FOR CONTRACT NO.: 04-3S8414

INFORMATION HANDOUT

SUPPLEMENTAL PROJECT INFORMATION

Slide Repair Recommendation Dated 10/04/2006

CA Coastal Commission Permit Dated 04/16/2010

Letter of Concurrence by USFWS Dated 03/24/2010

ROUTE: 04-Son-1-PM 7.6

State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: MS. OFELIA ALCANTARA
Supervising Bridge Engineer
Bridge Design West
Structures Design

Date: October 4, 2006

File: 4-SON-1-PM 7.55
04 – 3S8401
Storm Damage

From: M. ZABOLZADEH/A. KADDOURA
Associate Materials and Research Engineers
Office of Geotechnical Design – West
Geotechnical Services
Division of Engineering Services

HOOSHMAND NIKOUI
Chief, Branch A
Office of Geotechnical - West
Geotechnical Services
Division of Engineering Services

Subject: Slide Repair Recommendations

This memorandum presents our geotechnical recommendations for the above referenced project. The recommendations contained in this report are based on the results from subsurface explorations at the site of the slide.

I. BACKGROUND

During January/February 2006 rainstorms, a series of small slipouts occurred within close proximity along the edge of the pavement in southbound direction of Route 1, at PM 7.55 approximately 3 miles south of the Town of Bodega Bay in Sonoma County.

The total length of the slipouts is about 70'. The head scarp on the slipout has undermined the existing one-foot asphalt shoulder of the southbound lane. Currently, 2-way traffic is being maintained.

It appears that the slipouts have been caused by heavy rainfall, concentrated surface runoff, saturation of the roadway embankment, and undercutting of the side slope by the creek located at the toe of the slide below the roadway.

II. SCOPE OF WORK

Work performed for this investigation includes field mapping, reviewing the information available on site geology, seismicity and sub-surface soil/rock investigation.

III. REGIONAL AND SITE GEOLOGY

Located within the Coast Range geomorphic province of California, the geology of the region consists of northwest-trending ridges, gently sloping hills, intermontane valleys, and large elongated depressions. The San Andreas Fault System, the most prominent geologic feature in the area, includes the San Andreas Fault as well as numerous splays, including the Hayward and Calaveras Faults, which together take up strain between the northward migrating Pacific plate and the southward (relatively) moving North American plate. The major faults within the system are predominantly right lateral, strike-slip faults with some compressional component.

Rocks of the Franciscan Group as well as locally derived alluvium and thin residual soils underlie the project site. Franciscan Group rocks at the site are argillitic shale and graywacke, the former being highly erodible. Graywacke is found as knockers, or blocks, within the shale matrix and can be found as prominent outcrops along Route 1.

The project area lies within the seismically active San Francisco Bay region and lies very close to the San Andreas Fault. Table 1 lists the active faults near the project area and the peak ground accelerations that could be expected from a maximum credible earthquake. The two major active faults in the region, the San Andreas and the Healdsburg/Rodgers Creek, both have the potential for magnitude 7.0 or greater earthquakes.

Fault Data and Seismicity

The project area lies within the seismically active San Francisco Bay region and lies very close to the San Andreas Fault. Table 1 lists the active faults near the project area and the peak ground accelerations that could be expected from a maximum credible earthquake. The two major active faults in the region, the San Andreas and the Healdsburg/Rodgers Creek, both have the potential for magnitude 7.0 or greater earthquakes.

Table 1. Predicted Maximum Credible Earthquakes and Accelerations*

FAULT	Distance from project	Maximum Credible Earthquake	Peak Ground Acceleration
San Andreas	2.0 km	8.0	0.70 g
Rodgers Creek/ Healdsburg	31.0 km	7.0	0.15 g

*MCE's and accelerations from Mualchin (1996)

V. SUBSURFACE SOIL CONDITIONS

Boring B-1 was drilled utilizing the 150-mm hollow stem auger with Standard Penetration Test (SPT) sampling in September 2006, on the roadway within the slide area to a depth of 49'. The boring describes the foundation soils as approximately 32' of firm to very stiff sandy clay and gravel. This overlies approximately 4' of very dense clayey sand with gravel. The remainder of the boring describes the foundation soils/rocks as intensely to slightly weathered, moderately soft to hard sandstone. The SPT blow counts range from 7 to more than 50 blows (refusal) per 0.3 m. The unconfined compressive strength of the clayey soil (using the SPT blow counts) was estimated to range between about 1 tsf and 4 tsf. Log of Test Boring (LOTB) sheet should be included with the contract plans and will be forwarded to you upon completion.

Ground water was encountered at approximately 44' below roadway surface at the time of drilling (September 2006). However, groundwater elevations fluctuate seasonally and may be encountered at higher elevations.

VI. RECOMMENDATIONS

In order to protect and maintain the roadway, we recommend constructing CIDH soldier piles in southbound direction for a distance of about 100' ±. See attached sketches and typical section.

We recommend that the soldier piles be designed to act as a 12 feet-high (max.) cantilever wall with wood lagging.

We recommend that the soldier piles wall be designed for the following:

Size and Location of the Piles

As shown on the attached typical cross section, we recommend installing 2 feet diameter CIDH piles, about 3' away (face of wall/barrier) from the existing white stripe according to Maintenance Services. We recommend the length of the piles to be at least 40' long.

Earth Pressures

The wall should be designed for the following:

For *active pressure* against the wall, use the following:

- Internal friction angle $\phi = 30°$, C = 1000 psf & soil moist unit weight (γ) = 120 lb/ft^3.
- For earth pressure distribution, use a triangular pressure distribution.
- A rectangular pressure diagram from top of the wall to a depth of 10' for traffic surcharge equivalent to about 2' of fill.
- The wall shall be capable of resisting an additional seismic uniform earth pressure estimated to be equal to 40H psf.

