 South, Range 8.0 East, Section 33. This site can be accessed by taking Highway 152 to San Luis Reservoir, seven miles west of I-5, or 33 miles east of Highway 101 from Gilroy.

The first part of the project area is the outlet works for the LBDD which is located in Merced County, California (Figure 2-1). Los Banos Detention Dam is approximately seven miles southwest of Los Banos and eight miles southeast of the San Luis Reservoir.

The second part of the project area is the Los Banos Creek box culvert crossing Canyon Road (Figure 2-1). The culvert is approximately five miles southwest of Los Banos and nine miles southeast of San Luis Reservoir.

The final part of the project area is Basalt Hill (Figure 2-3, where riprap and earthen fill would be quarried for riprap replacement and berm/road work. It is located on Reclamation land, managed by DWR, on the south side of the San Luis Reservoir in Merced County. The site is a basalt rock quarry that was first primarily used for the rip rap bedding along the embankment of Sisk Dam. There is no current mining operation. The site is very disturbed and consists primarily of exposed hill sides and scattered rock piles.

Project Activities

The vegetation and sediment clearance work is broken up into different zones, based on the timing and type of work to be done in different areas. Work to clear vegetation and sediment from the channel downstream of the spillway and outlet works would progress in an upstream, or a south-west direction. Clearing work would begin with the channel section in Zone 1 (Figure 2-1) that is downstream, or east of Canyon Road. It would be cleared an average of 283 feet in length (along the centerline) and over an 80 foot width using a long reach excavator. The excavator would work outward from the center of the channel and place the debris material in a dump truck. The debris would be discarded into one of the two spoil areas, where it would be left (see Figure 2-1).

Two upland, disturbed areas (Spoil Areas 1 and 2) would be used to deposit material collected from the channel restoration. This area has been used in the past to create a habitat area. Cleared brush has been piled in the area to create habitat for birds and other wildlife. This area will be extended. A dozer would be used to distribute the materials within the spoils area. Spoil Area #1 is located to the south of the channel. It has an area of more than five and a half acres. Spoil Area #2, located north of the channel, has an area of almost

three acres. Woody vegetation would be placed in low level piles to create a habitat area in either of the two designated areas within the spoil areas (Figure 2.2).

Once Zone 1 has been cleared the excavator would be repositioned on the upstream or west side of Canyon Road in Zone 2. Along the centerline, this area consists of a 480 foot long by 80 to 100 feet wide channel approach to the outlet works. The excavator would work outward from the center of the channel; material would be scooped out, placed into a dump truck, and discarded into one of the two spoil areas.

The excavator would not clear the area surrounding the pooled water until the channels are cleared to keep the work area dry. Work would continue at the “Y” of the stream bed in an upstream, or north-west direction toward the spillway, Zone 3. This area is approximately 275 feet (along the centerline) in length and 140 feet wide. The excavator would work from the center of the channel.

Zone 4, with an area just above 0.25 acre (about 200 feet long), would be cleared last. Unlike other zones, Zone 4 would not need to undergo an elevation alteration in order to restore it to the original design; smaller brush would be mowed and non-native trees would be pulled out of the soil (Figure 2-1). When all the Zones are cleared, the excavator would work from the northern channel bank and the southern channel bank until the vegetation is removed.

Zone 5 (culvert area) would encompass an area roughly 255 feet long by 110 feet wide (Figure 2-2). The existing north and south banks would be used to allow equipment access to clean the channel and the project area. The vegetation removal would be done in an east to west direction using a long reach excavator.

Once Zones 1 through 4 have been cleared and work to clear Zone 5 starts, DWR’s Precise Survey Team would then survey Zones 1 to 4 to designate the proper ground elevation requirements at key points. When all the Zones are cleared to the proper ground elevation, the excavator would begin removing the vegetation holding the pooled water. The excavator would work from the northern channel bank and the southern channel bank until the vegetation is removed. The rip rap in Zones 2, 3 and 4, would be repaired if necessary with 10-inch diameter or greater rip rap material quarried from Basalt Hill.

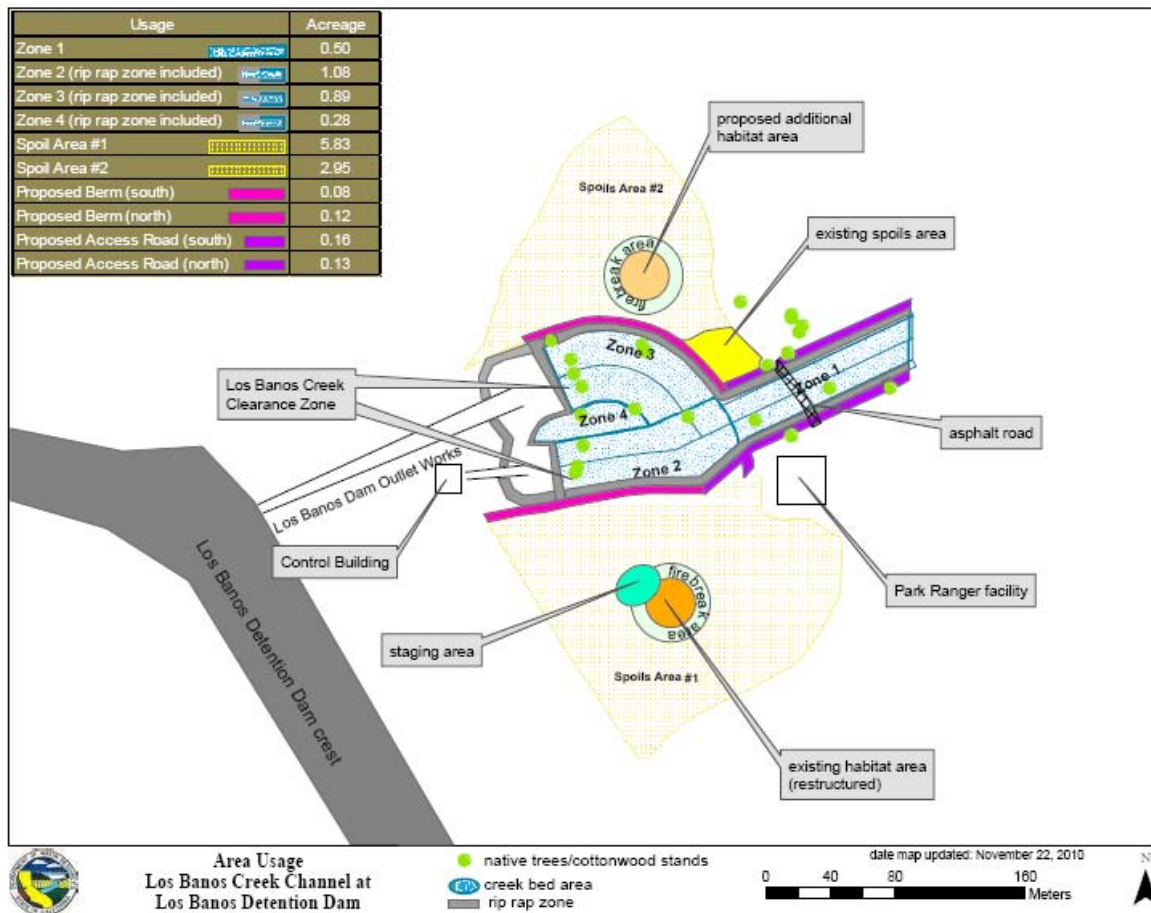


Figure 2-2. Project area usage.

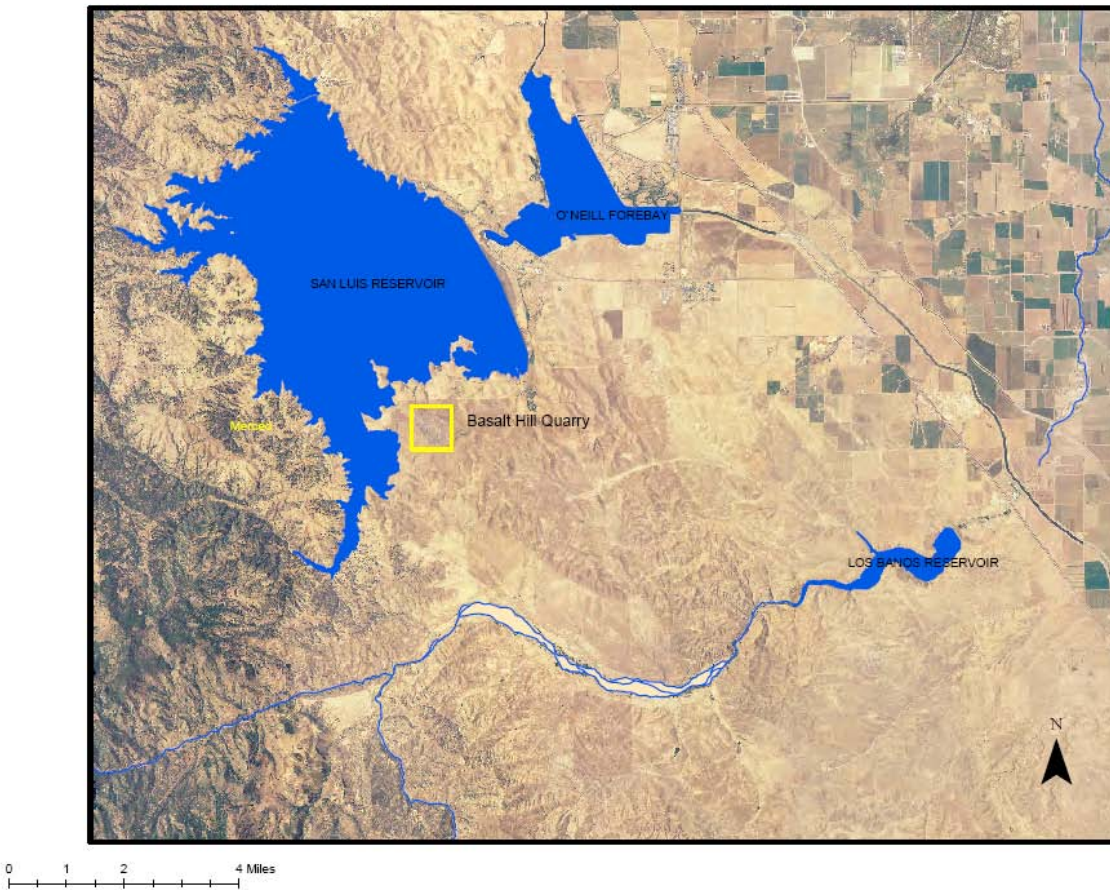


Figure 2-3. Basalt Hill quarry location.

Timing of Construction and Equipment to be Used

The maintenance program would be conducted approximately once every three to five years, depending on the rate of vegetation growth and/or sediment deposition, in order to maintain the structural and design integrity of LBDD. The overall term of this maintenance program would be 10 years. The herbicidal spray program would be conducted biannually as needed.

Normal working hours would be 0630-1700, Monday through Friday inclusive, excluding legal holidays. Construction is scheduled to begin following completion of environmental compliance.

Equipment required would include an excavator with a 60-foot reach, a loader, dump truck, a bulldozer, water truck, roller compactor/grader and a tractor mower. Equipment to be used for construction is shown in Table 2-1.

Table 2-1. Equipment to be used during construction (once every three to five years)*.

Type of Equipment	Max Number per Day	Total Op Days	Total Op Hours
Pickup Truck/Flatbed	8	90	7200
Backhoe	1	90	900
Water Truck	1	90	900
Bulldozer	1	90	900
Loader/Grader	1	90	900
Dump Truck	1	90	900
Excavator	1	90	900

* A 10-hour, 5 day work week is assumed; it is unlikely that the project would last 90 days. This list of equipment is estimated and could change depending on equipment availability.

Once the project activities described above are completed, vegetation within the maintained areas of the channel is expected to re-establish through vegetative reproduction or through wind-blown seed establishment within one to three years. Water flow in the channel downstream of the dam would be monitored and when the re-established vegetation and accumulated sediment begin to impede water flow in the channel, the described vegetation and sediment removal activities would be conducted again.

Staging Areas, Quarry Areas, and Access Routes

Existing service roads along with proposed additional service roads would be used to access the site. Existing and additional access roads shall be graded (see Figure 2-1). Berms originally found along the northern and southern boundary of the “horsehoe” would be widened to allow equipment to reach into the creek (Figure 2-1). Fill added to widen the existing berm shall be made of native material quarried from Basalt Hill. The Proposed Action area, including all access routes, quarry areas, and the spoil areas, would be surveyed for sensitive biological resources prior to their mowing or use. Off-road travel would be prohibited. Access to the project site would be clearly marked to avoid accidental trespass or damage to land cover. The frequency and total amount of construction traffic would be minimized to the greatest extent possible. For information on staging, see restrictions in the environmental commitments below.

Environmental Commitments

The following measures are incorporated into the Proposed Action to protect special-status species, water and air quality.

Biological resources protection measures

1. All activities would be implemented in coordination with protection, avoidance, and/or minimal impacts of existing habitats.
2. All areas where sensitive plants and animals may occur would be flagged and avoided to the greatest extent possible.
3. All activities would be completed in a timely manner.

4. All on-site personnel would be given written and oral instructions to avoid impacts and be made aware of the ecological values of the sites. A fact sheet covering this information would be distributed to all personnel who would work at the sites or occasionally visit the site or deliver materials. Biologists shall conduct an educational environmental training session (tailgate training session) for all onsite personnel. The program shall consist of a brief presentation explaining listed species concerns to include:
 - a. A description and photograph of each of the sensitive species and their habitat needs.
 - b. An explanation of the status of these species.
 - c. A discussion of the protection measures that would be implemented to reduce impacts to the species during project construction and implementation.
5. Within two weeks prior to the onset of activities, surveys would be conducted by qualified wildlife biologists to determine whether or not sensitive terrestrial wildlife or plants occur within the project area. If any evidence of kit fox activity was found, the U.S. Fish and Wildlife Service (USFWS) Sacramento Field Office and DFG would be contacted to identify further action; the following avoidance measures would be implemented.
 - a. Potential kit fox dens located within 100 feet of a disturbance area would be tracked for three consecutive nights to determine if they have any current kit fox use.
 - b. A 50-foot buffer zone would be marked around any potential or atypical kit fox dens located between 50 feet and 200 feet of a disturbance using lathes and red flagging.
 - c. A 100-foot buffer zone would be marked around any known kit fox den within the survey area using lathes and red flagging.
6. Surveying and monitoring activities would be designed and conducted to minimize disturbance of wildlife and their habitat.
7. Wetland vegetation within the project area would be trimmed prior to removal for better visualization of any sensitive species within the project site.
8. A DWR biological monitor would be on-site at all times during project work. The monitor would check the site before work commences for sensitive wildlife or plants, assist in avoiding impacts to wildlife and habitats, determine the least damaging options for removal or transplantation of vegetation according to established protocols, and provide technical information.
9. Project-related vehicles shall observe a 15 miles per hour speed limit in all project areas, except on county roads and State and Federal highways. To the extent possible, night-time activity should be minimized; for example, equipment repair or

hazard spill cleanup. Off-road traffic outside of designated project areas would be prohibited.

10. Excavating, filling, and other earth moving would be done in a cautious manner with a biological monitor present to allow wildlife species to escape in advance of machinery and moving materials.
11. Impacts to breeding birds would be avoided. A qualified biologist would conduct avian nest surveys within the vicinity of the project area. Surveys would be conducted during the appropriate time of the breeding season (March 1 through August 1). If any protected species are found nesting in these areas, DWR would implement the following measure: in consultation with DFG, to avoid effects on active nests, an appropriate buffer zone would be established around active nests during the breeding season. No restrictions are required for construction activities that occur during the non-breeding season (August 1 through February 28) or after the young have fledged from the nest.
12. To prevent inadvertent entrapment of kit foxes or other animals, all excavated, steep-walled holes or trenches more than two feet deep would be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks with a slope of 2:1. Before such holes or trenches are filled, they would be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the procedures of the standardized recommendations must be followed (USFWS 1999).
13. All food-related trash items such as wrappers, cans, bottles, and food scraps would be disposed of in closed containers and removed at least once a week from the project site (USFWS 1999).
14. No firearms shall be allowed on the project site (USFWS 1999).
15. To prevent potential harassment, mortality of kit foxes or destruction of dens by dogs or cats, no pets would be permitted on project sites (USFWS 1999).
16. Work would be limited to daytime hours.
17. All fueling and maintenance of vehicles or other equipment and staging areas shall occur at least 66 feet from any water body. Reclamation and DWR shall ensure that contamination of habitat does not occur during such operations. Prior to the onset of work, Reclamation shall ensure that DWR has prepared a plan to allow prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
18. A biologist shall ensure that the spread or introduction of invasive exotic plant species shall be avoided to the maximum extent possible by keeping the impact area to a minimum. When practicable, invasive exotic plants in the project areas shall be removed.

19. The number of access routes, number and size of staging areas, and the total area of the activity shall be limited to the minimum necessary to achieve the project goal. Routes and boundaries shall be clearly demarcated, and these areas shall be outside of wetland areas.
20. To control erosion during and after project implementation, DWR shall implement best management practices, as identified by the Regional Water Quality Control Board. The creek banks would be stabilized by compacting additional soil after sediment and vegetation removal, in order to minimize the potential for erosion. Additionally, if the channel contains flowing water during project activities, a silt fence would be installed directly downstream of the project area. This would help to prevent silt accumulation downstream of the project site.
21. If the work site is to be temporarily de-watered by pumping, pump intakes shall be completely screened with wire mesh not larger than five millimeters to prevent potential amphibians (not expected to be special-status species) from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate.

Water quality protection measures

Certain measures aimed at protecting water quality are also relevant for the California red-legged frog. DWR would obtain a Streambed Alteration Agreement from DFG, which is expected to contain conditions that would protect water quality. The following measures are also incorporated into the Proposed Action:

1. Silt fencing, straw wattles and straw bales would be utilized to intercept, slow and retain water/sediment in storm water runoff. These protection measures would be utilized in areas of slopes greater than 2:1, or where runoff from the disturbed area would impact local creeks or channels.
2. All drainage slopes would be stabilized with straw, jute netting, or other industry accepted methods for soil stabilization.
3. To avoid runoff, only as much water as necessary would be used for dust control.
4. Spills and leaks would be cleaned up using “dry” methods (with absorbent materials/rags), or contaminated soil would be dug up and removed.
5. Stockpiles and other construction materials would be covered with plastic tarps when material sits for more than seven days. Protection from rainfall and prevention of runoff would include temporary use of berms and plastic sheets.

The following additional measures were also imposed by the Central Valley Regional Water Quality Control Board as part of the Water Quality Certification. The Discharger shall perform surface water sampling: 1) When performing any in-water work; 2) In the event that Project activities result in any materials reaching surface waters or; 3)

When any activities result in the creation of a visible plume in surface waters. The following monitoring shall be conducted immediately upstream out of the influence of the Project and approximately 300 feet downstream of the active work area. Sampling results shall be submitted to this office by the first day of the second month following sampling. The sampling frequency may be modified for certain projects with written permission from the Central Valley Water Board.

Parameter	Unit	Type of Sample	Frequency of Sample
Turbidity	NTU	Grab	Every 4 hours during in-water work
Settleable Material	ml/L	Grab	Same as above
Visible construction related pollutants	Observation	Visible Inspections	Continuous throughout the construction period

Activities shall not cause:

- a) where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), increases exceeding 2 NTU;
 - b) where natural turbidity is between 1 and 5 NTUs, increases exceeding 1 NTU; "
 - c) where natural turbidity is between 5 and 50 NTUs, increases exceeding 20 percent;
 - d) where natural turbidity is between 50 and 100 NTUs, increases exceeding 10 NTUs;
 - e) where natural turbidity is greater than 100 NTUs, increases exceeding 10 percent.
- In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected. Averaging periods may only be used with prior permission of the Central Valley Water Board.

Activities shall not cause settleable material to exceed Or 1 mill in surface waters as measured in surface waters downstream from the Project.

Compensation for loss of waters of the U.S.

1. To mitigate for the permanent loss of 0.18 acre and impacts to 0.29 acre of waters of the United States, DWR would plant a minimum of 56 Fremont cottonwoods (*Populus fremontii*) and 32 black willows (*Salix gooddingii*) (plantings represent a 4:1 ratio of trees removed as part of the project).
 - a. The plantings must be monitored for a minimum of five years or until the performance standard is met for two years without assistance (i.e. irrigation and/or maintenance), whichever is longer.
 - b. The plantings must meet or exceed a survival rate that of 75% at the completion of the monitoring period. If it is determined that the mitigation will not meet the survival rate, remediation must be taken and additional monitoring completed, as necessary.

Air quality protection measures

To decrease the Visible Dust Emissions (VDE) to below 20 percent opacity during periods when soil is being disturbed by equipment or by wind, and to reduce greenhouse gas emissions (GHG), DWR would implement the following measures:

1. Maintain all construction equipment according to manufacturer's specifications.

2. Maximize the use of diesel construction equipment that meets California Air Resources Board 1996 or newer certification standard for off-road heavy-duty diesel engines.
3. Maximize use of electric equipment.
4. Maximize use of gasoline-powered equipment in lieu of diesel-powered equipment.
5. Maximize use of alternatively fueled construction equipment on site, such as compressed natural gas, liquefied natural gas, propane, or biodiesel.
6. Use equipment that has Caterpillar pre-chamber diesel engines.
7. A water truck shall be on-site at all times. Water shall be applied to disturbed areas a minimum of two times per day or more as necessary. Water may be applied by means of truck(s), hoses and/or sprinklers as needed, prior to any land clearing or earth movement, to minimize dust emissions. All visibly dry and disturbed soil surface areas of operation shall be watered to minimize dust emissions. Unpaved roads may be graveled in lieu of watering to reduce dust emissions.
8. Haul roads shall be sprayed down at the end of the work shift to form a thin crust. This application of water shall be in addition to the minimum rate of application.
9. Haul vehicles transporting soil into or out of the project area shall be covered.
10. On-site vehicles shall be limited to 15 miles per hour. This would minimize dust emissions on unpaved roads and all project entry points.
11. Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action within 24 hours.
12. Existing roads and streets adjacent to the project shall be cleaned at least once per day unless conditions warrant a greater frequency.
13. Construction workers shall park in designated parking areas(s) to reduce dust emissions.
14. Soil pile surfaces shall be moistened if dust is being emitted from the pile(s). Adequately secured tarps, plastic or other material may be required when watering is insufficient or wind speeds exceed 25 miles per hour to further reduce dust emissions.
15. Vegetation would be allowed to grow on the soil surface.
16. Soil stabilization would also be required after normal working hours and on weekends and holidays.

Equipment that would be used during construction is listed in Table 2-1. In order to reduce air quality impacts, the required state and Federal emission quality control technologies would be implemented; all equipment would have properly operating mufflers and exhaust systems.

2.3 Alternative Considered but Eliminated from Detailed Analysis

One alternative considered but eliminated was the building of a bridge over the creek where Canyon Road crosses it. It is noted that this alternative would result in a lesser magnitude of impacts on biological resources, water quality, and waters of the U.S., because of the smaller area of the creek/riparian vegetation that would be impacted, and the smaller staging/spoils area that would likely be required. However, the alternative would only partially meet the purpose and need. It would, at least as long as the dam does not fail, allow for improved access to the recreation area. However, this alternative would not meet the need to improve water flow downstream from the dam, improve DWR's ability to monitor drainage from the toe drain, and thereby detect problems with the dam, and protect downstream facilities including the San Luis Canal and the City of Los Banos. This alternative would only focus on the crossing, and so it was eliminated from further analysis.

Section 3 Affected Environment and Environmental Consequences

3.1 Aesthetics

3.1.1 Affected Environment

The proposed vegetation and sediment removal activities would be conducted on and near an existing flood control facility located approximately seven miles from the nearest community. The land surrounding the project area is dedicated to privately owned rangeland and California State Park Facilities. Basalt Hill is not generally accessed nor is it easily viewed by recreational users at San Luis Reservoir.

3.1.2 Environmental Consequences

No Action

Under the No Action Alternative, no change in visual resources from the current conditions is expected to occur.

Proposed Action

Under the Proposed Action, there would be temporary access and construction in and immediately adjacent to the creek channel up to three times over the next 10 years, as well as activities conducted biannually under an herbicidal spray program. All work would be confined to the creek channel just below the dam and the concrete structures.

No construction work would occur in the recreational areas themselves (the reservoir and camping/picnicking areas). None of the proposed work would alter any scenic vistas, damage scenic resources, degrade the visual characteristic of the site, or adversely affect day or nighttime views. The project would not create light or glare. As a result, this resource would not be impacted.

