

FOR CONTRACT NO.: 01-476404

INFORMATION HANDOUT

WATER QUALITY

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION**

PERMITS

**UNITED STATES ARMY CORPS OF ENGINEERS
NON-REPORTING NATIONWIDE 404 PERMIT**

MATERIALS INFORMATION

NATURALLY OCCURRING ASBESTOS SURVEY REPORT

ROUTE: 01-Men-162-20.0/21.2



**California Regional Water Quality Control Board
North Coast Region
Bob Anderson, Chairman**



Linda S. Adams
Secretary for
Environmental Protection

www.waterboards.ca.gov/northcoast
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403
Phone: (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135

Arnold
Schwarzenegger
Governor

September 21, 2009

In the Matter of

Water Quality Certification

for the

**California Department of Transportation
Highway 162 – Storm Damage Repair Project, Culvert 1 & 4:
WDID No. 1B09084WNME**

APPLICANT: California Department of Transportation
RECEIVING WATER: Ephemeral tributaries to the Eel River
HYDROLOGIC AREA: Eel River Hydrologic Unit No.111.00
Eden Valley Hydrologic Sub-Area No. 111.71.
COUNTY: Mendocino
FILE NAME: CDOT - Hwy 162, Storm Damage Repair, Culvert 1 & 4

BY THE EXECUTIVE OFFICER:

1. On July 13, 2009, the North Coast Regional Water Quality Control Board (Regional Water Board) received an application and \$640.00 fee from the California Department of Transportation (Caltrans), requesting Federal Clean Water Act (CWA), section 401, Water Quality Certification for activities related to the proposed Highway 162, Storm Damage Repair Project, Culvert 1 & 4 (project). The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on July 29, 2009, and posted information describing the project on the Regional Water Board's website. No comments were received.
2. The proposed project is located on Highway 162 from post mile (PM) 19.75 to 21.5, in Mendocino County. The purpose of the proposed project is to repair five storm locations along the highway that were damaged subsequent to saturation from heavy rains, including two culverts located at PM 20.05 and PM 20.70. The proposed project will result in temporary and permanent impacts to waters of the U.S and waters of the State. Caltrans proposes to replace culverts, install underdrains,

California Environmental Protection Agency

Recycled Paper

and reconstruct the roadway with Geosynthetic Reinforced Embankment. Caltrans will utilize Best Management Practices (BMPs) to provide erosion control and pollution prevention throughout the project area during construction.

3. Caltrans has determined those temporary impacts to waters of the U.S. and State would total 652 feet² (147 linear feet). However, only approximately 380 feet² (20 linear feet) of ephemeral channel will be permanently impacted by the extension of an existing culvert and flared end section. All graded areas within the project affected by the construction activities will be appropriately stabilized and/or replanted with appropriate native vegetation.
4. Caltrans has applied for authorization from the U.S. Army Corps of Engineers to perform the project under their Nationwide Permits No. 14 (linear transportation projects) pursuant to Clean Water Act, section 404. Caltrans has determined that this project is categorically exempt from California Environmental Quality Act (CEQA) review (Class 1 Categorical Exemption). In addition, Regional Water Board staff also determined that this project is categorically exempt from CEQA review (Class 1 Categorical Exemption) and anticipates filing a Notice of Exemption. The proposed project activity is scheduled to be conducted between in the summer of 2010, and all project activities will only be performed between May 15 and October 15.

Receiving Water: Ephemeral tributaries to the Eel River
Eel River Hydrologic Unit No.111.00
Eden Valley Hydrologic Sub-Area No. 111.71.

Filled or Excavated Area: Permanent impacts: 380 feet² of new permanent impacts
Temporary impacts: 652 feet² of temporary construction impacts

Total Linear Impact: Permanent impacts: 20 linear feet of new permanent impacts
Temporary impacts: 147 linear feet of temporary construction impacts

Dredge Volume : None

Latitude/Longitude: 39.7170 N/123.2930 W and 39.7152 N/123.2814 W

Expiration: September 21, 2014

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE REGIONAL WATER BOARD CERTIFIES THAT THE CALTRANS – HIGHWAY 162 – STORM DAMGE REPAIR PROJECT, CULVERT 1 & 4, WDID NO. 1B09084WNME, AS DESCRIBED IN THE APPLICATION WILL COMPLY WITH SECTIONS 301, 302, 303, 306 AND 307 OF THE CLEAN WATER ACT, AND WITH APPLICABLE PROVISIONS

OF STATE LAW, PROVIDED THAT CALTRANS COMPLIES WITH THE FOLLOWING TERMS AND CONDITIONS:

1. This certification action is subject to modification or revocation upon administrative or judicial review; including review and amendment pursuant to Water Code section 13330 and title 23, California Code of Regulations, section 3867.
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 title 23, California Code of Regulations, section 3855, subdivision (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 nondenial certification action (actions 1 and 2) shall be conditioned upon total payment of the full fee required under title 23, California Code of Regulations, section 3833, unless otherwise stated in writing by the certifying agency.
4. The Regional Water Board shall be notified in writing each year at least five working days (working days are Monday – Friday) prior to the commencement of ground disturbing activities, with details regarding the construction schedule, in order to allow staff to be present onsite during installation and removal activities, and to answer any public inquiries that may arise regarding the project.
5. Except as may be modified by any preceding conditions, all certification actions are contingent on: a) the discharge being limited and all proposed revegetation being completed in strict compliance with the Applicant's project description, and b) compliance with all applicable requirements of the Basin Plan.
6. Caltrans shall construct the project in accordance with the project described in the application and the findings above, and shall comply with all applicable water quality standards.
7. Any change in the implementation of the project that would have a significant or material effect on the findings, conclusions, or conditions of this Order must be submitted to the Executive Officer of the Regional Water Board for prior review and written approval.
8. Caltrans shall provide Regional Water Board staff access to the project site to document compliance with this order.
9. Caltrans shall provide a copy of this order and attachments to the contractor and all subcontractors conducting the work, and require that copies remain in their

possession at the work site. Caltrans shall be responsible for work conducted by its contractor or subcontractors.