For *passive pressure* against the soldier piles, use the following input:

- *To the depth of 30' below the roadway* : Internal friction angle $\phi = 30°$, C = 2500 psf & soil moist unit weight (γ) = 125 lb/ft^3.
- *From the depth of 30' to 50' :* Internal friction angle $\phi = 36°$, C = 2000 psf & Soil moist unit weight (γ) = 130 lb/ft^3.
- Friction Factor (δ) = ¾ ϕ.

Vertical CIDH Pile Capacities and Penetration Depth

Maximum pile spacing should be limited to 8'.

The ultimate vertical compression and tension capacities of piles may be calculated using the following design parameters:

Use a unit pile shaft friction of 4.5 ksf per unit surface area of the pile length below the dredge line of the wall.

Use 60 percent of the compression shaft resistance values mentioned above to calculate the ultimate tension (uplift) resistance of the pile.

For ultimate pile tips compression, use bearing pressure of 70 ksf per unit tip.

The above recommendations are based on parameters established by our field exploration and engineering judgment.

VII. CORROSION

The Department considers the site to be corrosive to foundation elements if one or more of the following conditions exist for the representative soil and/or water samples taken at the site:

> Chloride concentration is greater than or equal to 500 ppm, sulfate concentration is greater than or equal to 2000 ppm, or the pH is 5.5 or less.

No Corrosion studies are conducted for this site. However, corrosion studies conducted for sites in the vicinity, indicated that the site is non-corrosive.

VIII. CONSTRUCTION CONSIDERATIONS

Because of the existence of groundwater, the contractor should be prepared for dewatering during drilling holes for CIDH piles. Casing may also be needed due to the sandy nature of the soils.

* * * * * *

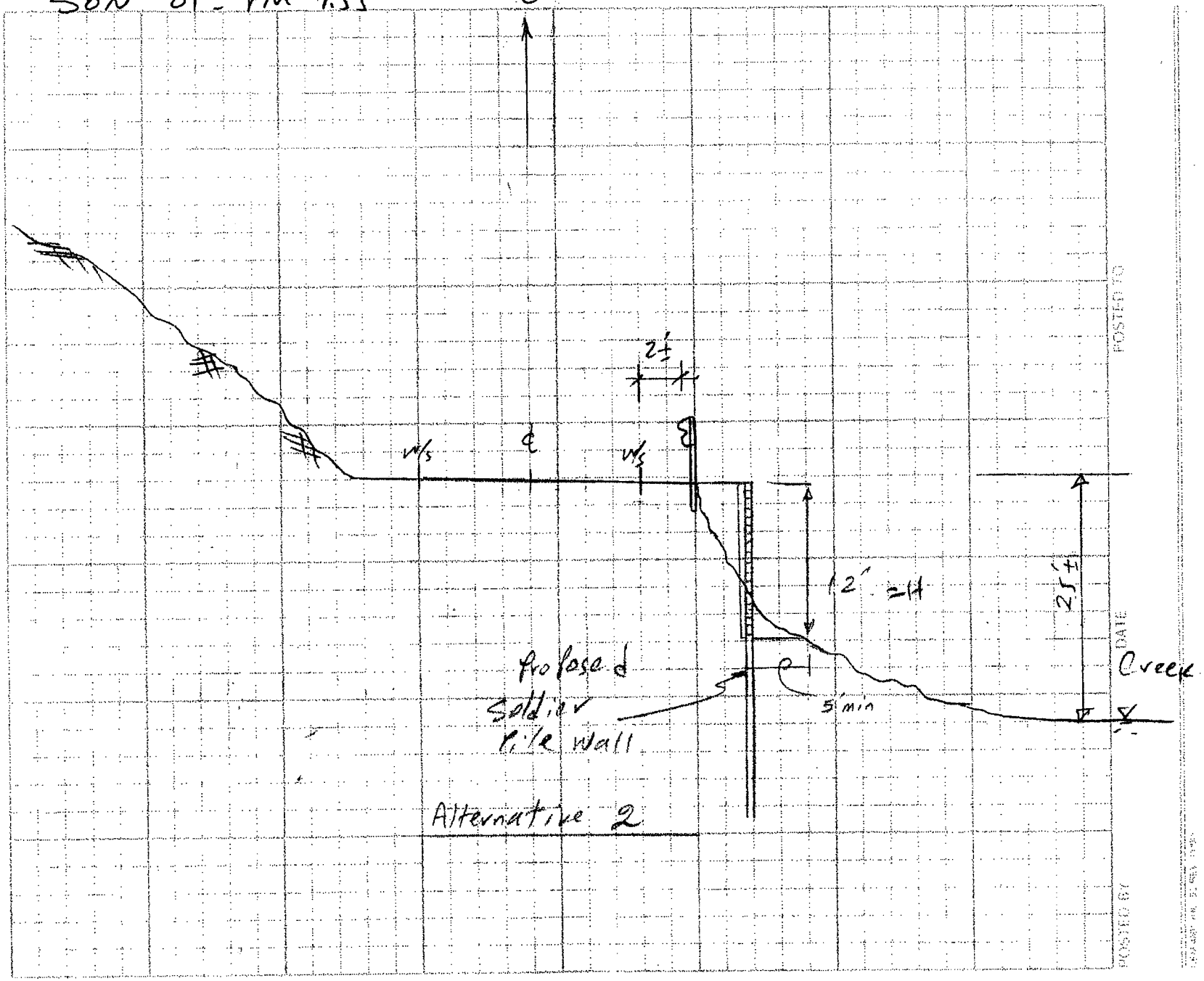
If you have any questions or need additional information, please call us at (510) 286-4676/4831 or Hooshmand Nikoui, Branch Chief at (510) 286-4811.