3.2 Air Quality/Climate Change

3.2.1 Affected Environment

The federal Clean Air Act and the California Clean Air Act (CCAA) mandate the control and reduction of certain air pollutants. Under these Acts, the United States Environmental Protection Agency and the California Air Resources Board (CARB) have established ambient air quality standards for certain "criteria" pollutants. These pollutants are carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen oxides (NO_x), lead, particulate matter less than 10 microns in diameter (PM₁₀), and particulate matter less than 2.5 microns in diameter (PM_{2.5}). The ambient air quality standards are designed to protect public health and welfare.

The State Standard for PM₁₀ is 50 micrograms per cubic meter (µg/m³), based on a 24-hour average (geometric mean). The State Standard for PM_{2.5} is 12 µg/m³, based on an annual average (geometric mean), and the Federal Standard is 35 µg/m³ (hourly geometric mean) and 15 µg/m³ (annual geometric mean). For 8-hour ozone, the State Standard is 0.07 parts per million (ppm)

or $137 \mu\text{g}/\text{m}^3$, and the Federal Standard is 0.075 ppm or $147 \mu\text{g}/\text{m}^3$. The State Standard for hourly ozone is 0.09 ppm or $180 \mu\text{g}/\text{m}^3$.

The San Joaquin Valley Unified Air Pollution District has a number of regulations and requirements to reduce air quality impacts. Regulation VIII, Fugitive PM_{10} Prohibitions, of the District's Rules and Regulations apply to many activities that generate fugitive dust, particularly construction sites. Visible Dust Emissions (VDE) may not exceed 20 percent opacity during periods when soil is being disturbed by equipment or by wind at any time. Visible Dust Emissions opacity of 20 percent means dust that would obstruct an observer's view of an object by 20 percent. For unpaved roads and unpaved traffic areas, a Fugitive PM_{10} Management Plan may be implemented as a compliance alternative to the VDE standard and the requirement to maintain a stabilized unpaved road surface, per Section 7.0 of Rule 8011 (i.e. meeting the 20 percent VDE standard would meet the standards for PM_{10}).

The CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the CCAA. The CARB released the *Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act*. The proposal recommends adhering to interim performance standards for project types and emission sources including construction, energy, water use, waste, transportation, and total mass GHG emissions (California Air Resources Board 2008). In December 2008, CARB proposed a significance¹ threshold of 7,000 metric tons of CO_2 equivalent emissions per year for operational emissions (excluding transportation).

The project area itself is relatively small and not subject to a high level of human-generated air-quality degradation. The San Joaquin Valley is listed as a Federal serious non-attainment area (Environmental Protection Agency 2009) for 8-hour O_3 and $\text{PM}_{2.5}$, a serious maintenance area for the federal PM_{10} standard, and a State non-attainment area for hourly O_3 , 8-hour O_3 , and PM_{10} particle sizes (California Air Resources Board 2009).

3.2.2 Environmental Consequences

No Action

Under the No Action Alternative, the only air quality impacts directly generated at the project site would be from periodic site access of a few vehicles along the unpaved access road, related to monitoring activities by DWR and road maintenance. However, pollutants generated elsewhere would also occur in the air at the site, due to the fact that wind mixes air and carries pollutants across distances.

Proposed Action

Project activities may potentially result in localized, short-term emissions from stationary, mobile, and area sources. Emissions may include hydrocarbons, NO_x , CO, and particulate matter (PM_{10} and $\text{PM}_{2.5}$). Hydrocarbons, NO_x , and CO may be emitted in equipment exhaust. The pollutant of greatest concern for the Proposed Action is fine particulate matter (PM_{10}), primarily emitted as fugitive dust, although motor vehicles and equipment used during the proposed work

¹ In this usage, "significance" refers to analysis under the California Environmental Quality Act. The Department of Water Resources conducted an analysis of greenhouse gas emissions for this project.

may also contribute to an increased level, as PM₁₀ can be emitted directly from combustion processes.

According to DWR's analysis for this proposed project under the California Environmental Quality Act, GHG emissions would be 653.9 metric tons CO₂ equivalent emissions per year of maintenance activities. This is well below the threshold of 7,000 metric tons of CO₂ equivalent emissions proposed by CARB. Therefore, any contribution to GHG emissions would be negligible with regard to impacts on climate change.

As the San Joaquin Valley Air Basin is classified as a federal nonattainment area for the ozone and PM_{2.5} standards, and a maintenance area for the federal PM₁₀ standard, a general conformity determination must be performed to demonstrate that total direct and indirect emissions of ozone and particulate matter would conform to the applicable State Implementation Plan. More specifically, the general conformity analysis must identify whether emissions of ozone precursors (reactive organic gases [ROG] and nitrogen oxides [NO_x]), PM₁₀, and PM_{2.5} meet the following criteria:

- emissions are below the appropriate *de minimis* threshold, which, based on the nonattainment level of the SJVAB, is 50 tons per year for ozone emissions, 100 tons per year for PM₁₀, and 100 tons per year for PM_{2.5} emissions (40 CFR 51.853).
- emissions are regionally insignificant (total emissions are less than 10 percent of the area's total emissions inventory for that pollutant).

Table 3-1. Summary of Emissions under the Proposed Action (in tons).

	ROG	NO _x	CO ^a	Total PM ₁₀ ^b	Total PM _{2.5} ^b	CO ₂ e ^{a, c}
Proposed Action	0.06	0.53	0.18	22.43	4.67	720.79
<i>de minimis</i> Threshold	50	50	--	100	100	--
10% Regional Emissions ^d	14,854	22,777	--	12,058	4,236	--
Percent of Baseline	0.00032%	0.00066%	0.00052%	1.36659%	--	--

^a Region in attainment; no conformity analysis required, but CARB proposed a threshold of 7,000 metric tons (or 6,350 tons).

^b Includes emissions from dust and exhaust.

^c Refers to carbon dioxide equivalents, in which all GHGs are normalized on a scale that recasts total emissions in terms of carbon dioxide (CO₂).

^d CARB 2011.

The air quality protection measures in the Proposed Action description would reduce VDE to below 20 percent and would reduce vehicle- and equipment-generated emissions that would occur as a result of the Proposed Action. As Table 3-1 shows, emissions would be below the de minimum thresholds, and less than 10% of regional emissions. The incorporated air quality protection measures would reduce the cumulative contribution to air quality impacts.

3.3 Biological Resources

3.3.1 Affected Environment

General vegetation and wildlife surveys have been conducted at LBDD in the past. Biological surveys have been conducted for California red-legged frog (*Rana aurora*) and have been consistently negative for the occurrence of this species. The most recent surveys were for special-status vertebrate species, and were conducted in 2006 by biologists from the Museum of Wildlife and Fish Biology at the University of California, Davis (Engilis et al. 2007). Shauna McDonald of Reclamation inspected Basalt Hill in the summer of 2008 for biological resources.

Habitat in Project Area

Project activities would be located downstream of the LBDD within the spillway and outflow channel and along 750 feet of the Los Banos Creek channel (Figures 2.1 and 2.2). The channel contains Fremont's cottonwood (*Populus fremontii*), Gooding's black willow (*Salix gooddingii*), velvet mesquite (*Prosopis velutina*), mulefat (*Baccharis salicifolia*), tree tobacco (*Nicotiana glauca*), cattails (*Typha* sp.), sedges (*Scirpus americanus*) and some ornamentals. Other species included are peppergrass (*Lepidium* sp.), Russian thistle (*Salsola tragus*), alkali heath (*Frankenia salina*), Curly dock (*Rumex crispus*), gumplant (*Grindelia camporum*), horehound (*Marrubium vulgare*), and Bermuda grass (*Cynodon dactylon*). The upland habitat in the area is dominated by filaree (*Erodium* sp.), vinegar weed (*Trichostema lanceolatum*), wild oats (*Avena fatua*), doveweed (*Eremocarpus setigerus*), jimsonweed (*Datura stramonium*) prickly lettuce (*Lactuca serriola*), ripgut brome (*Bromus diandrus*), black mustard (*Brassica nigra*), fiddleneck (*Amsinckia* sp.) and a few scattered milk vetch plants (*Astragalus* sp.).

Basalt Hill has very little vegetation. It is a previously used rock quarry and the ground is very bare and disturbed.

There is no proposed or designated critical habitat in the proposed action area, including the recently proposed increase in California red-legged frog critical habitat.

Special-Status Species

Special-status species are plants and animals that are legally protected under the State and Federal Endangered Species Acts or other statutes or regulations, and species that are considered sufficiently rare and/or vulnerable by the scientific community to qualify for such listing. A species list was obtained from the USFWS website (http://www.fws.gov/sacramento/es/spp_lists/auto_list_form.cfm) for the Ortigalita Peak NW, Volta, Los Banos and San Luis Dam 7 ½ minute USGS Quadrangles (document number 100609023911). The species list was most recently downloaded on June 9, 2010, which was last updated on April 29, 2010 (see appendix). The California Natural Diversity Database (CNDDDB) has been continually consulted for known occurrences of special status species in the project area, with each updated version of the CNDDDB being rechecked. A site visit to the LBDD was made by Reclamation staff (Shauna McDonald) on November 21, 2008 and by USFWS staff (Brian Peterson) on September 14, 2005.

Table 3-2. Special status species list for Los Banos Detention Dam.

Common Name	Scientific Name	Status*
Plants		
heartscale	<i>Atriplex cordulata</i>	CNPS 1B.2

Common Name	Scientific Name	Status*
Lost Hills crownscale	<i>Atriplex vallicola</i>	CNPS 1B.2
round-leaved filaree	<i>Erodium macrophyllum</i>	CNPS 1B.1
hispid bird's beak	<i>Cordylanthus mollis</i> ssp. <i>mollis</i>	CNPS 1B.1
recurved larkspur	<i>Delphinium recurvatum</i>	CNPS 1B.2
Plant Communities		
cismontane alkali marsh		G1S1.1
sycamore alluvial woodland		G1S1.1
valley sink scrub		G1S1.1
Invertebrates		
longhorn fairy shrimp	<i>Branchinecta longiantenna</i>	FE
vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	FT
valley elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	FT
vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	FE
Fish		
delta smelt	<i>Hypomesus transpacificus</i>	FT; SCE
Central Valley steelhead	<i>Oncorhynchus mykiss</i>	FT
Amphibians		
California tiger salamander	<i>Ambystoma californiense</i>	FT; CSC
California red-legged frog	<i>Rana aurora</i>	FT; CSC
foothill yellow-legged frog	<i>Rana boylei</i>	CSC
western spadefoot toad	<i>Spea (Scaphiopus) hammondi</i>	CSC
Reptiles		
western pond turtle**	<i>Clemmys marmorata</i>	CSC
blunt-nosed leopard lizard	<i>Gambelia sila</i>	FE; SE
San Joaquin whipsnake**	<i>Masticophis flagellum ruddocki</i>	CSC
giant garter snake	<i>Thamnophis gigas</i>	FT; ST
Birds		
Tricolored Blackbird**	<i>Agelaius tricolor</i> (nesting colonies)	CSC
Golden Eagle**	<i>Aquila chrysaetos</i>	SFP; CSC
Western Burrowing Owl**	<i>Athene cunicularia hypugea</i>	CSC
Swainson's Hawk**	<i>Buteo swainsoni</i>	ST
Northern Harrier**	<i>Circus cyaneus</i>	CSC
White-tailed Kite**	<i>Elanus leucurus</i>	SFP
California Horned Lark**	<i>Eremophila alpestris actia</i>	WL
Prairie Falcon**	<i>Falco mexicanus</i> (nesting)	CSC
Mammals		
giant kangaroo rat	<i>Dipodomys ingens</i>	FE; SE
Fresno kangaroo rat	<i>Dipodomys nitratoideis exilis</i>	FE; SE
western mastiff bat	<i>Eumops perotis californicus</i>	CSC
San Joaquin pocket mouse	<i>Perognathus inornatus inornatus</i>	G4T2T3
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE; ST
<p>*FE: Federal Endangered; FT: Federal Threatened; SE: State Endangered; SCE: State Candidate Endangered; ST: State Threatened; SFP: State Fully Protected; CSC: California Species of Concern; WL: watch list of Audubon Society's birds in decline; CNPS 1B.1: seriously endangered in CA; CNPS 1B.2: fairly endangered in CA; G1S1.1: very high risk of extinction; G4T2T3: apparently secure, but factors exist to cause some concern.</p> <p>**Known to occur in the Project vicinity, but see main text for records in the proposed action area itself.</p>		

Special-Status Plants

Special-status plants with the potential to occur at LBDD and Basalt Hill are listed in Table 3.1. None of these plant species or plant communities have been identified within the project area

itself, or within the vicinity. The immediate project area has been disturbed by ongoing maintenance activities and by the flow of the creek.

Special-Status Wildlife

According to the species list generated from the USFWS and CNDDB for the project area, several species could potentially occur in the project vicinity. The California red-legged frog, a Federally threatened species, has not been observed in the project area; surveys in 2002, 2004, and 2006 have had negative results for both adult frogs and egg masses. The CNDDB contains previous records of foothill yellow-legged frogs upstream from Los Banos Reservoir; however, surveys at LBDD have been negative for this species. There is no otherwise suitable aquatic habitat that does not contain fish and bullfrogs.

Los Banos Creek is an intermittent stream that does not provide or connect to habitat for the Central Valley steelhead or delta smelt. The CNDDB did not include any known populations of California tiger salamander. There are no vernal pools or seasonal wetlands located within the project area that would support breeding populations of tadpole shrimp, fairy shrimp, western spadefoot toads or the California tiger salamander. Work would be restricted to areas along the creek only. Valley elderberry longhorn beetle habitat does not exist (no elderberry shrubs were found during any of the past surveys).

Habitat does exist for the San Joaquin whipsnake and this species has been observed in the grassland hills within the project area. Western pond turtles are known to occur upstream of the LBDD (one was observed in the spring of 2006 and a carapace was also found), but have not been observed in the project area. The giant garter snake has never been detected in the project area during past surveys, and normally only occurs on the valley floor. The upland areas are too thick with tall grass to provide blunt-nosed leopard lizard habitat, and previous surveys have never detected the species.

Western Burrowing Owls have not been observed at the LBDD project area. The Northern Harrier, Ferruginous Hawk, Tricolored Blackbird, Swainson's Hawk, Golden Eagle, California Horned Lark, and Prairie Falcon may use the project area as foraging habitat but no breeding habitat exists on or in proximity to the project area. The White-tailed Kite presumably may use the area for foraging.

The surrounding area is suitable habitat for San Joaquin kit fox. No dens have been observed in the project area; all work would be restricted to the creek channel and immediate area. The San Joaquin pocket mouse has not been observed on the site. There are no known records of any other kangaroo rats in the area besides the non-special-status Heermann's kangaroo rat (*Dipodomys heermanni*); surveys in 2006 did not detect any giant kangaroo rats. The project area is outside of the range of the Fresno kangaroo rat, and no San Joaquin kangaroo rats have been trapped. It is possible that western mastiff bats may forage in the area.

Basalt Hill is a very rocky and disturbed area that provides little wildlife value. It's an upland area, but is not suitable for special-status upland species, such as kit foxes or burrowing owls.

3.3.2 Environmental Consequences

No Action

Under the No Action Alternative, DWR would continue to access the site for monitoring purposes, and would conduct road maintenance, but this would result in very little disturbance of special-status species. If the dam failed and a flood occurred, downstream habitat for species such as the San Joaquin kit fox (primarily occasional foraging habitat) could be adversely impacted.

Proposed Action

Under the Proposed Action, certain impacts to special-status species and their habitats would occur two to three times during a 10-year period, as well as biannual activities conducted under an herbicidal spray program. These impacts would be minimized as much as possible by the incorporation of appropriate conservation measures, described under the Environmental Commitments section of the Proposed Action.

The species discussed in the previous section that do not occur in the project area would not be affected. Several years' worth of surveys resulted in the detection of bullfrogs, which decrease the suitability of the area for the California red-legged frog, and no red-legged frogs have been found. The reservoir itself was previously stocked with fish by DFG (prior to a lawsuit by the Center for Biological Diversity, and a court order), which also reduces the suitability for the red-legged frog. For these reasons, the Proposed Action is not expected to affect the California red-legged frog.

Prior to the commencement of any work, the project area would be surveyed by a qualified biologist. The upland areas would not be disturbed by this project. All small mammal burrows would be avoided during the Proposed Action. Potential burrowing owl foraging and nesting habitat would not be disturbed by this project. Prior to the commencement of work, surveys would be conducted for this species in suitable habitat in the project area and within a 500-foot buffer. If burrowing owls are found in these areas, DFG would be contacted immediately to discuss proper measures to minimize effects on burrowing owls. The project would not have more than a minor adverse impact on this species. Minor impacts may occur on other raptors, due to activities in their foraging habitat, but impacts to any nesting birds would be avoided by the implementation of appropriate protective measures. Biological monitors would be on-site during construction to capture and move any displaced San Joaquin whipsnakes if necessary. With these measures, the San Joaquin whipsnake would not be subject to more than a minor adverse impact. The western mastiff bat would not be impacted, as the work would not occur during dusk and dawn, when the species would use the area for foraging.

The Proposed Action would not affect the San Joaquin kit fox for the following reasons. In general, the surrounding habitat at the creek site is of low quality (dense annual grasses and mustard—see the attached photographs). Kit foxes are an arid land-adapted species. They occur in arid regions, typically deserts, throughout North America (Cypher 2003). Accordingly, in the San Joaquin Valley, optimal habitats for San Joaquin kit foxes generally are those in which conditions are more desert-like. These include arid shrublands and grasslands (Service 1998). These areas are characterized by sparse or no shrub cover, sparse ground cover with patches of bare ground, short vegetative structure (herbaceous vegetation < 18 inches tall), and sandy to sandy-loam soils. Tall and/or dense vegetation generally is less optimal for foxes (Smith et al.

2005). Such conditions make it difficult for foxes to detect approaching predators or capture prey.

More specifically, the impacts are confined to the creek and immediately adjacent areas, plus the hilly rocky area of the quarry (see the attached photos). Kit foxes do not drink free water (Golightly and Ohmart 1983), so they would not be expected to be attracted to the creek as a water source. Kit foxes also tend to avoid rugged, steep terrain (which is present at the quarry). Predation risk apparently is higher for foxes under such topographic conditions (Warrick and Cypher 1998).

Finally, there would be avoidance measures such as a pre-activity survey and standard buffer distances from any potential kit fox dens, no nighttime work, and a requirement for low speed limits. The road work would occur below the ordinary high water mark, and therefore it would be outside of any potential kit fox habitat.

Some cumulative impacts may occur on raptors and whipsnakes in the proposed action area, due to recreational use of the State Parks area, and routine ranching activities in surrounding lands. However, these would be minor impacts that would rarely result in death or injury of individuals, and would not cause more habitat loss than what previously occurred as a result of the construction of the reservoir.

The increased size of the “habitat area” may provide some additional habitat for some common wildlife species, such as the western fence lizard (*Sceloporus occidentalis*), or the desert cottontail (*Sylvilagus audubonii*).

3.4 Cultural Resources

3.4.1 Affected Environment

Cultural resources is a term used to describe “archaeological sites” depicting evidence of past human use of the landscape, and the “built environment,” which is represented in structures such as dams, roadways, and buildings. Cultural resources may also be Traditional Cultural Properties or sites of religious and cultural significance which are important to Native American individuals and communities.

The NHPA of 1966 is the primary Federal legislation which outlines the Federal government’s responsibility to cultural resources. More specifically, Section 106 of the NHPA and its implementing regulations located at 36 CFR Part 800, outline the Federal government’s responsibility in identifying and evaluating the historic significance of cultural resources. Other applicable Federal cultural resources laws and regulations that could apply include, but are not limited to, the Native American Graves Protections and Repatriation Act, and the Archaeological Resources Protection Act.

Section 106 of the NHPA requires the Federal government to take into account the effects of an undertaking on cultural resources listed on or eligible for listing on the National Register of Historic Places (National Register) and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. Those resources that are on or eligible for inclusion in the

National Register are referred to as historic properties. Historic properties may include prehistoric and historic districts, sites, buildings, structures, or objects.

As part of the Section 106 process, once an undertaking is initiated, the Federal agency must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action that has the potential to affect historic properties, the Federal agency must; 1) identify the area of potential effects (APE), 2) determine if historic properties are present within the APE, 3) determine the effect that the undertaking would have on historic properties, and 4) consult with the SHPO, to seek concurrence on the Federal agency's findings. In addition, the Federal agency is required through the Section 106 process to consult with Indian Tribes concerning the identification of sites of religious or cultural significance, and to consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties. If the undertaking would result in adverse effects to historic properties, these adverse effects must be resolved in consultation with the SHPO and other parties identified during the Section 106 process before the undertaking can proceed to implementation.

3.4.2 Environmental Consequences

No Action

Under the No Action Alternative, DWR would continue to access the site for monitoring purposes, and would conduct road maintenance. There would be no impacts to cultural resources under the No Action Alternative since conditions would remain the same as they currently are

Proposed Action

Under the Proposed Action Alternative, all ground disturbing activity and spoils deposition will occur within areas previously disturbed by construction of the detention dam and modification of the creek channel during the dam's construction in 1966. The proposed undertaking was determined to be the type of activity that does not have the potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1). The likelihood of intact archaeological deposits existing within the project footprint is highly unlikely. However, the mitigation (tree planting) will still need cultural resources review prior to implementing that component of the project.

3.5 Hydrology and Water Quality

3.5.1 Affected Environment

As explained previously in the background section, Los Banos Creek, an intermittent creek, begins in the Diablo Range in San Benito County. Los Banos Creek is the first large creek north of Ortigalita Creek, draining into the San Joaquin Valley in Section 7, Township 11 South, Range 10 East, about four miles north of Ortigalita Creek. Los Banos Creek is hydrologically connected to Mud Slough, which empties into the San Joaquin River. Los Banos Creek drains about 160 square miles of the Diablo Range. It then flows into western Merced County where it is dammed at LBDD, and passes under the San Luis Canal through a six-barrel culvert.

In the project area at LBDD, the overall flow or ponding of water remains within a clearly defined creek channel. However, in the southwestern area there are topographic inconsistencies, intermittent releases of water from a toe drain, as well as occasional or seasonal flooding. There

is also obvious seasonal flooding and ponding of other areas tied to, but just outside of, the project site. Basalt Hill is an upland area.

3.5.2 Environmental Consequences

No Action

Under the No Action Alternative, Reclamation and DWR would not conduct sediment and vegetation removal. Flow in the channel would continue to decrease as a result of continued sediment accumulation and vegetation growth. The LBDD could overtop or otherwise fail, which would cause scouring of the channel downstream of the dam and likely result in at least temporary water quality degradation, as accumulated sediment would be suddenly washed downstream. The San Luis Canal, City of Los Banos, and downstream farmland and urban development could be flooded. However, under the No Action Alternative, minor impacts on water quality associated with vegetation and sediment management would not occur.

Proposed Action

Under the Proposed Action, Reclamation and DWR would conduct sediment and vegetation removal activities up to three times over the next 10 years, as well as apply herbicides biannually under an herbicidal spray program. Flow in the creek would improve and the San Luis Canal would be better-protected from flooding. The Proposed Action would provide an overall benefit to water resources.

The Proposed Action entails removing vegetation and accumulated sediment from the channel. The creek in the project area is usually always wet, so work cannot be restricted to dry periods. During project activities, DWR would comply with all conditions of the Streambed Alteration Agreement, which is likely to include measures such as stabilizing drainage slopes to prevent erosion into the creek, covering any stockpiled soil to prevent dust and siltation into the creek, and utilizing drip pans or absorbent material to catch drips from equipment while parked. Any equipment that is leaking fluid shall be fixed immediately or removed from the jobsite. The Proposed Action requires both a CWA 404 permit and a 401 Water Quality Certification. An NPDES permit would be required, pursuant to section 402 of the CWA, for herbicide application.

The Proposed Action would not deplete groundwater supplies, or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level. The Proposed Action would not alter the existing drainage pattern of the site.

The Proposed Action is to conduct maintenance on an existing flood control facility and would not result in a substantial increase in the rate or amount of surface runoff in a manner in which would result in flooding on or off-site. The project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

3.6 Recreational Resources

3.6.1 Affected Environment

Los Banos Creek Reservoir is a popular area for fishing and boating. DFG previously stocked the reservoir with trout. Bass fishing derbies are often held there, and crappie and bluegill are also caught. Twenty undeveloped camping/picnicking sites are located along the shore of Los Banos Creek Reservoir. Each has a shade ramada, table, and stove. There is drinking water and chemical toilets. Every spring, a five-mile hike (Path of the Padres) is held from the west end of the reservoir, through the grassy hills and into riparian habitat. The campground is subject to winter and/or road closures because of water releases from the reservoir (State Parks 2009). As explained earlier, a recent test release by DWR caused water to back up onto the access road and two visitors had their vehicle flooded out. Basalt Hill is only accessed by DWR and Reclamation personnel.