10. All activities and BMPs shall be implemented according to the submitted application and the conditions in this certification.
11. All conditions required by this Order shall be included in the Plans and Specifications prepared by Caltrans for the Contractor. In addition, Caltrans shall require compliance with all conditions included in this Order in the bid contract for this project.
12. The Resident Engineer shall hold on-site water quality permit compliance meetings (similar to tailgate safety meetings) to discuss permit compliance, including instructions on how to avoid violations and procedures for reporting violations. The meetings shall be held at least every other week, and particularly before forecasted storm events and when a new contractor or subcontractor arrives to begin work at the site. The contractors, subcontractors and their employees, as well as any inspectors or biological monitors assigned to the project, shall be present at the meetings. Caltrans shall maintain dated sign-in sheets for attendees at these meetings, and shall make them available to the Regional Water Board on request.
13. If, at any time, an unauthorized discharge to surface water (including wetlands, rivers or streams) occurs, or any water quality problem arises, the associated project activities shall cease immediately until adequate BMPs are implemented. The Regional Water Board shall be notified promptly and in no case more than 24 hours after the unauthorized discharge or water quality problem arises.
14. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or concrete washings, welding slag, oil or petroleum products, or other organic or earthen material from any construction or associated activity of whatever nature, other than that authorized by this Order, shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the State.
15. Water which has come into contact with wet concrete during construction shall be captured and disposed of in appropriate locations at least 100 linear feet beyond waters of the State. No excess concrete or concrete washings shall be allowed to contact waters of the State. In addition, all concrete contact water disposal locations as well as concrete washout basins shall have adequate BMPs in accordance with the Caltrans Construction Site Best Management Practices Manual (CCSBMPM).
16. All materials used for cleaning concrete from tools and equipment, and any wastes generated by this activity, shall be adequately contained to prevent contact with soil and surface water and shall be disposed of properly within a clearly designated area at least 100 linear feet beyond waters of the State

17. When operations are complete, any excess material or debris shall be removed from the work area and disposed of properly and in accordance with the Special Provisions for the project and/or Standard Specification 7-1.13, Disposal of Material Outside the Highway Right of Way. Caltrans shall submit to the Regional Water Board the satisfactory evidence provided to the Caltrans engineer by the Contractor referenced in Standard Specification 7-1.13.
18. Work in flowing or standing surface waters, unless otherwise proposed in the project description and approved by the Regional Water Board, is prohibited. If construction dewatering of groundwater is found to be necessary, Caltrans shall use a method of water disposal other than disposal to surface waters (such as land disposal) or Caltrans shall apply for coverage under the Low Threat Discharge Permit or an individual National Pollutant Discharge Elimination System (NPDES) Permit and receive notification of coverage to discharge to surface waters, prior to the discharge.
19. Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall be outside of waters of the United States and the State. Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall not result in a discharge or a threatened discharge to any waters of the State or the United States. At no time shall the Applicant use any vehicle or equipment which leaks any substance that may impact water quality.
20. BMPs for erosion, sediment and turbidity control shall be implemented and in place at commencement of, during and after any ground clearing activities, construction activities, or any other project activities that could result in erosion or sediment discharges to surface water. The BMPs shall be implemented in accordance with the CCSBMPPM and all contractors and subcontractors shall comply with the CCSBMPPM.
21. Caltrans shall take photos of all areas disturbed by project activities, including all excess materials disposal areas, after rainfall events that generate visible runoff from these areas in order to demonstrate that erosion control and revegetation measures have been successful. A brief report containing these photos shall be submitted within 60 days of the rainfall event that generated runoff from the disturbed areas. In addition, Caltrans shall provide photos of the completed work to the appropriate Regional Water Board staff person, in order to document compliance.
22. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process or sanctions as provided for under applicable state or federal law. For the purposes of section 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 Order. In response to a suspected violation of any condition of this certification, the State Water Board may require the holder of any federal permit or license subject to this Order to furnish, under penalty of perjury, any technical or monitoring reports the State Water Board deems appropriate, provided that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In response to any violation of the conditions of this Order, the Regional Water Board may add to or modify the conditions of this Order as appropriate to ensure compliance.

23. The Regional Water Board may add to or modify the conditions of this Order, as appropriate, to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.
24. The Middle Fork Eel River watershed is listed on the State of California Clean Water Act Section 303(d) list as impaired for sediment and temperature. Given that roads are a responsible source of sediment in the watershed (directly, from surface erosion, and, indirectly, by triggering landslides) a good first step can be made by focusing on reducing sediment from roads in the watershed. Reducing road-related sediment should be made a high priority. In addition, activities that impact the riparian zone and riparian vegetation are identified as sources contributing to increased stream temperatures. At present, there are no watershed-specific implementation plans for this TMDL. If a TMDL implementation plan is adopted prior to the expiration date of this Order, the Regional Water Board may revise the provisions of this Order to address actions identified in such action plan.
25. This Order is not transferable. In the event of any change in control of ownership of land presently owned or controlled by the Applicant, the Applicant shall notify the successor-in-interest of the existence of this Order by letter and shall forward a copy of the letter to the Regional Water Board. The successor-in-interest must send to the Regional Water Board Executive Officer a written request for transfer of this Order to discharge dredged or fill material under this Order. The request must contain the following:
 - a. requesting entity's full legal name
 - b. the state of incorporation, if a corporation
 - c. address and phone number of contact person
 - d. description of any changes to the project or confirmation that the successor-in-interest intends to implement the project as described in this Order.
26. The authorization of this certification for any dredge and fill activities expires on September 21, 2014. Conditions and monitoring requirements outlined in this Order are not subject to the expiration date outlined above, and remain in full effect and are enforceable.

27. Please contact Jeremiah Puget of our staff at (707) 576-2835 or jpuget@waterboards.ca.gov if you have any questions.


Catherine Kuhlman
Executive Officer

090921_JJP_CDOT_Hwy162_StormDamageCulverts_401cert

Web link: State Water Resources Control Board Order No. 2003-0017 -DWQ, General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification can be found at:
http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0017.pdf

Original sent to: Ms. Sandra Rosas, Caltrans, P.O. Box 911, Marysville, CA 95901

Copies sent to: Ms. Jane Hicks, U.S. Army Corps of Engineers, Regulatory Functions, 1455 Market Street, San Francisco, CA 94103-1398

U.S. Army Corps of Engineers, District Engineer,
601 Startare Drive, Box 14, Eureka, CA 95501

Ms. Allison Kunz, Caltrans, P.O. Box 911, Marysville, CA 95901

Non-reporting Nationwide Permit 14

U.S. Army Corp of Engineers South Pacific Division



Nationwide Permit Pre-Construction Notification (PCN) Form

This form integrates requirements of the Nationwide Permit Program within SPD, including General and Regional Conditions. Please consult instructions prior to completing this form.