Attachment

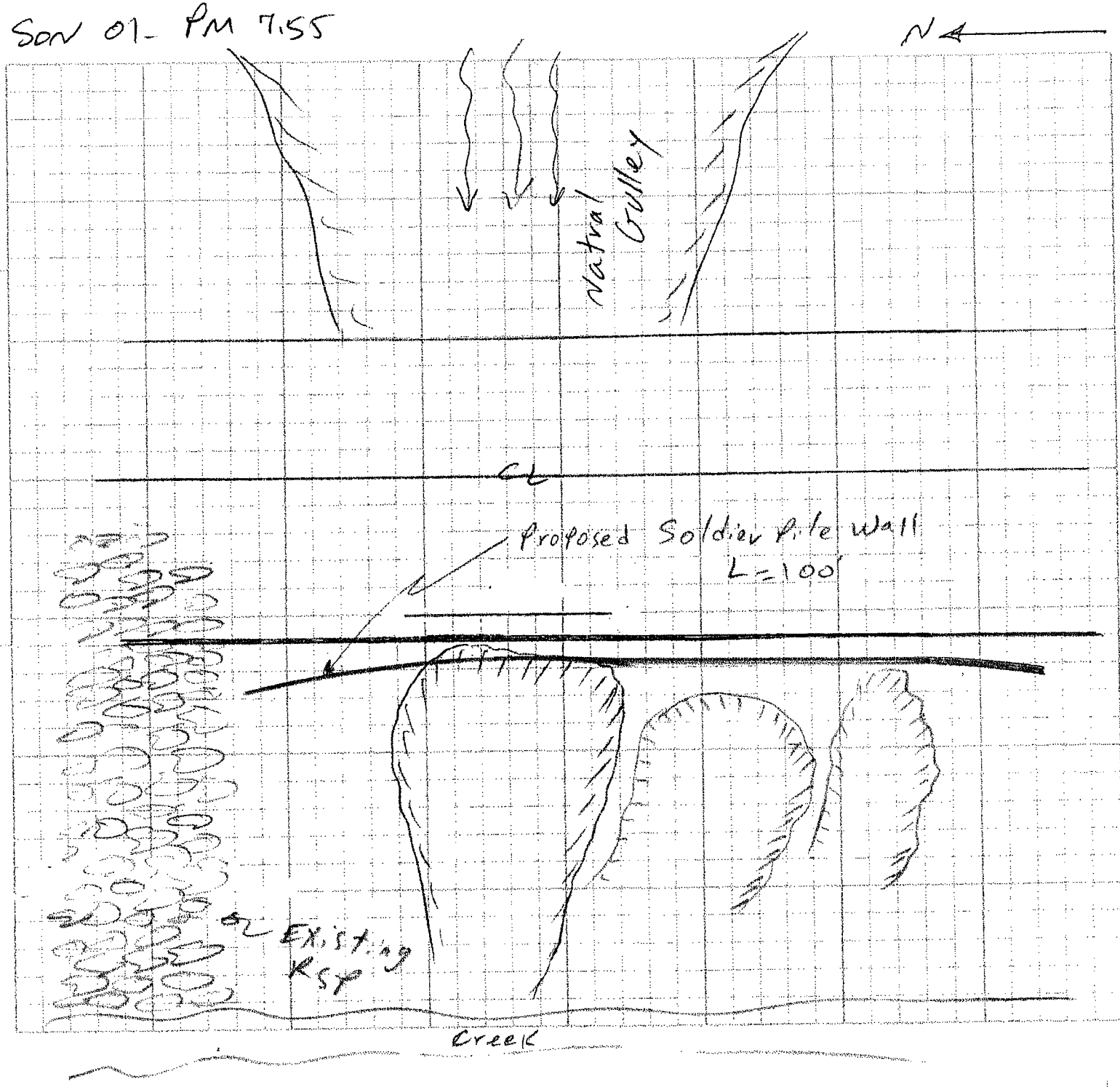
c: TPokrywka, HNikoui, MZabolzadeh, AKaddoura, Project File, Daily File, Translab File

Kaddoura/Zabolzadeh/mm SON-1-PM 7.55 Report

SON 01 - PM 7.55



QUANTITY CALCULATIONS


SON 01- PM 7.55
N
Natural Gulley
℄
Proposed Soldier Pile Wall
L=100'
℄ Existing
Creek

COUNTY OF SONOMA
PERMIT AND RESOURCE MANAGEMENT DEPARTMENT
2550 Ventura Avenue, Santa Rosa, CA 95403
(707) 565-1900 FAX (707) 565-1103

April 16, 2010

State of CA Dept of Transportation
111 Grand Ave
Oakland CA 94623

Re: CPH09-0008; 1 County-wide, APN 000-000-001

To Whom It May Concern:

Your Coastal Permit with no hearing for repairs to Highway 1 to stabilize slip-out, erosion control, wall and safety railings, and drainage improvements on a 0.24 acre portion of CalTrans right-of-way has been approved subject to the attached Conditions of Approval. A Notice of Pending Action was mailed to each property owner within 300 feet of the proposed project and any comments were required to be submitted to the County within 15 days as per Section 26C-344(b). A Notice of Final Action will be sent to the California Coastal Commission on April 26, 2010, upon expiration of the local appeal period.

The Coastal Permit approval is based on a determination by the Permit and Resource Management Department that the project, as described in the revised application and as conditioned, conforms with the plans, policies, requirements and standards of the Sonoma County Coastal Program and the California Coastal Act. In addition, it is the determination of the department that the project is categorically exempt from the provisions of the California Environmental Quality Act pursuant to the Provisions of Title 14 of the California Administrative Code, Section 15061(b)(3).