3.6.2 Environmental Consequences

No Action

Under the No Action Alternative, recreational resources would be impacted in the short term by problems such as the loss of access that has been occurring because of ponding of water released from the dam. In the long term, if the dam failed, this would greatly impact almost all recreational uses.

Proposed Action

There would be temporary changes to public access to the State Parks-managed land at the reservoir, so the Proposed Action could temporarily impact recreation. To reduce this impact, DWR staff would be onsite to allow vehicles to travel on the road safely by using signs that warn visitors about the work and by having flagmen onsite at all times during maintenance activities. No cumulative impacts on recreational resources have been identified by Reclamation or DWR.

3.7 Wetlands and other Waters

3.7.1 Affected Environment

As explained earlier, Los Banos Creek is an intermittent creek flowing typically during the winter which supports hydrophytic vegetation (e.g. cattails). The project area is likely to be under the Corps' jurisdiction, pursuant to section 404 of the CWA. Los Banos Creek connects to Mud Slough, about three miles upstream of Mud Slough's confluence with the San Joaquin River (a navigable river). A preliminary wetland delineation was performed by DWR (see appendix). Basalt Hill is entirely an upland area.

3.7.2 Environmental Consequences

No Action

Under the No Action Alternative, the streambed of Los Banos Creek would not be intentionally filled (although sediment would continue to accumulate over the next 10 years).

Proposed Action

The Proposed Action is expected to impact a portion of the Los Banos Creek streambed. permanent loss of 0.18 acre and impacts to 0.29 acre of waters of the U.S. Historically, there was likely a loss of wetlands/waters when the LBDD was constructed. The number of access routes, number and size of staging areas, and the total area of the activity would be limited to the minimum necessary to achieve the project goal. All staging areas and spoil deposition areas would be outside of wetlands and other waters. The Proposed Action would utilize an excavator to remove vegetation and sediment, which would not push material around in the creek bed when it is operated. Although the road and berm work would exceed the impacts caused by the original construction of the dam, this additional work is needed to conduct the channel clearance activities. The project is water-dependent, as the project is needed to improve downstream flow in Los Banos Creek. A permit, pursuant to section 404 of the CWA, was issued to Reclamation. Riprap work and berm/road construction would result in a discharge of fill material to waters of the U.S. Due to the method of removal of the vegetation and sediment, that portion of the project is not expected to result in a discharge of dredged or fill material into waters of the U.S.

The following trees would be removed: 14 Fremont cottonwoods (*Populus fremontii*) with a dbh range of 4.5-20.1 inches and eight black willows (*Salix gooddingii*) with a dbh range of 5.2-18.2 inches. In order to mitigate the loss of native trees from the project and help replace the lost value to wildlife, the same species of trees would be planted along the Los Banos creek and Reservoir in cooperation with State Parks. The trees would be replaced at a ratio of 4:1 and the performance criteria would be 75 percent survival of planted trees for a period of three consecutive years, and an additional two years without assistance (i.e. irrigation and/or other maintenance). This would adequately compensate for the lost wildlife habitat and would provide compensatory mitigation as required under Nationwide Permit #3.

Section 4 Consultation and Coordination

Reclamation circulated the draft EA and FONSI for thirty days, from June 30, 2010 to July 30, 2010. No comments were received.

4.1 Clean Air Act (42 USC §7401 et seq.)

The Clean Air Act is a comprehensive Federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes the Environmental Protection Agency to establish National Ambient Air Quality Standards to protect public health and public welfare and to regulate emissions of hazardous air pollutants.

The Proposed Action is consistent with the Environmental Protection Agency's General Conformity Rule under the Clean Air Act. The project would incorporate measures to protect air quality, to State and Federal Standards. The project would not generate greater than 20 percent opacity for PM₁₀. Emissions of constituents for which a general conformity analysis applies would be below the *de minimus* thresholds and less than 10% of regional emissions. GHG emissions would be negligible.

4.2 Clean Water Act (33 USC §1251 et seq.)

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Activities in waters of the U.S. regulated under this program include fill for development, water resource projects, infrastructure development and mining projects. Section 404 requires a permit before dredged or fill material may be discharged into waters of the U. S., unless the activity is exempt from section 404 regulation. The Corps verified a wetland delineation that was submitted by DWR and permitted the project under Nationwide Permit #3 on January 5, 2011.

Section 401 of the CWA establishes a program to allow States and Tribes to review and approve, condition, or deny all Federal permits or licenses that might result in a discharge to State or Tribal waters, including wetlands. The Central Valley Regional Water Quality Control Board (CVRWQCB) administers the 401 program for the Central Valley region of California. As the Proposed Action is regulated by the Corps, a 401 water quality certification was required. The CVRWQCB issued a certification on January 11, 2011.

Discharges of aquatic pesticides to waters of the U.S. require coverage under an NPDES permit. Reclamation has prepared an Aquatic Pesticide Application Plan and will submit it with a Notice of Intent to comply with Water Quality Order No. 2004-0009-DWQ. DWR would not apply any aquatic herbicide as part of the project until the herbicide application is authorized under the NPDES permit.

4.3 Endangered Species Act (16 USC §1531 et seq.)

Section 7 of the Endangered Species Act requires Federal agencies, in consultation with the Secretary of the Interior/Commerce, 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 determined that no Federally listed or proposed species or critical habitat would be affected by the Proposed Action. Therefore, no consultation with the USFWS or the National Marine Fisheries Service is required. The USFWS will be sent a copy of this document when it is released for public review.

4.4 Executive Order 12898 – Federal Actions to Address Environmental Justice in Minority and Low-Income Populations

Executive Order 12898 established the priority of analyzing environmental justice for any action that could cause disproportionately high and adverse human health or environmental effects to a minority and/or disadvantaged populations. The Proposed Action is strictly a maintenance project and is not located in an area with minority or low-income populations, and therefore it would not affect such populations.

4.5 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. The project would occur at least partially in a floodplain. However, the Proposed Action would protect life and property from downstream flooding, rather than increase the risk.

Executive Order 11990 requires Federal agencies to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities for (1) acquiring, managing, and disposing of Federal lands and facilities; and (2) providing Federally undertaken, financed, or assisted construction and improvements; and (3) conducting Federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities. The order does not apply to the issuance by Federal agencies of permits, licenses, or allocations to private parties for activities involving wetlands on non-Federal property. This Proposed Action would occur on Federal property, and so the order applies. The Proposed Action is a water-dependent project and no practicable alternative exists. Conservation measures would reduce the potential for impacts on the biological resources and water quality of Los Banos Creek, thereby minimizing any degradation of wetlands.

4.6 Fish and Wildlife Coordination Act (16 USC §661 et seq.)

The Fish and Wildlife Coordination Act requires that Federal agencies consult with fish and wildlife agencies (Federal and State) whenever a body of water is proposed to be impounded, diverted, controlled, or otherwise modified, either by the Federal agency, or by a public or private agency under a Federal permit or license. This project is a maintenance project that would only remove accumulated sediment and vegetation, and would not involve any new construction (i.e. it is not a water development project). The road and berm work is only that which is needed to conduct necessary maintenance work. Therefore the Fish and Wildlife Coordination Act does not apply.

4.7 Indian Trust Assets

There are no tribes possessing legal property interests held in trust by the United States in the areas involved with this action. The nearest ITA is Chicken Ranch Rancheria, approximately 72 miles northeast of the project location. As there are no ITAs in the project area, Indian trust assets would not be affected by this action.

4.8 Migratory Bird Treaty Act (16 USC §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 has a low probability of affecting migratory birds, and conservation measures have been incorporated into the project description to protect them from adverse effects; these measures would ensure compliance with the Migratory Bird Treaty Act.

4.9 National Historic Preservation Act (16 USC §470 et seq.)

The National Historic Preservation Act (NHPA) of 1966 is the primary Federal legislation which outlines the Federal Government's responsibility to cultural resources. Section 106 of the NHPA requires the Federal Government to take into consideration the effects of an undertaking on cultural resources listed on or eligible for inclusion in the National Register of Historic Places (National Register). Those resources that are on or eligible for inclusion in the National Register are referred to as historic properties.

The Section 106 process is outlined in the Federal regulations at 36 CFR Part 800. These regulations describe the process that the Federal agency (Reclamation) takes to identify cultural resources and the level of effect that the proposed undertaking will have on historic properties. In summary, Reclamation must first determine if the action is the type of action that has the potential to affect historic properties. If the action is the type of action has the potential to affect historic properties, Reclamation must identify the area of potential effects (APE), determine if historic properties are present within that APE, determine the effect that the undertaking will have on historic properties, and consult with the State Historic Preservation Office (SHPO), to seek concurrence on Reclamation's findings. In addition, Reclamation is required through the Section 106 process to consult with Indian Tribes concerning the identification of sites of religious or cultural significance, and consult with individuals or groups who are entitled to be consulting parties or have requested to be consulting parties.

The proposed undertaking was determined to be the type of activity that does not have the potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1). The likelihood of intact archaeological deposits existing within the project footprint is highly unlikely. However, it should be noted that the mitigation (tree planting) will still need cultural resources review prior to implementing that component of the project.

Section 5 List of Preparers and Reviewers

Shauna McDonald, Wildlife Biologist, Bureau of Reclamation – preparer

Patricia Rivera, Native American Affairs Program Manager, Bureau of Reclamation – preparer

Jonathan Connolly, Archeologist, Bureau of Reclamation – preparer

Adam Nickels, Archeologist, Bureau of Reclamation – preparer

Rain Healer, Natural Resource Specialist (NEPA), Bureau of Reclamation – reviewer

Chuck Siek, Supervisory Natural Resource Specialist (NEPA), Bureau of Reclamation – reviewer

Liz Partridge, Civil Engineer, Bureau of Reclamation – reviewer

Section 6 References

California Air Resources Board. 2008. *Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act*. Available: < <http://www.arb.ca.gov/cc/localgov/ceqa/ceqa.htm>>.

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RECLAMATION

Managing Water in the West

Finding of No Significant Impact

Vegetation and Sediment Maintenance Program at Los Banos Detention Dam

FONSI-09-100

Recommended by:

Shauna McDonald Date: 1/19/11
Shauna McDonald
Wildlife Biologist
South-Central California Area Office

Concurred by:

Chuck Siek Date: 1/31/11
Chuck Siek
Supervisory Natural Resource Specialist
South-Central California Area Office

Concurred by:

David Woolley Date: 2-3-11
acting Chief, Resource Management Division
South-Central California Area Office

Approved by:

Laura Myers Date: 2/2/11
Laura Myers
Deputy Area Manager
South-Central California Area Office



U.S. Department of the Interior
Bureau of Reclamation
South-Central California Area Office

January 2011

In accordance with Section 102 (2) (c) of the National Environmental Policy Act (NEPA) of 1969, as amended, and the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), the South-Central California Area Office of the Bureau of Reclamation (Reclamation) finds that the proposed action would not significantly affect the quality of the human environment. Therefore, an Environmental Impact Statement is not required for the proposed vegetation and sediment removal activities at the Los Banos Detention Dam (LBDD). This Finding of No Significant Impacts (FONSI) is supported by the attached Environmental Assessment, (EA) *Vegetation and Sediment Maintenance Program at Los Banos Detention Dam* (EA-08-34).

Background

Both Reclamation and the Department of Water Resources' (DWR's) Division of Safety of Dams have completed numerous inspections of the LBDD and have classified it as high risk. The water is designed to flow away from the dam, following its natural channel. Over time, cattails and tules have grown around this lower basin and the discharge path, preventing proper drainage and causing water to back up into the surrounding area. The dam also has a toe drain which is the primary source of warning if the dam is experiencing problems with holding water. With the heavy growth of vegetation and improper drainage, this valuable tool has been rendered useless. On August 22, 2008 DWR's San Luis Field Division performed the LBDD Slide Gate exercise. After a small release from LBDD, water backed up on and across Canyon Road, the access road for Los Banos Reservoir. The water that was released ponded and caused two State Park visitors to sustain vehicle damage.

Proposed Action

Reclamation and DWR propose to implement a 10-year program to remove accumulated vegetation and sediment at the LBDD. The maintenance program would be conducted by DWR's Civil Maintenance Branch of the San Luis Field Division Operations and Maintenance once every three to five years. Work would include the removal of vegetation and sediment from: the spillway of LBDD, the creek, and the Dam face. Maintenance activities would involve removal of emergent wetland vegetation, primarily cattails (*Typha* sp.). A biannual herbicidal spray program using Rodeo (no surfactant), or similar products, would be established.

Findings

Aesthetics

No construction work would occur in the recreational areas themselves (the reservoir and camping/picnicking areas), and the Proposed Action will not create any nighttime light or glare or interfere with any scenic views. As no visual resources will be impacted, there will be no significant impact.

Air Quality/Climate Change

The Proposed Action will result in short-term emissions of vehicle and equipment exhaust and particulate matter (PM₁₀). However, as a result of the implementation of air quality protection

measures, the Proposed Action will comply not only with Federal requirements, but with the more stringent California State requirements. Emissions of constituents for which a general conformity analysis applies (8-hour ozone, PM_{2.5} and PM₁₀) would be below the *de minimus* thresholds and less than 10% of regional emissions. Therefore, there will be no significant impact on air quality. The Proposed Action will not exceed the California Air Resource Board's significance threshold for greenhouse gas emissions, and therefore will not have a significant impact on global climate change.

Biological Resources

No Federally listed or proposed species or critical habitat will be impacted. A pre-activity survey will be conducted for the San Joaquin kit fox to verify that no kit foxes have moved into the proposed action area, between 30 and 14 days prior to the start of work, and avoidance measures will be implemented. With the implementation of conservation measures, no more than a minor impact will occur on the San Joaquin whipsnake and certain raptors, including the burrowing owl. The Proposed Action will not result in any take as defined under the Migratory Bird Treaty Act. Therefore, no significant impact will occur to biological resources.

Cultural Resources

The Proposed Action was determined to be the type of activity that does not have the potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1). However, the mitigation (tree planting) will still need cultural resources review prior to implementing that component of the project.

Hydrology and Water Quality

Under the Proposed Action, flow in the creek would improve and the San Luis Canal would be better-protected from flooding. The Proposed Action will provide an overall benefit to water resources. All measures contained in the Streambed Alteration Agreement issued to the Department of Water Resources, and the Water Quality Certification and National Pollutant Discharge Elimination System authorization obtained by Reclamation will be implemented and will ensure that no significant impacts occur on hydrology and water quality. The Water Quality Certification also imposes turbidity monitoring that must be conducted.

Recreational Resources

The only impact on recreational resources will be a temporary impact on access, but this will be lessened by using signs that warn visitors about the work and by having flagmen onsite. Safe access to recreational resources will continue and so this impact is not significant.

Wetlands/Waters of the United States

The Proposed Action will avoid and minimize fill of and indirect impacts on any waters of the U.S. as much as possible. Reclamation will comply with all requirements of the Nationwide Permit that the Corps is authorizing fill for under section 404 of the Clean Water Act, and DWR will comply with all conditions of the Streambed Alteration Agreement. This will include mitigating for removal of native riparian trees at a 4:1 ratio. This will ensure that significant impacts on waters of the U.S. will not occur.

Cumulative Effects

The Proposed Action will not result in any direct or indirect impacts on aesthetic or cultural resources, and will therefore not contribute cumulatively toward any impacts on those resources. Impacts on biological resources will be minimized to a level that will not impact populations. Due to the fact that the proposed action area is owned by Reclamation, it is largely protected from future impacts on habitats in the area. Therefore, the Proposed Action will not result in more than a very minor cumulative impact on biological resources. Air quality impacts will be minimized to a level that ensures compliance with both Federal and State standards and will therefore only result in minor cumulative impacts. Greenhouse gas emissions will remain below the significance level and so will not contribute significantly to cumulative impacts on global climate change. The Streambed Alteration Agreement and Water Quality Certification will ensure that cumulative impacts on hydrology and water quality are no more than minimal. Recreational resource impact will be minimal and not contribute cumulatively to impacts on this resource (no other impacts on recreational resources have been identified). Waters of the U.S. will not be subject to a significant cumulative impact because DWR will obtain and comply with a Streambed Alteration Agreement and Reclamation will obtain and comply with a section 404 Clean Water Act permit.

From: [Rivera, Patricia L](#)
To: [McDonald, Shauna A](#);
Subject: RE: Los Banos Detention Dam
Date: Monday, November 16, 2009 8:19:20 AM

Shauna,

I reviewed the proposed action wherein Reclamation and the Department of Water Resources (DWR) propose to implement a 10-year program to remove accumulated vegetation and vegetation at the Los Banos Detention Dam, once every three to five years from August to January, and with a biannual herbicidal spray program using Rodeo (without surfactant).

The Dam was built in 1966 to detain floodwater from Los Banos Creek to protect the California Aqueduct (San Luis Canal), the city of Los Banos, and the surrounding farmlands. The objective of this project is to improve water flow downstream from the dam, improve DWR's ability to monitor drainage from the toe drain, and thereby detect problems with the dam, protect downstream facilities including the San Luis Canal and the City of Los Banos, and prevent loss of access and unsafe access conditions for the recreation area.

The proposed action does not affect Indian Trust Assets. The nearest ITA is Chicken Ranch Rancheria approximately 72 miles NE of the project location.

Patricia

From: Connolly, Jonathan D
To: McDonald, Shauna A;
cc: Barnes, Amy J; Bruce, Brandee E; Goodsell, Joanne E; Leigh, Anastasia T;
Nickels, Adam M; Overly, Stephen A; Williams, Patrick E;
Subject: RE: Cost Authority Number for Los Banos Dam
Date: Friday, July 10, 2009 11:45:34 AM
Attachments: EA-09-100_text only_JC_Edits.doc

Project No. 09-SCAO-260

Shauna:

I have reviewed the admin. draft EA for the Vegetation and Sediment Maintenance Program at Los Banos Detention Dam (EA-09-100). Both the No Action and Proposed Action alternatives have no potential to affect historic properties pursuant to the regulations at 36 CFR Part 800.3(a)(1).

Reclamation, in partnership with the Department of Water Resources (DWR), is proposing to clear vegetation and sediment from the improved channel of Los Banos Creek at the toe of Los Banos Detention Dam. The project area was highly disturbed during construction of Los Banos Detention Dam and the improved channel of Los Banos Creek. The likelihood of intact archaeological deposits existing within the project footprint is highly unlikely.

I have added sections to the admin. draft EA pertinent to cultural resources and attached the updated document to this email. Please insert these additions in the final document before going to public comment.

This concludes the Section 106 process for this undertaking, please retain a copy of this email with the project file. Thank you for providing the opportunity to comment.

Sincerely,

Jonathan Connolly

Jonathan D. Connolly, M.A., RPA
Archaeologist
U.S. Bureau of Reclamation
Mid-Pacific Region
2800 Cottage Way, MP-153
Sacramento, CA. 95825

916-978-5042
jconnolly@usbr.gov

From: McDonald, Shauna A
Sent: Monday, July 06, 2009 2:30 PM
To: MPR Cultural Resources Section
Subject: FW: Cost Authority Number for Los Banos Dam

Hi. I've written an admin. draft EA, minus the cultural resources and ITA sections, for the Los Banos Detention Dam project. See at the bottom for the CA# we're apparently supposed to use. I had thought we were using the long-term San Luis Unit NEPA number, but I guess that was wrong. I'm trying to get as-builts in case I have to give them to the Corps. I have to fill out a permit application still to send to the Corps. DWR would not give me an ending time for the project, so Patti and I decided we would make it a ten-year program (otherwise I can't quantify the total impacts on wetlands, etc.).

Thanks,
Shauna

From: Partridge, Elizabeth G (Liz)
Sent: Monday, July 06, 2009 2:20 PM
To: McDonald, Shauna A; Yates, Lee C
Subject: RE: Cost Authority Number for Los Banos Dam

Shauna,

We have drawings. We'll get them together in case you need them.

Lee,

Please send Shauna electronic copies of: 805-D-1554/1555/1556.

Liz

From: McDonald, Shauna A
Sent: Monday, July 06, 2009 2:01 PM

To: Partridge, Elizabeth G (Liz)

Subject: RE: Cost Authority Number for Los Banos Dam

Thanks, Liz. I am reading the summary for the Corps' Nationwide 31 permit, and it says they may need "as built" drawings for the dam. Do we or DWR have those, in case they do end up being needed?

From: Partridge, Elizabeth G (Liz)

Sent: Monday, July 06, 2009 1:51 PM

To: McDonald, Shauna A

Subject: Cost Authority Number for Los Banos Dam

A40-0805-9813-323-00-0-0

From: Nickels, Adam M
To: McDonald, Shauna A;
MPR Cultural Resources Section;
Subject: RE: Los Banos Detention Dam project
Date: Friday, August 21, 2009 1:32:13 PM
Attachments: EA-09-100 text only (3).doc

Project No 09-SCAO-260

Shauna

Jonathan is on vacation and will not be back until the 28th. I reviewed the changes to the proposed to the Admin EA and have determined that the project still has no potential to affect historic properties based on the reasons Jonathan outlined in the EA. I did however fix some organization issues. The no action alternative response was in the effected environment section and the effected environment was in the no action section. I flipped them around which is now reflected in the attached text. thanks for letting us review the changes.

Adam

From: McDonald, Shauna A
Sent: Friday, August 21, 2009 1:07 PM
To: MPR Cultural Resources Section
Subject: Los Banos Detention Dam project

Jonathan, DWR went and re-designed this maintenance project on us, after you had reviewed the project description and typed something up for me already. I have updated the admin. draft EA and I'm attaching it. There is now a "zone 4" and they are potentially doing berm construction all along the site, as well as rip-rapping it.

Shauna A. McDonald
Wildlife Biologist
Bureau of Reclamation
South-Central California Area Office
Fresno, CA 93721
(559) 487-5202
(559) 487-5397 (fax)
smcdonald@usbr.gov

Los Banos Detention Dam Mitigation Plan

On January 14, 2010 Los Banos Detention Dam Vegetation and Sediment Maintenance project area was surveyed for native trees greater than four inches in diameter by an environmental scientist. The vegetation and sediment removal of the project area will include the removal of 25 native trees, 20 having a diameter at breast height (DBH) greater than four inches (refer to table below for actual DBH's).

In agreement with California Department of Fish and Game, Department of Water Resources will mitigate at a rate of 4:1 for the 6 willows and 14 cottonwoods planning to be removed. A total of 80 pole cuttings, 24 willows and 56 cottonwoods, will be planted 5 feet apart on the Los Banos Detention Dam property (Map 1). Before construction, pole cuttings will be taken from existing native trees in the area and planted the following spring.

The mitigation site will be accessed via water vessel, preferably by canoe. Multiple trips may be required to get all necessary equipment across. It is possible to access area by driving in off of Canyon road, taking a dirt road as far back as possible, and hiking in behind the reservoir (Map 2).

All holes will be dug by hand. The holes may be a maximum depth of six feet. The use of wire cages may be necessary to protect pole cuttings from potential grazing impact.

In compliance with California Department Fish and Game Stream Alteration Agreement No. 1600-2010-0038-R4 a monitoring plan will be established. After construction, monitoring will take place in spring the following years until a 75 percent success rate is achieved. DWR will report to California Department of Fish and Game in accordance with the Stream Alteration Agreement. Construction and monitoring will be documented during the scope of the project and plan.

Tree Species	DBH (inches)	Removal	Mitigate Required		Mitigation Ratio 3:1		Total
			Willow	Cottonwood	Willow	Cottonwood	
Cottonwood 1	23.2	yes		no			0
Cottonwood 2	14.4	yes		yes		4	4
Willow 1	11.2	yes	yes		4		4
Willow 2	6.4	yes	yes		4		4
Willow 3	3.4	yes					0
Unknown 1	13.6	yes					0
Willow 4	7.4	yes	yes		4		4
Cottonwood 3	15.6	yes		yes		4	4
Cottonwood 4	7.5	yes		yes		4	4
Unknown 2	6.4	yes					0
Willow 5	5.2	yes	yes		4		4
Willow 6	7.6	yes	yes		4		4
Willow 7	18.2	yes	yes		4		4
Willow 8	2.2	yes	no				0
Cottonwood 5	20.1	yes		yes		4	4
Cottonwood 6	19.4	yes		yes		4	4
Cottonwood 8	9.8	yes		yes		4	4
Cottonwood 10	16.9	yes		yes		4	4
Cottonwood 11	8.1	yes		yes		4	4
Cottonwood 23	4.5	yes		yes		4	4
Cottonwood 12	8.4	yes		yes		4	4
Cottonwood 13	12.2	yes		yes		4	4
Cottonwood 14	16	yes		yes		4	4
Cottonwood 15	11.9	yes		yes		4	4
Cottonwood 16	11.5	yes		yes		4	4
Total	n/a	25	6	14	24	56	80

Table 1. Native trees to be removed from spillway area due to vegetation and sediment removal.