Box 1 Project Name Mendocino-162 PM 19.75/21.50-State Route 162 Storm Damage Project		Applicant Name Frank Demling	
Applicant Title Project Manager		Applicant Company, Agency, etc. California Department of Transportation	
Mailing Address 1656 Union Street Eureka, CA 95501		Applicant's internal tracking number (if any) EA 01-47640	
Work Phone with area code (707) 445-6554	Home Phone with area code	Fax # (707) 445-5385	E-mail Address Frank_Demling@dot.ca.gov
Relationship of applicant to property: <input type="checkbox"/> Owner <input type="checkbox"/> Purchaser <input type="checkbox"/> Lessee <input checked="" type="checkbox"/> Other: Caltrans Project Manager			
Application is hereby made for verification that subject regulated activities associated with subject project qualify for authorization under a Corps nationwide permit or permits as described herein. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities. I hereby grant to the agency to which this application is made, the right to enter the above-described location to inspect the proposed, in-progress or completed work. I agree to start work <u>only</u> after all necessary permits have been received.			
Signature of applicant 		Date (m/d/yyyy) SEPTEMBER 29, 2009	
Box 2 Authorized Agent/Operator Name and Signature (If an agent is acting for the applicant during the permit process) Allison Kunz			
Agent/Operator Title Project Biologist		Agent/Operator Company, Agency, etc. California Department of Transportation	
Mailing Address 703 B Street (Mail - P.O. Box 911), Marysville, CA 95901			
E-mail Address allison_kunz@dot.ca.gov			
Work Phone with area code (530) 741-4103	Home Phone with area code	Fax # (530) 741-4457	Cell Phone #
I hereby authorize the above named authorized agent to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application. I understand that I am bound by the actions of my agent and I understand that if a federal or state permit is issued, I, or my agent, must sign the permit.			
Signature of applicant 		Date (m/d/yyyy) 9/29/2009	
I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief, such information is true, complete, and accurate.			

Signature of authorized agent <i>Allison Kunz</i>	Date (m/d/yyyy) <i>9/29/2009</i>
--	--

Box 3 Name of property owners(s), if other than applicant: <i>All work will be done within Caltrans right-of-way.</i>	
Owner Title	Owner Company, Agency etc.
Mailing Address	
Work Phone	Home Phone

Box 4 Name of contractor(s) (if known): <i>The contractor is unknown at this time.</i>	
Contractor Title	Contractor Company, Agency, etc.
Mailing Address	
Work Phone	Home Phone

Include multiple copies of Box 5 for separate sites.

Box 5 Site Number <u>1</u> of <u>1</u> . Project location(s), including street address, city, county, state, zip code where proposed activity will occur: <i>State Route (SR) 162, Highway Post Mile 19.75/21.50, approximately 3.5 miles east of the town of Dos Rios, in Mendocino County.</i>	
Waterbody (if known, otherwise enter "an unnamed tributary to"): <i>unnamed tributary to</i> Tributary to what known, downstream waterbody: <i>Eel River</i>	
Latitude & longitude (D/M/S, DD, or UTM): <i>Culvert 1 - 39.7170804, -123.2930779</i> <i>Culvert 4 - 39.7152866, -123.2814736</i>	Zoning Designation (no codes or abbreviations):
Assessors parcel number: <i>All work will be done within Caltrans right-of-way.</i>	Section, Township, Range: <i>Township 21/22N, Range 13W, Sections 1, 2, 3, 34, and 35.</i>
USGS Quad map name: <i>Dos Rios</i>	
Watershed and other location descriptions, if known: <i>Eel River Hydrologic Unit No. 111.00, Eden Valley Hydrologic Sub-Area No. 111.71.</i>	
Directions to the project location: <i>From San Francisco: U. S. 101 north to State Route 162. From State Route 162 starting at Post Mile (PM) 19.75.</i>	
Nature of Activity (Description of project, include all features, see instructions): <i>The California Department of Transportation is proposing a project to repair five storm-damaged locations along State Route 162 from Post Mile (PM) 19.75 to 21.5 in Mendocino County. The roadway at these locations has previously failed due to saturation from heavy rain. The purpose of this project is to repair and prolong the life of the roadway. This is a two-lane highway between Dos Rios and Covelo. All work will be done within Caltrans right-of-way.</i>	

The locations to be repaired by this project are:

- PM 20.05: This location will receive a structural section rebuild, new drainage inlet with culvert replacement, and an underdrain.
- PM 20.70: This location will receive a Geosynthetic Reinforced Embankment (GRE), new drainage inlet with culvert replacement, and an underdrain.
- PM 20.78: This location will receive a GRE and an underdrain.
- PM 20.88: This location will receive a GRE and an underdrain.
- PM 21.12: This location will receive a structural section rebuild and an underdrain.

The drainage work includes replacing the drainage inlets and culverts at two (2) locations (PM 20.05 and PM 20.70). The culvert diameters will not be increased and rock slope protection will not be added.

The GRE is constructed using native soil compacted between geosynthetic fabric. The two additional locations will receive a structural section rebuild. The structural section will be rebuilt based on the Caltrans Materials Recommendation. Additionally, to reduce moisture seepage causing the roadway slipouts, underdrains will be installed along the ditch at each location.

Construction of the project is currently scheduled to begin in Summer 2010, and be complete by Fall 2010. The project is expected to take 60 days to complete. In-water work (work below the ordinary high water mark of the unnamed seasonal tributary) will be restricted to the dry/low flow season (May 15 to October 15).

Project Purpose (Describe the reason or purpose of the project, see instructions):

The purpose of this project is to repair and prolong the life of the roadway.

Use Box 6 if dredged and/or fill material is to be discharged:

Box 6 Reason(s) for Discharge into waters of the United States:

Caltrans is proposing a project to repair five storm-damaged locations along State Route 162 from Post Mile (PM) 19.75 to 21.5 in Mendocino County. The purpose and objective of the project is to repair and upgrade the roadway and culverts to protect the roadway from erosion related structural failures.

Type(s) of material being discharged and the amount of each type in cubic yards:

For the 2 drainage culverts: PM 20.05 – 0 cubic yard, PM 20.70 – less than 1 cubic yard of APC for the culvert extension.

Total surface area in acres of wetlands or other waters of the U.S. filled (see instructions):

0.0087 acres of other waters of the U. S. will be filled by the extension of the culvert.

Indicate in ACRES and LINEAR FEET (where appropriate) the proposed impacts to **waters of the United States**, and identify the impact(s) as permanent and/or temporary for each water body type listed below:

Water Body Type	Permanent		Temporary	
	Acres	Linear Feet	Acres	Linear Feet
Wetland				
Riparian streambed				
Unveg. Streambed	0.0087	20	0.015	147
Lake				
Ocean				
Other				
Total:	0.0087	20	0.015	147

Potential indirect and/or cumulative impacts of proposed discharge *(if any)*:

A potential indirect impact to waters of the U. S. associated with the project could include a temporary degradation of water quality. In order to avoid potential impacts to water quality, erosion control and soil stabilization measures will be implemented in accordance with Caltrans' Best Management Practices (BMPs). These BMPs could include, but are not limited to, the use of silt fences, fiber rolls, and the application of fiber matrix on unfinished slopes. Disturbed soils will also be treated with an erosion control seed mixture.