The Coastal Permit shall be issued for the use as described on the application form, the proposal statement, the site plan submitted to this department and as modified by the Conditions of Approval. Any modifications of the use, expansion or alteration shall be submitted for review and approval by the Permit and Resource Management Department, Project Review Division, in advance of the proposed change and may, at the discretion of the department, require a new Coastal Permit with or without a public hearing.

This decision may be appealed to in writing, along with an appeal fee, within 10 (ten) calendar days of the date of this letter to the Sonoma County Board of Zoning Adjustments per Section 26C-347 of the Sonoma County Zoning Ordinance.

If you have any questions, feel free to contact me at (707) 565-1754 or at cdemidov@sonoma-county.org. Please refer to your file number (CPH09-0008) and site address when making inquiries.

Sincerely,

Cynthia Demidovich
Planner III

Enclosure

c: CPH09-0008

Revised Conditions of Approval

Date:	April 16, 2010	**File No.:**	CPH09-0008
Applicant:	State of CA Dept. of Transportation	**APN:**	000-000-001
Address:	1 County-wide		

Project Description: Request for a Coastal Permit with hearing for repairs to Highway 1 to stabilize slip-out, erosion control, wall and safety railings, and drainage improvements on a 0.24 acre portion of CalTrans right-of-way.

Prior to commencing the use, evidence must be submitted to the file that all of the following non-operational conditions have been met.

PLANNING:

"The conditions below have been satisfied" BY _____ DATE _____

1. This Coastal Permit allows for repairs to Highway 1 to stabilize slip-out, erosion control, wall and safety railings, and drainage improvements. The permitted hours of operation are during daylight hours as per the U.S. Fish and Wildlife Service Letter of Concurrence dated March 24, 2010, which is 7:00 a.m. to 7:30 p.m. from **May 15, 2011 to August 15, 2011.** The use shall be operated in accordance with the proposal statement, site plan, and application materials located in File# CPH09-0008 unless otherwise modified by these conditions.

2. Any proposed modification, alteration, and/or expansion of the use as described by the application submitted on August 6, 2009, and as authorized by this Coastal Permit shall require the prior review and approval of the PRMD or the Board of Zoning Adjustments, as appropriate. Such changes may require a new or modified Coastal Permit and additional environmental review.

3. The applicant shall use the construction materials as described in the Caltrans Visual Analysis dated May, 2009, prepared by Susan Burke and Art Yee.

4. The applicant shall meet all of the avoidance measures described in the U.S. Fish and Wildlife Service Letter of Concurrence dated March 24, 2010.

5. The project is within an area where species that may provide underground burrows as escape habitat, hibernacula, aestivation areas, or other purposes of retreat, Caltrans will, if feasible, completely encircle the project area with exclusionary fencing fitted with one-way exit holes and buried a few inches below ground level. This fencing will allow CRLFs to passively leave the project site while at the same time preventing them from re-entering the work zone. Exclusionary fencing will be installed at least three weeks prior to the implementation of the project and it will be checked frequently to ensure the fencing is intact and functioning properly. The fencing will be maintained, in place, throughout the duration of the project, to prevent species from reentering the project site until all work activities have ceased.

6. All utilities shall be placed underground.

7. All exterior light fixtures shall be shielded to prevent off-site light and glare. Exterior light fixtures shall not directly shine off the subject property.

8. All building, grading permits, and/or Caltrans Storm Damage Repair Project Plans shall have the following note printed on plan sheets:

   "In the event that archaeological resources such as pottery, arrowheads, midden or culturally modified soil deposits are discovered at any time during grading, scraping or excavation within the property, all work shall be halted in the vicinity of the find and County PRMD - Project Review staff

shall be notified and a qualified archaeologist shall be contacted immediately to make an evaluation of the find and report to PRMD. PRMD staff may consult and/or notify the appropriate tribal representative from tribes known to PRMD to have interests in the area. Artifacts associated with prehistoric sites include humanly modified stone, shell, bone or other cultural materials such as charcoal, ash and burned rock indicative of food procurement or processing activities. Prehistoric domestic resources include hearths, firepits, or house floor depressions whereas typical mortuary resources are represented by human skeletal remains. Historic artifacts potentially include all by-products of human land use greater than 50 years of age including trash pits older than fifty years of age. When contacted, a member of PRMD Project Review staff and the archaeologist shall visit the site to determine the extent of the resources and to develop and coordinate proper protection/mitigation measures required for the discovery. PRMD may refer the mitigation/protection plan to designated tribal representatives for review and comment. No work shall commence until a protection/mitigation plan is reviewed and approved by PRMD - Project Review staff. Mitigations may include avoidance, removal, preservation and/or recordation in accordance with California law. Archeological evaluation and mitigation shall be at the applicant's sole expense.

If human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and PRMD staff, County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and the appropriate provisions of the California Government Code and California Public Resources Code will be followed."

Mitigation Monitoring: Building/grading permits shall not be approved for issuance by Project Review staff until the above notes are printed on the building, grading and improvement plans.

9. At the time of submitting a building permit application, the applicant shall submit to the Permit and Resource Management Department a Condition Compliance Review fee deposit (amount to be determined consistent with the Ordinance in effect at the time). In addition, the applicant shall be responsible for payment of any additional compliance review fees that exceed the initial deposit (based upon hours of staff time worked) prior to final inspection being granted.

10. This permit shall be subject to revocation or modification by PRMD if (a) the department finds that there has been non-compliance with any of the conditions or (b) the department finds that the use for which this permit is here by granted constitutes a nuisance. Any such revocation shall be preceded by a public hearing noticed and heard pursuant to Section 26-92-120 and 26-92-140 of the Sonoma County Code.