Los Banos Detention Dam





Map 2. Hiking access to mitigation planting area.



California Natural Resources Agency
DEPARTMENT OF FISH AND GAME

ARNOLD SCHWARZENEGGER, Governor

JOHN McCAMMAN, Director



Central Division
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4593
www.dfg.ca.gov

November 15, 2010

Karen Dulik
San Luis Field Division
California Department of Water Resources
3374 East Shields Avenue
Fresno, California 93726

Subject: Final Lake or Streambed Alteration Agreement
Notification No. 1600-2010-0038-R4
Los Banos Creek – Merced County

Dear Ms. Dulik:

Enclosed is the final Stream Alteration Agreement (Agreement) for Vegetation and Sediment Maintenance Program at LBDD (Project). Before the Department of Fish and Game (Department) may issue an Agreement, it must comply with the California Environmental Quality Act (CEQA). In this case, the Department, acting as a Responsible Agency, filed a Notice of Determination (NOD) on the same date it signed the Agreement. The NOD was based on information contained in the Mitigated Negative Declaration the Lead Agency prepared for the Project.

Under CEQA, filing a NOD starts a 30-day period within which a party may challenge the filing agency's approval of the Project. You may begin your Project before the 30-day period expires if you have obtained all necessary local, State, and Federal permits or other authorizations. However, if you elect to do so, it will be at your own risk.

If you have any questions regarding this matter, please contact Annette Tenneboe, Environmental Scientist, at the address on this letterhead or by telephone at (559) 243-4014, extension 231.

Sincerely,

Jeffrey R. Single, Ph.D.
Regional Manager

cc: Amy Krisch

NOTICE OF DETERMINATION

TO: Office of Planning and Research
Post Office Box 3044
Sacramento, California 95814

FROM: California Department of Fish and Game
Central Region
1234 East Shaw Avenue
Fresno, California 93710

cc: County Clerk, Merced County

SUBJECT: Filing of Notice of Determination in compliance with Section 21108 or 21152 of the Public Resources Code.

PROJECT TITLE: Vegetation and Sediment Maintenance Program at Los Banos Detention Dam, Stream Alteration Agreement No. 2010-0038-R4.

STATE CLEARINGHOUSE NUMBER: SCH# 2010031071

LEAD AGENCY: Department of Water Resources
CONTACT: Karen Dulik (559) 230-3300

RESPONSIBLE AGENCY: California Department of Fish and Game
CONTACT: Annette Tenneboe (559) 243-4014 ext. 231

PROJECT LOCATION: The work authorized by this Agreement shall occur within or adjacent to Los Banos Creek between the Los Banos Detention Dam and the Los Banos Creek box culvert crossing at Canyon Road, approximately 7 miles southwest of the City of Los Banos (Section 12, Township 11 South, Range 09 East; Section 07, Township 11 South, Range 10 East; MDB&M).

PROJECT DESCRIPTION: The California Department of Fish and Game is executing a Lake and Streambed Alteration Agreement pursuant to Section 1602 of the Fish and Game Code for the Vegetation and Sediment Maintenance Program at Los Banos Detention Dam Project. The objectives of the Project are to remove vegetation, including non-native and native trees that may prohibit flow, from the outflow channel and the basin and to restore the area below the spillway structure (known as the "horseshoe" area due to its shape) close to original design and specifications. This vegetation removal will allow water to flow downstream away from the dam and the toe drain.

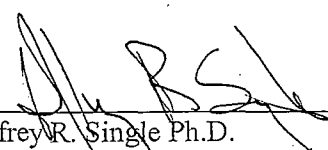
This is to advise that the California Department of Fish and Game as a Responsible Agency approved the Project described above on _____ and has made the following determinations regarding the above described Project.

The Project [☒ **will** will not] have a significant effect on the environment.
A Mitigated Negative Declaration was prepared for this Project pursuant to the provisions of CEQA.
Mitigation measures [☒ **were** were not] made a condition of the approval of the Project.
A Statement of Overriding Considerations [was ☒ **was not**] adopted for the Project.
Findings [☒ **were** were not] made pursuant to the provisions of CEQA.

This is to certify that a copy of the Mitigated Negative Declaration prepared for this Project is available to the general public and may be reviewed at: the Department of Water Resources, SCRO 3374 East Shields Avenue, Fresno, 93726. Please contact the person specified above.

Date: _____

11/24/10



Jeffrey R. Single Ph.D.
Regional Manager, Central Region
California Department of Fish and Game

Date received for filing at OPR: _____

CALIFORNIA DEPARTMENT OF FISH AND GAME
REGION 4 - CENTRAL REGION
1234 EAST SHAW AVENUE
FRESNO, CALIFORNIA 93710



STREAMBED ALTERATION AGREEMENT
NOTIFICATION NO. 1600-2010-0038-R4
LOS BANOS CREEK – MERCED COUNTY
VEGETATION AND SEDIMENT MAINTENANCE PROGRAM AT
LOS BANOS DAM DIVERSION

CALIFORNIA DEPARTMENT OF WATER RESOURCES
SAN LUIS FIELD DIVISION
31770 GONZAGA ROAD
GUSTINE, CALIFORNIA 95322-9737

This Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Game (DFG) and the California Department of Water Resources (Permittee).

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) Section 1602, Permittee notified DFG on March 24, 2010 that Permittee intends to complete the Project described herein.

WHEREAS, pursuant to FGC Section 1603, DFG has determined that the Project could substantially adversely affect existing fish or wildlife resources and has included measures in the Agreement necessary to protect those resources.

WHEREAS, Permittee has reviewed the Agreement and accepts its terms and conditions, including the measures to protect fish and wildlife resources.

NOW THEREFORE, Permittee agrees to complete the Project in accordance with the Agreement.

PROJECT LOCATION

The Project will be located along Los Banos Creek between the Los Banos Detention Dam and the Los Banos Creek box culvert crossing at Canyon Road, approximately 7 miles southwest of the City of Los Banos (Section 12, Township 11 South, Range 09 East; Section 07, Township 11 South, Range 10 East; MDB&M)(Figure 1).

PROJECT DESCRIPTION

Project Purpose and Need: The need for this Project and the continual maintenance of the area is to identify potential flooding issues to the area and to help protect all

downstream facilities, including the San Luis Canal and the City of Los Banos. Maintaining this area will also prevent unsafe conditions to the recreation area.

The objectives of the Project are to remove vegetation, including non-native and native trees that may prohibit flow, from the outflow channel and the basin and to restore the area just downstream of the spillway and toe drain area (horseshoe area) to its original configuration. The eroded area just below the spillway and toe drain is known as the "horseshoe" area due to its overall shape. This vegetation removal will allow water to flow downstream away from the dam and the toe drain.

Initial Construction Activities:

- Work will be conducted at two (2) locations along Los Banos Creek. Location 1 is the outlet works for the Los Banos Detention Dam. Location 2 is the Los Banos Creek box culvert crossing at Canyon Road.
- Clear vegetation and sediment from the channel downstream of the spillway and outlet works. This work will progress in an upstream or a south-west direction. Clearing work will begin with the channel section in Zone 1 that is downstream, or east of Canyon Road. It will be cleared an average of 275 feet in length (along the centerline) and over an 80-foot width using a long reach excavator. The excavator will work outward from the center of the channel and place the debris material into a dump truck. The debris will be discarded into one (1) of the two (2) spoil areas.
- It is being proposed that 14 cotton wood (*Populus fremontii*) and eight (8) willow trees (*Salix gooddingii*) will be removed. The cotton wood trees range in trunk diameter from 4.5 to 20.1-inches diameter at breast height (DBH). The willow trees range in trunk diameter from 5.2 to 18.2-inches DBH.
- Existing service roads along with proposed additional service roads will be used to access the site. Existing and additional access road shall be graded. Berms originally found along the northern and southern boundary of the "horseshoe" area will be widened to allow equipment to reach into the creek. Fill added to widen the existing berm shall be made of native material quarried from the Basalt Hill area adjacent to the San Luis Dam. The Project area, including all access routes and the spoils areas, will be surveyed prior to their mowing or use.
- Once Zone 1 has been cleared the excavator will be repositioned on the upstream or west side of Canyon Road in Zone 2. Along the centerline, this area consists of a 480-foot long by 80 to 100 feet wide channel approach to the outlet works. The excavator will work outward from the center of the channel and place the debris material into a dump truck. The debris will be discarded into the spoil areas.
- The excavator will not clear the area surrounding the pooled water until the channels are cleared to keep the work area dry. Work will continue at the "Y" of

the "horseshoe" area in an upstream, or north-west direction toward the spillway, Zone 3. This area is approximately 275 feet (along the centerline) in length and 140 feet wide. The excavator will work from the center of the channel clearing vegetation and depositing it on the dump truck. The debris will be discarded into the spoil areas.

- Zone 4, with an area of just above a $\frac{1}{4}$ acre, will be cleared next. Unlike other zones, Zone 4 will not undergo an elevation alteration; smaller brush will be mowed while bigger trees will be pulled out of the ground.
- Zone 5 will encompass an area roughly 255 feet long by 110 feet wide. Similar to Zone 4, Zone 5 will not undergo an elevation alteration. The existing north and south banks would be used to allow equipment access to clean the channel and the Project area. The vegetation removal will be done in an east to west direction using a long reach excavator. The debris will be loaded into dump trucks and taken to one of the spoil areas to be deposited.
- Once Zones 1 through 4 have been cleared and work to clear Zone 5 starts, DWR's Precise Survey Team will then survey Zones 1 to 4 to designate the proper ground elevation requirements at key points. Using the same methodology and protocols, the excavator will fill the "horseshoe" area and the channel with native material until the proper ground elevation requirements has been met.
- When all the Zones are cleared and leveled to the proper ground elevation, the excavator will begin removing the vegetation holding the pooled water. The excavator will work from the northern channel bank and the southern channel bank until the vegetation is removed. The rip rap zones in Zones 2, 3, and 4, will be repaired if necessary. The rip rap material will be quarried from Basalt Hill and shall have a diameter of 10-inches or greater.
- Spoil Areas 1 and 2 will be used to deposit the vegetation removed from the Project area. Spoil material cannot be deposited within the spoil areas where the elevation is below 235 feet. At maximum capacity, the waterline is at the elevation of 233.5 feet. A dozer will then be used to distribute the materials within the limits of the spoils area. Spoil Area #1 is located south of the channel. It has an area of more than $5 \frac{1}{2}$ acres. Spoil Area #2, located north of the channel and has an area of almost 3 acres. Woody vegetation will be placed in low level piles to create habitat in either of the two (2) designated spoil areas.
- The total projected clearance area is approximately 12.25 acres. The channel clearance, including the box culvert, will encompass an area of 3.38 acres. The total area of all the access roads will have an area of 0.84 acres. The riprap will have an area of 0.25 acres. The remainder, 8.78 acres, will be used as spoil area with the habitat areas included. Assuming an average excavation depth of 4 feet, the volume of displaced material coming out of the channel clearance is

approximately 79000 cubic yards. A total of about 1200 cubic yards of riprap material will be used to completely restore the riprap area.

- Equipment required will include an excavator with a 60-foot reach, a loader, two (2) dump trucks, a bulldozer, water truck, roller compactor, grader, and a tractor mower.

Standard Maintenance Activities:

- An annual maintenance program will be conducted at the Los Banos Detention Dam (LBDD) by Department of Water Resource's Civil Maintenance Branch of the San Luis Field Division Operations and Maintenance. Work will include the removal of vegetation and sediment from: the spillway of LBDD, the creek, and dam face. This work will be conducted approximately once every three (3) to five (5) years between August and January, depending on the rate of vegetation growth and/or sediment deposition, in order to maintain the structural and design integrity of LBDD. Maintenance activities will involve removal of emergent wetland vegetation primarily cattails (*Typha sp.*).
- An herbicidal spray program using Rodeo (no surfactant), or similar products, will be established and conducted biannually, as needed. Once the Project activities described above are completed, vegetation within the maintained areas of the channel is expected to re-establish through vegetative reproduction or through wind-blown seed establishment within one (1) to three (3) years. Water flow in the channel downstream of the LBDD will be monitored and when the re-established vegetation and accumulated sediment begin to impede water flow in the channel, the described vegetation and sediment removal activities will be conducted again.

PROJECT IMPACTS

Plant and Animal Special Status Species: This Agreement is intended to avoid, minimize, and mitigate adverse impacts to the fish and wildlife resources that occupy the Project area, and the immediate adjacent habitat. Absent implementation of the protective measures required by this Agreement, the following species and habitat types could potentially be impacted within the area covered by this Agreement: the State threatened Swainson's hawk (*Buteo swainsoni*), State-threatened San Joaquin kit fox (*Vulpes macrotis mutica*), Federally threatened California red-legged frog (*Rana aurora draytonii*), species of special concern foothill yellow-legged frog (*Rana boylei*), species of special concern Western pond turtle (*Actinemys marmorata*), species of special concern San Joaquin whipsnake (*Masticophis flagellum ruddocki*), species of special concern burrowing owl (*Athene cunicularia*), and bat species, as well as other birds, mammals, fish, reptiles, amphibians, invertebrates and plants that comprise the local ecosystem. The California Natural Diversity Data Base (CNDDB) and other DFG files and references contain information on species and ecosystems that could be subject to potential generated impacts from this Project.

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the Project site at all times and shall be presented to DFG personnel or personnel from another State, Federal, or local agency upon request.
- 1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the Project at the Project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 Notification of Conflicting Provisions. Permittee shall notify DFG if Permittee determines or learns that a Provision in the Agreement might conflict with a Provision imposed on the Project by another Local, State, or Federal agency. In that event, DFG shall contact Permittee to resolve any conflict.
- 1.4 Project Site Entry. Permittee agrees that DFG personnel may enter the Project site at any time to verify compliance with the Agreement.
- 1.5 Legal Obligations. This Agreement does not exempt the Permittee from complying with all other applicable local, State and Federal law, or other legal obligations.
- 1.6 Unauthorized Take. This Agreement does not authorize the "take" ("take" defined in Fish and Game Code Section §86 as to hunt, pursue, catch, capture, or kill; or attempt to hunt, pursue, catch, capture, or kill) of State- or Federally-listed threatened or endangered species. Any such "take" shall require separate permitting as may be required.
- 1.7 Water Diversion. To the extent that the Provisions of this Agreement provide for the diversion of water, they are agreed to with the understanding that the Permittee possesses the legal right to so divert such water.
- 1.8 Trespass. To the extent that the Provisions of this Agreement provide for activities that require the Permittee to trespass on another owner's property, they are agreed to with the understanding that the Permittee possesses the legal right to so trespass.

- 1.9 Construction/Work Schedule. The Permittee shall submit a construction/work schedule to DFG (mail, or fax to (559) 243-4020, with reference to Agreement 1600-2010-0038-R4) prior to beginning any activities covered by this Agreement. The Permittee shall also notify DFG upon the completion of the activities covered by this Agreement.
- 1.10 Training. Prior to starting any activity within the stream, all workers shall have received training from a qualified biologist, or an approved alternate trainer, on the contents of this Agreement, the resources at stake, and the legal consequences of non-compliance.

2. Avoidance and Minimization Measures

To avoid or minimize adverse impacts to fish and wildlife resources identified above, the Permittee shall implement each measure listed below.

- 2.1 Construction/Work Hours. All non-emergency work activities during the construction phase will be confined to daylight hours.
- 2.2 Flagging/Fencing. Prior to any activity within the stream or floodplain, the Permittee shall identify the limits of the required access routes and encroachment into the stream. These "work area" limits shall be identified with brightly-colored flagging/fencing. Work completed under this Agreement shall be limited to this defined area only. Flagging/fencing shall be maintained in good repair for the duration of the Project. All areas beyond the identified work area limits shall be considered Environmentally Sensitive Areas (ESA) and shall not be disturbed.
- 2.3 Listed and Fully-Protected Species.
- (a) This Agreement does not authorize the "take" of State-listed endangered or threatened species. If the Permittee, in the performance of the agreed work, discovers the presence of a listed species in the Project work area, work shall stop immediately. The Permittee shall not resume activities authorized by this Agreement until such time as valid "take" permits are obtained from the DFG pursuant to Fish and Game Code Sections 2081(a) and 2081(b), as appropriate. Liability for any "take," or "incidental take," of such listed species remains the responsibility of the Permittee for the duration of the Project. Any unauthorized "take" of such listed species may result in prosecution and nullify this Agreement.

Please be advised that the handling and relocation of red-legged frog, as specified in the Red-legged Frog Mitigation Measure #1 associated with the adopted Mitigated Negative Declaration (SCH 2010031071), is considered "take" of this Federally threatened species. Federal "take"

authorization from the United States Fish and Wildlife Service (USFWS) will be necessary prior to any activity resulting in the "take" of red-legged frog or any other Federally-listed species. Any proposed handling and relocation of red-legged frog will also require separate approval from the DFG.

- (b) The Permittee affirms that no State "take" of State-listed species will occur as a result of this Project. If any State or Federally listed threatened or endangered species occur within the proposed work area or could be impacted by the work proposed, and thus "taken" as a result of Project activities, the Permittee is responsible for obtaining and complying with required State and Federally threatened and endangered species permits or other written authorization before proceeding with this Project.
- (c) If "take" of State- or Federally-listed species cannot be avoided, an Incidental Take Permit shall be required (with the exception of State Fully Protected species). Absolutely no disturbance to known listed species habitats shall occur or continue without approval from the DFG and/or the USFWS.
- (d) Prior to the first year of initial construction and maintenance activities, surveys following the current USFWS and DFG protocol for the detection of California red-legged frog and foothill yellow-legged frog shall be conducted by a qualified biologist at the appropriate time of year in areas of suitable habitat (streams, riparian and ponded areas, upland habitat). Depending upon the results of the first year's survey and associated (required) habitat assessment, the DFG may determine that additional protocol level surveys are necessary in subsequent years. Survey results and a copy of the biologist's qualifications shall be submitted to the DFG well in advance of any construction start date. If these species are detected within the Project site or buffer area, the DFG and USFWS shall be contacted for guidance prior to Project implementation.
- (e) Pre-activity surveys for sensitive species including rare, threatened, endangered, and fully-protected species shall be conducted by a qualified biologist within 30 days prior to commencement of the proposed construction or maintenance activity, or as specified within current survey protocols. The Permittee shall provide notification to the DFG of the discovery of any special status species prior to commencement of construction or maintenance activities. Surveys must be conducted within a 250-foot buffer of the "work area" and access routes. The purpose of pre-activity surveys is to avoid intentional and "incidental take," confirm previous observations, identify any subsequent occupation of the stream corridor and other work areas by listed species, and clearly mark all resources to be avoided by Project activities. All surveys for threatened or endangered species shall be conducted in

accordance with the appropriate protocol, and during the appropriate flowering period for plant species. Surveys for any State threatened, endangered, or fully-protected species shall be completed unless appropriate preconstruction surveys determine the lack of habitat for these species or potential habitat is flagged and avoided.

- (f) A qualified biological monitor will be available on-site during all Project-related activities that may impact special status and other sensitive wildlife species.
- (g) If any confirmed precincts, burrows, or occupied habitats are discovered on, or within 250 feet of any work site, all potentially disturbing activities shall be halted immediately until protective buffer zones are established, unless otherwise approved by the DFG.
- (h) If any San Joaquin kit fox dens are subsequently found, they will be avoided by appropriate buffer distances according to the USFWS Standardized Recommendations for the Protection of the San Joaquin Kit Fox Prior to Ground Disturbance (June 1999) (potential or atypical den: 50 feet; known den = 100 feet). During reconnaissance-level surveys the den shall be treated as a known den unless sign associated with natal/pupping activity is observed. **The DFG and the USFWS shall be contacted immediately for guidance on appropriate avoidance measures if any occupied or unoccupied kit fox natal/pupping dens are observed.** Absolutely no disturbance to known kit fox dens shall occur without contacting the DFG and USFWS.
- (i) Access/egress, staging and disposal site locations shall be selected in areas that do not provide habitat for listed/sensitive species.
- (j) No off-road driving shall be permitted except within the approved work site. Storage and parking areas, as well as borrow and spoil sites, are subject to all of the "take" avoidance and mitigation measures that apply to the other work areas.

2.4 Terrestrial Wildlife.

- (a) If any general wildlife is encountered during the course of construction, said wildlife, including Western pond turtle, shall be allowed to leave the construction area unharmed.
- (b) The Project description indicates that several mature cottonwood and willow trees will be removed. Cavities and hollows within trees could provide suitable roosting habitat for bats. Trees scheduled for removal shall be surveyed by a qualified biologist for cavities that would provide suitable

roosting habitat for bats. If tree cavities are observed, then surveys conducted by a qualified biologist (with specific expertise in conducting bat surveys) shall be performed to determine if bat species utilize the existing trees for roosting. If bats or their sign are present, the Permittee shall develop a bat exclusion plan and submit it to the DFG for approval well ahead of construction start. Depending upon the number and species of bats to be excluded, additional mitigation for the loss of roosting habitat may be required by the DFG. Bats shall not be disturbed without specific notice to and consultation with the DFG.

- (c) Pursuant to Fish and Game Code Sections 3503 and 3503.5, it is unlawful to "take", possess, or needlessly destroy the nest or eggs of any bird or bird-of-prey. To protect nesting birds, no construction, vegetation/tree removal, or herbicide application shall be completed from February 15 through September 15 unless the following surveys are completed by a qualified biologist.

Raptors: Survey for nesting activity of raptors (with emphasis on burrowing owl and Swainson's hawk). Potential nesting trees or structures within a ¼ mile radius shall be surveyed for Swainson's hawk during initial construction activities. The Project area plus a 250-foot buffer from the outer edge of the Project boundary shall be surveyed for all other raptor species including burrowing owl. Surveys shall be conducted at appropriate nesting times. If any active nests or owl burrows are observed, these nests and burrows shall be designated an ESA and protected (while occupied) during Project-construction. The Permittee shall contact DFG and avoidance buffers around each nest or owl burrow, specific to each incident, shall be developed and implemented.

Other Avian Species: Survey for other avian nesting activity within a 250-foot radius of the defined work area. Surveys shall be conducted at appropriate nesting times. If any nesting activity is found, the Permittee shall contact DFG and mitigation, specific to each incident, shall be developed.

2.5 Vegetation.

- (a) Vegetation removal shall not exceed the minimum necessary to complete operations and shall only occur within the defined work area. The disturbed portions of the stream bed, banks or channel shall be restored to as near their original condition as possible.

- (b) The disturbance or removal of vegetation within the agreed work area shall not exceed the minimum necessary to complete Project goals as defined in the above Project Description. Precautions shall be taken to avoid other damage to non-target vegetation by people or equipment.
- (c) Riparian woody shrubs and trees, and native oak trees, shall not be removed from the Project work area except to the minimum extent necessary to complete maintenance activities, and unless mitigated for by implementation of a Revegetation Plan described below.
- (d) Trees and shrubs greater than or equal to four (4) inches diameter at breast height (DBH) that are removed shall be replaced by native species at a 4:1 ratio. Heritage trees greater than or equal to 24-inches DBH shall be replaced at a 10:1 ratio (see Restoration below).
- (e) No elderberry bushes (*Sambucus mexicana*) shall be trimmed or removed without appropriate regulatory agency approval. If elderberry bushes will be impacted, then the Permittee shall provide the DFG with a Biological Opinion or other documentation from the USFWS authorizing the Permittee to transplant, remove, or otherwise impact elderberry bushes which are considered habitat for the Federally threatened Valley elderberry longhorn beetle.
- (f) The Permittee shall submit for DFG approval a Revegetation Plan. The Plan shall address stabilization of all disturbed soils and tree plantings compensating for removed trees. The Plan shall identify native and non-native plants removed, native species that will be planted, how, where, and when they will be planted, and measures to be taken to ensure a minimum 75 percent survival rate of planted trees at completion of the five (5) year monitoring period, as described in Restoration below.
- (g) Trimmed vegetation, and cleared woody debris shall be removed from the vicinity of the stream channel and disposed of in a legal manner.
- (h) Vegetation or material removed from the stream areas shall not be stockpiled in the streambed or on its banks.
- (i) The Permittee may remove non-native, invasive vegetation [such as giant reed (*arundo*), tree-of-heaven, tree tobacco, castor bean, pampas grass, eucalyptus, and acacia], including stumps and roots from all Project boundaries. The non-native vegetation shall be removed in a manner so that it does not promulgate or propagate. These areas may be revegetated with

native species for erosion control and to replace riparian vegetation removed elsewhere within the Project boundary.