To protect water quality, in-water work (work below the ordinary high water mark of the unnamed seasonal tributary) will be restricted to the dry/low flow season (May 15 to October 15).

Required drawings (see instructions):

Vicinity map: Attached (or mail copy separately if applying electronically)

To-scale Plan view drawing(s): Attached (or mail copy separately if applying electronically)

To-scale elevation and/or Cross Section drawing(s): Attached (or mail copy separately if applying electronically)

Has a wetland/waters of the U.S. delineation been completed?

Yes, Attached (or mail copy separately if applying electronically) No

If a delineation has been completed, has it been verified in writing by the Corps?

Yes, Date of approved jurisdictional determination (m/d/yyyy): _____ Corps file number: _____ No

Please attach¹ one or more color photographs of the existing conditions (aerials if possible).

¹or mail copy separately if applying electronically

Project photographs are attached.

Dredge Volume: Indicate in CUBIC YARDS the quantity of material to be dredged or used as fill:

Not applicable – the project will not place dredged material in waters of the U. S.

Indicate type(s) of material proposed to be discharged in waters of the United States:

Not applicable – the project will not place dredged material in waters of the U. S.

For proposed discharges of dredged material into waters of the U.S. (including beach nourishment), please attach² a proposed Sampling and Analysis Plan (SAP) prepared according to Inland Testing Manual (ITM) guidelines (including Tier I information, if available).

²or mail copy separately if applying electronically

Is any portion of the work already complete? YES NO

If yes, describe the work:

Not applicable

Box 7 Intended NWP permit number³: 14 (Linear Transportation Projects) – non-reporting

Intended NWP permit number (2nd):

Intended NWP permit number (3rd):

³Enter the intended permit type(s). See NWP regulations for permit types and qualification information (http://www.usace.army.mil/inet/functions/cw/cecwo/reg/nationwide_permits.htm).

Box 8 Authority:

Is Section 10 of the Rivers and Harbors Act applicable?: YES NO

Is Section 404 of the Clean Water Act applicable?: YES NO

Box 9 Is the discharge of fill or dredged material for which Section 10/404 authorization is sought part of a larger plan of development?: YES NO

If discharge of fill or dredged material is part of development, name and proposed schedule for that larger development (start-up, duration, and completion dates):

Not applicable

Location of larger development (If discharge of fill or dredged material is part of a plan of development, a map of suitable quality and detail of the entire project site should be included):

Not applicable

Total: area in acres of entire project area (including larger plan of development, where applicable):

1.25 acres

Box 10 Threatened or Endangered Species

Please list any federally-listed (or proposed) threatened or endangered species or critical habitat within the project area (use scientific names (e.g., Genus species), if known):

a. None. Please see the Natural Environment Study for information regarding species considered during studies for this project.

b.

c.

d.

e.

f.

Have surveys, using U.S. Fish and Wildlife Service/NOAA Fisheries protocols, been conducted?

Yes, Report attached (or mail copy separately if applying electronically) No

If a federal-listed species would be impacted, please provide a description and a biological evaluation.

Yes, Report attached (or mail copy separately if applying electronically) Not attached

Has the USFWS/NOAA Fisheries issued a Biological Opinion?

Yes, Attached (or mail copy separately if applying electronically) No

If yes, list date Opinion was issued (m/d/yyyy):

Has Section 7 consultation been initiated by another federal agency?

Yes, Initiation letter attached (or mail copy separately if applying electronically) No

Has Section 10 consultation been initiated for the proposed project?

Yes, Initiation letter attached (or mail copy separately if applying electronically) No

UTM):	
Assessors parcel number: (For any proposed off-site mitigation)	Section, Township, Range:
Other location descriptions, if known:	
Directions to the mitigation location:	

Box 14 Water Quality Certification (see instructions):
 Applying for certification? Yes, Attached (or mail copy separately if applying electronically) No
 Certification issued? Yes, Attached (or mail copy separately if applying electronically) No
 Exempt? Yes No
 If exempt, state why: Agency concurrence? Yes, Attached No

Box 15 Coastal Zone Management Act (see instructions):
 Is the project located within the Coastal Zone? Yes No
 If yes, applying for a coastal commission-approved Coastal Development Permit?
 Yes, Attached (or mail copy separately if applying electronically) No
 If no, applying for separate CZMA-consistency certification?
 Yes, Attached (or mail copy separately if applying electronically) No
 Permit/Consistency issued? Yes, Attached (or mail copy separately if applying electronically) No
 Exempt? Yes No
 If exempt, state why:

Box 16 List of other certification or approval/denials received from other federal, state, or local agencies for work described in this application:

Agency	Type Approval*	Identification No.	Date Applied	Date Approved	Date Denied
NCRWQCB	401 Certification	1B09084WNME	July 2009	Sept. 21, 2009	

*Would include but is not restricted to zoning, building, and flood plain permits

NWP General Conditions (GC) checklist (2007 version):

1. **Navigation:**

Project would be in compliance with GC? Yes No

The project is located adjacent to a navigable water body (Mad River), but will have no effect on navigation.

2. **Aquatic Life Movements:**

Project would be in compliance with GC? Yes No

The project will not disrupt the life cycle movements of aquatic life.

3. **Spawning Areas:**

Spawning areas present? Yes No

Project would be in compliance with GC? Yes No

This project will not affect spawning areas.

4. **Migratory Bird Breeding Areas:**

Waterfowl breeding areas present: Yes No

Project would be in compliance with GC? Yes No

The project will not affect migratory waterfowl breeding areas.

5. **Shellfish Beds:**

Shellfish beds present: Yes No

Project would be in compliance with GC? Yes No

The project will not occur in areas of concentrated shellfish populations.

6. **Suitable Material:**

Project would be in compliance with GC? Yes No

All materials used for the construction of the project will comply with Caltrans materials standards.

7. **Water Supply Intakes:**

Project would be in compliance with GC? Yes No

The project will not occur in the proximity of a public water supply intake.

8. **Adverse Effects From Impoundments:**

Project would be in compliance with GC? Yes No

The project will not result in the impoundment of water.

9. **Management of Water Flows:**

Project would be in compliance with GC? Yes No

The project will maintain pre-construction flow conditions. The project will not permanently restrict or impede the passage of normal or expected high flows, and will withstand expected high flows.