In any case where a Coastal Permit has not been used within two (2) years after the date of granting thereof, or for such additional period as may be specified in the permit, such permit shall become automatically void and of no further effect provided, however, that upon written request by the applicant prior to the expiration of the two year period the permit approval may be extended for not more than one (1) year by the authority which granted the original permit pursuant to Section 26-92-130 of the Sonoma County Code.

From: Cynthia Demidovich
To: Weisman, Jeanette/BAO
Subject: RE: (CPH09-0008)FW: exclusionary frog fencing w/ 1 way exit holes (EA:3S8411)
Date: Wednesday, June 02, 2010 4:02:19 PM

Hi Jeanette,

I had an opportunity to meet with our staff biologist and discuss the use of the temporary reinforced silt fence rather than the required fence with on-way exit holes as describe below. We reviewed the Biological Assessment dated August 2009 and the conditions of approval dated April 16, 2010, and determined that the silt fence could be used rather than the fence with the one-way exit holes. I will note this change in the file as it relates to condition number three.

Cynthia

-----Original Message-----
From: Jeanette.Weisman@CH2M.com [mailto:Jeanette.Weisman@CH2M.com]
Sent: Friday, May 28, 2010 4:03 PM
To: Cynthia Demidovich
Cc: amy_sparks@dot.ca.gov; David Hardy
Subject: (CPH09-0008)FW: exclusionary frog fencing w/ 1 way exit holes (EA:3S8411)

Hi Cynthia,
I wanted to pass along the email below, from a Caltrans Water Quality professional, which explains why using a fence with one-way exit holes, in accordance with Sonoma County's conditions of approval (dated April 16, 2010), would be problematic at the proposed Cheney Gulch Storm Damage Repair Project site (CPH09-0008). Sally and several other specialists at Caltrans strongly recommend using temporary reinforced silt fence as wildlife exclusion, which is the fence originally selected for this project.

Caltrans respectfully requests a response on this issue by next Wed., June 2nd, in order to ensure the project can meet the specified delivery date and retain its funding. Please also clarify what hard-copy document constitutes the project's coastal development permit, which I understand was issued, or went into effect, May 12 2010 at the end of the California Coastal Commission's final appeal period. The last two documents we received from the county for this project are attached for your reference.

Thank you very much for your attention to this issue.

Regards,
Jeanette

Jeanette Weisman
Coastal Biologist
ch2m hill
155 Grand Avenue, Suite 1000. Oakland, CA 94612 Office Phone: 510/587-7724.
Cell: 510/219-2927.
Fax: 510/622-9124

-----Original Message-----
From: Sally Bang [mailto:sally_bang@dot.ca.gov]
Sent: Thursday, May 27, 2010 11:26 AM
To: Cheong-Yew Cheng
Cc: amy_sparks@dot.ca.gov; inderpal_gill@dot.ca.gov; Weisman, Jeanette/BAO; john_yeakel@dot.ca.gov; lilian_a_acorda@dot.ca.gov; nicholas_chan@dot.ca.gov;

nicole_rucker@dot.ca.gov; shawn_hallum@dot.ca.gov; virgilio_francisco@dot.ca.gov
Subject: RE: exclusionary frog fencing w/ 1 way exit holes (EA:3S8411)

Temporary Reinforced Silt Fence is the more appropriate option for this project. The detail and spec is a Caltrans standard although we will need to make a couple of very minor changes to some dimensions, getting the approval from HQ should be fast. If we can get approval for use from the County by next Wednesday there should be sufficient time to include by RTL 6/23/10. thus by passing the CCO, addendum etc...

Using Temporary Exclusionary fence is not preferable because the project is adjacent to a slope and will require silt fence installation at the toe of slope. If silt fence is installed adjacent to the exclusionary fence,
how will the frogs get through the exit holes? In addition the non
standard specs and details are currently in Metric. Spec and detail will need to be converted and then resubmitted for approval. This will obviously require more hours.

Sally Bang
Landscape Associate
Office of Water Quality
Branch of Erosion Control & Mitigation

From: Cynthia Demidovich
To: Weisman, Jeanette/BAO
Subject: RE: CPH09-0008_Exclusionary Fencing condition (5) FW: Cheney Gulch NLAA Letter Question
Date: Wednesday, June 02, 2010 4:04:29 PM

Jeanette,

Just a slight error the fencing relates to condition number five not number three.

Cynthia

-----Original Message-----
From: Jeanette.Weisman@CH2M.com [mailto:Jeanette.Weisman@CH2M.com]
Sent: Thursday, May 13, 2010 2:37 PM
To: Cynthia Demidovich
Cc: amy_sparks@dot.ca.gov; lilian_a_acorda@dot.ca.gov
Subject: CPH09-0008_Exclusionary Fencing condition (5) FW: Cheney Gulch NLAA Letter Question
Importance: High

Hi Cynthia,
I am contacting you on behalf of the California Department of Transportation (Caltrans) regarding their proposed Cheney Gulch Storm Damage Repair Project (CPH09-0008). Caltrans would like to address condition #5 of the County's Conditional Approval, which states:
"..Caltrans will, if feasible, completely encircle the project area with exclusionary fencing outfitted with one-way exit holes and buried a few inches below ground.."

Completely encircling the project area will not be feasible at this location as it would prohibit construction activity in the designated area, which needs to be accessible via the closed lane where the project is being staged. Caltrans proposes to install exclusion fencing made out of silt fence. Silt fencing is a water pollution control standard and could double as ESA fencing. USFWS has approved of this design, as evidenced in the email below. Choosing plywood fencing with one-way exit holes as the exclusionary fencing would mean eliminating the silt fencing from the project plans and is not expected to add substantive protection to the CRLF given the small project size, it's open configuration, and the limitation of construction activity to daylight hours within the dry season (May 15th-August 15th).

Please let us know if you find the proposed silt exclusionary fencing (without one-way exit holes and separating the project from undisturbed areas adjacent to it, as identified by ESA fencing in the project plans) is acceptable.

