

FOR CONTRACT NO.: 02-4C8704

INFORMATION HANDOUT

WATER QUALITY

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

WDID NO. 5A32CR00072

PERMITS

**UNITED STATES ARMY CORPS OF ENGINEERS
NON-REPORTING NATIONWIDE PERMIT 14**

AGREEMENTS

**CALIFORNIA DEPARTMENT OF FISH AND GAME
NOTIFICATION NO. 1600-2009-0089-R2**

MATERIALS INFORMATION

FOUNDATION RECOMMENDATION

ROUTE: 02-Plu-70-38.5



California Regional Water Quality Control Board Central Valley Region

Karl E. Longley, ScD, P.E., Chair.



Linda S. Adams
Secretary for
Environmental Protection

415 Knollcrest Drive, Suite 100, Redding, California 96002
(530) 224-4845 • Fax (530) 224-4857
<http://www.waterboards.ca.gov/centralvalley>

Arnold Schwarzenegger
Governor

7 July 2009

Mr. Chris Quincy
Caltrans, District 2
PO Box 496073
Redding, CA 96001

ACTION ON REQUEST FOR CLEAN WATER ACT §401 WATER QUALITY CERTIFICATION FOR DISCHARGE OF DREDGED AND/OR FILL MATERIALS FOR THE LITTLE BLACKHAWK CREEK CULVERT REPLACEMENT PROJECT, WDID NO. 5A32CR00072, QUINCY, PLUMAS COUNTY

ACTION:

1. Order for Standard Certification
2. Order for Technically-conditioned Certification
3. Order for Denial of Certification

WATER QUALITY CERTIFICATION STANDARD CONDITIONS:

1. This certification action 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 action 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 described project. The Discharger shall notify the Central Valley Water Board in writing within 7 days of project completion.



ADDITIONAL CONDITIONS (for Certification Action 2):

In addition to the four standard conditions, the applicant shall satisfy the following:

1. Discharger shall notify the Central Valley Regional Water Quality Control Board (Central Valley Water Board) in writing of the start of any in-water activities.
2. Except for activities permitted by the U.S. Army Corps of Engineers (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. The discharge of petroleum products or other excavated materials to surface waters is prohibited.
4. Activities shall not cause turbidity increases in surface waters to exceed:
 - a. where natural turbidity is between 0 and 5 Nephelometric Turbidity Units (NTUs), increases shall not exceed 1 NTU;
 - b. where natural turbidity is between 5 and 50 NTUs, increases shall not exceed 20 percent;
 - c. where natural turbidity is between 50 and 100 NTUs, increases shall not exceed 10 NTUs;
 - d. where natural turbidity is greater than 100 NTUs, increases shall not exceed 10 percent.

Except that these limits will be eased during in-water working periods to allow a turbidity increase of 15 NTU over background turbidity as measured in surface waters 300 feet downstream from the working area. In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected.

5. Activities shall not cause settleable matter to exceed 0.1 mL/l in surface waters as measured in surface waters 300 feet downstream from the project.
6. Activities shall not cause visible oil, grease, or foam in the work area or downstream.
7. All areas disturbed by project activities shall be protected from washout or erosion.
8. In the event that project activities result in the deposition of soil materials or creation of a visible plume in surface waters, the following monitoring shall be conducted immediately upstream and 300 feet downstream of the work site and the results reported to this office within two weeks:

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.

9. Discharger shall notify the Central Valley Water Board immediately if the above criteria for turbidity, settleable matter, oil/grease, or foam are exceeded.
10. Discharger shall ensure all equipment has been inspected and is free of leaks (fuel, hydraulic and oil) before use in channel areas.
11. Discharger shall notify the Central Valley Water Board immediately of any spill of petroleum products or other organic or earthen materials.
12. 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. For purposes §401(d) of the 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 assure compliance with the water quality standards and other pertinent requirements incorporated into this certification.
13. In response to a suspected violation of any condition of this certification, the Central Valley Water Board may require the holder of any permit or license subject to this certification to furnish, under penalty of perjury, any technical or monitoring reports the Central Valley Water Board deems appropriate, provided that the burden, including costs, of the reports shall be a reasonable relationship to the need for the reports and the benefits to be obtained from the reports.
14. In response to any violation of the conditions of this certification, the Central Valley Water Board may add to or modify the conditions of this certification as appropriate to ensure compliance.
15. Discharger complies with all Department of Fish and Game 1600 requirements for the project as required in Lake and Streambed Alteration Agreement No. 1600-2009-0089-R2. Discharger shall comply with all requirements of Corps §404 Nationwide Permit Number 14 Linear Transportation Projects
16. The California Department of Transportation shall comply with their General NPDES Permit Order No 99-06-DWQ (NPDES No. CAS 000003) issued by the State Water Resources Control Board.

CENTRAL VALLEY WATER BOARD CONTACT PERSON:

Scott A. Zaitz, R.E.H.S., Redding Branch Office, 415 Knollcrest Drive, Suite 100, Redding, California 96002, (530) 224-4784, szaitz@waterboards.ca.gov

WATER QUALITY CERTIFICATION:

I hereby issue an order certifying that any discharge from the Little Blackhawk Creek Culvert Replacement Project (WDID No. 5A32CR00072) 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 (General WDRs)".

Except insofar as may be modified by any preceding conditions, all certification actions are contingent on (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the applicant's project description and the attached Project Information Sheet, and (b) compliance with all applicable requirements of the Central Valley Water Board, Water Quality Control Plan (Basin Plan).



(for) PAMELA C. CREEDON
Executive Officer

SAZ: clg/sae

enclosure: Project Information

cc: Mr. Matt Kelley, U.S. Army Corp of Engineers, Redding
Ms. Leah Fisher, U.S. Army Corp of Engineers, Sacramento
U.S. Fish and Wildlife Service, Sacramento
Department of Fish and Game, Region 2, Rancho Cordova
Mr. Bill Jennings, CALSPA, Stockton

cc by email: Mr. Dave Smith, U.S. EPA, Region 9, San Francisco
Mr. Bill Orme, SWRCB, Certification Unit, Sacramento

PROJECT INFORMATION

Application Date: 4 May 2009

Applicant: California Department of Transportation, Attention Chris Quincy

Applicant Representatives: Not Applicable

Project Name: Little Blackhawk Creek Culvert Replacement Project

Central Valley Board: Central Valley Regional Water Quality Control Board-Redding Office

Central Valley Board Application Number: WDID No. 5A32CR00072

U.S. Corps Application Number: Nationwide Permit No. 14 (Linear Transportation Project)

Type of Project: Replace a damaged culvert off SR 70 @ Little Blackhawk Creek. The existing 54-inch culvert will be replaced with a 16 feet wide culvert.

Project Location: On State Route 70 in Plumas County, approx 4.1 miles north of Quincy, Section 35, Township 39N, Range 120W, M.D.B.&M., Latitude: 39°59'35"N and Longitude: 121°56'45"W

County: Plumas County

Receiving Water (hydrologic unit): Blackhawk Creek, which is tributary to the Feather River. Feather River Hydrologic Unit-Quincy Hydrologic Area No. 518.52

Water Body Type: Creek

Designated Beneficial Uses: The Basin Plan for the Central Valley Regional Water Quality Control Board has designated beneficial uses for surface and ground waters within the region. Beneficial uses that could be impacted by the project include: Agricultural Irrigation Supply and Stock Watering (AGR); Water Contact Recreation and Canoeing & Rafting (REC-1); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); Cold Water Migration (MGR); and Warm Water Spawning (SPWN).

Project Description (purpose/goal): The purpose of the project is to replace a damaged culvert on SR 70. The existing 54-inch diameter steel culvert conveys Little Blackhawk Creek beneath Highway 70. The culvert invert has rusted out and the culvert is undersized and an impediment to fish passage upstream beyond the highway. The proposed project will replace the existing steel pipe culvert with a steel plate arch culvert 16' in width. The new culvert will improve hydraulic capacity and aquatic habitat.

Preliminary Water Quality Concerns: Turbidity, suspended matter, settleable matter, and various pollutants associated with construction activities.

Proposed Mitigation to Address Concerns: Discharger will implement Best Management Practices (BMPs) to control sedimentation and erosion. All disturbed areas must have an effective combination of erosion and sediment control BMP's in place during the rainy season. All temporary affected areas will be restored to pre-construction contours and conditions upon completion of construction activities. Discharger will conduct turbidity and settleable matter testing during water work, stopping work if Basin Plan criteria are exceeded and/or observed.

Fill/Excavation Area: Project implementation will permanently impact 0.03-acre (90 linear feet) un-vegetated streambed and temporary impacts 0.005 acre (37 linear feet) of un-vegetated streambed.

Dredge Volume: 40 cubic yards of concrete, rock slope protection (RSP), and native streambed (dredge material).

U.S. Army Corps of Engineers Permit Number: The applicant proposes to utilize Nationwide Permit No. 14 (Linear Transportation Project) for this project. The applicant must comply with all of the conditions of the U.S. Army Corps of Engineers Nationwide Permit Number 14 Linear Transportation Projects.

Central Valley Water Board Public Notice: Information regarding this project was noticed on the Central Valley Water Board's website from 8 May 2009 to 29 May 2009. No comments were received.

Department of Fish & Game Streambed Alteration Agreement: Discharger applied for a Streambed Alteration Agreement with the Department of Fish and Game on 30 April 2009. The applicant must comply with all conditions in Lake or Streambed Alteration Agreement No. 1600-2009-0089-R2

Possible Listed Species: Not Applicable

Status of CEQA Compliance: On 8 January 2009 California Department of Transportation signed a Notice of Exemption stating that this project is Class 2 Categorically Exempt and will not have a significant effect on the environment.