2.6 Herbicides/Pesticides/Biological Control Agents. Herbicides, pesticides, and biological control agents shall be environmentally safe, and the application and use shall be conducted in a manner consistent with directed and recommended methods and the Permittee must possess and be in compliance with appropriate use and handling permits, if required by local, State, and Federal regulations.

2.7 Vehicles.

- (a) Vehicles shall not be operated in areas where surface water is present. Vehicles shall only operate in the channel during naturally dry conditions or while the affected section of stream is dewatered.
- (b) Construction vehicle access to the stream's banks and bed shall be limited to predetermined ingress and egress corridors on existing roads. All other areas adjacent to the work site shall be considered an ESA and shall remain off-limits to construction equipment. Vehicle corridors and the ESA shall be identified by the Permittee's resident engineer in consultation with DFG representative.
- (c) Any equipment or vehicles driven and/or operated within or adjacent to the stream shall be checked and maintained daily to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic and terrestrial life.
- (d) Staging and storage areas for equipment, materials, fuels, lubricants, and solvents shall be located outside of the stream channel and banks. Stationary equipment such as motors, pumps, generators, compressors and welders, located within or adjacent to the stream, shall be positioned over drip-pans. Vehicles shall be moved away from the stream prior to refueling and lubrication.

2.8 Structures. The Permittee confirms that any and all structures and constructed features shall be properly aligned and otherwise engineered, installed, and maintained, to assure resistance to washout, and to erosion of the stream bed, stream banks and/or fill and that they will not cause long-term changes in water flows that adversely modify the existing upstream or downstream stream bed/bank contours or increase sediment deposition.

2.9 Fill/Spoil.

- (a) Spoil storage sites shall not be located within the stream, where spoil will be washed into the stream. Rock, gravel, and/or other materials shall not be

imported into or moved within the bed or banks of the stream, except as otherwise addressed in this Agreement.

- (b) Fill shall be limited to the minimal amount necessary to accomplish the agreed activities. Excess fill material shall be moved off-site at Project completion.

2.10 Erosion. All disturbed soils within the Project site shall be stabilized to reduce erosion potential, both during and following construction. Temporary erosion control devices, such as straw bales, silt fencing, and sand bags, may be used as appropriate to prevent siltation of the stream. Any installation of non-erodible materials not described in the original Project description shall be coordinated with DFG. Coordination may include the negotiation of additional Agreement Provisions for this activity.

2.11 Pollution.

- (a) During construction, the Permittee will not dump any litter or construction debris within the stream zone. All such debris and waste will be picked up daily and properly disposed of at an appropriate site.
- (b) Staging and storage areas for equipment, materials, fuels, lubricants, and solvents will be located outside of the stream/lake channel and banks. Stationary equipment such as motors, pumps, generators, compressors and welders, located within or adjacent to the stream/lake, will be positioned over drip-pans.
- (c) Raw cement, concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to fish or wildlife resulting from Project-related activities, will be prevented from contaminating the soil and/or entering the "Waters of the State".
- (d) The Permittee and all contractors shall be subject to the water pollution regulations found in the FGC Sections 5650 and 12015.

2.12 Diversion/Dewatering.

- (a) In the event surface water flows are encountered in the channel during Project-related activities, diversion of water flow shall be required to complete Project activities and the Permittee shall submit a Surface Water Diversion Plan. Water drafting, pumping, or other water diversion shall be done in a manner that is not harmful to fish or other aquatic or semi-aquatic species of wildlife. Pump inflow tubes or hoses shall be contained within a 0.5-millimeter

mesh screened cage to exclude all wildlife that may otherwise be harmed in the process.

- (b) Any equipment or structures placed in the active channel for water drafting, pumping or diversion shall be done in a manner that (a) prevents pollution and/or siltation, (b) provides flows to downstream reaches at all times to support aquatic life; (c) provides flows of sufficient quality and quantity, and of appropriate temperature to support aquatic life, both above and below the diversion; and (d) restores normal flows to the affected stream immediately upon completion of work at each location.
- (c) Any dewatering activities shall be done in a manner that prevents pollution and/or siltation of downstream reaches. Infiltrating groundwater removed from excavations shall be pumped to a low-gradient vegetated upland area before discharging into the stream channel. Other filtration methods may be used depending upon site specific conditions. Water pumped to upland areas shall be discharged in a manner as to not cause erosion (i.e., installation of velocity dissipaters at the outfall).

3. Compensatory Measures

To compensate for adverse impacts to fish and wildlife resources identified above that cannot be avoided or minimized, Permittee shall implement each measure listed below.

3.1 Material and Debris. Excess material and debris shall be removed from the Project site.

3.2 Revegetation and Erosion Control.

- (a) If the Project causes any exposed slopes or exposed areas on the stream banks, these areas shall receive an application of straw or mulch. The mulching shall be completed as soon as possible.
- (b) If riparian vegetation is removed, the Permittee shall have a qualified biologist prepare and implement a Revegetation Plan and submit it to the DFG for approval prior to commencement of the proposed work. Restoration shall include the revegetation of all disturbed soils and new fill, including recontoured slopes and all other cleared areas, with riparian vegetation or other plants, as appropriate. The Revegetation Plan shall address the following:
 - Compensation for removed trees by:
 - Identifying species damaged or removed during Project activities.

- Describing, how, where, and when replacement shrubs and trees will be planted.
 - Riparian trees (i.e., willow, cottonwood, poplar, alder, ash, sycamore, etc.) and shrubs having a DBH of greater than four (4) inches shall be replaced in-kind, at a minimum replacement ratio of 4:1, and planted in the nearest suitable location to the area where they were removed. Trees greater than 24-inches DBH shall be replaced at a minimum 10:1 ratio.
 - Oaks having a DBH of greater than four (4) inches shall be replaced in-kind, at a minimum ratio of 4:1, and planted during the winter dormancy period in the nearest suitable location to the area where they were removed. Heritage trees greater than 24-inches DBH shall be replaced at a minimum 10:1 ratio.
 - Non-native, invasive plant species (i.e., arundo and tree-of-heaven) may be removed and replaced with native riparian species.
 - Proposing measures to be taken (i.e., irrigation methods if necessary, and maintenance) to ensure a performance criteria of 75 percent survival of planted trees for a period of three (3) consecutive years, and an additional two (2) years without assistance.
 - Seeding and mulching exposed slopes, or stream banks not revegetated with riparian shrubs or trees.
- (c) The Permittee shall submit annually a Restoration Monitoring Report. The Restoration Monitoring Report shall be submitted to the DFG in December of each year until the performance criteria described in the Revegetation Plan is met. The report shall assess the revegetation status, effectiveness of maintenance methods, whether or not the revegetation is expected to achieve the performance criteria, and shall propose additional measures that will be taken to achieve the performance criteria during the next year. Photo documentation of monitoring and maintenance for each year shall be part of the annual reports.

3.3 Structures and Recontouring.

- (a) Structures and associated materials, not designed to withstand high seasonal flows, shall be removed to areas above the high-water mark before such flows occur.
- (b) The Permittee shall remove and recontour any Project-constructed access corridors to the stream bottom to the original contour.

4. **Reporting Measures**

Permittee shall meet each reporting requirement described below.

4.1 Obligations of the Permittee.

- (a) The Permittee shall have primary responsibility for monitoring compliance with all protective measures included as "Measures" in this Agreement. Protective measures must be implemented within the time periods indicated in the Agreement and the program described below.
- (b) The Permittee (or the Permittee's designee) shall ensure the implementation of the Measures of the Agreement, and shall monitor the effectiveness of these Measures.

4.2 Reports. The Permittee shall submit the following Reports to DFG:

- Construction/work schedule (Administrative Measure 1.9).
- Results of biological pre-activity surveys (Avoidance and Minimization Measures 2.3 (e) and 2.3 (g)).
- Location of occupied, or unoccupied but suspected, kit fox natal/pupping dens (Avoidance and Minimization Measure 2.3 (h)).
- Results of bat surveys (Avoidance and Minimization Measure 2.4 (b)).
- Results of avian surveys for nesting birds if construction is scheduled during the avian nesting season (Avoidance and Minimization Measure 2.4(c)).
- Water Diversion Plan if surface water flows are encountered (Avoidance and Minimization Measure 2.12).
- Prior to Project start, the Permittee shall provide a landscape plan with a list of tree and shrub species for revegetation (Avoidance and Minimization Measure 2.5 (b)).

- Revegetation Plan (Compensatory Measure 3.2 (b)).
- Annual Revegetation Monitoring Report (Compensatory Measure 3.2 (c)).
- A Final Project Report to be submitted within 30 days after the Project is completed. The final report shall summarize the Project-construction, including any problems relating to the protective measures of this Agreement. "Before and after" photo documentation of the Project site shall be required.

CONTACT INFORMATION

Any communication that Permittee or DFG submits to the other shall be in writing and any communication or documentation shall be delivered to the address below by U.S. mail, fax, or email, or to such other address as Permittee or DFG specifies by written notice to the other.

To Permittee:

Karen Dulik
Department of Water Resources
3374 East Shields Avenue
Fresno, California 93726
Office Phone: (559) 230-3361
Fax: (559) 230-3301
kdulik@water.ca.gov

To DFG:

DFG of Fish and Game
Region 4 – Central Region
1234 East Shaw Avenue
Fresno, California 93710
Attn: Lake and Streambed Alteration Program – Annette Tenneboe
Notification #1600-2010-0038-R4
Phone: (559) 243-4014, ext. 231
Fax: (559) 243-4020
atenneboe@dfg.ca.gov

LIABILITY

Permittee shall be solely liable for any violations of the Agreement, whether committed by Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents or contractors and subcontractors, to complete the Project or any activity related to it that the Agreement authorizes.

This Agreement does not constitute DFG's endorsement of, or require Permittee to proceed with the Project. The decision to proceed with the Project is Permittee's alone.

SUSPENSION AND REVOCATION

DFG may suspend or revoke in its entirety the Agreement if it determines that Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, is not in compliance with the Agreement.

Before DFG suspends or revokes the Agreement, it shall provide Permittee written notice by certified or registered mail that it intends to suspend or revoke. The notice shall state the reason(s) for the proposed suspension or revocation, provide Permittee an opportunity to correct any deficiency before DFG suspends or revokes the Agreement, and include instructions to Permittee, if necessary, including but not limited to a directive to immediately cease the specific activity or activities that caused DFG to issue the notice.

ENFORCEMENT

Nothing in the Agreement precludes DFG from pursuing an enforcement action against Permittee instead of, or in addition to, suspending or revoking the Agreement.

Nothing in the Agreement limits or otherwise affects DFG's enforcement authority or that of its enforcement personnel.

OTHER LEGAL OBLIGATIONS

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from obtaining any other permits or authorizations that might be required under other Federal, State, or local laws or regulations before beginning the Project or an activity related to it.

This Agreement does not relieve Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, from complying with other applicable statutes in the FGC including, but not limited to, FGC Sections 2050 et seq. (threatened and endangered species), 3503 (bird nests and eggs), 3503.5 (birds of prey), 5650 (water pollution), 5652 (refuse disposal into water), 5901 (fish passage), 5937 (sufficient water for fish), and 5948 (obstruction of stream).

Nothing in the Agreement authorizes Permittee or any person acting on behalf of Permittee, including its officers, employees, representatives, agents, or contractors and subcontractors, to trespass.

AMENDMENT

DFG may amend the Agreement at any time during its term if DFG determines the amendment is necessary to protect an existing fish or wildlife resource.

Permittee may amend the Agreement at any time during its term, provided the amendment is mutually agreed to in writing by DFG and Permittee. To request an amendment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the corresponding amendment fee identified in DFG's current fee schedule (see California Code of Regulations, Title 14, Section 699.5).

TRANSFER AND ASSIGNMENT

This Agreement may not be transferred or assigned to another entity, and any purported transfer or assignment of the Agreement to another entity shall not be valid or effective, unless the transfer or assignment is requested by Permittee in writing, as specified below, and thereafter DFG approves the transfer or assignment in writing.

The transfer or assignment of the Agreement to another entity shall constitute a minor amendment, and therefore to request a transfer or assignment, Permittee shall submit to DFG a completed DFG "Request to Amend Lake or Streambed Alteration" form and include with the completed form payment of the minor amendment fee identified in DFG's current fee schedule (see California Code of Regulations, Title 14, Section 699.5).

EXTENSIONS

In accordance with FGC Section 1605(b), Permittee may request one extension of the Agreement, provided the request is made prior to the expiration of the Agreement's term. To request an extension, Permittee shall submit to DFG a completed DFG "Request to Extend Lake or Streambed Alteration" form and include with the completed form payment of the extension fee identified in DFG's current fee schedule (see California Code of Regulations, Title 14, Section 699.5). DFG shall process the extension request in accordance with FGC Section 1605(b) through (e).

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the Project the Agreement covers (FGC Section 1605, subdivision (f)).

EFFECTIVE DATE

The Agreement becomes effective on the date of DFG's signature, which shall be:
1) after Permittee's signature; 2) after DFG complies with all applicable requirements under the California Environmental Quality Act (CEQA); and 3) after payment of the applicable FGC Section 711.4 filing fee listed at http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html.

TERM

This Agreement shall remain in effect for five (5) years beginning on the date signed by DFG, unless it is terminated or extended before then. All Provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any Provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC Section 1605(a)(2) requires.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE

In approving this Agreement, DFG is independently required to assess the applicability of CEQA. The features of this Agreement shall be considered as part of the overall Project description.

The Permittee's concurrence signature on this Agreement serves as confirmation to the DFG that the activities conducted under the terms of this Agreement are consistent with the Project as described in the Negative Declaration (State Clearinghouse No. 2010031071) prepared by the Department of Water Resources for the Vegetation and Sediment Maintenance Program at Los Banos Detention Dam. A Mitigated Negative Declaration regarding the Project was adopted by the Department of Water Resources on May 17, 2010. A copy of the Notice of Determination for the Project was provided with the Section 1602 Notification.

EXHIBITS

The documents listed below are included as exhibits to the Agreement and incorporated herein by reference.

Figure 1. Project Location USGS Quad Map.

AUTHORITY

If the person signing the Agreement (signatory) is doing so as a representative of Permittee, the signatory hereby acknowledges that he or she is doing so on Permittee's behalf and represents and warrants that he or she has the authority to legally bind Permittee to the Provisions herein.

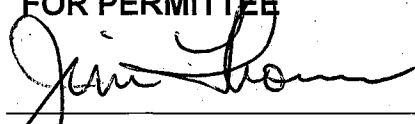
AUTHORIZATION

This Agreement authorizes only the Project described herein. If Permittee begins or completes a Project different from the Project the Agreement authorizes, Permittee may be subject to civil or criminal prosecution for failing to notify DFG in accordance with FGC section 1602.

CONCURRENCE

The undersigned accepts and agrees to comply with all Provisions contained herein.

FOR PERMITTEE



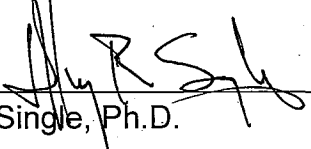
Jim Thomas
Chief of San Luis Field Division

Department of Water Resources

11/12/10

Date

FOR DFG OF FISH AND GAME



Jeffrey R. Single, Ph.D.
Regional Manager – Central Region

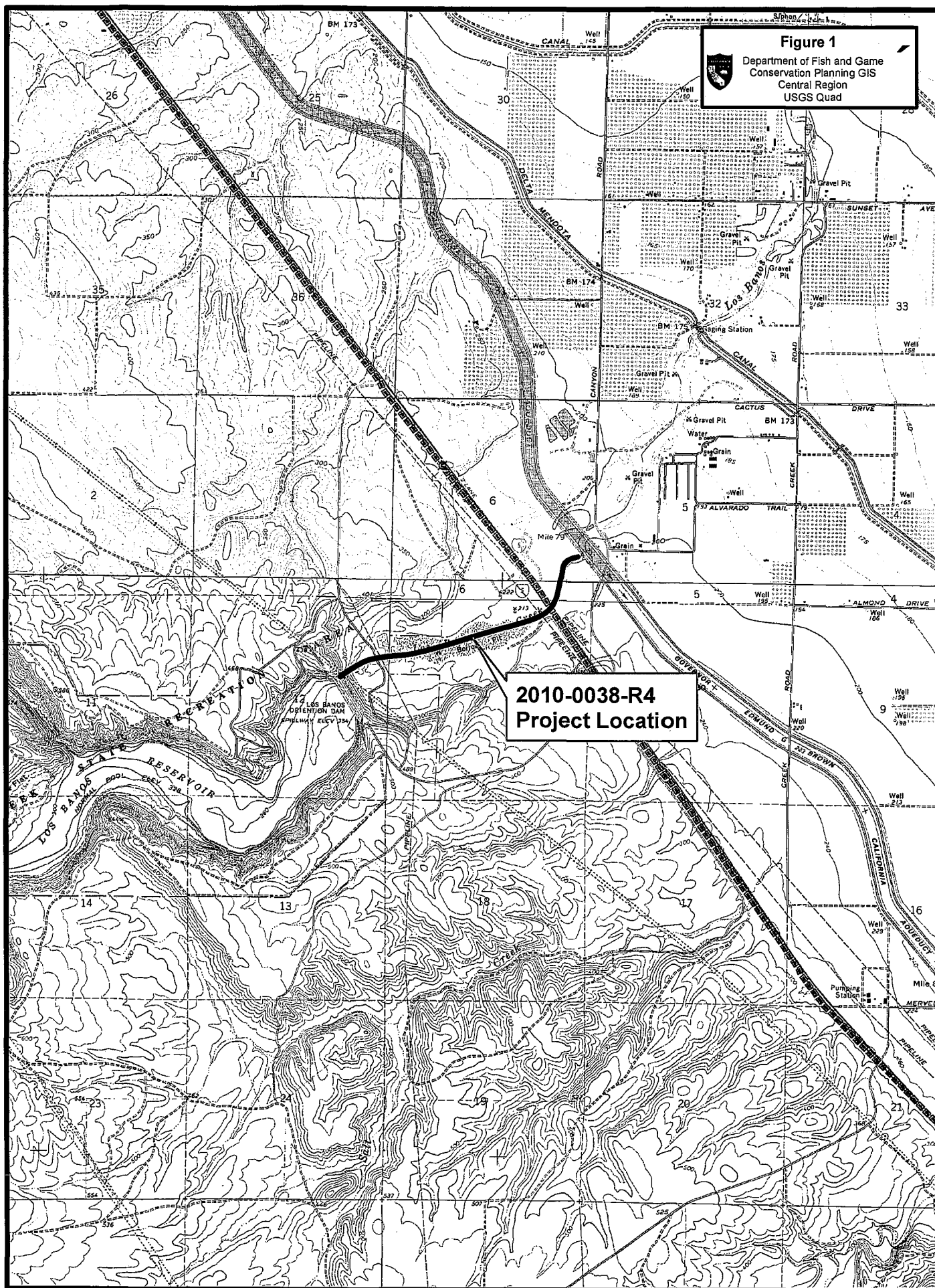
11/24/10

Date

Prepared by: Annette Tenneboe
Environmental Scientist

Figure 1

Exhibit A





Linda S. Adams
Acting Secretary for
Environmental Protection

California Regional Water Quality Control Board Central Valley Region

Katherine Hart, Chair

1685 E Street, Fresno, California 93706
(559) 445-5116 • Fax (559) 445-5910
<http://www.waterboards.ca.gov/centralvalley>



Edmund G. Brown Jr
Governor

Shauna A. McDonald
U.S. Department of Interior
Bureau of Reclamation
1243 N Street
Fresno, CA 93721

11 January 2011

CLEAN WATER ACT §401 TECHNICALLY CONDITIONED WATER QUALITY CERTIFICATION FOR DISCHARGE OF DREDGED AND/OR FILL MATERIALS FOR THE VEGETATION AND SEDIMENT MAINTENANCE AT LOS BANOS DETENTION DAM PROJECT, WDID#5B24CR00024, MERCED COUNTY

WATER QUALITY CERTIFICATION STANDARD CONDITIONS:

1. This Certification is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to §13330 of the California Water Code and §3867 of Title 23 of the California Code of Regulations (23 CCR).
2. This Certification is not intended and shall not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license unless the pertinent certification application was filed pursuant to 23 CCR subsection 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. The validity of any non-denial certification action shall be conditioned upon total payment of the full fee required under 23 CCR §3833, unless otherwise stated in writing by the certifying agency.
4. Certification is valid for the duration of the Vegetation and Sediment Maintenance at Los Banos Detention Dam Project (Project) described in the attached "Project Information Sheet." This Certification is no longer valid if the Project (as summarized in the "Project Information Sheet" and described in the water quality certification application) is modified, or coverage under Section 404 of the Clean Water Act has expired. The Bureau of Reclamation (Discharger) shall notify the Central Valley Regional Water Quality Control Board (Central Valley Water Board) in writing within seven days of Project completion.
5. All reports, notices, or other documents required by this Certification or requested by the Central Valley Water Board shall be signed by a person described below or by a duly authorized representative of that person.
 - a. For a corporation: by a responsible corporate officer such as (1) a president, secretary, treasurer, or vice president of the corporation in charge of a principal

California Environmental Protection Agency

business function; (2) any other person who performs similar policy or decision-making functions for the corporation; or (3) the manager of one or more manufacturing, production, or operating facilities if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

- b. For a partnership or sole proprietorship: by a general partner or the proprietor.
 - c. For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official.
6. Any person signing a document under Standard Condition No. 5 shall make the following certification, whether written or implied:
- "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

ADDITIONAL TECHNICALLY CONDITIONED CERTIFICATION CONDITIONS:

In addition to the six standard conditions, the Discharger shall satisfy the following:

- 1. The Discharger shall notify the Central Valley Water Board in writing seven days prior to beginning any in-water activities.
- 2. Except for activities permitted by the U.S. Army Corps under §404 of the Clean Water Act, soil, silt, or other organic materials shall not be placed where such materials could pass into surface water or surface water drainage courses.
- 3. All areas disturbed by Project activities shall be protected from washout or erosion.
- 4. The Discharger shall maintain a copy of this Certification and supporting documentation (Project Information Sheet) at the Project site during construction for review by site personnel and agencies. All personnel (employees, contractors, and subcontractors) performing work on the proposed Project shall be adequately informed and trained regarding the conditions of this Certification.
- 5. An effective combination of erosion and sediment control Best Management Practices (BMPs) shall be implemented and adequately working during all phases of construction.
- 6. All temporarily affected areas shall be restored to pre-construction contours and conditions upon completion of construction activities.
- 7. The Discharger shall perform surface water sampling: 1) When performing any in-water work; 2) In the event that Project activities result in any materials reaching surface waters

or; 3) When any activities result in the creation of a visible plume in surface waters. The following monitoring shall be conducted immediately upstream out of the influence of the Project and approximately 300 feet downstream of the active work area. Sampling results shall be submitted to this office by the first day of the second month following sampling. The sampling frequency may be modified for certain projects with written permission from the Central Valley Water Board.

Parameter	Unit	Type of Sample	Frequency of Sample
Turbidity	NTU	Grab	Every 4 hours during in-water work
Settleable Material	ml/L	Grab	Same as above
Visible construction related pollutants	Observation	Visible Inspections	Continuous throughout the construction period

8. Activities shall not cause:

- (a) where natural turbidity is less than 1 Nephelometric Turbidity Units (NTUs), increases exceeding 2 NTU;
- (b) where natural turbidity is between 1 and 5 NTUs, increases exceeding 1 NTU;
- (c) where natural turbidity is between 5 and 50 NTUs, increases exceeding 20 percent;
- (d) where natural turbidity is between 50 and 100 NTUs, increases exceeding 10 NTUs;
- (e) where natural turbidity is greater than 100 NTUs, increases exceeding 10 percent.

In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected. Averaging periods may only be used with prior permission of the Central Valley Water Board.

- 9. Activities shall not cause settleable material to exceed 0.1 ml/L in surface waters as measured in surface waters downstream from the Project.
- 10. The discharge of petroleum products or other excavated materials to surface water is prohibited. Activities shall not cause visible oil, grease, or foam in the work area or downstream. The Discharger shall notify the Central Valley Water Board immediately of any spill of petroleum products or other organic or earthen materials.
- 11. The Discharger shall notify the Central Valley Water Board immediately if any of the above conditions are violated, along with a description of measures it is taking to remedy the violation.
- 12. The Discharger shall comply with all California Department of Fish and Game Code Section 1602 requirements for the Project.