We greatly appreciate your attention and response to this inquiry.

Thank you,
Jeanette

----- Forwarded by John Yeakel/D04/Caltrans/CAGov on 05/13/2010 11:53 AM

John_Cleckler@fws.gov
05/13/2010 11:50 AM

To: Nicole Rucker <nicole_rucker@dot.ca.gov>
cc: Amy Sparks <amy_sparks@dot.ca.gov>, John Yeakel <john_yeakel@dot.ca.gov>, Ryan_Olah@fws.gov
Subject

CALIFORNIA COASTAL COMMISSION
NORTH CENTRAL COAST DISTRICT OFFICE
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
(415) 904-5260 FAX (415) 904-5400
www.coastal.ca.gov

NOTIFICATION OF APPEAL PERIOD

DATE: April 29, 2010

TO: Cynthia Demidovich, Planner
County of Sonoma, Permit and Resource Management Department -- Planning Division
2550 Ventura Avenue
Santa Rosa, CA 95403

FROM: Grace Ma, Coastal Program Analyst

RE: **Application No. 2-SON-09-170**

Please be advised that on April 28, 2010 our office received notice of local action on the coastal development permit described below:

Local Permit #: **CPH09-0008**

Applicant(s): **State Of California Department Of Transportation**

Description: **For storm damage repairs along Highway 1 to construct a soldier pile wall and safety railings, make drainage improvements, and provide erosion control on a 0.24 acre portion of a CalTrans right-of-way.**

Location: **State Route 1 ((SR 1), Post mile 7.6), Sonoma County (APN(s) 000-000-01)**

Unless an appeal is filed with the Coastal Commission, the action will become final at the end of the Commission appeal period. The appeal period will end at 5:00 PM on May 12, 2010.

Our office will notify you if an appeal is filed.

If you have any questions, please contact me at the address and telephone number shown above.

cc: State Of California Department Of Transportation

DEPARTMENT OF TRANSPORTATION
111 GRAND AVENUE
P. O. BOX 23660
OAKLAND, CA 94623-0660
PHONE (510) 286-5651
FAX (510) 286-6374
TTY (800) 735-2929

Flex your power!
Be energy efficient!

March 26, 2010

Ms. Cynthia Demidovich
Planner III
County of Sonoma
Permit and Resource Management Department
2550 Ventura Avenue
Santa Rosa, California 95403-2829

Dear Ms. Demidovich:

Enclosed, please find the Letter of Concurrence issued by U.S. Fish and Wildlife Service dated March 24th, 2010, for the proposed California Department of Transportation (Caltrans) Cheney Gulch Storm Damage Repair Project (CPH09-0008; SON 1, PM 7.6). The Letter of Concurrence covers affects on the California red-legged frog and deems that the project is not likely to adversely affect the species.

We appreciate your placing the Letter of Concurrence in the Cheney Gluch Coastal Development Permit (CDP) application and moving forward on the issuance of the CDP. We respectfully request that if possible the permit be issued by June 15, 2010 in order to meet the project delivery date.

Please contact Amy Sparks, Senior Environmental Planner, at 510-286-5506 or Jeanette Weisman at 510-587-7724 if you require any additional information regarding this project or the Section 7 consultation.

Sincerely,

Amy L. Sparks

for JEFFREY G. JENSEN
OFFICE CHIEF
Office of Biological Sciences and Permits

Attachments: 1) Letter of Concurrence

CC: Tami Grove, California Coastal Commission
Ruby Pap, California Coastal Commission

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish and Wildlife Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

In Reply Refer To:
81410-2009-I-1211-4

MAR 24 2010

Mr. James Richards
California Department Transportation
111 Grand Avenue
P.O. Box 23660
Oakland, California 94623-0660

Subject: Cheney Gulch Storm Damage Repair Project Postmile 7.55 on State Route 1, Sonoma County, California (Caltrans EA 3S841)

Dear Mr. Richards:

This letter is in response to the California Department of Transportation (Caltrans) August 17, 2009, request for formal consultation with the U.S. Fish and Wildlife Service (Service) on the Cheney Gulch Storm Damage Repair Project, on State Route 1, adjacent to Cheney Gulch in Sonoma County, California. At issue are effects to the threatened California red-legged frog (*Rana draytonii*), the threatened Myrtle's silverspot (*Speyeria zerene myrtleae*), the threatened yellow larkspur (*Delphinium luteum*) and critical habitat for the yellow larkspur. The Caltrans letter was received by our office on August 25, 2009. This response is in accordance with Section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)(Act).

In the August 17, 2009, letter, Caltrans requested formal section 7 consultation on the project effects to the California red-legged frog despite their determination that the proposed project was not likely to adversely affect the listed amphibian. Caltrans clarified in a November 24, 2009, letter to the Service that they initiated formal consultation in order "to ensure the 135-day time period for completing consultation would begin." Under section 7, not likely to adversely affect determinations result in informal consultations.

This letter is based on: (1) August 2009 Biological Assessment; (2) a September 8, 2009 site visit; (3) a May 15, 2007, habitat assessment report for the Myrtle's silverspot butterfly; (4) a November 24, 2009, letter from Caltrans in response to a October 6, 2009, Service request for additional information (Service file: 814210-2009-TA-1211-1); (5) a December 3, 2009, letter from the Service to Caltrans (Service file: 814210-2009-I-1211-2); (6) information received on March 3, 2010, regarding potential effects to critical habitat for the yellow larkspur in response to

a January 7, 2010, Service request for additional information (Service file: 81420-2009-I-1211-3); and (7) other information available to the Service.