Compensatory Mitigation: Not Applicable

Application Fee Provided: A certification fee of \$1216.00 was submitted on 4 May 2009 as required by 23 CCR §3833b(2)(A) and by 23 CCR § 2200(e). A remaining certification fee of \$240.00 was paid on 16 June 2009.

State of California
M E M O R A N D U M

Business, Transportation, and Housing Agency

*Flex your power!
Be energy efficient!*

To: Project File

April 24, 2009

03-Environmental Management
02-PLU-70-PM 38.48
03 172 02 4C8701
Little Blackhawk Creek
Culvert Replacement

From: DEPARTMENT OF TRANSPORTATION – Chris Quiney, Office of Environmental Management,
P. O. Box 496073, Redding, CA 96049-6073

Subject: Non-Reporting U.S. Army Corps Nationwide Permit 14 (Linear Transportation Projects)

The California Department of Transportation (Caltrans) is initiating a project to replace a damaged culvert on State Route (SR) 70 in Plumas County approximately 4.1 miles north of the community of Quincy. The project will be constructed in accordance with the terms and conditions of U.S. Army Corps of Engineers (USACE) Nationwide Permit 14 (Linear Transportation Projects) [NWP14]. The project will not result in a loss of waters of the United States greater than 0.10 acre nor will it result in a discharge to a special aquatic site, including wetlands. Therefore, based on the terms of the NWP14, notification to the USACE is not required. Attached is a copy of the NWP terms and conditions, a NWP General/Regional Condition Checklist, pre-construction photographs of the project site, a map delineating permanent and temporary impacts within jurisdictional waters, and preliminary project plans.

The existing culvert is a 54-inch diameter corrugated steel pipe (CSP), the bottom of which has deteriorated due to corrosion and abrasion. Rust holes have developed in the bottom of the culvert throughout its length exposing the backfill material beneath the culvert. In addition, it has been determined that the culvert is undersized. Other problems include the presence of a scour hole at the culvert outlet, the culvert is a barrier to fish passage, and the concrete headwall and end wall are located within five feet of the traveled way. Modern highway design standards recommend that fixed objects, such as headwalls and end walls, be no closer than 20 feet from the traveled way to provide a clear recovery zone for errant vehicles. The culvert replacement project is scheduled to occur after April of 2010. The project is expected to take approximately 50 working days to complete.

Caltrans has coordinated with the California Department of Fish and Game (CDFG) to ensure that the culvert design complies with CDFG's Culvert Criteria for Fish Passage. The proposed project entails installation of a steel plate arch culvert mounted upon reinforced concrete footings. Wing walls will be constructed at the inlet and outlet of the culvert. The stream will flow freely beneath the arch culvert, similar to a bridge. The new culvert will be approximately 16 feet wide (stream opening), 7 feet high, and 70' long. The culvert will be approximately 15 feet wider on each side of the highway to provide a 20 foot wide clear recovery zone for errant vehicles. The existing paved shoulders, 1.5 feet wide, will be reconstructed.

An area upstream and downstream of the existing culvert will be cleared of vegetation to accommodate the larger culvert and provide areas for construction staging and access. These areas are uplands, adjacent to the creek. The removal of trees will be limited to the extent necessary to construct the project. Trees will be removed from an area of approximately 400 square feet upstream of the culvert and an area approximately 200 square feet downstream of the culvert. An estimate of trees to be removed is included in Table 1.

Table 1: Vegetation Clearing

	Upstream of culvert	Downstream of culvert
Alder (1-2" diameter)	23	34
Alder (10" diameter)		1
Willow (1-2" diameter)	6	-
Big leaf maple (stump sprout)	4	-
Black oak (1-3" diameter)	1	-
Ponderosa pine 31" diameter	1	-
Douglas fir saplings	-	2

The new culvert will be installed one-half section at a time so that one lane of traffic can be maintained during construction. Little Blackhawk Creek is a perennial stream. During construction, the stream flow will be diverted via a temporary pipe from a point immediately upstream of the existing culvert inlet to a point in the channel immediately downstream of the work area. To provide adequate lane width for a temporary traffic detour during construction, it will be necessary to place temporary fill within the creek channel upstream of the culvert while the downstream half is being constructed. Temporary fill will consist of imported, clean rock. Once the first half of the culvert is in place, traffic will be diverted over the new portion of the culvert and the second half of the culvert will be installed.

Geologic core samples taken at the project site indicate that the existing culvert is situated on fractured bedrock. Depending on the condition of the stream channel once the existing culvert is removed, it is anticipated that the stream grade will need to be built up slightly. Rocks varying in size from 18 to 28 inches in diameter will be placed in the portion of the channel previously occupied by the culvert. Smaller aggregate would then be placed over and around the rock and graded, allowing the larger rocks to protrude slightly above the final grade of the streambed. The streambed will be graded approximately 15 feet upstream and downstream of the culvert to fill in any scour holes and ensure the stream gradient is suitable for fish passage. This work will affect approximately 90 linear feet (0.03 acre) of stream channel. Rock slope protection (RSP) will be placed at the inlet and outlet of the culvert to prevent scour.

Indirect impacts from the project include temporary increases in turbidity and suspended solids when the stream flow is returned to the portion of channel previously under construction and

following the first high flows of the season. This temporary condition will result due to fine silts introduced or exposed within the stream channel during construction. Any turbidity resulting from the project would be expected to settle out quickly and have only a short-term minor impact on water quality.

The following measures are included in the project to avoid and minimize impacts to surface waters:

- Installation of a larger, natural bottom culvert, which will improve fish passage, wildlife habitat, and stream morphology.
- Vegetation removal will be minimized to the extent necessary to construct the project. Following construction, erosion control seeding will be applied to disturbed areas. In addition, available areas upstream and downstream of the culvert cleared for construction access and staging will be replanted with alder saplings and willow stakes.
- Tree removal will be performed during the period of September 1 through March 15 to avoid impacting nesting birds.
- Temporary ESA fencing will be installed immediately upstream and downstream of the work area to prevent unnecessary encroachment and impacts.
- The contractor will be required to prepare and implement a Water Pollution Control Program (WPCP). The WPCP will include appropriate best management practices to protect water quality and will be subject to approval by the Caltrans resident engineer.

This section of State Route 70 is located on a (federal) DOT easement on Plumas National Forest land. A temporary construction easement will be obtained from Plumas National Forest. In addition, this section of State Route 70 is a designated National Scenic Byway, administered by Plumas National Forest, from 10 miles north of Oroville to its terminus at U.S. Route 395 in Lassen County. Plumas National Forest has provided written concurrence that the proposed project would not adversely affect attributes of the Scenic Byway.

An environmental evaluation was conducted consisting of an examination of resource databases, consultation with resource agencies, and field surveys. No historic properties, wetlands, or listed State or Federal sensitive species were identified within the project limits. Based on the environmental evaluation, Caltrans has determined that the proposed action is Categorically Exempt pursuant to Section 15301 of the California Environmental Quality Act.

Water Quality Certification has been requested from the California Regional Water Quality Control Board and a 1602 Notification has been submitted to the California Department of Fish and Game.

Attachments: NWP terms and conditions, a NWP General/Regional Condition Checklist, pre-construction photographs of the project site, a map delineating permanent and temporary impacts within jurisdictional waters, and preliminary project plans.



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

14. Linear Transportation Projects. Activities required for the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge cannot cause the loss of greater than 1/2-acre of waters of the United States. For linear transportation projects in tidal waters, the discharge cannot cause the loss of greater than 1/3-acre of waters of the United States. Any stream channel modification, including bank stabilization, is limited to the minimum necessary to construct or protect the linear transportation project; such modifications must be in the immediate vicinity of the project.

This NWP also authorizes temporary structures, fills, and work necessary to construct the linear transportation project. 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.

This NWP cannot be used to authorize non-linear features commonly associated with transportation projects, such as vehicle maintenance or storage buildings, parking lots, train stations, or aircraft hangars.

Notification: The permittee must submit a pre-construction notification to the district engineer prior to commencing the activity if: (1) the loss of waters of the United States exceeds 1/10 acre; or (2) there is a discharge in a special aquatic site, including wetlands. (See general condition 27.) (Sections 10 and 404)

Note: Some discharges for the construction of farm roads or forest roads, or temporary roads for moving mining equipment, may qualify for an exemption under Section 404(f) of the Clean Water Act (see 33 CFR 323.4)

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 NWPs 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 NWPs.

(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 NWP 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 NWP. 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 (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 NWPs, 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 Magnussen-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 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 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 NWP, 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 NWPs, 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.



California Natural Resources Agency
DEPARTMENT OF FISH AND GAME
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670-4599
916-358-2900
<http://www.dfg.ca.gov>

ARNOLD SCHWARZENEGGER, Governor
DONALD KOCH, Director

40870



“NOTICE OF EXEMPTION”

The Department has determined that your project as described in the subject Lake or Streambed Alteration Agreement is exempt from the California Environmental Quality Act (CEQA) and will file a notice of Exemption for your project. The Notice will be filed with the Office of Planning and Research, as required by CEQA. The Department's compliance with CEQA may be legally challenged for 35 days following the filing of the Notice of Exemption.

This completes the Department's agreement process. You may proceed with your project according to the terms and provisions of your Streambed Alteration Agreement if you have obtained all other permits required from local, other State, and Federal agencies.