10. **Fills within 100-Year Floodplains:**

Project would be within 100-year floodplains? Yes No

If yes, project would be in compliance with restrictions a) and b) below? Yes No

- a) Discharges Below Headwaters (*below point of 5 cfs*) resulting in permanent above-grade fills:
NWP 29, 39, 40, 42, 43, and 44: No NWP can be issued.
NWP 12 and 14: Notification required
- b) Discharges in Headwaters (*above point of 5 cfs*) resulting in permanent above-grade fills:
Flood Fringe
NWP 12, 14, 29, 39, 40, 42, 43, and 44: Notification required
Floodway
NWP 29, 39, 40, 42, 43, and 44: No NWP can be issued.
NWP 12 and 14: Notification required

11. Equipment:

Project would be in compliance with GC? Yes No

The contractor will take measures to minimize soil disturbance by heavy equipment during construction.

12. Soil Erosion and Siltation Controls:

Project would be in compliance with GC? Yes No

Appropriate soil erosion and sediment controls will be used and maintained during construction. Exposed soils and areas of work below the ordinary high water mark will be stabilized at the earliest possible date. Project activities below the ordinary high water mark of the unnamed tributary to the Mad River will be restricted to the dry/low flow season (May 15 to October 15).

13. Removal of Temporary Fills:

Project would be in compliance with GC? Yes No

Temporary fills are not expected to be needed during the construction of this project, but if they become necessary they will be removed in their entirety upon project completion. The affected areas will be returned to their preexisting elevation and reseeded with native species as appropriate.

14. Proper Maintenance:

Project would be in compliance with GC? Yes No

The project will be constructed in accordance with Caltrans codes and standards, and will be properly maintained by Caltrans Maintenance.

15. Wild and Scenic Rivers:

Project would be in compliance with GC? Yes No

The project will not result in impacts to Wild and Scenic Rivers.

16. Tribal Rights:

Project would be in compliance with GC? Yes No

The construction of this project will not impair reserved tribal rights.

17. Endangered Species: see Box 10 above.

18. Historic properties: see Box 11 above.

19. Designated Critical Resource Waters (*check those that apply*)

Includes:

- 1) NOAA designated marine sanctuaries,
- 2) National Wild and Scenic Rivers,
- 3) Critical habitat for Federally listed species,
- 4) Coral reefs,
- 5) State natural heritage sites,
- 6) Officially designated waters

Applicant is aware of the restrictions a) and b) below? Yes No

- a) NWP 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, and 44: No NWP can be issued (except in certain cases described in full text of GC #19).
- b) NWP 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38: Notification required.

20. Mitigation:

Project would be in compliance with GC? Yes No

In order to avoid potential impacts to water quality, erosion control and soil stabilization measures will be implemented in accordance with Caltrans' BMPs. These BMPs could include, but are not limited to, the use of silt fences, fiber rolls, and the application of fiber matrix on unfinished slopes. Disturbed soils will also be treated with an erosion control seed mixture.

21. **Water Quality** (401 Certification): see Box 14 above.

22. **Coastal Zone Management:** see Box 15 above.

23. Regional and Case-by Case Conditions:

Complete the Regional Conditions checklist below.

Project would be in compliance with any Case-by-case conditions? Yes No

24. Use of Multiple Nationwide Permits:

Applicant is aware that if total proposed acreage of impact exceeds acreage limit of NWP with highest specified acreage, no NWP can be issued? Yes No

25. Transfer of Nationwide Permit Verifications

26. Compliance Certification:

Applicant is aware of this post-construction requirement? Yes No

27. Pre-Construction Notification (*Check mark and provide those that apply*)

NWP 7, 12, 14, 18, 21, 34, 38, 39, 40, 41, 42, and 43: Delineation of wetlands and other waters of the U.S.

NWP 7: Original Design Capacity & Configurations

NWP 14: Compensatory Mitigation Proposal & written statement describing how temporary losses will be minimized to the maximum extent possible

NWP 21: Office of Surface Mining or State-approved mitigation Plan

NWP 27: Documentation of Prior Condition of Site

- NWP 29: Past use of NWP, statement of personal residence, parcel size description, land description
- NWP 31 (for repeat use): 5 year Maintenance Plan, baseline channel information, delineation, and disposal site information
- NWP 33: Restoration Plan
- NWP 39,43, and 44: Written Statement on Avoidance and Minimization Measures
- NWP 39 and 42: Compensatory Mitigation Plan/Justifications of no plan
- NWP 40: Compensatory Mitigation Proposal
- NWP 43: Maintenance Plan (for new construction) and compensatory mitigation proposal
- NWP 44: Description of affected waters, minimization measures and reclamation plan
- NWPs 12, 14, 29, 39, 40, 42, 43, and 44: FEMA map, FEMA construction requirements and demonstration of FEMA compliance

NWP-specific requirements checklist:

1. Nationwide 03 (case iii):

Evidence of damage (due to storm, flood, etc.) such as recent topographic surveys or photographs attached? Yes No

2. Nationwide 07:

NPDES permit or other proof of CWA Section 402 compliance attached? Yes No

3. Nationwides 13, 14, 18, 29, 39, 40, 42, 43, 44:

Activity/crossing must be part of a single and complete project.

Project would be in compliance with this requirement? Yes No

4. Nationwide 31:

As-built or approved engineering drawings for each structure attached? Yes No

5. Nationwide 40:

Documentation of an NRCS exemption, a NRCS-certified wetland delineation, and a NRCS- approved compensatory mitigation plan attached? Yes No

NWP Regional Conditions (RC) checklist:

I. Los Angeles District (SPL) in Arizona and California:

Not Applicable

II. Sacramento District (SPK) in California, Colorado, Nevada, and Utah:

Not Applicable

III. Albuquerque District (SPA) in Colorado, New Mexico, and Texas:

Not Applicable

IV. San Francisco District (SPN):

A SPN Regional Condition Checklist is currently available. Please refer to original text of SPN regional conditions.