13. The Discharger must obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction Activities issued by the State Water Resources Control Board for any project disturbing an area of one acre or greater.
14. The Discharger must obtain coverage under the NPDES General Permit for the Discharge of Aquatic Pesticides for Aquatic Weed Control in Waters of the United States prior to application of aquatic pesticides.
15. The conditions in this Certification are based on the information in the attached "Project Information Sheet" and the information included in the Discharger's application. If the information in the attached "Project Information Sheet" or the application is modified or the Project changes, this Certification is no longer valid until amended by the Central Valley Water Board.
16. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under State law and section 401 (d) of the federal Clean Water Act. The applicability of any State law authorizing remedies, penalties, process, or sanctions for the violation or threatened violation constitutes a limitation necessary to ensure compliance with this Certification.
17. If the Discharger or a duly authorized representative of the Discharger fails or refuses to furnish technical or monitoring reports, as required under this Certification, or falsifies any information provided in the monitoring reports, the Discharger will be subject to civil liability, for each day of violation, or criminal liability.
18. In response to a suspected violation of any condition of this Certification, the Central Valley Water Board may require the Discharger to furnish, under penalty of perjury, any technical or monitoring reports the Central Valley Water Board deems appropriate, provided that the burden, including cost of the reports, shall be in reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
19. The Discharger shall allow staff of the Central Valley Water Board, or an authorized representative(s), upon the presentation of credentials and other documents, as may be required by law, to enter the Project premises for inspection, including taking photographs and securing copies of project-related records, for the purpose of assuring compliance with this Certification and determining the ecological success of the Project.

CENTRAL VALLEY WATER BOARD CONTACT PERSON:


Debra Mahnke, Water Resource Control Engineer
1685 E Street
Fresno, CA 93706
(559)445-6281
dmahnke@waterboards.ca.gov

11 January 2011

WATER QUALITY CERTIFICATION:

I hereby issue an order certifying that the proposed discharge from the Bureau of Reclamation, Vegetation and Sediment Maintenance at Los Banos Detention Dam Project, WDI# 5B24CR00024, will comply with the applicable provisions of §301 ("Effluent Limitations"), §302 ("Water Quality Related Effluent Limitations"), §303 ("Water Quality Standards and Implementation Plans"), §306 ("National Standards of Performance"), and §307 ("Toxic and Pretreatment Effluent Standards") of the Clean Water Act. This discharge is also regulated under State Water Resources Control Board Water Quality Order No. 2003-0017 DWQ "Statewide General Waste Discharge Requirements For Dredged Or Fill Discharges That Have Received State Water Quality Certification."

Except insofar as may be modified by any preceding conditions, all certification actions are contingent on (a) the discharge being limited to and all proposed mitigation being completed in strict compliance with the Discharger's project description, the attached "Project Information Sheet," and the Discharger's water quality certification application; and (b) compliance with all applicable requirements of the Central Valley Water Board's *Water Quality Control Plan for the Sacramento River and San Joaquin River Basins*, Fourth Edition, revised September 2009.

for 
Pamela C. Creedon
Executive Officer

Enclosure: Water Quality Order No. 2003-0017 DWQ
Attachment: Project Information Sheet

cc: Jason Brush, Supervisor, Wetlands Regulatory Office, U.S. Environmental Protection Agency, Region 9, San Francisco (email)
Paul Maniccia, Chief, Sacramento South Branch, Regulatory Unit, Department of the Army, Corps of Engineers, Sacramento
Bill Orme, Water Quality Certification Unit Chief, Division of Water Quality, State Water Resources Control Board, Sacramento (email)
Jeffrey Single, Regional Manager, San Joaquin Valley-Southern Sierra Region, California Department of Fish and Game, Fresno

PROJECT INFORMATION SHEET

Application Date: 23 June 2010

Applicant: U.S. Department of Interior, Bureau of Reclamation

Applicant Representatives: Shauna A. McDonald, Wildlife Biologist

Project Name: Vegetation and Sediment Maintenance at Los Banos Detention Dam

Application Number: WDID# 5B24CR00024

Type of Project: Channel maintenance

Project Location: Section 12, Township 11 South, Range 9 East, MDB&M.

Latitude: 36°59'37.501" and Longitude: -120°55'58.446"

Project Duration: The initial project will take approximately six months and maintenance will be required in three to five years. This Certification is valid for the term of the section 404 Army Corp of Engineers permit.

County: Merced

Receiving Water(s) (hydrologic unit): Los Banos Creek, Sacramento/San Joaquin Hydrologic Basin, Delta-Mendota Hydrologic Unit #541.20, Los Banos HA

Water Body Type: Streambed/floodplain

Designated Beneficial Uses: The *Water Quality Control Plan for the Sacramento River and the San Joaquin River Basins*, Fourth Edition, revised September 2009 designates beneficial uses for surface and ground waters within the region. Beneficial uses that could be impacted by the Project include: Municipal and Domestic Water Supply; Agricultural Supply; Water Contact Recreation; Non-Contact Water Recreation; Warm Freshwater Habitat; and Wildlife Habitat.

Project Description: The project will improve the water flow downstream from the dam, improve the Department of Water Resource's ability to monitor drainage from the toe drain, protect downstream facilities including the San Luis Canal and the City of Los Banos, and provide safe access to the recreation area. Work will include removal of accumulated vegetation and sediment from the dam spillway, the creek, and the dam face. Maintenance activities will include removal of emergent vegetation.

Preliminary Water Quality Concerns: Increased sedimentation and erosion in creek channel.

Proposed Mitigation to Address Concerns: Work will be conducted during dry periods when the creek is not running and when there is very little water in the channel. Slopes will be stabilized to prevent erosion. Stockpiles of soil will be covered.

Fill/Excavation Area: Approximately 79,000 cubic yards of accumulated sediment will be removed from the dam outfall area and placed in an upland area on the site. Following deposition, the upland area will be covered with woody vegetation to create habitat areas. Approximately 1,200 cubic yards of clean natural rock rip rap will be placed into 0.25 acres of the creek channel to replace existing rip rap. Existing roads and berms will be widened to create and restore access for future maintenance. A total of 1.09 acres will be permanently filled.

Dredge Volume: None

U.S. Army Corps of Engineers Permit Number: Nationwide Permit #3

Department of Fish and Game Streambed Alteration Agreement: The California Department of Fish and Game issued a Streambed Alteration Agreement for the project on 15 November 2010.

Status of CEQA Compliance: The California Department of Fish and Game filed a Notice of Determination on 15 November 2010 based on information contained in the Mitigated Negative Declaration prepared for the project.

Compensatory Mitigation: None

Application Fee Provided: Not applicable, due to the project being undertaken by a federal agency.

STATE WATER RESOURCES CONTROL BOARD

WATER QUALITY ORDER NO. 2003 - 0017 - DWQ

**STATEWIDE GENERAL WASTE DISCHARGE REQUIREMENTS FOR
DREDGED OR FILL DISCHARGES THAT HAVE RECEIVED
STATE WATER QUALITY CERTIFICATION (GENERAL WDRs)**

The State Water Resources Control Board (SWRCB) finds that:

1. Discharges eligible for coverage under these General WDRs are discharges of dredged or fill material that have received State Water Quality Certification (Certification) pursuant to federal Clean Water Act (CWA) section 401.
2. Discharges of dredged or fill material are commonly associated with port development, stream channelization, utility crossing land development, transportation water resource, and flood control projects. Other activities, such as land clearing, may also involve discharges of dredged or fill materials (e.g., soil) into waters of the United States.
3. CWA section 404 establishes a permit program under which the U.S. Army Corps of Engineers (ACOE) regulates the discharge of dredged or fill material into waters of the United States.
4. CWA section 401 requires every applicant for a federal permit or license for an activity that may result in a discharge of pollutants to a water of the United States (including permits under section 404) to obtain Certification that the proposed activity will comply with State water quality standards. In California, Certifications are issued by the Regional Water Quality Control Boards (RWQCB) or for multi-Region discharges, the SWRCB, in accordance with the requirements of California Code of Regulations (CCR) section 3830 et seq. The SWRCB's water quality regulations do not authorize the SWRCB or RWQCBs to waive certification, and therefore, these General WDRs do not apply to any discharge authorized by federal license or permit that was issued based on a determination by the issuing agency that certification has been waived. Certifications are issued by the RWQCB or SWRCB before the ACOE may issue CWA section 404 permits. Any conditions set forth in a Certification become conditions of the federal permit or license if and when it is ultimately issued.
5. Article 4, of Chapter 4 of Division 7 of the California Water Code (CWC), commencing with section 13260(a), requires that any person discharging or proposing to discharge waste, other than to a community sewer system, that could affect the quality of the waters of the State,¹ file a report of waste discharge (ROWD). Pursuant to Article 4, the RWQCBs are required to prescribe waste discharge requirements (WDRs) for any proposed or existing discharge unless WDRs are waived pursuant to CWC section 13269. These General WDRs fulfill the requirements of Article 4 for proposed dredge or fill discharges to waters of the United States that are regulated under the State's CWA section 401 authority.

¹ "Waters of the State" as defined in CWC Section 13050(e)

6. These General WDRs require compliance with all conditions of Certification orders to ensure that water quality standards are met.
7. The U.S. Supreme Court decision of *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001) (the *SWANCC* decision) called into question the extent to which certain "isolated" waters are subject to federal jurisdiction. The SWRCB believes that a Certification is a valid and enforceable order of the SWRCB or RWQCBs irrespective of whether the water body in question is subsequently determined not to be federally jurisdictional. Nonetheless, it is the intent of the SWRCB that all Certification conditions be incorporated into these General WDRs and enforceable hereunder even if the federal permit is subsequently deemed invalid because the water is not deemed subject to federal jurisdiction.
8. The beneficial uses for the waters of the State include, but are not limited to, domestic and municipal supply, agricultural and industrial supply, power generation, recreation, aesthetic enjoyment, navigation, and preservation and enhancement of fish, wildlife, and other aquatic resources.
9. Projects covered by these General WDRs shall be assessed a fee pursuant to Title 23, CCR section 3833.
10. These General WDRs are exempt from the California Environmental Quality Act (CEQA) because (a) they are not a "project" within the meaning of CEQA, since a "project" results in a direct or indirect physical change in the environment (Title 14, CCR section 15378); and (b) the term "project" does not mean each separate governmental approval (Title 14, CCR section 15378(c)). These WDRs do not authorize any specific project. They recognize that dredge and fill discharges that need a federal license or permit must be regulated under CWA section 401 Certification, pursuant to CWA section 401 and Title 23, CCR section 3855, et seq. Certification and issuance of waste discharge requirements are overlapping regulatory processes, which are both administered by the SWRCB and RWQCBs. Each project subject to Certification requires independent compliance with CEQA and is regulated through the Certification process in the context of its specific characteristics. Any effects on the environment will therefore be as a result of the certification process, not from these General WDRs. (Title 14, CCR section 15061(b)(3)).
11. Potential dischargers and other known interested parties have been notified of the intent to adopt these General WDRs by public hearing notice.
12. All comments pertaining to the proposed discharges have been heard and considered at the November 4, 2003 SWRCB Workshop Session.
13. The RWQCBs retain discretion to impose individual or General WDRs or waivers of WDRs in lieu of these General WDRs whenever they deem it appropriate. Furthermore, these General WDRs are not intended to supersede any existing WDRs or waivers of WDRs issued by a RWQCB.

IT IS HEREBY ORDERED that WDRs are issued to all persons proposing to discharge dredged or fill material to waters of the United States where such discharge is also subject to the water quality certification requirements of CWA section 401 of the federal Clean Water Act (Title 33 United States Code section 1341), and such certification has been issued by the applicable RWQCB or the SWRCB, unless the applicable RWQCB notifies the applicant that its discharge will be regulated through WDRs or waivers of WDRs issued by the RWQCB. In order to meet the provisions contained in Division 7 of CWC and regulations adopted thereunder, dischargers shall comply with the following:

1. Dischargers shall implement all the terms and conditions of the applicable CWA section 401 Certification issued for the discharge. This provision shall apply irrespective of whether the federal license or permit for which the Certification was obtained is subsequently deemed invalid because the water body subject to the discharge has been deemed outside of federal jurisdiction.
2. Dischargers are prohibited from discharging dredged or fill material to waters of the United States without first obtaining Certification from the applicable RWQCB or SWRCB.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on November 19, 2003.

AYE: Arthur G. Baggett, Jr.
 Peter S. Silva
 Richard Katz
 Gary M. Carlton
 Nancy H. Sutley

NO: None.

ABSENT: None.

ABSTAIN: None.


Debbie Irvin
Clerk to the Board

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

Sacramento District

This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

Regulatory Branch: California South File/ORM #: SPK-2010-01178 PJD Date: December 22, 2010

State: CA City/County: Merced County
Nearest Waterbody: Los Banos Creek
Location (Lat/Long): 36.99332°, -120.93003°
Size of Review Area: 12.88 acres

Name/Address: Shauna McDonald
Of Property: Bureau of Reclamation
Owner/: 1243 N Street
Potential: Fresno, California 93721-1813
Applicant:

Identify (Estimate) Amount of Waters in the Review Area Non-Wetland Waters:

linear feet ft wide 5.43 acres Stream Flow N/A

Wetlands: acre(s) Cowardin N/A
Class:

Name of any Water Bodies Tidal:
on the site identifies as
Section 10 Waters: Non-Tidal:

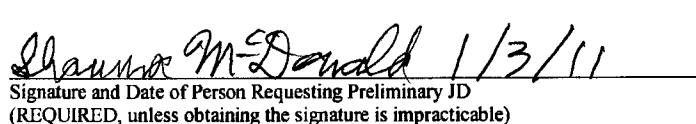
☐ Office (Desk) Determination
☒ Field Determination:
Date(s) of Site Visit(s): October 20, 2010

SUPPORTING DATA: Data reviewed for preliminary JD (check all that apply -- checked items should be included in case file and, where checked and requested, appropriately reference sources below)

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Figure 1. Vegetation and Sediment Maintenance Program at Los Banos Detention Dam: Los Banos Creek Channel Zone 5 and Figure 2. Los Banos Detention Dam Wetland Delineation, in DWR'S November 2010 Wetland Delineation Report, Los Banos Creek Vegetation Removal.
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
- ☐ Data sheets prepared by the Corps.
- ☐ Corps navigable waters' study.
- ☐ U.S. Geological Survey Hydrologic Atlas:
☐ USGS NHD data.
☐ USGS HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24K; CA-ORTIGALITA PEAK NW
- ☐ USDA Natural Resources Conservation Service Soil Survey.
- ☐ National wetlands inventory map(s).
- ☐ State/Local wetland inventory map(s).
- ☐ FEMA/FIRM maps.
- ☐ 100-year Floodplain Elevation (if known):
- ☐ Photographs: ☐ Aerial
☐ Other
- ☐ Previous determination(s). File no. and date of response letter:
- ☐ Other information (please specify):

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.


Signature and Date of Regulatory Project Manager
(REQUIRED)


Signature and Date of Person Requesting Preliminary JD
(REQUIRED, unless obtaining the signature is impracticable)

EXPLANATION OF PRELIMINARY AND APPROVED JURISDICTIONAL DETERMINATIONS:

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO CA 95814-2922

REPLY TO
ATTENTION OF

January 5, 2011

Regulatory Division (SPK-2010-01178)

Shauna McDonald
Bureau of Reclamation
1243 N Street
Fresno, California 93721-1813

Dear Ms. McDonald:

We are responding to your June 30, 2010 request for a Department of the Army permit for the Los Banos Dam Vegetation and Sediment Maintenance Program project. This approximately 12-acre project involves activities, including discharges of dredged or fill material, in waters of the United States to create berms/access roads in order to maintain the creek channel and spillway by removing vegetation and sediment from the outflow channel and basin below the Los Banos Detention Dam. The spillway would also be maintained through the repair and addition of riprap at the bottom of the spillway. The project is located on or near Los Banos Creek, Section 12, Township 11 S, Range 9 E, Mount Diablo Meridian, Latitude 36.99332°, Longitude - 120.930023°, Merced County, California.

Based on the information you provided, the proposed activity, resulting in the permanent loss of approximately 0.18 acre and impacts to approximately 0.29 acre of waters, is authorized by Nationwide Permit Number 3, Maintenance. However, until Section 401 Water Quality Certification for the activity has been issued or waived, our authorization is denied without prejudice. Once you have provided us evidence of water quality certification, the activity is authorized and the work may proceed subject to the conditions of certification and the Nationwide Permit. Your work must comply with the general terms and conditions listed on the enclosed Nationwide Permit information sheets and the following special conditions:

Special Conditions

1. To mitigate for the permanent loss of 0.18 acre and impacts to 0.29 acre of waters of the United States, you must plant a minimum of 56 Fremont cottonwoods (*Populus fremontii*) and 32 black willows (*Salix gooddingii*) (plantings represent a 4:1 ratio of trees removed as part of the project).
 - a. The plantings must be monitored for a minimum of five years or until the performance standard is met for two years without assistance (i.e. irrigation and/or maintenance), whichever is longer.

- b. The plantings must meet or exceed a survival rate that of 75% at the completion of the monitoring period. If it is determined that the mitigation will not meet the survival rate, remediation must be taken and additional monitoring completed, as necessary.

2. You must allow representatives from the Corps of Engineers to inspect the authorized activity and any mitigation, preservation, or avoidance areas at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register.

4. To document pre- and post-project construction conditions, you shall submit pre-construction photos of the project site prior to project implementation and post-construction photos of the project site within 30 days after project completion.

You must sign the enclosed Compliance Certification and return it to this office within 30 days after completion of the authorized work.

This verification is valid for two years from the date of this letter or until the Nationwide Permit is modified, reissued, or revoked, whichever comes first. All of the existing NWP's are scheduled to be modified, reissued, or revoked prior to March 18, 2012. It is incumbent upon you to remain informed of changes to the NWP's. We will issue a public notice when the NWP's are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant NWP is modified or revoked, you will have twelve (12) months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. Failure to comply with the General Conditions of this Nationwide Permit, or the project-specific Special Conditions of this authorization, may result in the suspension or revocation of your authorization.

We appreciate your feedback. At your earliest convenience, please tell us how we are doing by completing the customer survey on our website under *Customer Service Survey*.

Please refer to identification number SPK-2010-01178 in any correspondence concerning this project. If you have any questions, please contact Zachary Simmons at our California South Branch, 1325 J Street, Room 1480, Sacramento, California 95814-2922, email *Zachary.M.Simmons@usace.army.mil*, or telephone 916-557-6746. For more information regarding our program, please visit our website at *www.spk.usace.army.mil/regulatory.html*.

Sincerely,

A handwritten signature in black ink that reads "Paul Maniccia". The signature is written in a cursive style with a large, stylized "P" and "M".

Paul Maniccia
Chief, California South Branch

Enclosures

Copy furnished without enclosures

Karen Dulik, CA Dept of Water Resources, 3374 E. Shields Ave, Fresno, California 93726-6913

Dale Harvey, Central Valley Regional Water Quality Control Board, 1685 E Street, Fresno, California 93706-2007

Jason Brush, U.S. Environmental Protection Agency, Region IX, Wetlands Regulatory Office (WTR-8), 75 Hawthorne Street, San Francisco, California 94105-3901

COMPLIANCE CERTIFICATION

Permit File Number: SPK-2010-01178

Nationwide Permit Number: 3, Maintenance.

Permittee: Shauna McDonald
Bureau of Reclamation
1243 N Street
Fresno, California 93721-1813

County: Merced

Date of Verification: January 3, 2011

Within 30 days after completion of the activity authorized by this permit, sign this certification and return it to the following address:

U.S. Army Corps of Engineers
Sacramento District
1325 J Street, Room 1480
Sacramento, California 95814-2922
DLLS-CESPK-RD-Compliance@usace.army.mil

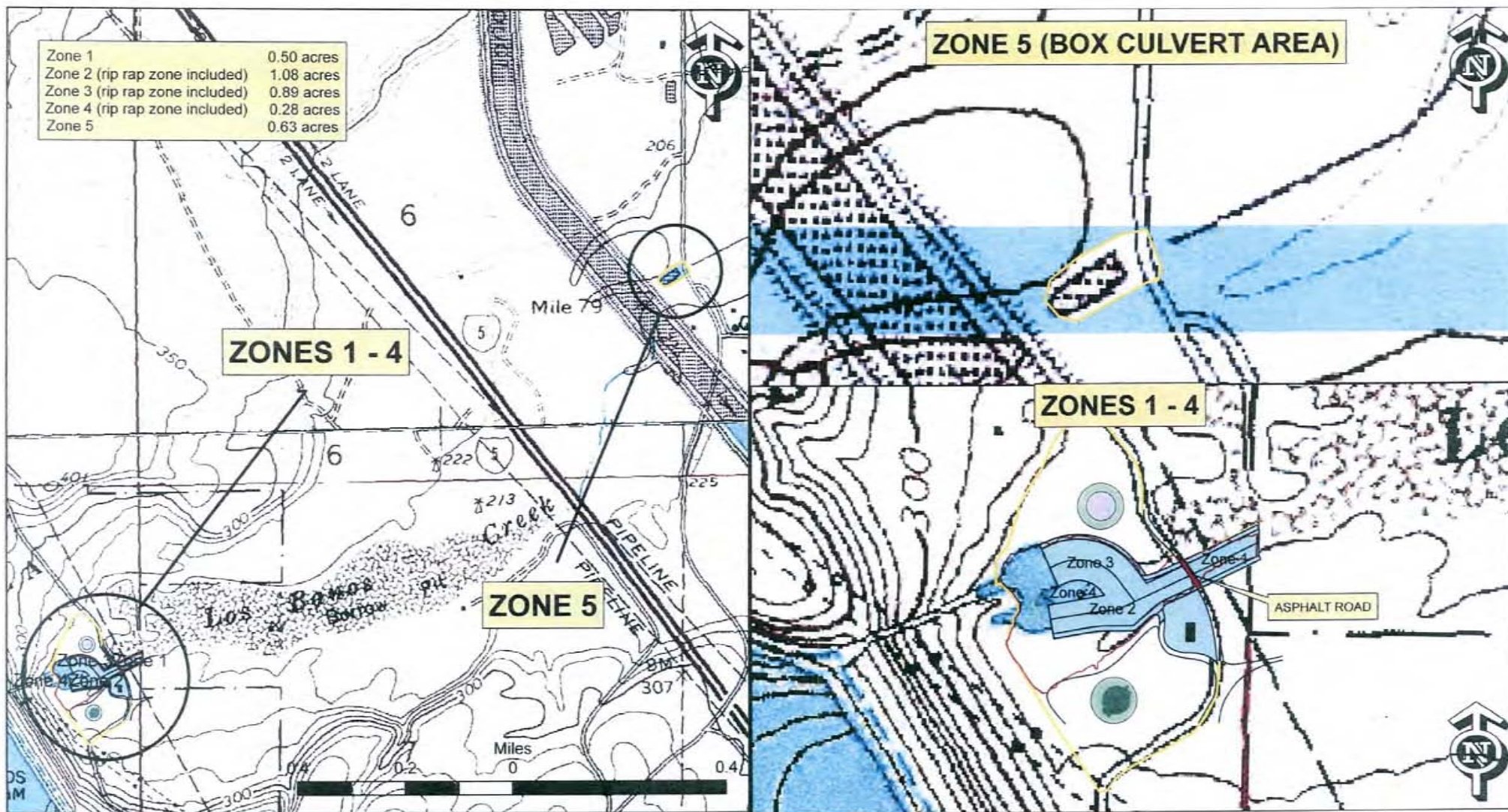
Please note that your permitted activity is subject to a compliance inspection by a U.S. Army Corps of Engineers representative. If you fail to comply with the terms and conditions of the permit your authorization may be suspended, modified, or revoked. If you have any questions about this certification, please contact the Corps of Engineers.

* * * * *

I hereby certify that the work authorized by the above-referenced permit, including all the required mitigation, was completed in accordance with the terms and conditions of the permit verification.