AGREEMENT REGARDING PROPOSED STREAM ALTERATION

THIS AGREEMENT, entered into between the State of California, Department of Fish and Game, hereinafter called the Department, and the State of California, Department of Transportation, hereinafter called Caltrans, is as follows:

WHEREAS, pursuant to California Fish and Game Code, Section 1602, Caltrans, on June 1, 2009, notified the Department that it intends to substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed of, the following water: Little Blackhawk Creek in the County of Plumas, State of California, Section 35, Township 25N, Range 9E, USGS quadrant map Quincy, MDB&M.

WHEREAS, the Department, represented by Sharon Stohrer, has determined that such operations may substantially adversely affect existing fish and wildlife resources including: rainbow trout (*Oncorhynchus mykiss*), foothill yellow-legged frog (*Rana boylei*), pallid bat (*Antrozous pallidus*), northern goshawk (*Accipiter gentilis*), warm water fish species, amphibians, and other aquatic and terrestrial plant and wildlife species.

THEREFORE, the Department hereby proposes measures to protect fish and wildlife during the Caltrans work. Caltrans hereby agrees to accept the following recommendations as part of this work:

Project Description: Caltrans will carry out a project to replace a damaged culvert on State Route 70 in Plumas County, at Little Blackhawk Creek (mile post 38.5), approximately 4.1 miles north of Quincy. The existing culvert is a 54-inch diameter corrugated steel pipe (CSP) which has deteriorated due to corrosion and abrasion. It has been determined that the culvert is undersized. The culvert along with a scour hole at the culvert outlet act as a barrier to fish passage, and the concrete headwall and end wall are located within five feet of the traveled highway which is not consistent with modern design standards.

The project will entail removal of the CSP culvert and installation of a steel plate arch culvert mounted upon reinforced concrete footings, with wing walls at the inlet and outlet of the culvert. The new culvert, approximately 16 feet wide, 7 feet high, and 70 feet long with open channel beneath the arched streamway will be installed one-half section at a time. Approximately 600 square feet of riparian vegetation will be removed from the areas immediately upstream and downstream to accommodate the larger culvert. The fractured bedrock channel will be graded approximately 15 feet upstream and downstream of the culvert to fill scour holes and ensure a stream gradient suitable for fish passage. During construction the stream flow will be diverted using temporary pipeline from a point in the channel immediately upstream of the existing culvert to a point in the channel immediately downstream of the work area. The culvert, approximately 15 feet wider on each side of the highway, will require reconstruction of the paved shoulders.

Stream Zone Defined: The stream zone is that portion of the stream channel that restricts lateral movement of water. The stream zone is delineated at the top of the bank or the outer edge of any riparian vegetation, whichever is more landward.

1. The notification, together with all supporting documents submitted with the notification, including the project plans, Natural Environment Study (December 2008), descriptive cover letter (dated April 30, 2009), and CEQA Notice of Exemption are hereby incorporated into this

agreement to describe the location and features of the proposed project. Caltrans agrees that all work shall be done as described in the notification and supporting documents, incorporating all project modifications, wildlife resource protection features, mitigation measures, and provisions as described in this agreement. Where apparent conflicts exist between the notification and the provisions listed in this agreement, Caltrans shall comply with the provisions listed in this agreement. Caltrans further agrees to notify the Department of any modifications made to the project plans submitted to the Department. At the discretion of the Department, this agreement will be amended to accommodate modifications to the project plans submitted to the Department and/or new project activities. Please see the current fee schedule to determine the appropriate amendment fee.

2. Documents, plans, surveys, notifications, and requests pertaining to this project or required by this agreement may be sent via email to Sharon Stohrer at [sstohrer@dfg.ca.gov](mailto:ssstohrer@dfg.ca.gov) or delivered to the Department of Fish and Game at 1701 Nimbus Road, Suite A, Rancho Cordova, CA 95670. Refer to Notification Number 1600-2009-0089-R2 when submitting documents to the Department.
3. The time period for completing work within the stream zone of Little Blackhawk Creek shall be restricted to periods of low stream flow and dry weather and shall be confined to a work window of **May 1 to October 15**. Construction activities shall be timed with awareness of precipitation forecasts and likely increases in stream flow. Construction activities within the stream zone shall cease until all reasonable erosion control measures, inside and outside of the stream zone, have been implemented prior to all storm events. No work will occur during wet weather. Wet Weather is defined as when there has been $\frac{1}{4}$ inch of rain in a 24-hour period. In addition, no work will occur during a dry out period of 24 hours after the above referenced wet weather. Revegetation, restoration and erosion control work is not confined to this time period.
4. A copy of this agreement shall be provided to the Contrator(s) who works within the stream zone of this project. If a private contractor is used for this project, the contractor shall sign the Caltrans copy of this agreement prior to working within the stream zone. A copy of this agreement and a copy of the original notification, including the project description, as submitted to the Department, must be available upon request at the work site. The contractor or a designated crew supervisor shall be on site the entire time a work crew is working near the stream zone. The supervisor shall be completely familiar with the terms and conditions of this agreement and shall ensure compliance with all terms and conditions. The Department reserves the right to inspect the project site to ensure that there is compliance with the terms/conditions of this Agreement.
5. Caltrans shall notify the Department two working days prior to beginning work within the stream zone of Little Blackhawk Creek. In addition, Caltrans shall notify the Department within two working days of the completion of work within the stream zone on this project. Notification shall be as instructed in item number 2 above.
6. Prior to commencement of work within the stream zone and upon completion of work activities, Caltrans shall photograph the project site, including upstream views and downstream views from the culvert location. Labeled, hard copies of photographs shall be provided to the Department of Fish and Game within 15 days of project completion. Mailings should be sent as directed in item number 2 above.

7. When work in a flowing stream is unavoidable, the entire stream flow shall be diverted around or through the work area during the excavation and construction operations. Stream flow shall be diverted using gravity flow through temporary culverts/pipes or pumped around the work site with the use of hoses and returned to the channel immediately downstream of activity. When any dam or other artificial obstruction is being constructed, maintained, or placed in operation, sufficient water shall at all times be allowed to pass downstream to maintain aquatic life below the dam pursuant to Fish and Game Code section 5937. Any temporary dam or other artificial obstruction constructed shall only be built from clean materials such as sandbags, gravel bags, water dams, or clean/washed gravel which will cause little or no siltation. All culverts, pipe and pumping diversion systems shall be clean when placed within the stream channel. No other diversion method shall be used without prior authorization by the Department. If another diversion method is preferred, a plan detailing the desired diversion method must be submitted for consideration by the Department. Authorization of any other diversion method shall be at the discretion of the Department. Normal flows will be restored to the affected stream immediately upon completion of authorized work.
8. Prior to beginning any construction at Little Blackhawk Creek, Caltrans shall submit to the Department for review, a detailed dewatering and diversion plan prepared by a qualified hydraulic engineer. The plan shall, at a minimum: a) provide for complete isolation of the work site from the flowing stream, b) describe in detail, methods for impounding and conveying all anticipated stream flow around the work site for return to the natural channel downstream, c) provide methods and a schedule for maintenance of the temporary structures used in dewatering and diversion, and d) present a step-by-step sequence for breach and/or structure removal to avoid sediment, debris, or turbidity release to the flowing channel at completion of instream construction activities. The Department will have a minimum of ten days to approve the plan or provide requirements for that approval. If the Department does not respond within 14 days, the plan shall be automatically approved. The approved plan shall be appended to this Streambed Alteration Agreement.
9. This agreement does not authorize "take" of any listed species. Take is defined as hunt, pursue, catch, capture or kill or attempt to hunt, pursue, catch, capture, or kill. If there is potential for take of any listed species to occur, Caltrans shall consult with the Department as outlined in Fish and Game Code Section 2081 and shall obtain the required state and federal threatened and endangered species permits.
10. It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by the Fish and Game Code. No trees that contain active nests of birds shall be disturbed until all eggs have hatched and young birds have fledged without prior consultation and approval of a Department representative.
11. Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. Except for the trees specifically identified for removal in the notification, no native trees with a trunk diameter at breast height (DBH) in excess of three (3) inches shall be removed or damaged without prior consultation and approval of a Department representative. Using hand tools (clippers, chain saw, etc.), trees and woody understory may be trimmed to the extent necessary to gain access to the work sites. All cleared material/vegetation shall be removed out of the riparian/stream zone.

12. Riparian vegetation shall be restored upstream (approximately 400 square feet) and downstream (approximately 200 square feet) of the culvert site and along all disturbed access areas within the banks of Little Blackhawk Creek. Caltrans shall submit to the Department for review and approval, a revegetation plan which ensures no net loss of riparian habitat or values. The revegetation plan shall present a work site plan which diagrams the location, species and DBH of trees under pre-project condition, along with a plan diagram for proposed as-built plantings. The revegetation plan should identify locally native replacement species, and must include a success criteria, monitoring and reporting program, and corrective actions to be taken if mitigation measures do not meet the proposed success criteria. Work within the stream zone shall not begin until the revegetation plan has been approved by the Department and is appended to this Stream Alteration Agreement.
13. All exposed/disturbed areas and access points within the stream zone left barren of vegetation as a result of the construction activities shall be restored using locally native grass seeds, locally native grass plugs and/or a mix of quick growing sterile non-native grass with locally native grass seeds. Seeded areas shall be covered with broadcast straw and/or other wildlife friendly materials (monofilament erosion blankets are not authorized).
14. Precautions to minimize turbidity/siltation shall be taken into account during project planning and implementation. This may require the placement of silt fencing, coir logs, coir rolls, straw bale dikes, or other siltation barriers so that silt and/or other deleterious materials are not allowed to pass to downstream reaches. Passage of sediment beyond the sediment barrier(s) is prohibited. If any sediment barrier fails to retain sediment, corrective measures shall be taken immediately. The sediment barrier(s) shall be maintained in good operating condition throughout the construction period and the following rainy season. Maintenance includes, but is not limited to, removal of accumulated silt and/or replacement of damaged silt fencing, coir logs, coir rolls, and/or straw bale dikes. Caltrans is responsible for the removal of non-biodegradable silt barriers (such as plastic silt fencing) after the disturbed areas have been stabilized with erosion control vegetation (usually after the first growing season). Upon Department determination that turbidity/siltation levels resulting from project related activities constitute a threat to aquatic life, activities associated with the turbidity/siltation shall be halted until effective Department approved control devices are installed or abatement procedures are initiated.
15. 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 aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the waters of the state. Any of these materials, placed within Little Blackhawk Creek or where they may enter a stream or lake by Caltrans or any party working under contract or with the permission of Caltrans, shall be removed immediately. The Department shall be notified immediately by Caltrans of any spills and shall be consulted, along with the Central Valley Regional Water Quality Control Board, regarding clean-up procedures.
16. During construction, the contractor shall not dump any litter or construction debris within the stream zone. All construction debris and associated materials shall be removed from the work site upon completion of this project.
17. Any equipment operated within or adjacent a stream zone shall be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic

- life. All equipment and vehicles shall be removed from the stream zone prior to refueling and at the close of each work day.
18. The permanent culvert constructed on State Route 70 at Little Blackhawk Creek shall be maintained and kept open for year-round fish passage upstream and downstream along that stream course. Caltrans is responsible for such maintenance as long as the culvert remains in the stream.
 19. This agreement is not valid and work may not begin until the agreement is signed by a representative of the Department of Fish & Game. **Stream alteration work authorized by this agreement expires five years from the date it was signed by the Department.** This agreement shall remain in effect for that time necessary to satisfy all required mitigation and monitoring measures.
 20. If Caltrans finds more time is needed to complete the authorized activity, Caltrans shall submit a written request for a work period time extension to the Department no less than 14 days prior to the end date of the authorized work period. The request for work period extension shall, at a minimum: 1) describe the extent of work already completed; 2) provide specific detail of the activities that remain to be completed within the stream zone; and 3) detail the actual time required to complete each of the remaining activities within the stream zone. The work period extension request should consider the effects of increased stream conditions, rain delays, increased erosion control measures, limited access due to saturated soil conditions, and limited growth of erosion control grasses due to cool weather. Photographs of work completed to date and the proposed work areas are helpful in assisting the Department in its evaluation. Time extensions are issued at the discretion of the Department. The Department will review the written request to work beyond the established work period. The Department will have ten calendar days to approve the proposed work period extension. The Department reserves the right to require additional measures designed to protect natural resources.
 21. Any request for Extension (agreement renewal), Minor Amendment and/or Major Amendment must be submitted in writing prior to expiration of the agreement or commencement of work on modified project plans. Extensions and Amendments are issued at the discretion of the Department. Please see the current fee schedule to determine the appropriate fee.
 22. The Department may take enforcement action and reserves the right to suspend and/or revoke this agreement if the Department determines that the circumstances warrant. The circumstances that could require these Department actions include, but are not limited to, the following: a) Failure to comply with the terms/conditions of this agreement; b) The information provided by Caltrans in support of the agreement/notification is determined by the Department to be incomplete, or inaccurate; c) When new information becomes available to the Department representative(s) that was not known when preparing the original terms/conditions of this agreement; d) The project as described in the notification, agreement, or amendment has changed, or conditions affecting fish and wildlife resources change.
 23. If, in the opinion of the Department, conditions arise or change in such a manner as to cause any authorized project activity to be considered deleterious to aquatic life, operations shall cease until corrective measures are taken.
 24. It is understood that the Department enters into this agreement for purposes of establishing

protective features for fish and wildlife, in the event that a project is implemented. The decision to proceed with the project is the sole responsibility of Caltrans, and is not required by this agreement. It is agreed that all liability and/or incurred costs related to or arising out of the Caltrans project and the fish and wildlife protective conditions of this agreement, remain the sole responsibility of Caltrans. Caltrans agrees to hold harmless and defend the State of California and the Department of Fish and Game against any related claim made by any party or parties for personal injury or other damage.

25. Caltrans is responsible for obtaining all required permits and authorizations from local, state and federal agencies. Caltrans shall notify the Department where conflicts exist between the provisions of this agreement and those imposed by other regulatory agencies. Unless otherwise notified, Caltrans shall comply with the provision that offers the greatest protection to water quality, species of special concern and/or critical habitat.

SIGNATURE PAGE

Caltrans, as designated by the signature on this agreement, shall be responsible for the execution of all elements of this agreement. A copy of this agreement must be provided to contractor and subcontractors and must be in their possession at the work site.

Failure to comply with the provisions of this agreement and with other pertinent Code Sections, including but not limited to Fish and Game Code Sections 5650, 5652 and 5948, may result in prosecution.

Nothing in this agreement authorizes Caltrans to trespass on any land or property, nor does it relieve Caltrans of responsibility for compliance with applicable federal, state, or local laws or ordinances.

This agreement is not valid and work may not begin until the agreement is signed by a representative of the Department of Fish & Game.

Applicant:  for Eric Orr Date 7-21-09
Title: Project Manager
Organization: CALTRANS

Contractor: _____ Date _____
Title: _____
Company: _____

Department Representative:  Date 7/30/09
Sandra Morey, Regional Manager

Memorandum

*Flex your power!
Be energy efficient!*

To: MR. ROB BURNETT
OFFICE OF DESIGN R3-REDDING
STRUCTURE DESIGN
DIVISION OF ENGINEERING SERVICES

Date: February 26, 2009

File: 02-PLU-70-PM 38.48
02-4C8701
Little Blackhawk Creek
Culvert Replacement

Attn: MR. APOLINARIO VIVIT

From: DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
GEOTECHNICAL SERVICES – MS 5

Subject: Foundation Report

Introduction

Per your request dated November 6, 2008, the Office of Geotechnical Design-North (OGD-N), Branch C has prepared a Foundation Report for the proposed replacement of the Little Blackhawk Creek Culvert located on Route 50 at PM 38.48, in Plumas County, California (Plate No. 1). Following the request, our Office completed a foundation investigation in January 2009.

The following Foundation Recommendations are based on the subsurface information gathered during the recent foundation investigation along with the review of the Foundation Reports and As-Built records of the nearby structures. With regards to the current foundation recommendations given in this report, elevations are based on NAVD 1988 vertical datum.

Resources used for the Foundation Recommendations are based on the following references:

- Preliminary Foundation Recommendations for the proposed replacement of the Little Blackhawk Creek Culvert dated September 22, 2008.
- Lydon, P.A., Gay, T.E. and Jennings, C.W., 1960, Geologic map of California: Westwood sheet: California Division of Mines and Geology.

- California Department of Conservation, Division of Mines and Geology Open File Report 91-1, "Geologic Map of the Susanville Quadrangle, Lassen and Plumas Counties, California, dated 1990.
- General Plan for the Little Blackhawk culvert replacement, dated August 20, 2008.
- As-Built Log of Test Boring for the Spanish Creek (Bridge No. 09-0018) dated October 28, 1963.

Project Description

The existing 5 ft Corrugated Steel Pipe (CSP) culvert will be replaced with a 7'-1" Corrugated Metal Pipe Arch (CMPA) culvert.

Existing Facilities

Little Blackhawk Creek culvert crosses Highway 70 at PM 38.48. At the time of our investigation, Highway 70 at this location consisted of a two-lane roadway paved with asphalt. It had two 12 ft wide traveled ways with unpaved shoulders approximately 3 to 4 ft wide. Fill slopes were 11 ft in height and had slope ratios approximating 1.3:1 (H:V). The slopes adjacent to the highway are vegetated. Site vegetation consisted of mostly pine and oak trees, grasses, and brush.

Climate

According to the Western U.S. Climate Historical Summaries (References No. 1) for 1948-2005, the average annual air temperature was approximately 51 °F, with average monthly extremes of 24 °F in January and 91 °F in July. Average yearly rainfall is 40 in and occurs in the area typically between the months of November to March. Highest average rainfall is in January (7.5 in). The highest average snowfall occurred in January (13 in).

Summary of Site Geology and Subsurface Conditions

- Regional Setting and Area Geology

According to California Department of Conservation, Division of Mines and Geology Open File Report 91-1, "Geologic Map of the Susanville Quadrangle, Lassen and Plumas Counties, California, dated 1990, the site is in an area underlain by the Shoo Fly Complex.

According to the USGS national geologic map database, the map unit consists of Devonian to Ordovician age, quartzose and lithic sandstone, slate, and phyllite, with minor limestone (Plate No. 2).

We have reviewed the State of California, Air Resource Board (ARB) Map of California Showing Principal Asbestos Deposits, which indicates the site is not in an area of naturally occurring asbestos.

- Topography and Drainage

The site elevation is approximately 3320 ft above mean sea level (Plate No. 3). The site generally slopes down to the north at the west end and to the south at the east end of the Little Blackhawk culvert. Little Blackhawk Creek runs westerly at approximate elevation of 3320 ft to east at approximate elevation of 3318 ft.

Ground Water

Ground water and surface water generally flows from the higher elevations located northwest of the project. Surface water depths in Little Blackhawk Creek may fluctuate with seasonal precipitation and may occur at higher or lower elevations depending on the conditions at the time of construction. During our site investigation in January 13, 2009, average water depth in the creek was 1 ft. Our subsurface investigation encountered hard bedrock at the bottom of Little Blackhawk Creek.

Scour Evaluation

Our Office does not have recent data regarding scour potential at the site. For further information including site-specific scour assessment and mitigation measures, the Structure Hydraulic Branch should be contacted.