End of form

Non-reporting Nationwide Permit 14

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT (33 CFR 325)	OMB APPROVAL NO. 0710-003
---	----------------------------------

Public reporting burden for this collection of information is estimated to average 5 hours per response, including the time for reviewing instructions, Searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-003), Washington, DC 20503. Please **DO NOT RETURN** your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require permits authorizing activities in, or affecting, navigable waters of the United States; the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Routine uses: Information provided on this form will be used in evaluating the application for a permit. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed nor can a permit be issued.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

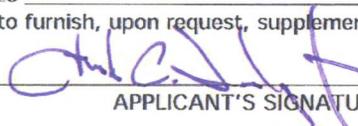
1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETED
--------------------	----------------------	------------------	-------------------------------

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME Frank Demling, Caltrans Project Manager	8. AUTHORIZED AGENT'S NAME & TITLE (an agent is not required) Allison Kunz, Caltrans Project Biologist
6. APPLICANT'S ADDRESS 1656 Union Street (Mail - P.O. Box 3700) Eureka, CA 95501	9. AGENT'S ADDRESS 703 B Street (Mail - P.O. Box 911) Marysville, CA 95901
7. APPLICANT'S PHONE NUMBERS WITH AREA CODE a. Residence b. Business (707) 445-6554	10. AGENT'S PHONE NUMBERS WITH AREA CODE a. Residence b. Business (530) 741-4103

11. **STATEMENT OF AUTHORIZATION**

I hereby authorize **Allison Kunz** to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.


9/29/2009

 APPLICANT'S SIGNATURE DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions) Mendocino-162 PM 19.75/21.50-State Route 162 Storm Damage Project	
13. NAME OF WATERBODY, IF KNOWN (if applicable) unnamed tributary to the Eel River	14. PROJECT STREET ADDRESS (if applicable) Not Applicable
15. LOCATION OF PROJECT Mendocino CA COUNTY STATE	
16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions) Dos Rios 7.5-minute USGS quadrangle, Township 21/22N, Range 13W, Sections 1, 2, 3, 34, and 35.	
17. DIRECTIONS TO THE SITE From San Francisco: U. S. 101 north to State Route 162. From State Route 162 starting at Post Mile (PM) 19.0, heading 3.5 miles east of Dos Rios. Culvert Locations: #1 - PM 20.05, #4 - PM 20.70	

18. NATURE OF ACTIVITY (Description of project, include all features)

PM 20.05: This location will receive a structural section rebuild, new drainage inlet with culvert replacement, and an underdrain. PM 20.70: This location will receive a Geosynthetic Reinforced Embankment (GRE), new drainage inlet with culvert replacement, and an underdrain. The culvert diameters will not be increased and rock slope protection will not be added.

19. PROJECT PURPOSE (Describe the reason or purpose of the project, see instructions)

The purpose of this project is to repair and prolong the life of the roadway.

USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. REASON(S) FOR DISCHARGE

Caltrans proposing a project to repair five storm-damaged locations along State Route 162 from PM 19.75 to 21.5 in Mendocino County. The roadway at these locations has previously failed due to saturation from heavy rain. The drainage work includes replacing the drainage inlets and culverts at two (2) locations (PM 20.05 and PM 20.70).

21. TYPE(S) OF MATERIAL BEING DISCHARGED AND THE AMOUNT OF EACH TYPE IN CUBIC YARDS

For the 2 drainage culverts: PM 20.05 – 0 cubic yard, PM 20.70 – less than 1 cubic yard of APC for the culvert extension

22. SURFACE AREA IN ACRES OF WETLANDS OR OTHER WATERS FILLED (see instructions)

0.0087 acres of "other waters" of the U. S. will be filled by the extension of the culvert.

23. IS ANY PORTION OF THE WORK ALREADY COMPLETE? YES NO IF YES, DESCRIBE THE WORK

Not Applicable

24. ADDRESSES OF ADJOINING PROPERTY OWNERS, LESSEES, ETC. WHOSE PROPERTY ADJOINS THE WATERBODY (If more than can be entered here, please attach a supplemental list)

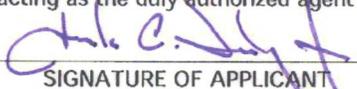
All work will be done within Caltrans right-of-way.

25. LIST OF OTHER CERTIFICATIONS OR APPROVALS/DENIALS RECEIVED FROM OTHER FEDERAL, STATE, OR LOCAL AGENCIES FOR WORK DESCRIBED IN THIS APPLICATION

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
NCRWQCB	Section 401 permit	1B09084WEME	Jul. 2009	September 21, 2009	

* Would include but is not restricted to zoning, building and flood plain permits.

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.




_____ 9/29/2009 _____ 9/29/2009
 SIGNATURE OF APPLICANT DATE SIGNATURE OF AGENT DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious, or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.



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.

SAN FRANCISCO DISTRICT
CORPS OF ENGINEERS
REGIONAL CONDITIONS FOR NATIONWIDE PERMITS

A. General Regional Conditions that apply to all NWP's in the San Francisco District:

1. Notification to the Corps (in accordance with General Condition No. 27) is required for any activity permitted by NWP if it will take place in waters or wetlands of the U.S. that are within the **San Francisco Bay diked baylands** (undeveloped areas currently behind levees that are within the historic margin of the Bay. Diked historic baylands are those areas on the Nichols and Wright map below the 5-foot contour line, National Geodetic Vertical Datum (NGVD) (see Nichols, D.R., and N. A. Wright. 1971. Preliminary map of historic margins of marshland, San Francisco Bay, California. U.S. Geological Survey Open File Map)). The notification shall explain how avoidance and minimization of losses of waters or wetlands are taken into consideration to the maximum extent practicable (see General Condition 20(a)).
2. Notification to the Corps (in accordance with General Condition No. 27) is required for any activity permitted by NWP if it will take place in waters or wetlands of the U.S. that are within the **Santa Rosa Plain** (see figure 1). The notification will explain how avoidance and minimization of losses of waters or wetlands are taken into consideration to the maximum extent practicable in accordance with General Condition No. 20(a).
3. Notification to the Corps (in accordance with General Condition No. 27), including a compensatory mitigation plan, habitat assessment, and extent of proposed-project impacts to Eelgrass Beds are required for any activity permitted by NWP if it will take place within or adjacent to **Eelgrass Beds**.
4. Notification to the Corps (in accordance with General Condition No. 27) is required for any activity permitted by NWP in **Essential Fish Habitat** (EFH) designated by the Pacific Fishery Management Council (examples of designated EFH are, but not limited to: the Pacific Ocean, estuaries like Tomales, San Francisco and Humboldt Bays, and watersheds utilized by coho and chinook salmon). Notification shall include a habitat assessment and extent of proposed-project impacts to EFH. Notification under this regional condition is not required if another federal agency has completed consultation with the National Marine Fisheries Service on EFH, and the project is either authorized by a non-reporting NWP or does not require notification by another regional condition.
5. Mitigation that is required by special condition to the permitted activity shall be completed before or concurrent with project construction. Where project mitigation involves the use of a mitigation bank, the required payment must be made before commencing construction of the permitted activity. If the permittee cannot comply with this condition, the permittee shall provide the Corps with sound reasoning why this condition cannot be met, and shall propose reasonable alternatives to ensure the required mitigation will be fully met and completed in a timely manner.
6. Any request to waive the 300 linear foot limitation for intermittent and ephemeral streams must include the following:
 - a) an analysis of the impacts to the stream environment;
 - b) measures taken to avoid and minimize losses;
 - c) other project alternatives that would be considered but were found not to be practicable;
 - d) a mitigation plan as to how the unavoidable losses will be offset.