Signature of Permittee

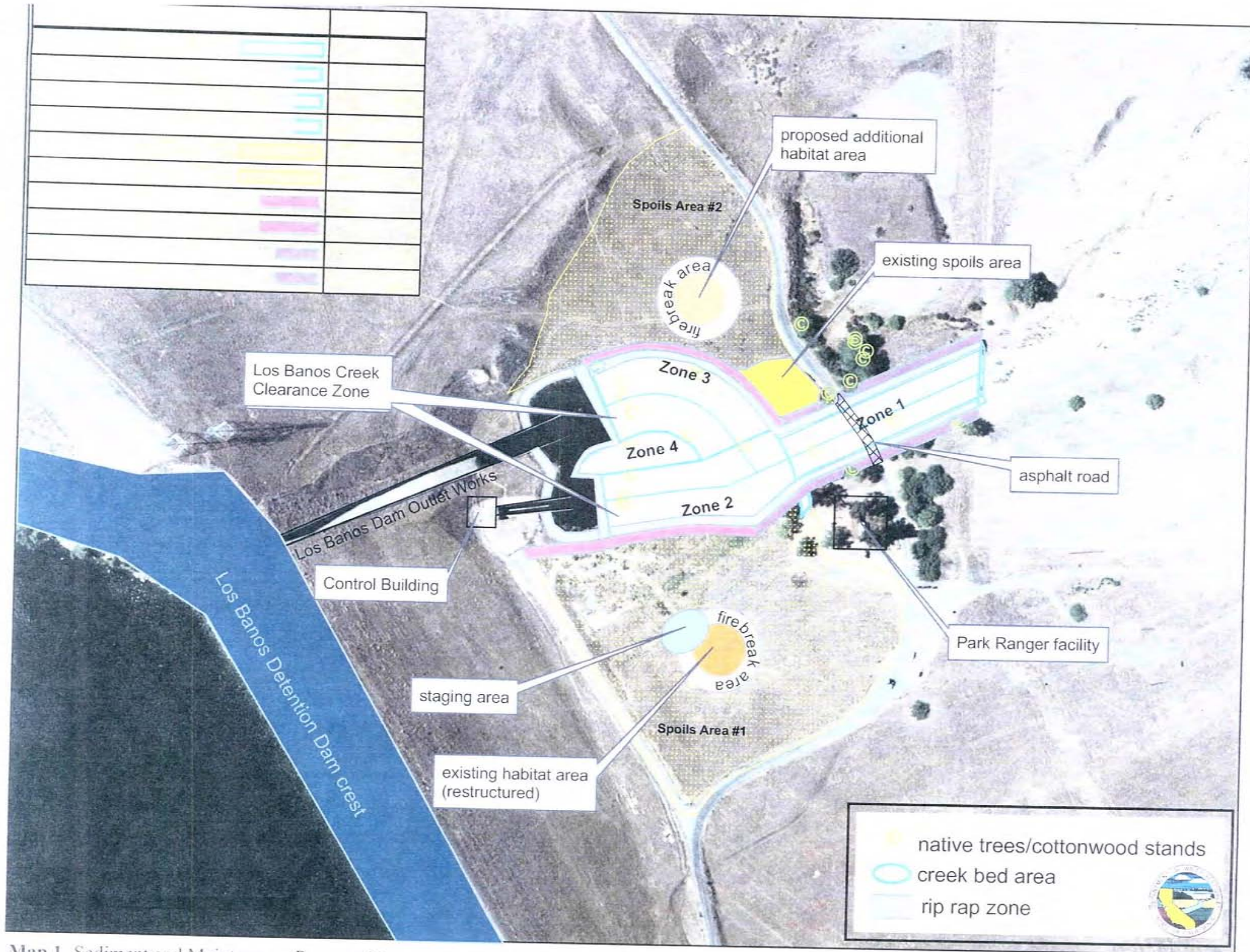
Date



Los Banos DD project area

Project Area for Los Banos Detention
 Dam Vegetation and
 Sediment Maintenance Program





Map 1. Sediment and Maintenance Program Usage Area. Los Banos Creek Channel at Los Banos Detention Dam



U S Army Corps of
Engineers
Sacramento District

Nationwide Permit Summary

33 CFR Part 330; Issuance of Nationwide Permits – March 19, 2007 includes corrections of May 8, 2007 and addition of regional conditions December 2007

3. Maintenance.

(a) The repair, rehabilitation, or replacement of any previously authorized, currently serviceable, structure, or fill, or of any currently serviceable structure or fill authorized by 33 CFR 330.3, provided that the structure or fill is not to be put to uses differing from those uses specified or contemplated for it in the original permit or the most recently authorized modification. Minor deviations in the structure's configuration or filled area, including those due to changes in materials, construction techniques, or current construction codes or safety standards that are necessary to make the repair, rehabilitation, or replacement are authorized. This NWP authorizes the repair, rehabilitation, or replacement of those structures or fills destroyed or damaged by storms, floods, fire or other discrete events, provided the repair, rehabilitation, or replacement is commenced, or is under contract to commence, within two years of the date of their destruction or damage. In cases of catastrophic events, such as hurricanes or tornadoes, this two-year limit may be waived by the district engineer, provided the permittee can demonstrate funding, contract, or other similar delays.

(b) This NWP also authorizes the removal of accumulated sediments and debris in the vicinity of and within existing structures (e.g., bridges, culverted road crossings, water intake structures, etc.) and the placement of new or additional riprap to protect the structure. The removal of sediment is limited to the minimum necessary to restore the waterway in the immediate vicinity of the structure to the approximate dimensions that existed when the structure was built, but cannot extend further than 200 feet in any direction from the structure. This 200 foot limit does not apply to maintenance dredging to remove accumulated sediments blocking or restricting outfall and intake structures or to maintenance dredging to remove accumulated sediments from canals associated with outfall and intake structures. All dredged or excavated materials must be deposited and retained in an upland area unless otherwise specifically approved by the district engineer under separate authorization. The placement of riprap must be the minimum necessary to protect the structure or to ensure the safety of the structure. Any bank stabilization measures not directly associated with the structure will require a separate authorization from the district engineer.

(c) This NWP also authorizes temporary structures, fills, and work necessary to conduct the maintenance activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the

maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The areas affected by temporary fills must be revegetated, as appropriate.

(d) This NWP does not authorize maintenance dredging for the primary purpose of navigation or beach restoration. This NWP does not authorize new stream channelization or stream relocation projects.

Notification: For activities authorized by paragraph (b) of this NWP, the permittee must submit a pre-construction notification to the district engineer prior to commencing the activity (see general condition 27). Where maintenance dredging is proposed, the pre-construction notification must include information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals. (Sections 10 and 404)

Note: This NWP authorizes the repair, rehabilitation, or replacement of any previously authorized structure or fill that does not qualify for the Clean Water Act Section 404(f) exemption for maintenance.

A. Nationwide Permit General Conditions

Note: To qualify for NWP authorization, the prospective permittee must comply with the following general conditions, as appropriate, in addition to any regional or case-specific conditions imposed by the division engineer or district engineer. Prospective permittees should contact the appropriate Corps district office to determine if regional conditions have been imposed on an NWP. Prospective permittees should also contact the appropriate Corps district office to determine the status of Clean Water Act Section 401 water quality certification and/or Coastal Zone Management Act consistency for an NWP.

☐ 1. Navigation.

- ☐ (a) No activity may cause more than a minimal adverse effect on navigation.
- ☐ (b) Any safety lights and signals prescribed by the U.S. Coast Guard, through regulations or otherwise, must be installed and maintained at the permittee's expense on authorized facilities in navigable waters of the United States.
- ☐ (c) The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made

against the United States on account of any such removal or alteration.

☐ **2. Aquatic Life Movements.** No activity may substantially disrupt the necessary life cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions.

☐ **3 Spawning Areas.** Activities in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Activities that result in the physical destruction (e.g., through excavation, fill, or downstream smothering by substantial turbidity) of an important spawning area are not authorized.

☐ **4. Migratory Bird Breeding Areas.** Activities in waters of the United States that serve as breeding areas for migratory birds must be avoided to the maximum extent practicable.

☐ **5. Shellfish Beds.** No activity may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4 and 48.

☐ **6. Suitable Material.** No activity may use unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.). Material used for construction or discharged must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).

☐ **7. Water Supply Intakes.** No activity may occur in the proximity of a public water supply intake, except where the activity is for the repair or improvement of public water supply intake structures or adjacent bank stabilization.

☐ **8. Adverse Effects From Impoundments.** If the activity creates an impoundment of water, adverse effects to the aquatic system due to accelerating the passage of water, and/or restricting its flow must be minimized to the maximum extent practicable.

☐ **9. Management of Water Flows.** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities, except as provided below. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows, unless the primary purpose of the activity is to impound water or manage high flows. The activity may alter the pre-construction course, condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

☐ **10. Fills Within 100-Year Floodplains.** The activity must comply with applicable FEMA-approved state or local floodplain management requirements.

☐ **11. Equipment.** Heavy equipment working in wetlands or mudflats must be placed on mats, or other measures must be taken to minimize soil disturbance.

☐ **12. Soil Erosion and Sediment Controls.** Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all

exposed soil and other fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date. Permittees are encouraged to perform work within waters of the United States during periods of low-flow or no-flow.

☐ **13. Removal of Temporary Fills.** Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. The affected areas must be revegetated, as appropriate.

☐ **14. Proper Maintenance.** Any authorized structure or fill shall be properly maintained, including maintenance to ensure public safety.

☐ **15. Wild and Scenic Rivers.** No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency with direct management responsibility for such river, has determined in writing that the proposed activity will not adversely affect the Wild and Scenic River designation or study status. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service).

☐ **16. Tribal Rights.** No activity or its operation may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.

☐ **17. Endangered Species.**

☐ (a) No activity is authorized under any NWP which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act (ESA), or which will destroy or adversely modify the critical habitat of such species. No activity is authorized under any NWP which "may affect" a listed species or critical habitat, unless Section 7 consultation addressing the effects of the proposed activity has been completed.

☐ (b) Federal agencies should follow their own procedures for complying with the requirements of the ESA. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

☐ (c) Non-federal permittees shall notify the district engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, and shall not begin work on the activity until notified by the district engineer that the requirements of the ESA have been satisfied and that the activity is authorized. For activities that might affect Federally-listed endangered or threatened species or designated critical habitat, the pre-construction notification must include the name(s) of the endangered or threatened species that may be affected by the proposed work or that utilize the designated critical habitat that may be affected by the proposed work. The district engineer will determine whether the proposed activity "may affect" or will have

“no effect” to listed species and designated critical habitat and will notify the non-Federal applicant of the Corps’ determination within 45 days of receipt of a complete pre-construction notification. In cases where the non-Federal applicant has identified listed species or critical habitat that might be affected or is in the vicinity of the project, and has so notified the Corps, the applicant shall not begin work until the Corps has provided notification the proposed activities will have “no effect” on listed species or critical habitat, or until Section 7 consultation has been completed.

☐ (d) As a result of formal or informal consultation with the FWS or NMFS the district engineer may add species-specific regional endangered species conditions to the NWP.

☐ (e) Authorization of an activity by a NWP does not authorize the “take” of a threatened or endangered species as defined under the ESA. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with “incidental take” provisions, etc.) from the U.S. FWS or the NMFS, both lethal and non-lethal “takes” of protected species are in violation of the ESA. Information on the location of threatened and endangered species and their critical habitat can be obtained directly from the offices of the U.S. FWS and NMFS or their world wide Web pages at <http://www.fws.gov/> and <http://www.noaa.gov/fisheries.html> respectively.

☐ 18. Historic Properties.

☐ (a) In cases where the district engineer determines that the activity may affect properties listed, or eligible for listing, in the National Register of Historic Places, the activity is not authorized, until the requirements of Section 106 of the National Historic Preservation Act (NHPA) have been satisfied.

☐ (b) Federal permittees should follow their own procedures for complying with the requirements of Section 106 of the National Historic Preservation Act. Federal permittees must provide the district engineer with the appropriate documentation to demonstrate compliance with those requirements.

☐ (c) Non-federal permittees must submit a pre-construction notification to the district engineer if the authorized activity may have the potential to cause effects to any historic properties listed, determined to be eligible for listing on, or potentially eligible for listing on the National Register of Historic Places, including previously unidentified properties. For such activities, the pre-construction notification must state which historic properties may be affected by the proposed work or include a vicinity map indicating the location of the historic properties or the potential for the presence of historic properties. Assistance regarding information on the location of or potential for the presence of historic resources can be sought from the State Historic Preservation Officer or Tribal Historic Preservation Officer, as appropriate, and the National Register of Historic Places (see 33 CFR 330.4(g)). The district engineer shall make a reasonable and good faith effort to

carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Based on the information submitted and these efforts, the district engineer shall determine whether the proposed activity has the potential to cause an effect on the historic properties. Where the non-Federal applicant has identified historic properties which the activity may have the potential to cause effects and so notified the Corps, the non-Federal applicant shall not begin the activity until notified by the district engineer either that the activity has no potential to cause effects or that consultation under Section 106 of the NHPA has been completed.

☐ (d) The district engineer will notify the prospective permittee within 45 days of receipt of a complete pre-construction notification whether NHPA Section 106 consultation is required. Section 106 consultation is not required when the Corps determines that the activity does not have the potential to cause effects on historic properties (see 36 CFR §800.3(a)). If NHPA section 106 consultation is required and will occur, the district engineer will notify the non-Federal applicant that he or she cannot begin work until Section 106 consultation is completed.

☐ (e) Prospective permittees should be aware that section 110k of the NHPA (16 U.S.C. 470h-2(k)) prevents the Corps from granting a permit or other assistance to an applicant who, with intent to avoid the requirements of Section 106 of the NHPA, has intentionally significantly adversely affected a historic property to which the permit would relate, or having legal power to prevent it, allowed such significant adverse effect to occur, unless the Corps, after consultation with the Advisory Council on Historic Preservation (ACHP), determines that circumstances justify granting such assistance despite the adverse effect created or permitted by the applicant. If circumstances justify granting the assistance, the Corps is required to notify the ACHP and provide documentation specifying the circumstances, explaining the degree of damage to the integrity of any historic properties affected, and proposed mitigation. This documentation must include any views obtained from the applicant, SHPO/THPO, appropriate Indian tribes if the undertaking occurs on or affects historic properties on tribal lands or affects properties of interest to those tribes, and other parties known to have a legitimate interest in the impacts to the permitted activity on historic properties.

☐ 19. **Designated Critical Resource Waters.** Critical resource waters include, NOAA-designated marine sanctuaries, National Estuarine Research Reserves, state natural heritage sites, and outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance and identified by the district engineer after notice and opportunity for public comment. The district engineer may also designate additional critical resource waters after notice and opportunity for comment.

☐ (a) Discharges of dredged or fill material into waters of the United States are not authorized by NWPs 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and

50 for any activity within, or directly affecting, critical resource waters, including wetlands adjacent to such waters.

☐ (b) For NWP 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38, notification is required in accordance with general condition 27, for any activity proposed in the designated critical resource waters including wetlands adjacent to those waters. The district engineer may authorize activities under these NWPs only after it is determined that the impacts to the critical resource waters will be no more than minimal.

☐ **20 Mitigation.** The district engineer will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that adverse effects on the aquatic environment are minimal:

☐ (a) The activity must be designed and constructed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States to the maximum extent practicable at the project site (i.e., on site).

☐ (b) Mitigation in all its forms (avoiding, minimizing, rectifying, reducing, or compensating) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

☐ (c) Compensatory mitigation at a minimum one-for-one ratio will be required for all wetland losses that exceed 1/10 acre and require pre-construction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a project-specific waiver of this requirement. For wetland losses of 1/10 acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

☐ (d) For losses of streams or other open waters that require pre-construction notification, the district engineer may require compensatory mitigation, such as stream restoration, to ensure that the activity results in minimal adverse effects on the aquatic environment.

☐ (e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of 1/2 acre, it cannot be used to authorize any project resulting in the loss of greater than 1/2 acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the lost waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the established acreage limits also satisfies the minimal impact requirement associated with the NWPs.

☐ (f) Compensatory mitigation plans for projects in or near streams or other open waters will normally include a requirement for the establishment, maintenance,

and legal protection (e.g., conservation easements) of riparian areas next to open waters. In some cases, riparian areas may be the only compensatory mitigation required. Riparian areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat loss concerns. Normally, the riparian area will be 25 to 50 feet wide on each side of the stream, but the district engineer may require slightly wider riparian areas to address documented water quality or habitat loss concerns. Where both wetlands and open waters exist on the project site, the district engineer will determine the appropriate compensatory mitigation (e.g., riparian areas and/or wetlands compensation) based on what is best for the aquatic environment on a watershed basis. In cases where riparian areas are determined to be the most appropriate form of compensatory mitigation, the district engineer may waive or reduce the requirement to provide wetland compensatory mitigation for wetland losses.

☐ (g) Permittees may propose the use of mitigation banks, in-lieu fee arrangements or separate activity-specific compensatory mitigation. In all cases, the mitigation provisions will specify the party responsible for accomplishing and/or complying with the mitigation plan.

☐ (h) Where certain functions and services of waters of the United States are permanently adversely affected, such as the conversion of a forested or scrub-shrub wetland to a herbaceous wetland in a permanently maintained utility line right-of-way, mitigation may be required to reduce the adverse effects of the project to the minimal level.

☐ **21. Water Quality.** Where States and authorized Tribes, or EPA where applicable, have not previously certified compliance of an NWP with CWA Section 401, individual 401 Water Quality Certification must be obtained or waived (see 33 CFR 330.4(c)). The district engineer or State or Tribe may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

☐ **22. Coastal Zone Management.** In coastal states where an NWP has not previously received a state coastal zone management consistency concurrence, an individual state coastal zone management consistency concurrence must be obtained, or a presumption of concurrence must occur (see 33 CFR 330.4(d)). The district engineer or a State may require additional measures to ensure that the authorized activity is consistent with state coastal zone management requirements.

☐ **23. Regional and Case-By-Case Conditions.** The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)) and with any case specific conditions added by the Corps or by the state, Indian Tribe, or U.S. EPA in its section 401 Water Quality Certification, or by the state in its Coastal Zone Management Act consistency determination.

☐ **24. Use of Multiple Nationwide Permits.** The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the United States authorized by the NWPs does not exceed the acreage limit

of the NWP with the highest specified acreage limit. For example, if a road crossing over tidal waters is constructed under NWP 14, with associated bank stabilization authorized by NWP 13, the maximum acreage loss of waters of the United States for the total project cannot exceed 1/3-acre.

☐ **25. Transfer of Nationwide Permit Verifications.** If the permittee sells the property associated with a nationwide permit verification, the permittee may transfer the nationwide permit verification to the new owner by submitting a letter to the appropriate Corps district office to validate the transfer. A copy of the nationwide permit verification must be attached to the letter, and the letter must contain the following statement and signature:

“When the structures or work authorized by this nationwide permit are still in existence at the time the property is transferred, the terms and conditions of this nationwide permit, including any special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this nationwide permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.”

(Transferee)

(Date)

☐ **26. Compliance Certification.** Each permittee who received an NWP verification from the Corps must submit a signed certification regarding the completed work and any required mitigation. The certification form must be forwarded by the Corps with the NWP verification letter and will include:

- ☐ (a) A statement that the authorized work was done in accordance with the NWP authorization, including any general or specific conditions;
- ☐ (b) A statement that any required mitigation was completed in accordance with the permit conditions; and
- ☐ (c) The signature of the permittee certifying the completion of the work and mitigation.

☐ **27. Pre-Construction Notification.**

☐ (a) **Timing.** Where required by the terms of the NWP, the prospective permittee must notify the district engineer by submitting a pre-construction notification (PCN) as early as possible. The district engineer must determine if the PCN is complete within 30 calendar days of the date of receipt and, as a general rule, will request additional information necessary to make the PCN complete only once. However, if the prospective permittee does not provide all of the requested information, then the district engineer will notify the prospective permittee that the PCN is still incomplete and the PCN review process will not commence until all of the requested information has been received by the district engineer. The prospective permittee shall not begin the activity until either:

☐ (1) He or she is notified in writing by the district engineer that the activity may proceed under the NWP with any special conditions imposed by the district or division engineer; or

☐ (2) Forty-five calendar days have passed from the district engineer's receipt of the complete PCN and the prospective permittee has not received written notice from the district or division engineer. However, if the permittee was required to notify the Corps pursuant to general condition 17 that listed species or critical habitat might be affected or in the vicinity of the project, or to notify the Corps pursuant to general condition 18 that the activity may have the potential to cause effects to historic properties, the permittee cannot begin the activity until receiving written notification from the Corps that is “no effect” on listed species or “no potential to cause effects” on historic properties, or that any consultation required under Section 7 of the Endangered Species Act (see 33 CFR 330.4(f)) and/or Section 106 of the National Historic Preservation Act (see 33 CFR 330.4(g)) is completed. Also, work cannot begin under NWPs 21, 49, or 50 until the permittee has received written approval from the Corps. If the proposed activity requires a written waiver to exceed specified limits of an NWP, the permittee cannot begin the activity until the district engineer issues the waiver. If the district or division engineer notifies the permittee in writing that an individual permit is required within 45 calendar days of receipt of a complete PCN, the permittee cannot begin the activity until an individual permit has been obtained. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).

☐ (b) Contents of Pre-Construction Notification: The PCN must be in writing and include the following information:

- ☐ (1) Name, address and telephone numbers of the prospective permittee;
- ☐ (2) Location of the proposed project;
- ☐ (3) A description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; any other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity. The description should be sufficiently detailed to allow the district engineer to determine that the adverse effects of the project will be minimal and to determine the need for compensatory mitigation. Sketches should be provided when necessary to show that the activity complies with the terms of the NWP. (Sketches usually clarify the project and when provided result in a quicker decision.);
- ☐ (4) The PCN must include a delineation of special aquatic sites and other waters of the United States on the project site. Wetland delineations must

be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic sites and other waters of the United States, but there may be a delay if the Corps does the delineation, especially if the project site is large or contains many waters of the United States. Furthermore, the 45 day period will not start until the delineation has been submitted to or completed by the Corps, where appropriate;

☐ (5) If the proposed activity will result in the loss of greater than 1/10 acre of wetlands and a PCN is required, the prospective permittee must submit a statement describing how the mitigation requirement will be satisfied. As an alternative, the prospective permittee may submit a conceptual or detailed mitigation plan.

☐ (6) If any listed species or designated critical habitat might be affected or is in the vicinity of the project, or if the project is located in designated critical habitat, for non-Federal applicants the PCN must include the name(s) of those endangered or threatened species that might be affected by the proposed work or utilize the designated critical habitat that may be affected by the proposed work. Federal applicants must provide documentation demonstrating compliance with the Endangered Species Act; and

☐ (7) For an activity that may affect a historic property listed on, determined to be eligible for listing on, or potentially eligible for listing on, the National Register of Historic Places, for non-Federal applicants the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property. Federal applicants must provide documentation demonstrating compliance with Section 106 of the National Historic Preservation Act.

☐ (c) Form of Pre-Construction Notification: The standard individual permit application form (Form ENG 4345) may be used, but the completed application form must clearly indicate that it is a PCN and must include all of the information required in paragraphs (b)(1) through (7) of this general condition. A letter containing the required information may also be used.

☐ (d) Agency Coordination:

☐ (1) The district engineer will consider any comments from Federal and state agencies concerning the proposed activity's compliance with the terms and conditions of the NWP and the need for mitigation to reduce the project's adverse environmental effects to a minimal level.

☐ (2) For all NWP 48 activities requiring pre-construction notification and for other NWP activities requiring pre-construction notification to the district engineer that result in the loss of greater than 1/2-acre of waters of the United States, the district engineer will immediately provide (e.g., via facsimile

transmission, overnight mail, or other expeditious manner) a copy of the PCN to the appropriate Federal or state offices (U.S. FWS, state natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Office (THPO), and, if appropriate, the NMFS). With the exception of NWP 37, these agencies will then have 10 calendar days from the date the material is transmitted to telephone or fax the district engineer notice that they intend to provide substantive, site-specific comments. If so contacted by an agency, the district engineer will wait an additional 15 calendar days before making a decision on the pre-construction notification. The district engineer will fully consider agency comments received within the specified time frame, but will provide no response to the resource agency, except as provided below. The district engineer will indicate in the administrative record associated with each pre-construction notification that the resource agencies' concerns were considered. For NWP 37, the emergency watershed protection and rehabilitation activity may proceed immediately in cases where there is an unacceptable hazard to life or a significant loss of property or economic hardship will occur. The district engineer will consider any comments received to decide whether the NWP 37 authorization should be modified, suspended, or revoked in accordance with the procedures at 33 CFR 330.5.

☐ (3) In cases of where the prospective permittee is not a Federal agency, the district engineer will provide a response to NMFS within 30 calendar days of receipt of any Essential Fish Habitat conservation recommendations, as required by Section 305(b)(4)(B) of the Magnuson-Stevens Fishery Conservation and Management Act.

☐ (4) Applicants are encouraged to provide the Corps multiple copies of pre-construction notifications to expedite agency coordination.