Corrosion Evaluation

The Caltrans considers a site to be corrosive if one or more of the following conditions exist for the representative soil and/or water samples taken at the site: chloride concentration is 500 ppm or greater, sulfate concentration is 2000 ppm or greater, or the pH is 5.5 or less. Based on these criteria, this site is considered not corrosive.

Table 1 Corrosion Test Summary Report

Sample From Borehole	Sample Depth (ft)	Minimum Resistivity (ohm-cm)	pH	Sulfate Content (ppm)	Chloride Content (ppm)
R-09-02	0-5	5843	6.89	-----	-----

Seismic Study

Based on the Caltrans California Seismic Hazard Map 1996, the controlling fault is the Mohawk Valley Fault Zone with a maximum credible earthquake moment magnitude of $M_w=6.5$. It is located about 6 miles southeast of the site. The Peak Horizontal Bedrock Acceleration, based on an attenuation equation by Geomatrix' 97, is about 0.4g.

Based on the Log of Test Borings, a preliminary Caltrans Seismic Design Criteria (CSDC) Acceleration Response Spectrum (ARS) curve (Plate No. 4) corresponding to soil profile Type B is recommended for design. Please note that due to the close proximity of this structure to the Mohawk Valley Fault Zone, we have performed a second modification to the CSDC ARS curve. The modification is such that there is no increase in spectral accelerations (SA) for periods less than 0.5 second, and a 20% increase in SA for periods greater than 1 second. Between the periods of 0.5 and 1 second, a linear interpolation was used to estimate the SA.

Field Investigation and Subsurface Conditions

The Office of Geotechnical Design-North conducted a subsurface investigation on January 13, 2009. Two mud rotary borings (R-09-01, R-09-02) were advanced using a self-casing wireline-diamond coring method extending down to a maximum depth of 30 ft (elevation 3301 ft). The equipment consisted of an Acker drill rig. Continuous split spoon cores were taken in 5 feet intervals. The 2009 subsurface investigation revealed that the materials encountered near the existing culvert location can be generally separated into two units: fill material and bedrock. Fill material consists of road base material: dense well-graded sand with silt and loose gravel with hard cobbles and boulders. At a depth of 11 ft (elevation 3320 ft) bedrock was encountered. Bedrock here is interpreted as phyllite rocks belonging to the Paleozoic marine formation. The bedrock is vertically fractured, intensely to moderately weathered, moderately hard and contains hard matrix in horizontal planes.

In boring number R-09-01, at a depth from 12 to 15 ft (elevation 3319 to 3316 ft), light brownish gray, moderately weathered, moderately hard phyllite rock was encountered.

Layer of gray, slightly weathered to fresh, moderately hard phyllite rock was encountered at a depth of 15 to 20 ft (elevation 3316 to 3311 ft).

In boring number R-09-02, moderately weathered to intensely weathered phyllite rock was encountered from a depth of 11 to 25 ft (elevation 3320 to 3306 ft). The interval from 25 to 30 ft (elevation 3306 to 3301 ft) consisted of dark gray, moderately to slightly weathered, hard phyllite rock.

Test boring information, including boring numbers, stations, offsets, top of the borehole elevations and depths are summarized in Table 2. For subsurface data and boring locations, site-specific information and conditions, please refer to the log of test borings shown in Appendix B of this report.

Table 2 Summary of the Geotechnical Exploration Information

Boring Number ⁽¹⁾	Station (ft)	Offset from Highway 70 Centerline (ft)	Top of Borehole Elevation (ft)	Exploration Depth (ft)
R-09-01	168+74.16	13.5	3331	30
R-09-02	168+16.50	8.0	3331	30

Notes: 1) Borings R-09-01 and R-09-02 used mud rotary wash method.

Conclusions and Recommendations

Foundation Recommendation

Culvert footings should be embedded about 2 feet below bedrock at the bottom of the creek (elevation 3320 ft) to provide adequate bearing, scour and frost protection (Reference No 2). According to the Project Engineer, the required bearing capacity for the CMPA culvert foundation is 1500 psf. According to the 2009 site investigation, the foundation may be designed using an allowable bearing capacity of 4000 psf.

Construction Consideration

- Due to the variations in the weathering, fracturing and hardness of the bedrock within relatively short distances as shown on the LOTB sheets, the contractor should anticipate varying rock conditions (alternating soft or hard rock drilling) both laterally and vertically across the entire project site.

- Surface water elevation in Little Blackhawk Creek is subject to seasonal fluctuations and may occur higher or lower than indicated on the Log of Test Borings Sheets (LOTB) depending on the conditions and time of construction.

The recommendations contained in this report are based on specific project information regarding design loads and structural locations that has been provided by Office of Bridge Design North. If any conceptual changes are made during final project design, the Office of Geotechnical Design North, Branch C should review those changes to determine if these Foundation Recommendations are still applicable.

Project Information

Standard Special Provision S5-280, "Project information" discloses to bidders contractors a list of pertinent information available for their inspection prior to bid opening. The following is an excerpt from SSP S5-280 disclosing information originating from Geotechnical Services. Items listed to be included in the information handout will be provided in Acrobat (.pdf) format to the addresses(s) of this report via electronic mail.

Data and information attached with the project plans are:

- A. *Log of Test Borings for the Little Blackhawk Creek Culvert 2009 subsurface exploration.*

Data and information included in the Information Handout provided to the bidders and Contractors are:

- A. *"Foundation Report for Little Blackhawk Creek Culvert", 02-PLU-70-PM 38.48, dated February 26, 2009.*

Data and information available for inspection at the District office:

- A. *None*

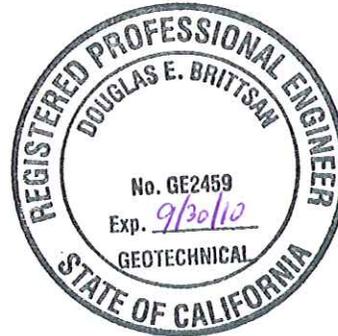
Data and information available for inspection at the transportation Laboratory:

- A. *Three boxes of core samples collected during the 2009 subsurface investigation.*

Mr. Rob Burnett
February 26, 2009
Page 7

02-PLU-70-PM 38.48
02-4C8701
Little Blackhawk Creek Culvert

If you have any questions or comments, please call Hamid Akbarzadegan at (916) 227-1091 or Douglas Brittsan at (916) 227-1079.



HAMID AKBARZADEGAN, M.S.
Transportation Engineer - Civil
Geotechnical Design – North

DOUGLAS E. BRITTSAN, G.E.
Senior Transportation Engineer
Geotechnical Design – North



REZA MAHALLATI, P.E.
Senior Materials and Research Engineer
Geotechnical Design – North

Attachments:

- References
- Appendix A. Plates No. 1 to 8
- Appendix B. Boring Logs

c: R.E. Pending
Structure OE
Eskinder Taddese (E-copy)
Lerose Lane (E-copy)
GDN File
GS File Room

References:

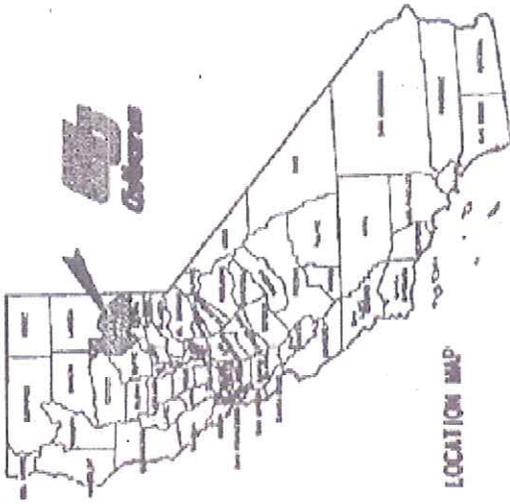
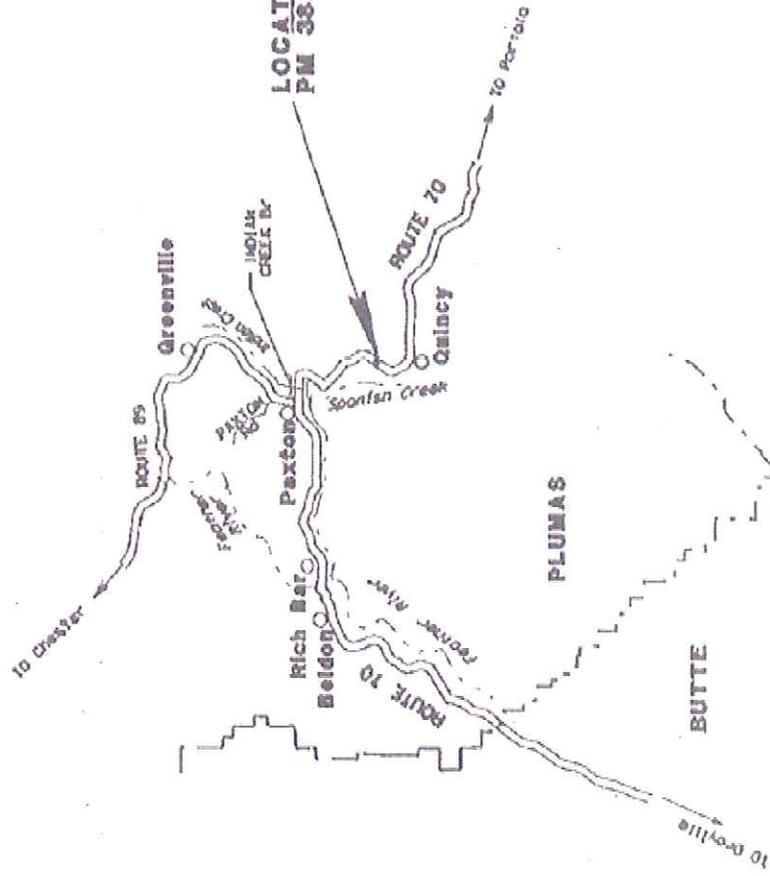
1. *Western U.S. Climate Historical Summaries*” www.wrcc.dri.edu/climsum.html”.
2. *AASHTO Standard Specification for Highway Bridges, 16th edition, 1996, 4.4.5.1.*
3. *California Department of Conservation, Division of Mines and Geology Open File Report 91-1, “Geologic Map of the Susanville Quadrangle, Lassen and Plumas Counties, California, dated 1990.*
4. *Sacramento Regional Geologic Map (maps are located on USGS's National Geologic Map Database web site).*
5. *Soil & Foundations Reference Manual-Volume I, Report No. FHWA-NHI-06-088, Naresh Samtani, Edward Nowatzki.*
6. *Akbarzadegan, Hamid (2008) “Preliminary Foundation Report for Little Blackhawk Creek Culvert”, Division of Engineering Services, Geotechnical Services, Office of Geotechnical Design North, Branch C, dated September 22, 2008.*