7. Notification to the Corps (in accordance with General Condition No. 27) shall include: Accurate drawings are **always** required. The drawings can be schematic but should contain, at minimum, an appropriate title block, legends and scales, amount (in cubic yards) and size (in acreage or fraction thereof) of fill or activity in Corps jurisdiction, including both permanent and temporary fills/structures. If a waterbody is involved, the ordinary high water mark, estimated highest tide line, or mean high water mark should be shown (in feet); if possible, based on NGVD or other appropriate referenced elevation. The drawings should clearly depict the project location, and include plan and cross-section views.

B. Regional Conditions that apply to specific nationwide permits:

3. MAINTENANCE:

1. To the extent practicable, excavation equipment shall work from an upland site (e.g., from the top of the bank, the road bed of the bridge, or culverted road crossing) to minimize adding fill into waters of the U.S. If it is not practicable to work from an upland site, or if working from the upland site would cause more environmental damage than working in the stream channel, the excavation equipment can be located within the stream channel but it must minimize disturbance to the channel (other than the removal of accumulated sediments or debris). As part of the notification to the Corps (in accordance with General Condition No. 27), an explanation as to the need to place excavation equipment in waters of the U.S. is required, as well as a statement of any additional necessary fill (e.g., cofferdams, access road, fill below the OHW mark for a staging area, etc.).
2. If the activity is proposed in a special aquatic site, the notification to the Corps (in accordance with General Condition No. 27) shall include an explanation of why the special aquatic site cannot be avoided, and the measures to be taken to minimize impacts to the special aquatic site.
3. To the maximum extent practicable, any new or additional bank stabilization must incorporate structures or modifications beneficial to fish and wildlife (e.g., soil bioengineering or biotechnical design, root wads, large woody debris, etc.). Where these structures or modifications are not used, the applicant shall demonstrate why they were not considered practicable.

11. TEMPORARY RECREATIONAL STRUCTURES:

1. Notification to the Corps (in accordance with General Condition No. 27) is required if any temporary structures are proposed in wetlands or vegetated shallow water areas (e.g. in eelgrass beds). The notification shall include the type of habitat and areal extent affected by the structures.

12. UTILITY LINE ACTIVITIES:

1. Excess material removed from the trench shall be disposed of at an upland site away from any wetlands or other waters of the U.S. so as to prevent this material from being washed into aquatic areas.
2. This NWP permit does not authorize the construction of substation facilities. Utility line substations can usually be constructed in uplands.

13. BANK STABILIZATION:

1. Notification to the Corps (in accordance with General Condition No. 27) is required for all activities stabilizing greater than 300 linear feet of channel. Where the removal of wetland vegetation (including riparian wetland trees, shrubs and other plants) or submerged, rooted, aquatic plants over a cumulative area greater than 1/10 acre or 300 linear feet is proposed, the Corps shall be notified (in accordance with General Condition No. 27). The notification shall include the type of vegetation and extent (e.g., areal dimension or number of trees) of the proposed removal.

2. This permit allows excavating a toe trench in waters of the U.S., and, if necessary, to use the material for backfill behind the stabilizing structure. Excess material is to be disposed of in a manner that will have only minimal impacts to the aquatic environment. The notification to the Corps (in accordance with General Condition No. 27) shall include location of the disposal site.
3. For man-made banks, roads, or levees damaged by storms or high flows, the one cubic yard per running foot limit is counted only for that additional fill which encroaches (extends) beyond the pre-flood or pre-storm shoreline condition of the waterway. It is not counted for the fill that would be placed to reconstruct the original dimensions of the eroded, man-made shoreline.
4. For natural berms and banks, the one cubic yard per running foot limit applies to any added armoring.
5. To the maximum extent practicable, any new or additional bank stabilization must incorporate structures or modifications beneficial to fish and wildlife (e.g., soil bioengineering or biotechnical design, root wads, large woody debris, etc.). Where these structures or modifications are not used, the applicant shall demonstrate why they were not considered practicable.
6. As part of the notification to the Corps (in accordance with General Condition No. 27) requirement for bank stabilization activities in excess of 300 feet in length, the project proponent shall address the effect of the bank stabilization on the stability of the opposite side of the streambank (if it is not part of the stabilization activity), and on adjacent property upstream and downstream of the activity.

14. LINEAR TRANSPORTATION PROJECTS:

1. Notification to the Corps (in accordance with General Condition No. 27) is required for all projects filling greater than 300 linear feet of channel.
2. This permit does not authorize construction of new airport runways and taxiways.
3. To the maximum extent practicable, any new or additional bank stabilization required for the crossing must incorporate structures or modifications beneficial to fish and wildlife (e.g., soil bioengineering or biotechnical design, root wads, large woody debris, etc.). Where these structures or modifications are not used, the applicant shall demonstrate why they were not considered practicable. Bottomless and embedded culverts are encouraged over traditional culvert stream crossings.
4. As part of the notification to the Corps (in accordance with General Condition No. 27) requirement for stream crossing activities filling an excess of 300 feet in length, the project proponent shall address the effect of the bank stabilization on the stability of the opposite side of the streambank (if it is not part of the stabilization activity), and on adjacent property upstream and downstream of the activity.

23. APPROVED CATEGORICAL EXCLUSIONS:

1. Use of this NWP requires notification to the Corps (in accordance with General Condition No. 27). The notification shall include the following:
 - a) A copy of the Federal Categorical Exclusion (Cat/Ex) document signed by the appropriate federal agency. If the Cat/Ex is signed by a state or local agency representative instead of by a federal agency representative, then copies of all documentation authorizing alternative agency signature shall be provided.