☐ (5) For NWP 48 activities that require reporting, the district engineer will provide a copy of each report within 10 calendar days of receipt to the appropriate regional office of the NMFS.

☐ (e) In reviewing the PCN for the proposed activity, the district engineer will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. If the proposed activity requires a PCN and will result in a loss of greater than 1/10 acre of wetlands, the prospective permittee should submit a mitigation proposal with the PCN. Applicants may also propose compensatory mitigation for projects with smaller impacts. The district engineer will consider any proposed compensatory mitigation the applicant has included in the proposal in determining whether the net adverse environmental effects to the aquatic environment of the proposed work are minimal. The compensatory mitigation proposal may be either conceptual or detailed. If the district engineer determines that the activity complies with the terms and

conditions of the NWP and that the adverse effects on the aquatic environment are minimal, after considering mitigation, the district engineer will notify the permittee and include any conditions the district engineer deems necessary. The district engineer must approve any compensatory mitigation proposal before the permittee commences work. If the prospective permittee elects to submit a compensatory mitigation plan with the PCN, the district engineer will expeditiously review the proposed compensatory mitigation plan. The district engineer must review the plan within 45 calendar days of receiving a complete PCN and determine whether the proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the district engineer to be minimal, the district engineer will provide a timely written response to the applicant. The response will state that the project can proceed under the terms and conditions of the NWP.

If the district engineer determines that the adverse effects of the proposed work are more than minimal, then the district engineer will notify the applicant either: (1) That the project does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit; (2) that the project is authorized under the NWP subject to the applicant's submission of a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level; or (3) that the project is authorized under the NWP with specific modifications or conditions. Where the district engineer determines that mitigation is required to ensure no more than minimal adverse effects occur to the aquatic environment, the activity will be authorized within the 45-day PCN period. The authorization will include the necessary conceptual or specific mitigation or a requirement that the applicant submit a mitigation plan that would reduce the adverse effects on the aquatic environment to the minimal level. When mitigation is required, no work in waters of the United States may occur until the district engineer has approved a specific mitigation plan.

☐ (a) **28. Single and Complete Project.** The activity must be a single and complete project. The same NWP cannot be used more than once for the same single and complete project.

B. Regional Conditions:

I. Sacramento District (All States, except Colorado)

1. When pre-construction notification (PCN) is required, the prospective permittee shall notify the Sacramento District in accordance with General Condition 27 using either the South Pacific Division Preconstruction Notification (PCN) Checklist or a completed application form (ENG Form 4345). In addition, the PCN shall include:

a. A written statement explaining how the activity has been designed to avoid and minimize adverse effects, both temporary and permanent, to waters of the United States;

b. Drawings, including plan and cross-section views, clearly depicting the location, size and dimensions of the proposed activity. The drawings shall contain a title block, legend and scale, amount (in cubic yards) and size (in acreage) of fill in Corps jurisdiction, including both permanent and temporary fills/structures. The ordinary high water mark or, if tidal waters, the high tide line should be shown (in feet), based on National Geodetic Vertical Datum (NGVD) or other appropriate referenced elevation; and

c. Pre-project color photographs of the project site taken from designated locations documented on the plan drawing.

2. The permittee shall complete compensatory mitigation required by special conditions of the NWP verification before or concurrent with construction of the authorized activity, except when specifically determined to be impracticable by the Sacramento District. When project mitigation involves use of a mitigation bank or in-lieu fee program, payment shall be made before commencing construction.

3. The permittee shall record the NWP verification with the Registrar of Deeds or other appropriate official charged with the responsibility for maintaining records of title to or interest in real property against areas (1) designated to be preserved as part of mitigation for authorized impacts, including any associated covenants or restrictions, or (2) where structures such as boat ramps or docks, marinas, piers, and permanently moored vessels will be constructed in or adjacent to navigable waters (Section 10 and Section 404). The recordation shall also include a map showing the surveyed location of the authorized structure and any associated areas preserved to minimize or compensate for project impacts.

4. The permittee shall place wetlands, other aquatic areas, and any vegetative buffers preserved as part of mitigation for impacts into a separate "preserve" parcel prior to discharging dredged or fill material into waters of the United States, except where specifically determined to be impracticable by the Sacramento District. Permanent legal protection shall be established for all preserve parcels, following Sacramento District approval of the legal instrument.

5. The permittee shall allow Corps representatives to inspect the authorized activity and any mitigation areas at any time deemed necessary to determine compliance with the terms and conditions of the NWP verification. The permittee will be notified in advance of an inspection.

6. For NWPs 29, 39, 40, 42, 43, 44, and 46, requests to waive the 300 linear foot limitation for intermittent or ephemeral waters of the U.S. shall include an evaluation of functions and services provided by the waterbody taking into account the watershed, measures to be implemented to avoid and minimize impacts, other measures to avoid and minimize that were found to be impracticable, and a mitigation plan for offsetting impacts.

7. Road crossings shall be designed to ensure fish passage, especially for anadromous fisheries. Permittees shall employ bridge designs that span the stream or river, utilize pier or pile supported structures, or involve large bottomless culverts with a natural streambed, where the substrate and streamflow

conditions approximate existing channel conditions. Approach fills in waters of the United States below the ordinary high water mark are not authorized under the NWP, except where avoidance has specifically been determined to be impracticable by the Sacramento District.

8. For NWP 12, clay blocks, bentonite, or other suitable material shall be used to seal the trench to prevent the utility line from draining waters of the United States, including wetlands.

9. For NWP 13, bank stabilization shall include the use of vegetation or other biotechnical design to the maximum extent practicable. Activities involving hard-armoring of the bank toe or slope requires submission of a PCN per General Condition 27.

10. For NWP 23, the PCN shall include a copy of the signed Categorical Exclusion document and final agency determinations regarding compliance with Section 7 of the Endangered Species Act, Essential Fish Habitat under the Magnusson-Stevens Act, and Section 106 of the National Historic Preservation Act.

11. For NWP 44, the discharge shall not cause the loss of more than 300 linear feet of streambed. For intermittent and ephemeral streams, the 300 linear foot limit may be waived in writing by the Sacramento District. This NWP does not authorize discharges in waters of the United States supporting anadromous fisheries.

12. For NWPs 29 and 39, channelization or relocation of intermittent or perennial drainage, is not authorized, except when, as determined by the Sacramento District, the relocation would result in a net increase in functions of the aquatic ecosystem within the watershed.

13. For NWP 33, temporary fills for construction access in waters of the United States supporting fisheries shall be accomplished with clean, washed spawning quality gravels where practicable as determined by the Sacramento District, in consultation with appropriate federal and state wildlife agencies.

14. For NWP 46, the discharge shall not cause the loss of greater than 0.5 acres of waters of the United States or the loss of more than 300 linear feet of ditch, unless this 300 foot linear foot limit is waived in writing by the Sacramento District.

15. For NWPs 29, 39, 40, 42, and 43, upland vegetated buffers shall be established and maintained in perpetuity, to the maximum extent practicable, next to all preserved open waters, streams and wetlands including created, restored, enhanced or preserved waters of the U.S., consistent with General Condition 20. Except in unusual circumstances, vegetated buffers shall be at least 50 feet in width.

16. All NWPs except 3, 6, 20, 27, 32, 38, and 47, are revoked for activities in histosols and fens and in wetlands contiguous with fens. Fens are defined as slope wetlands with a histic epipedon that are hydrologically supported by groundwater. Fens are normally saturated throughout the growing season, although they may not be during drought conditions. For NWPs 3, 6, 20, 27, 32, and 38, prospective permittees shall submit a PCN to the Sacramento District in accordance with General Condition 27.

17. For all NWPs, when activities are proposed within 100 feet of the point of groundwater discharge of a natural spring, prospective permittees shall submit a PCN to the Sacramento

District in accordance with General Condition 27. A spring source is defined as any location where ground water emanates from a point in the ground. For purposes of this condition, springs do not include seeps or other discharges which lack a defined channel.

II. California Only

1. In the Lake Tahoe Basin, all NWPs are revoked. Activities in this area shall be authorized under Regional General Permit 16 or through an individual permit.

2. In the Primary and Secondary Zones of the Legal Delta, NWPs 29 and 39 are revoked. New development activities in the Legal Delta will be reviewed through the Corps' standard permit process.

III. Nevada Only

1. In the Lake Tahoe Basin, all NWPs are revoked. Activities in this area shall be authorized under Regional General Permit 16 or through an individual permit.

IV. Utah Only

1. For all NWPs, except NWP 47, prospective permittees shall submit a PCN in accordance with General Condition 27 for any activity, in waters of the United States, below 4217 feet mean sea level (msl) adjacent to the Great Salt Lake and below 4500 feet msl adjacent to Utah Lake.

2. A PCN is required for all bank stabilization activities in a perennial stream that would affect more than 100 linear feet of stream

3. For NWP 27, facilities for controlling stormwater runoff, construction of water parks such as kayak courses, and use of grout or concrete to construct in-stream structures are not authorized. A PCN is required for all projects exceeding 1500 linear feet as measured on the stream thalweg, using in stream structures exceeding 50 cubic yards per structure and/or incorporating grade control structures exceeding 1 foot vertical drop. For any stream restoration project, the post project stream sinuosity shall be appropriate to the geomorphology of the surrounding area and shall be equal to, or greater than, pre project sinuosity. Sinuosity is defined as the ratio of stream length to project reach length. Structures shall allow the passage of aquatic organisms, recreational water craft or other navigational activities unless specifically waived in writing by the District Engineer.

V. Colorado Only

1. Final Regional Conditions Applicable to Specific Nationwide Permits within Colorado.

a. Nationwide Permit Nos. 12 and 14, Utility Line Activities and Linear Transportation Projects. In the Colorado River Basin, utility line and road activities crossing perennial water or special aquatic sites require notification to the District Engineer in accordance with General Condition 27 (Pre-Construction Notification).

b. Nationwide Permit No. 13 Bank Stabilization. In Colorado, bank stabilization activities necessary for erosion prevention in streams that average less than 20 feet in width (measured between the ordinary high water marks) are limited to the placement of no more than 1/4

cubic yard of suitable fill* material per running foot below the plane of the ordinary high water mark. Activities greater than 1/4 cubic yard may be authorized if the permittee notifies the District Engineer in accordance with General Condition 27 (Pre-Construction Notification) and the Corps determines the adverse environmental effects are minimal. [* See (g) for definition of Suitable Fill]

c. Nationwide Permit No. 27 Aquatic Habitat Restoration, Establishment, and Enhancement Activities.

(1) For activities that include a fishery enhancement component, the Corps will send the Pre-Construction Notification to the Colorado Division of Wildlife (CDOW) for review. In accordance with General Condition 27 (Pre-Construction Notification), CDOW will have 10 days from the receipt of Corps notification to indicate that they will be commenting on the proposed project. CDOW will then have an additional 15 days after the initial 10-day period to provide those comments. If CDOW raises concerns, the applicant may either modify their plan, in coordination with CDOW, or apply for a standard individual permit.

(2) For activities involving the length of a stream, the post-project stream sinuosity will not be significantly reduced, unless it is demonstrated that the reduction in sinuosity is consistent with the natural morphological evolution of the stream (sinuosity is the ratio of stream length to project reach length).

(3) Structures will allow the upstream and downstream passage of aquatic organisms, including fish native to the reach, as well as recreational water craft or other navigational activities, unless specifically waived in writing by the District Engineer. The use of grout and/or concrete in building structures is not authorized by this nationwide permit.

(4) The construction of water parks (i.e., kayak courses) and flood control projects are not authorized by this nationwide permit.

d. Nationwide Permits Nos. 29 and 39; Residential Developments and Commercial and Institutional Developments. A copy of the existing FEMA/locally-approved floodplain map must be submitted with the Pre-Construction Notification. When reviewing proposed developments, the Corps will utilize the most accurate and reliable FEMA/locally-approved pre-project floodplain mapping, not post-project floodplain mapping based on a CLOMR or LOMR. However, the Corps will accept revisions to existing floodplain mapping if the revisions resolve inaccuracies in the original floodplain mapping and if the revisions accurately reflect pre-project conditions.

2. Final Regional Conditions Applicable to All Nationwide Permits within Colorado

e. Removal of Temporary Fills. General Condition 13 (Removal of Temporary Fills) is amended by adding the

following: When temporary fills are placed in wetlands in Colorado, a horizontal marker (i.e. fabric, certified weed-free straw, etc.) must be used to delineate the existing ground elevation of wetlands that will be temporarily filled during construction.

f. Spawning Areas. General Condition 3 (Spawning Areas) is amended by adding the following: In Colorado, all Designated Critical Resource Waters (see enclosure 1) are considered important spawning areas. Therefore, In accordance with General Condition 19 (Designated Critical Resource Waters), the discharge of dredged or fill material is not authorized by the following nationwide permits in these waters: NWP's 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49, and 50. In addition, in accordance with General Condition 27 (Pre-Construction Notification), notification to the District Engineer is required for use of the following nationwide permits in these waters: NWP's 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37 and 38".

g. Suitable Fill. In Colorado, use of broken concrete as fill material requires notification to the District Engineer in accordance with General Condition 27 (Pre-Construction Notification). Permittees must demonstrate that soft engineering methods utilizing native or non-manmade materials are not practicable (with respect to cost, existing technology, and logistics), before broken concrete is allowed as suitable fill. Use of broken concrete with exposed rebar is prohibited in perennial waters and special aquatic sites.

h. Invasive Aquatic Species. General Condition 11 is amended by adding the following condition for work in perennial or intermittent waters of the United States: If heavy equipment is used for the subject project that was previously working in another stream, river, lake, pond, or wetland within 10 days of initiating work, one the following procedures is necessary to prevent the spread of New Zealand Mud Snails and other aquatic hitchhikers:

(1) Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and keep the equipment dry for 10 days. OR

(2) Remove all mud and debris from Equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with either a 1:1 solution of Formula 409 Household Cleaner and water, or a solution of Sparquat 256 (5 ounces Sparquat per gallon of water). Treated equipment must be kept moist for at least 10 minutes. OR

(3) Remove all mud and debris from equipment (tracks, turrets, buckets, drags, teeth, etc.) and spray/soak equipment with water greater than 120 degrees F for at least 10 minutes.

3. Final Regional Conditions for Revocation/Special Notification Specific to Certain Geographic Areas

i. Fens: All Nationwide permits, except permit Nos. 3, 6, 20, 27, 32, 38 and 47, are revoked in fens and wetlands adjacent to fens. Use of nationwide permit Nos. 3, 20, 27 and 38, requires notification to the District Engineer, in accordance with General Condition 27 (Pre-Construction

Notification), and the permittee may not begin the activity until the Corps determines the adverse environmental effects are minimal. The following defines a fen:

Fen soils (histosols) are normally saturated throughout the growing season, although they may not be during drought conditions. The primary source of hydrology for fens is groundwater. Histosols are defined in accordance with the U.S. Department of Agriculture, Natural Resources Conservation Service publications on Keys to Soil Taxonomy and Field Indicators of Hydric Soils in the United States (<http://soils.usda.gov/technical/classification/taxonomy>).

j. Springs: Within the state of Colorado, all NWP, except permit 47 (original 'C'), require preconstruction notification pursuant to General Condition 27 for discharges of dredged or fill material within 100 feet of the point of groundwater discharge of natural springs. A spring source is defined as any location where groundwater emanates from a point in the ground. For purposes of this regional condition, springs do not include seeps or other discharges which do not have a defined channel.

4. Additional Information

The following provides additional information regarding minimization of impacts and compliance with existing general Conditions:

a. Permittees are reminded of the existing General Condition No. 6 which prohibits the use of unsuitable material. Organic debris, building waste, asphalt, car bodies, and trash are not suitable material. Also, General Condition 12 requires appropriate erosion and sediment controls (i.e. all fills must be permanently stabilized to prevent erosion and siltation into waters and wetlands at the earliest practicable date). Streambed material or other small aggregate material placed along a bank as stabilization will not meet General Condition 12. Also, use of erosion control mats that contain plastic netting may not meet General Condition 12 if deemed harmful to wildlife.

b. Designated Critical Resource Waters in Colorado. In Colorado, a list of designated Critical Resource Waters has been published in accordance with General Condition 19 (Designated Critical Resource Waters). This list will be published on the Albuquerque District Regulatory home page (<http://www.spa.usace.army.mil/reg/>)

c. Federally-Listed Threatened and Endangered Species. General condition 17 requires that non-federal permittees notify the District Engineer if any listed species or designated critical habitat might be affected or is in the vicinity of the project. Information on such species, to include occurrence by county in Colorado, may be found at the following U.S. Fish and Wildlife Service website: http://www.fws.gov/mountain%2Dprairie/endspp/name_county_search.htm

C. Further Information

1. District Engineers have authority to determine if an activity complies with the terms and conditions of an NWP.
2. NWPs do not obviate the need to obtain other federal, state, or local permits, approvals, or authorizations required by law.
3. NWPs do not grant any property rights or exclusive privileges.
4. NWPs do not authorize any injury to the property or rights of others.
5. NWPs do not authorize interference with any existing or proposed Federal project.

D. Definitions

Best management practices (BMPs): Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. BMPs are categorized as structural or non-structural.

Compensatory mitigation: The restoration, establishment (creation), enhancement, or preservation of aquatic resources for the purpose of compensating for unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Currently serviceable: Useable as is or with some maintenance, but not so degraded as to essentially require reconstruction.

Discharge: The term "discharge" means any discharge of dredged or fill material.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

Ephemeral stream: An ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral stream beds are located above the water table year-round. Groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for stream flow.

Establishment (creation): The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area.

Historic Property: Any prehistoric or historic district, site (including archaeological site), building, structure, or other object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR part 60).

Independent utility: A test to determine what constitutes a single and complete project in the Corps regulatory program. A project is considered to have independent utility if it would be constructed absent the construction of other projects in the

project area. Portions of a multi-phase project that depend upon other phases of the project do not have independent utility. Phases of a project that would be constructed even if the other phases were not built can be considered as separate single and complete projects with independent utility.

Intermittent stream: An intermittent stream has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water. Runoff from rainfall is a supplemental source of water for stream flow.

Loss of waters of the United States: Waters of the United States that are permanently adversely affected by filling, flooding, excavation, or drainage because of the regulated activity. Permanent adverse effects include permanent discharges of dredged or fill material that change an aquatic area to dry land, increase the bottom elevation of a waterbody, or change the use of a waterbody. The acreage of loss of waters of the United States is a threshold measurement of the impact to jurisdictional waters for determining whether a project may qualify for an NWP; it is not a net threshold that is calculated after considering compensatory mitigation that may be used to offset losses of aquatic functions and services. The loss of stream bed includes the linear feet of stream bed that is filled or excavated. Waters of the United States temporarily filled, flooded, excavated, or drained, but restored to pre-construction contours and elevations after construction, are not included in the measurement of loss of waters of the United States. Impacts resulting from activities eligible for exemptions under Section 404(f) of the Clean Water Act are not considered when calculating the loss of waters of the United States.

Non-tidal wetland: A non-tidal wetland is a wetland that is not subject to the ebb and flow of tidal waters. The definition of a wetland can be found at 33 CFR 328.3(b). Non-tidal wetlands contiguous to tidal waters are located landward of the high tide line (i.e., spring high tide line).

Open water: For purposes of the NWPs, an open water is any area that in a year with normal patterns of precipitation has water flowing or standing above ground to the extent that an ordinary high water mark can be determined. Aquatic vegetation within the area of standing or flowing water is either non-emergent, sparse, or absent. Vegetated shallows are considered to be open waters. Examples of “open waters” include rivers, streams, lakes, and ponds.

Ordinary High Water Mark: An ordinary high water mark is a line on the shore established by the fluctuations of water and indicated by physical characteristics, or by other appropriate means that consider the characteristics of the surrounding areas (see 33 CFR 328.3(e)).

Perennial stream: A perennial stream has flowing water year-round during a typical year. The water table is located above the stream bed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall is a supplemental source of water for stream flow.

Practicable: Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

Pre-construction notification: A request submitted by the project proponent to the Corps for confirmation that a particular

activity is authorized by nationwide permit. The request may be a permit application, letter, or similar document that includes information about the proposed work and its anticipated environmental effects. Pre-construction notification may be required by the terms and conditions of a nationwide permit, or by regional conditions. A pre-construction notification may be voluntarily submitted in cases where pre-construction notification is not required and the project proponent wants confirmation that the activity is authorized by nationwide permit.

Preservation: The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms. Preservation does not result in a gain of aquatic resource area or functions.

Re-establishment: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area.

Rehabilitation: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riffle and pool complex: Riffle and pool complexes are special aquatic sites under the 404(b)(1) Guidelines. Riffle and pool complexes sometimes characterize steep gradient sections of streams. Such stream sections are recognizable by their hydraulic characteristics. The rapid movement of water over a coarse substrate in riffles results in a rough flow, a turbulent surface, and high dissolved oxygen levels in the water. Pools are deeper areas associated with riffles. A slower stream velocity, a streaming flow, a smooth surface, and a finer substrate characterize pools.

Riparian areas: Riparian areas are lands adjacent to streams, lakes, and estuarine-marine shorelines. Riparian areas are transitional between terrestrial and aquatic ecosystems, through which surface and subsurface hydrology connects waterbodies with their adjacent uplands. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality. (See general condition 20.)

Shellfish seeding: The placement of shellfish seed and/or suitable substrate to increase shellfish production. Shellfish seed consists of immature individual shellfish or individual shellfish attached to shells or shell fragments (i.e., spat on shell). Suitable substrate may consist of shellfish shells, shell fragments, or other appropriate materials placed into waters for shellfish habitat.

Single and complete project: The term “single and complete project” is defined at 33 CFR 330.2(i) as the total project proposed or accomplished by one owner/developer or

partnership or other association of owners/developers. A single and complete project must have independent utility (see definition). For linear projects, a “single and complete project” is all crossings of a single water of the United States (i.e., a single waterbody) at a specific location. For linear projects crossing a single waterbody several times at separate and distant locations, each crossing is considered a single and complete project. However, individual channels in a braided stream or river, or individual arms of a large, irregularly shaped wetland or lake, etc., are not separate waterbodies, and crossings of such features cannot be considered separately.

Stormwater management: Stormwater management is the mechanism for controlling stormwater runoff for the purposes of reducing downstream erosion, water quality degradation, and flooding and mitigating the adverse effects of changes in land use on the aquatic environment.

Stormwater management facilities: Stormwater management facilities are those facilities, including but not limited to, stormwater retention and detention ponds and best management practices, which retain water for a period of time to control runoff and/or improve the quality (i.e., by reducing the concentration of nutrients, sediments, hazardous substances and other pollutants) of stormwater runoff.

Stream bed: The substrate of the stream channel between the ordinary high water marks. The substrate may be bedrock or inorganic particles that range in size from clay to boulders. Wetlands contiguous to the stream bed, but outside of the ordinary high water marks, are not considered part of the stream bed.

Stream channelization: The manipulation of a stream’s course, condition, capacity, or location that causes more than minimal interruption of normal stream processes. A channelized stream remains a water of the United States.

Structure: An object that is arranged in a definite pattern of organization. Examples of structures include, without limitation, any pier, boat dock, boat ramp, wharf, dolphin, weir, boom, breakwater, bulkhead, revetment, riprap, jetty, artificial island, artificial reef, permanent mooring structure, power transmission line, permanently moored floating vessel, piling, aid to navigation, or any other manmade obstacle or obstruction.

Tidal wetland: A tidal wetland is a wetland (i.e., water of the United States) that is inundated by tidal waters. The definitions of a wetland and tidal waters can be found at 33 CFR 328.3(b) and 33 CFR 328.3(f), respectively. Tidal waters rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by other waters, wind, or other effects. Tidal wetlands are located channelward of the high tide line, which is defined at 33 CFR 328.3(d).

Vegetated shallows: Vegetated shallows are special aquatic sites under the 404(b)(1) Guidelines. They are areas that are permanently inundated and under normal circumstances have rooted aquatic vegetation, such as seagrasses in marine and estuarine systems and a variety of vascular rooted plants in freshwater systems.

Waterbody: For purposes of the NWP, a waterbody is a jurisdictional water of the United States that, during a year with normal patterns of precipitation, has water flowing or standing above ground to the extent that an ordinary high water mark (OHWM) or other indicators of jurisdiction can be determined, as well as any wetland area (see 33 CFR 328.3(b)). If a jurisdictional wetland is adjacent--meaning bordering, contiguous, or neighboring--to a jurisdictional waterbody displaying an OHWM or other indicators of jurisdiction, that waterbody and its adjacent wetlands are considered together as a single aquatic unit (see 33 CFR 328.4(c)(2)). Examples of “waterbodies” include streams, rivers, lakes, ponds, and wetlands.