Caltrans has determined that the proposed action will have no effect on the Myrtle's silverspot based on negative survey results conducted for its host plant, western dog violet (*Viola adunca*), and a habitat assessment conducted by Dr. Richard A. Arnold. They also have determined the proposed action will have no effect on the yellow larkspur due to negative survey results and that it will result in no adverse modification to critical habitat for this listed plant. Caltrans has inferred presence of the California red-legged frog within Cheney Gulch but have determined that the propose action is not likely to adversely affect the species based on their proposed avoidance measures and other factors.

The purpose of the project is to construct a retaining wall and improve drainage facilities along State Route 1 at PM 7.55 within Cheney Gulch. Caltrans plans to construct a 103.4-foot-long cast-in-place soldier pile wall on the embankment of the southbound shoulder, approximately four feet from the edge of the roadway. The face of the 12-foot high wall will be comprised of horizontal wooden boards supported between vertical steel I-beam soldier piles. A 15-foot-wide earthen bench will be located at the foot of the wall to allow water that accumulates behind the wall to dissipate and stabilize the embankment. Approximately 275 feet of steel guard rail will also be installed to extend in both directions beyond the ends of the new wall. The local road shoulders will be expanded from one to two feet wide to a four foot width on both sides of the road. The local drainage system improvements will include the installation of a 145-foot asphalt concrete V-ditch; an under-drain along the northbound shoulder; and the replacement the 18-inch cross-culvert under the roadway with a 24-inch culvert. The cross-culvert will be extended to match the existing down drain on the Cheney Gulch embankment.

Heavy equipment used in the wall construction will be staged from the existing roadway with temporary K-rail installed at the centerline to promote safety and through traffic access. Excavators and bulldozers will be used to dig and remove soil for the wall installation. Trucks will be utilized for hauling material into and out of the work zone. Drilling equipment will be necessary to drill the vertical holes for the soldier piles. A crane, grade-all, or boom truck will lift and load the pilings vertically. Pavement cutting saws or rock wheels will excavate the pavement for drainage improvements. All equipment will be stored within the existing road right-of-way.

All construction activities are scheduled to occur between May 15 and August 15, 2010. Caltrans estimates 60 working days to complete the proposed project. Work will be completed in two phases with one lane open to one-way traffic control. The northern section of the culvert replacement, shoulder widening, and other drainage improvements will be constructed in Phase One. Construction of the soldier pile wall, culvert replacement on the southbound section and related drainage items, and the southbound shoulder widening will be performed in Phase Two.

The following avoidance measures were provided by Caltrans as part of this project with minor modifications for reasons of clarity and accuracy provided by the Service:

1. Construction activities will occur between May 15 and August 15 during daylight hours.

2. A Service-approved biological monitor will be designated for construction phase activities. The qualifications of the monitor(s) will be presented to the Service for review and written approval prior to ground-breaking at the project site. The monitors will not be approved to capture or handle listed species.

3. The Service-approved biological monitor(s) will be given the authority to communicate verbally or by telephone, email message or hardcopy with Caltrans personnel, construction personnel or any other person(s) at the project site or otherwise associated with the project. The Service-approved biological monitor(s) will have oversight over implementation of all the avoidance measures in this letter, and shall have the direct authority to stop project activities if any of the requirements associated with these Terms and Conditions are not being fulfilled. If the Service-approved biologist(s) exercises this authority, the Service shall be notified by telephone and electronic mail within 24 hours. The Service contact is Chris Nagano, Division Chief, Endangered Species Program, Sacramento Fish and Wildlife Office at Chris_Nagano@fws.gov and (916) 414-6600.

4. The approved biological monitor(s) will be on-site during all initial ground-breaking activities and will then visit the site for compliance review at least once a week until the project is completed.

5. The approved biologist(s) will coordinate through the Resident Engineer, to stop any work that may result in take of a listed species. If work is stopped due to a federal listed species issue, the biologist(s) will notify the Service by telephone and electronic mail within 24 hours. The Service contact is Chris Nagano, Division Chief, Endangered Species Program, Sacramento Fish and Wildlife Office at (916) 414-6600 or by an email message at Chris_Nagano@fws.gov.

6. The Resident Engineer or their designee will be responsible for implementing the avoidance measures and will be the point of contact for the project. The Resident Engineer or their designee will maintain a copy of this letter onsite whenever construction is taking place. Their name and telephone number will be provided to the Service at least thirty (30) calendar days prior to groundbreaking at the project. Prior to ground breaking, the Resident Engineer will submit a letter to the Service verifying that they posses a copy of this letter and understand the avoidance measures.

7 The Resident Engineer will halt work and immediately contact the Service-approved project biologist(s) and the Service in the event that a California red-legged frog is observed in the project area. The Resident Engineer will suspend all construction activities and contact the Service in no more than one (1) working day as described in Avoidance Measure 5. Caltrans will avoid contact with the frog and allow it to move out of the action area and danger on its own to a safe location. Should the frog be injured, dead, or immovable, construction activities will cease until Caltrans has completed formal section 7 consultation for the California red–legged frog and has been given approval by the Service to resume activities.

8. The approved biological monitor(s) will perform a clearance survey immediately prior to the initial ground disturbance. Safety permitting, the monitor(s) will investigate areas of disturbed soil for signs of listed species within 30 minutes following the initial disturbance of that given area. If any sign of a federal listed species is discovered, all activities will be halted as stated in Avoidance Measure 7

9. All construction personnel will attend a Worker Environmental Awareness Training Program prior to their involvement in work activities. The program shall focus on the avoidance measures that are relevant to the employee's personal responsibility. Distributed materials will include wallet-sized cards with a distinctive photograph of the California red-legged frog, compliance reminders, and relevant contact information. An outline of the program will be submitted to Chris Nagano, Division Chief, Endangered Species Program within twenty (20) working days prior to the initial onset of construction activities. As needed, training will be conducted in Spanish for Spanish language speakers. Documentation of the training, including individual signed affidavits, will be kept on file and available on request.

10. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.

11 Project-related vehicle traffic will be restricted to established roads, construction areas, and other designated areas.

12. Project-related vehicles will observe a 20-mile per hour speed limit within the action area.

13. Dust control measures will include: regular truck watering of construction access areas and disturbed soil areas with the use of organic soil stabilizers to minimize airborne dust and soil particles generated from graded areas. Regular truck watering will be a requirement of the construction contract. In addition, for disturbed soil areas, an organic tackifier to control dust emissions blowing off of the right-of-way or out of the construction area during construction will be included in the contract special provisions. Watering guidelines will be established to avoid any excessive run-off that may flow into contiguous areas. Any material stockpiles will be watered, sprayed with tackifier or covered, to minimize dust production and wind erosion.

14. To eliminate an attraction to predators of the California tiger salamander, all food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in closed containers and removed at least once a day from the action area. This measure will be implemented through contractors and subcontractors as part of the Caltrans standard best management practices (BMP).

15. No firearms will be allowed in the action area except for those carried by authorized security personnel, or local, state, or federal law enforcement officials.

16. No canine or feline pets will be permitted in the action area.

17 Use of rodenticides and herbicides in the action area will be used in such a manner to prevent primary or secondary poisoning of a California red-legged frog and the depletion of resources on which they depend. All uses of such compounds will observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other appropriate State and Federal regulations, as well as additional project-related restrictions deemed necessary by the Service or the California Department of Fish and Game. This measure will be implemented through contractors and subcontractors as part of the Caltrans standard BMPs.

18. Dedicated fueling areas will be protected from storm water run-on and run-off and will be located at least 50 feet from downslope drainage facilities and water courses. Fueling must be performed on level-grade areas. On-site fueling will only be used where it is impractical to send vehicles and equipment off-site for fueling. When fueling must occur on-site, the contractor will designate an area to be used subject to the approval of the Caltrans Resident Engineer. Drip pans or absorbent pads will be used during on-site vehicle and equipment fueling. This measure will be implemented through contractors and subcontractors as part of the Caltrans standard BMPs.

19. The limits of the construction zones will be delineated with high visibility temporary fencing at least four feet in height, flagging, or other barrier to prevent encroachment of construction personnel and equipment onto sensitive areas during construction activities. The fencing will be removed only when all construction equipment is removed from the site. Activities within the action area will be limited to vehicle and equipment operation on existing roads. No project activities will occur outside the delineated project construction area.

20. Frog exclusionary fencing will be installed around the work area on the southbound side of State Route 1. Project activities will not begin until the Service has approved the fencing design and installation method.

21. If requested, before, during, or upon completion of ground breaking and construction activities, Caltrans will allow access by Service personnel to the action area to inspect the project. Caltrans requests that all agency representatives contact the Resident Engineer prior to accessing the work site and review and sign the Safe Work Code of Practices, prior to accessing the work site for the first time.

22. Erosion control measures, such as coir netting, fiber rolls, and revegetation of disturbed areas, will be implemented to prevent potential water quality impacts caused by soil movement or construction materials.

23. Plastic mono-filament netting (erosion control matting) or similar material will not be used at the project site. Acceptable substitutes include coconut coir matting or tackified hydroseeding compounds.

24. A biological monitor will inspect the project site within one week prior to a forecasted rain event to ensure that the adequate stormwater BMPs are properly installed. The biological monitor will also inspect the site during and/or within two (2) calendar days following the onset of the rain event to ensure that the stormwater BMPs are adequate in avoiding adverse effects to California red-legged frogs and their habitat.

25. The following will be implemented for staging, storage sites, vehicle parking, and access associated with the project:

    a. Contractors may independently seek off-site staging locations. Offsite staging locations will be subject to the requirements of resource agencies and permits will be the responsibility of the contractor.

    b. If a staging, storage, access, or vehicle parking area that is in compliance with the Act is not available, the agency with jurisdiction and the contractor would be responsible for compliance with the Act.

26. Caltrans will include a copy of this letter within its solicitations for design and construction of the proposed project making the primary contractor responsible for implementing the avoidance measures, and to educate and inform all other contractors involved in the project as to the requirements of the measures.

27 Caltrans shall submit a post-construction compliance report prepared by the on-site biologist to the Sacramento Fish and Wildlife Office within sixty (60) calendar days following completion of construction. This report shall detail (i) dates that construction occurred; (ii) pertinent information concerning the success of the project in meeting the proposed avoidance measures; (iii) an explanation of failure to meet such measures, if any; (iv) known project effects on the California tiger salamander, if any; (v) documentation of employee environmental education; and (vi) other pertinent information. The report will be addressed to the Coast-Bay Branch Chief of the Endangered Species Program, Sacramento Fish and Wildlife Office.

The Service concurs that the proposed project is not likely to adversely affect the California red-legged frog. Please note that this letter does not authorize incidental take of the California red-legged frog, the endangered Myrtle's silverspot butterfly, or any other listed species, including, but not limited to, capture, harassment, harm, injury, and death.

Therefore, unless new information reveals effects of the project that may affect federally listed species or critical habitat in a manner not identified to date, or if a new species is listed or critical habitat is designated that may be affected by the proposed action, no further action pursuant to the Act is necessary.

If you have questions concerning this response on the proposed Cheney Gulch Storm Damage Repair Project, please contact John Cleckler (John_Cleckler@fws.gov) or Ryan Olah (Ryan_Olah@fws.gov) at the letterhead address or (916) 414-6500.

Sincerely,

for Cay C. Goude
Assistant Field Supervisor

cc:
Scott Wilson, Melissa Escaron, California Department of Fish and Game, Yountville, California