Appendix A

- Location Map
- Geologic Map
- Topography Map
- Recommended ARS Curve
- Photos of site and existing culvert location
- Borehole R-09-01 (1-19 ft)
- Borehole R-09-01 (19-30 ft)
- Borehole R-09-02 (0-30 ft)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

IN PLUMAS COUNTY NEAR QUINCY
 AT 0.8 MILE WEST OF CHANDLER ROAD



LOCATION MAP

LOCATION OF CONSTRUCTION
 PM 33.5



California Department of Transportation
 Division of Engineering Services
 Geotechnical Services
 Office of Geotechnical Design-North

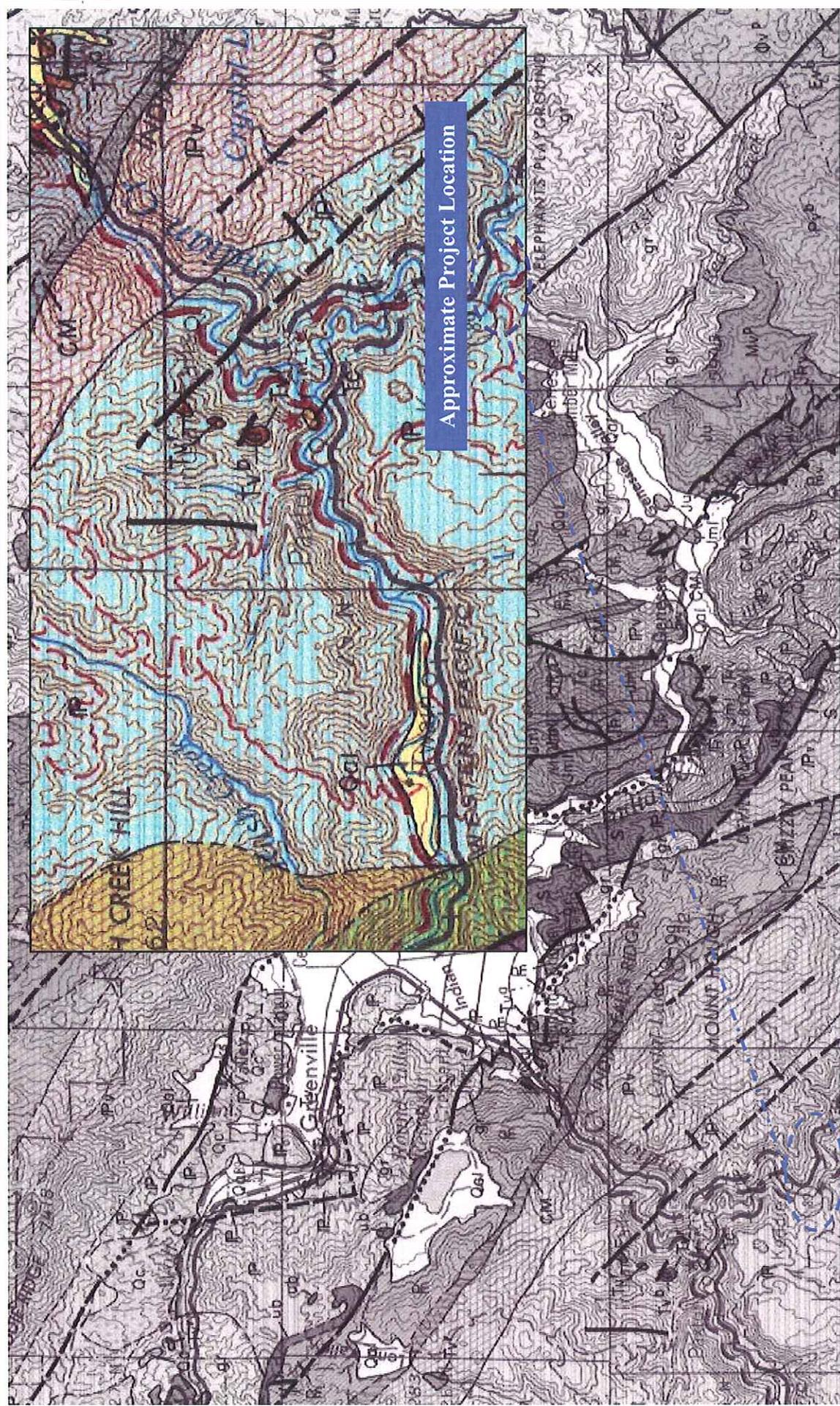
EA: 02-4C870

Date: February, 2009

Location Map

Foundation Report

Plate
 No. 1



California Department of Transportation
 Division of Engineering Services
 Geotechnical Services
 Office of Geotechnical Design-North



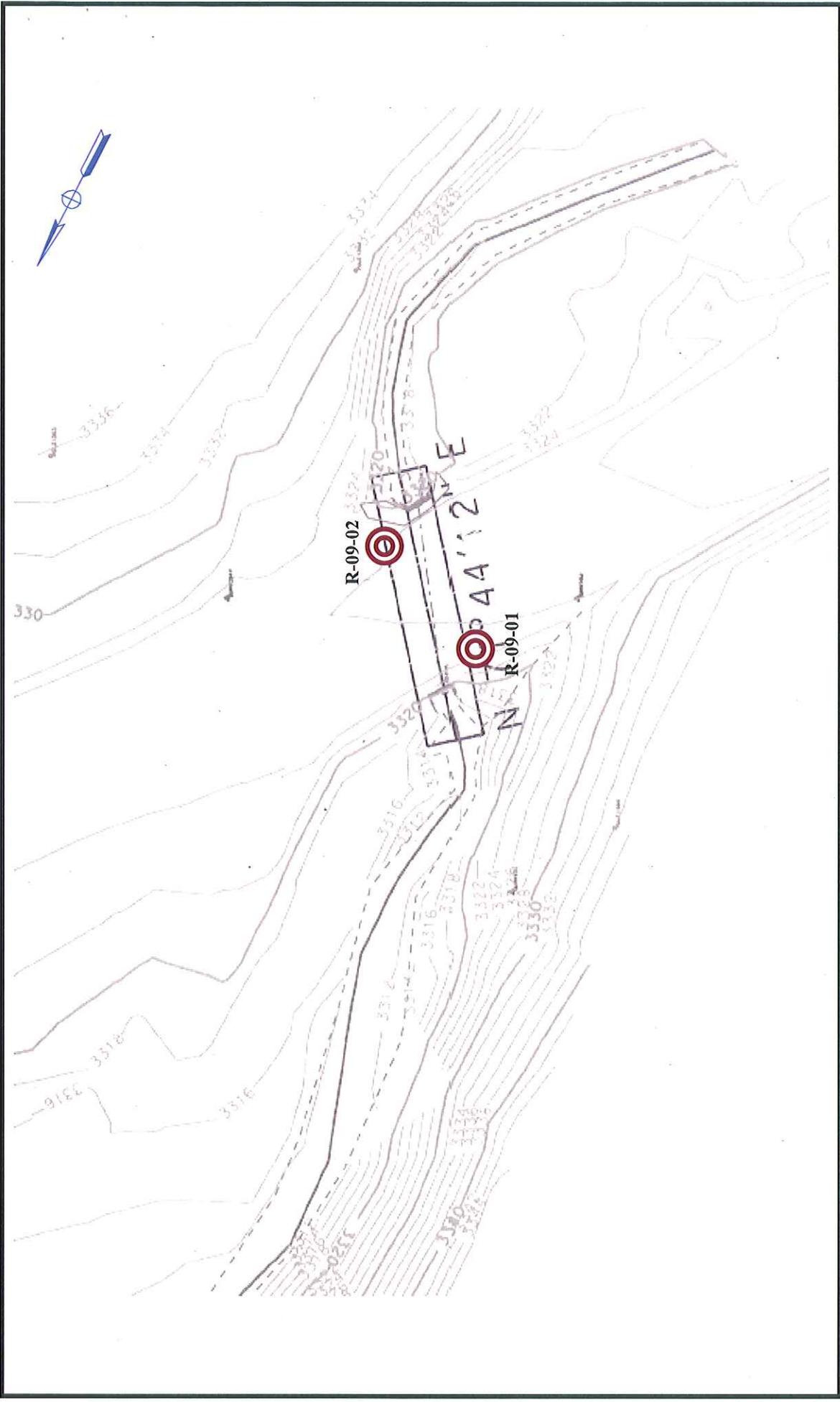
EA: 02-4C870

Date: February, 2009

Geologic Map

Foundation Report

Plate
 No. 2



EA: 02-4C870

Date: February, 2009

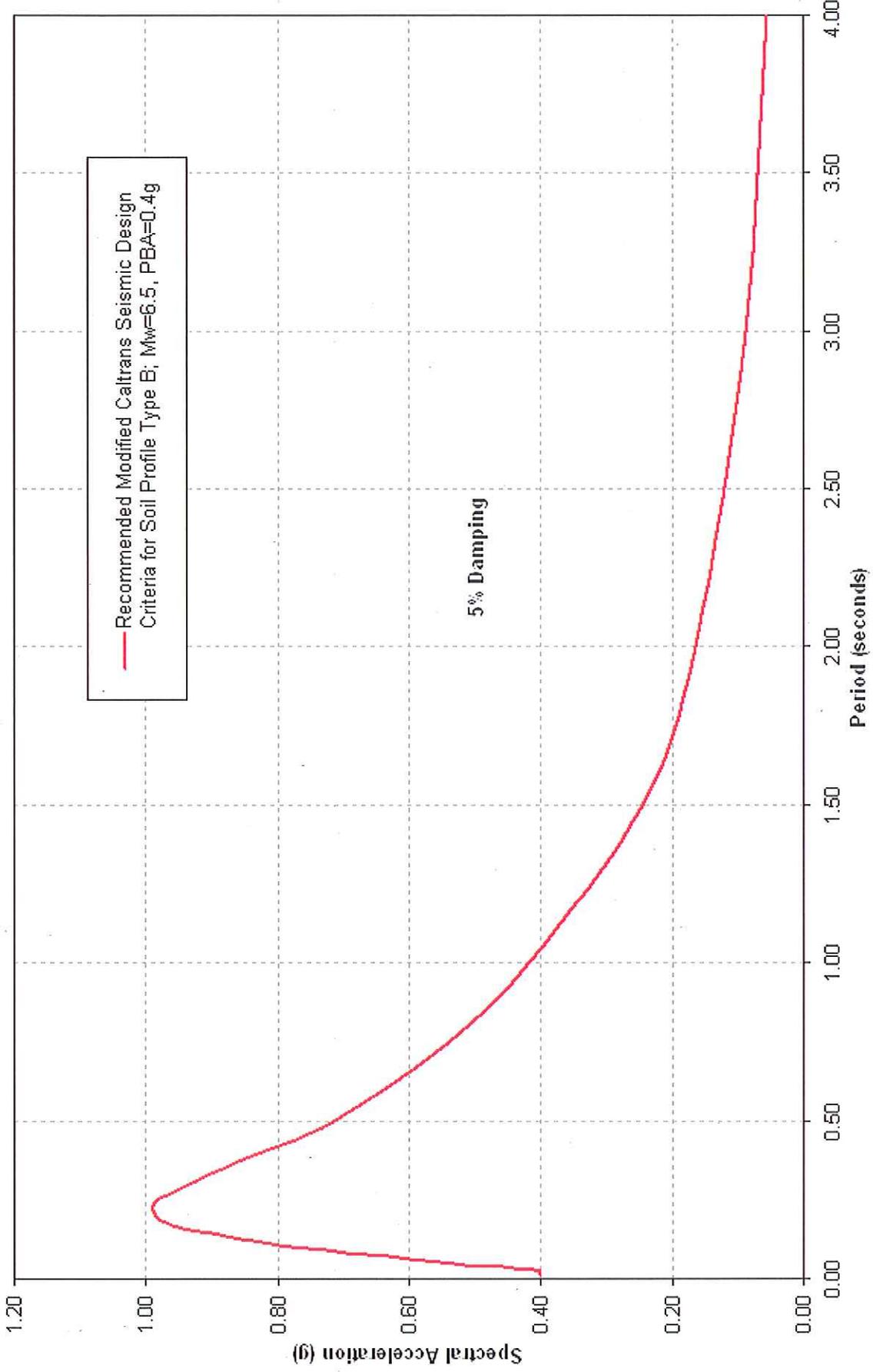
Topography Map

Foundation Report

Plate No. 3

California Department of Transportation
 Division of Engineering Services
 Geotechnical Services
 Office of Geotechnical Design-North

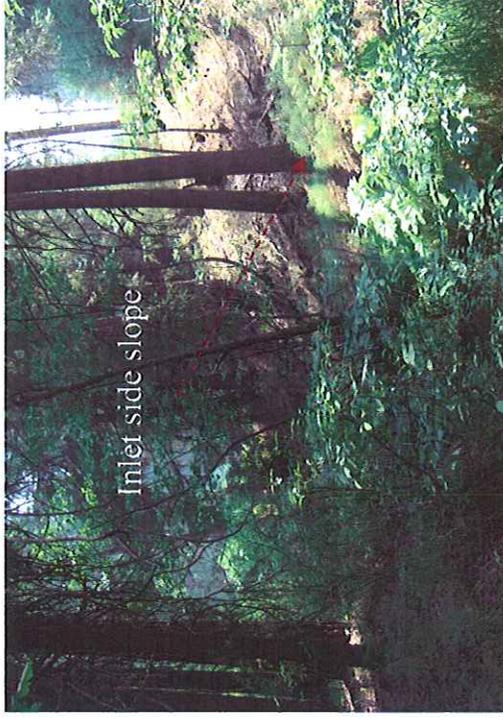
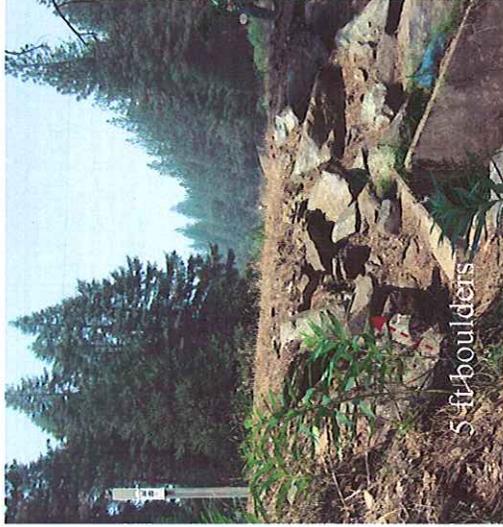
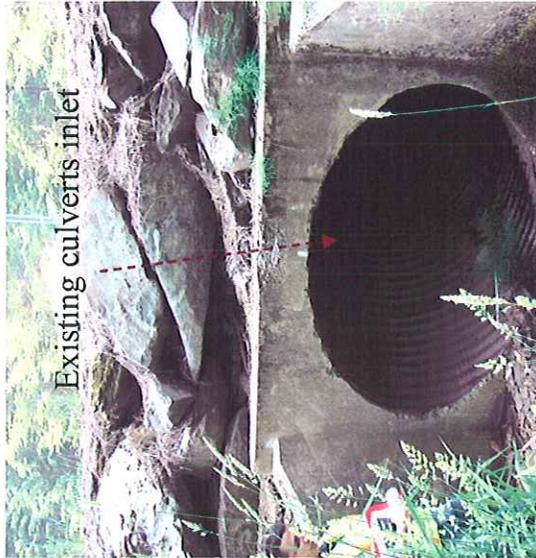
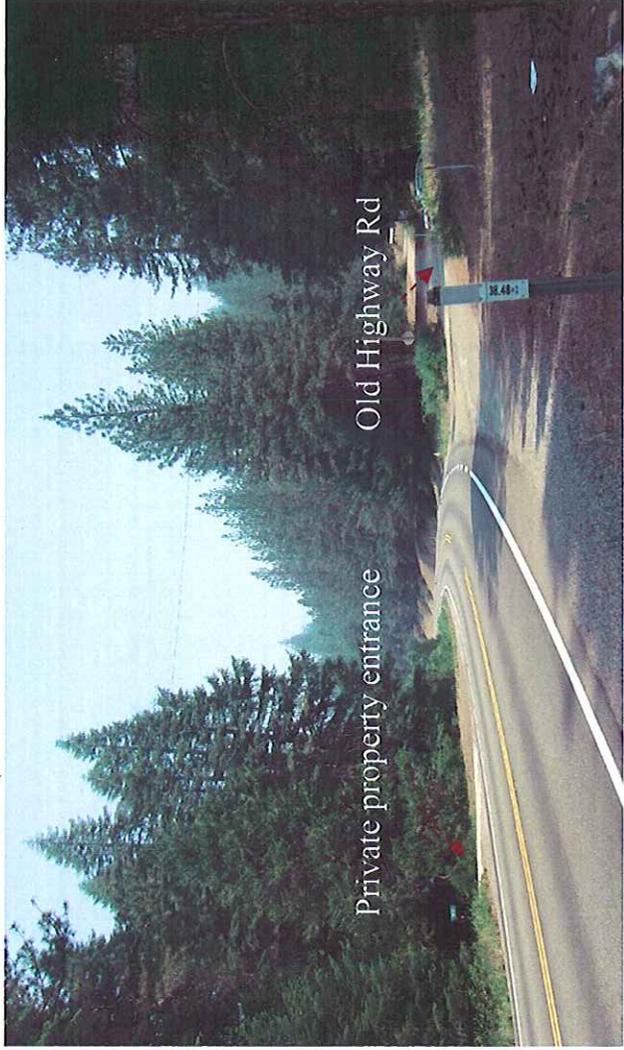
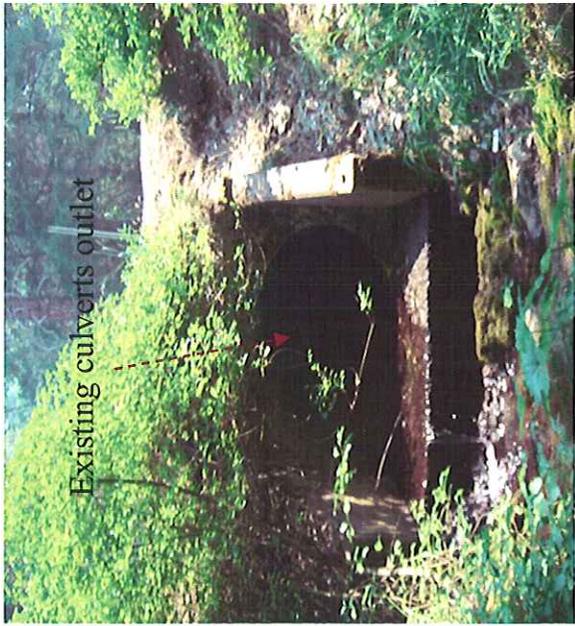




— Recommended Modified Caltrans Seismic Design
Criteria for Soil Profile Type B; Mw=6.5, PBA=0.4g

EA: 02-4C870		Recommended ARS Curve
Date: February, 2009		
California Department of Transportation Division of Engineering Services Geotechnical Services Office of Geotechnical Design-North		Foundation Report
		Plate No. 4





California Department of Transportation
 Division of Engineering Services
 Geotechnical Services
 Office of Geotechnical Design-North

EA: 02-4C870

Date: February, 2009

Photos of site and existing
 culvert condition

Foundation Report

Plate
 No. 5



EA: 02-4C870
 Date: February, 2009

Borehole R-09-01 (0-19 ft)

Foundation Report
 Plate No. 6

California Department of Transportation
 Division of Engineering Services
 Geotechnical Services
 Office of Geotechnical Design-North





EA: 02-4C870
Date: February, 2009

Borehole R-09-01 (19-30 ft)

Foundation Report

Plate
No. 7

California Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design-North





EA: 02-4C870
Date: February, 2009

Borehole R-09-02 (0-30 ft)

Plate
No. 8

Foundation Report

California Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design-North



Appendix B

LOGGED BY AkbarZadegan H.	BEGIN DATE 1-13-09	COMPLETION DATE	BOREHOLE LOCATION (Lat/Long or North/East and Datum) NAD83	HOLE ID R-09-001
DRILLING CONTRACTOR		BOREHOLE LOCATION (Offset, Station, Line) 13.5' Rt Sta		SURFACE ELEVATION 0 ft MLLW
DRILLING METHOD Rotary Wash		DRILL RIG Acker AD2		BOREHOLE DIAMETER
SAMPLER TYPE(S) AND SIZE(S) (ID) Split Spoon		SPT HAMMER TYPE		HAMMER EFFICIENCY, ERI
BOREHOLE BACKFILL AND COMPLETION Borehole Backfilled		GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS		TOTAL DEPTH OF BORING 30.0 ft

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0		No materials recovered											
-2.00	2											R		
-4.00	4											R		
	5		Silty sand w/ gravel, light brown, very dense, some soils, fine gravel to coarse sand, strong cementation.	1			100					R		
	6		Silty sand w/ gravel, light brown, dense, some soil, fine gravel to coarse sand, moderate cementation.	2			100					R		
	7											R		
	8											R		
	9											R		
	10											R		
	11		METAMORPHIC ROCK (PHYLLITE), light gray, moderately weathered, moderately hard, moderately fractured.	3			100					R		At 11 ft finger bit was changed to diamond bit.
	12											R		
	13											R		
	14											R		
	15											R		
	16		METAMORPHIC ROCK (PHYLLITE), dark gray, slightly weathered to fresh, moderately hard, slightly fractured.	4			100	88				R		
	17											R		
	18											R		
	19											R		
	20											R		
	21		METAMORPHIC ROCK (PHYLLITE), dark gray, moderately to slightly weathered, moderately hard, slightly fractured.	5			50	40				R		
	22											R		
	23											R		
	24											R		
	25											R		

(continued)

CALTRANS BORING RECORD MET+ENG FIXED CAMINOSAND.GPJ CALTRANS LIBRARY 040808.GLB 2/19/09



Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

REPORT TITLE BORING RECORD				HOLE ID R-09-001	
DIST. 02	COUNTY Plumas	ROUTE 70	POSTMILE 38.5/38.5	EA 02-4C870	
PROJECT OR BRIDGE NAME Little Blackhawk Culvert					
BRIDGE NUMBER		PREPARED BY Hamid AkbarZadegan		DATE 02-26-09	SHEET 1 of 2

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
25	25														
-26.00	26		METAMORPHIC ROCK (PHYLLITE), dark gray, moderately weathered, hard to very hard, moderately fractured.		6			80	78						
-28.00	28												R		
-30.00	30		Bottom of borehole at 30.0 ft												
-32.00	32														
-34.00	34														
-36.00	36														
-38.00	38														
-40.00	40														
-42.00	42														
-44.00	44														
-46.00	46														
-48.00	48														
-50.00	50														
-52.00	52														
-54.00	54														
	55														



Department of Transportation
 Division of Engineering Services
 Geotechnical Services
 Office of Geotechnical Design - North

REPORT TITLE BORING RECORD				HOLE ID R-09-001	
DIST. 02	COUNTY Plumas	ROUTE 70	POSTMILE 38.5/38.5	EA 02-4C870	
PROJECT OR BRIDGE NAME Little Blackhawk Culvert					
BRIDGE NUMBER		PREPARED BY Hamid AkbarZadegan		DATE 02-26-09	SHEET 2 of 2

LOGGED BY AkbarZadegan H.	BEGIN DATE 1-13-09	COMPLETION DATE	BOREHOLE LOCATION (Lat/Long or North/East and Datum) NAD83	HOLE ID R-09-002
DRILLING CONTRACTOR		BOREHOLE LOCATION (Offset, Station, Line) 8' Rt Sta		SURFACE ELEVATION 0 ft MLLW
DRILLING METHOD Rotary Wash		DRILL RIG Acker AD2		BOREHOLE DIAMETER
SAMPLER TYPE(S) AND SIZE(S) (ID) Split Spoon		SPT HAMMER TYPE		HAMMER EFFICIENCY, ERI
BOREHOLE BACKFILL AND COMPLETION Borehole Backfilled		GROUNDWATER DURING DRILLING AFTER DRILLING (DATE) READINGS		TOTAL DEPTH OF BORING 30.0 ft

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
0	0													
1	1		Sand & gravel, light brown, dense, coarse gravel to coarse sand, angular, moderate cementation.	1			20							
-2.00	2											R		
-4.00	4													
5	5													
-6.00	6		Silty sand w/ gravels, light light brown, dense, some soil, fine gravel to coarse sand, moderate cementation.	2			25							
-8.00	8											R		
-10.00	10													
11	11		METAMORPHIC ROCK (PHYLLITE), intensely weathered, very soft, very intensely fractured.	3			20							At 11 ft changed from finger bit to diamond bit.
-12.00	12											R		
-14.00	14													
-16.00	16		METAMORPHIC ROCK (PHYLLITE), dark gray, moderately weathered, moderately hard, intensely fractured.	4			34	8						
-18.00	18											R		
-20.00	20													
21	21		METAMORPHIC ROCK (PHYLLITE), dark gray, slightly weathered, moderately hard, intensely fractured.	5										
-22.00	22											R		
-24.00	24													
25	25													

(continued)



Department of Transportation
Division of Engineering Services
Geotechnical Services
Office of Geotechnical Design - North

REPORT TITLE BORING RECORD				HOLE ID R-09-002	
DIST. 02	COUNTY Plumas	ROUTE 70	POSTMILE 38.5/38.5	EA 02-4C870	
PROJECT OR BRIDGE NAME Little Blackhawk Culvert					
BRIDGE NUMBER		PREPARED BY Hamid AkbarZadegan		DATE 02-26-09	SHEET 1 of 2

CALTRANS BORING RECORD MET+ENG FIXED CAMINOSAND.GPJ CALTRANS LIBRARY 040808.GLB 2/19/09

CALTRANS BORING RECORD MET+ENG FIXED CAMINOSAND.GPJ CALTRANS LIBRARY 040808.GLB 2/19/09

ELEVATION (ft)	DEPTH (ft)	Material Graphics	DESCRIPTION	Sample Location	Sample Number	Blows per 6 in.	Blows per foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks	
-25.00	25															
-26.00	26		METAMORPHIC ROCK (PHYLLITE), dark gray, slightly weathered, hard, moderately fractured.	6				100	30							
-27.00	27															
-28.00	28															
-29.00	29															
-30.00	30															
			Bottom of borehole at 30.0 ft													
-31.00	31															
-32.00	32															
-33.00	33															
-34.00	34															
-35.00	35															
-36.00	36															
-37.00	37															
-38.00	38															
-39.00	39															
-40.00	40															
-41.00	41															
-42.00	42															
-43.00	43															
-44.00	44															
-45.00	45															
-46.00	46															
-47.00	47															
-48.00	48															
-49.00	49															
-50.00	50															
-51.00	51															
-52.00	52															
-53.00	53															
-54.00	54															
	55															

(continued)



Department of Transportation
 Division of Engineering Services
 Geotechnical Services
 Office of Geotechnical Design - North

REPORT TITLE BORING RECORD				HOLE ID R-09-002	
DIST. 02	COUNTY Plumas	ROUTE 70	POSTMILE 38.5/38.5	EA 02-4C870	
PROJECT OR BRIDGE NAME Little Blackhawk Culvert					
BRIDGE NUMBER		PREPARED BY Hamid AkbarZadegan		DATE 02-26-09	SHEET 2 of 2