- b) Written description of Corps authority (e.g., Section 10 of the Rivers and Harbors Act and/or Section 404 of the Clean Water Act.);
 - c) a list of conditions described in the Cat/Ex and/or attachments outlining measures that must be taken prior to, during, or after project construction to minimize impacts to the aquatic environment;
 - d) a copy of the jurisdictional delineation performed by qualified specialists showing the project limits and the location (delineated boundaries) of Corps jurisdiction within the overall project limits;
 - e) map(s) showing the locations of potentially permanent and temporary project impacts to areas within Corps jurisdiction;
 - f) a clear and concise description of all project impacts including, but not necessarily limited to:
 - a) quantification and description of permanent project impacts to areas within Corps jurisdiction,
 - b) quantification and description of temporary impacts to areas within Corps jurisdiction, and
 - c) linear extent of Corps jurisdiction affected by the project;
 - g) a general description of activities covered by the Cat/Ex that do not require Corps authorization but are connected or related to the activities in Corps jurisdiction;
 - h) a complete description of any proposed mitigation and/or restoration including, but not necessarily limited to, locations of any proposed planting, short- and long-term maintenance, proposed monitoring, success criteria and contingency plans;
 - i) written justification of how the project complies with the Nationwide Permit Program including less than minimal impact to the aquatic environment and compliance with the General Conditions.
 - j) For Federal Highway Administration (FHWA) Cat/Ex projects, the notification should describe how activities described in the Cat/Ex meet the description of the Cat/Ex project published in the August 28, 1987 Federal Register part 771.117 (a)(b)(c) and (d) (Volume 52, No. 167) or any updated version published in the Federal Register.
2. Only activities specifically described in the Cat/Ex project description will be covered by the NWP 23 authorization. If other activities not described in the Cat/Ex project description will be performed (e.g., dewatering, slope protection, etc.), these activities must receive separate NWP authorizations.
 3. Notification to the Corps (in accordance with General Condition 27) must include a copy of the signed Cat/Ex document and final agency determinations regarding compliance with Section 7 of the Endangered Species Act (ESA), Essential Fish Habitat (EFH) under the Magnusson-Stevens Act, and Section 106 of the National Historic Preservation Act.

33. TEMPORARY CONSTRUCTION, ACCESS, AND DEWATERING:

1. Access roads shall be designed to be the minimum width necessary and shall be designed to minimize changes to the hydraulic flow characteristics of the stream and degradation of water quality (in accordance with General Conditions 9 and 21).
 - a) The road shall be properly stabilized and maintained during and following construction to prevent erosion.

b) Construction of the road fill shall occur in a manner that minimizes the encroachment of trucks, tractors, bulldozers, or other heavy equipment within waters of the United States (including adjacent wetlands) that lie outside the lateral boundaries of the fill itself.

2. Vegetative disturbance in the waters of the U.S. shall be kept to a minimum.

3. Borrow material shall be taken from upland sources whenever feasible.

4. Stream channelization is not authorized by this NWP.

35. MAINTENANCE DREDGING OF EXISTING BASINS:

1. Use of this NWP will require notification to the Corps (in accordance with General Condition No. 27). The notification information should be provided on the Consolidated Dredging-Dredged Material Reuse/Disposal Application. This application and instructions for its completion can be found on our web site at: <http://www.spn.usace.army.mil/conops/applications.html>. The information must include the location of the proposed upland disposal site. A jurisdictional delineation of the proposed upland disposal site prepared in accordance with the current method required by the Corps may also be required.
2. The U.S. Coast Guard will be notified by the permittee at least 14 days before dredging commences if the activity occurs in navigable waters of the U.S. (Section 10 waters).
3. The permittee will be required to provide the following information to the Corps:
 - a) Dredge Operation Plan: Submit, for approval by this office, no earlier than 60 calendar days and no later than 20 calendar days before the proposed commencement of dredging, a plan which includes the following: **Corps file number**, a copy of the dredging contract or description of the work under which the contractor will do the permitted work; name and telephone numbers of the dredging contractor's representative on site; proposed dredging start and completion dates; quantity of material to be removed; dredging design depth and typical cross section including overdepth; and date of last dredging episode and design depth. The Dredge Operational Plan shall also provide the following information: The controls being established to insure that dredging operations occur within the limits defined by the basin or channel dimensions and typical channel section.
 - b) Pre-Dredge Survey: Submit no earlier than 60 calendar days and no later than 20 calendar days before commencement of dredging, a survey with accuracy to one-tenth foot that delineates and labels the following: areas to be dredged with overdepth allowances; existing depths; estimated quantities to be dredged to the design depth; and estimated quantities for overdepth dredging. **All surveys shall be signed by the permittee to certify their accuracy. Please include the Corps file number.**
 - c) Solid Debris Management Plan: Submit no earlier than 60 calendar days and no later than 20 calendar days before commencement of work, a plan which describes measures to ensure that solid debris generated during any dredging operation is retained and properly disposed in areas not under Corps jurisdiction. **At a minimum, the plan shall include the following: source and expected type of debris; debris retrieval method; Corps file number; disposal method and site; schedule of disposal operations; and debris containment method to be used, if floatable debris is involved. (Please note that failure to provide all of the information requested in a, b, and c above may result in delays to your project. When your Dredge Operation Plan has been approved, you will receive a written authorization to commence with your project.)**
 - d) Post-Dredge Survey: Submit, **within 30 days of the last disposal activity** ("last" is defined as that activity after which no further activity occurs for 15 calendar days), a

survey with accuracy to one-tenth foot that delineates and labels the areas dredged and provides the dredged depths. **Also, include the Corps file number, actual dates of dredging commencement and completion, actual quantities dredged for the project to the design depth, and actual quantities of overdepth.** The permittee shall substantiate the total quantity dredged by including calculations used to determine the volume difference (in cubic yards) between the Pre- and Post-Dredge Surveys and **explain any variation in quantities greater than 15% beyond estimated quantities or dredging deeper than is permitted (design plus overdepth allowance).** **All surveys shall be accomplished by a licensed surveyor and signed by the permittee to certify their accuracy.** A copy of the post dredge survey should be sent to the National Ocean Service for chart updating:

NOAA/National Ocean Service,
Nautical Data Branch
N/CS26, SSMC3, Room 7230
1315 East-West Highway
Silver Spring, Maryland 20910-3282.

- e) **The permittee or dredge contractor shall inform this office when: 1) a dredge episode actually commences, 2) when dredging is suspended (suspension is when the dredge contractor leaves the dredge site for more than 48 hours for reasons other than equipment maintenance), 3) when dredging is restarted, and 4) when dredging is complete. Each notification should include the Corps file number.** Details for submitting these notifications will be provided in the verification letter (to whom and how).

40. AGRICULTURAL ACTIVITIES:

1. This NWP does not authorize discharge of fill into the channel of a perennial or intermittent watercourse that could impede high flows. This limitation does not apply to watercourses that flow only when there is an irregular, extraordinary flood event.

41. RESHAPING EXISTING DRAINAGE DITCHES:

1. Compensatory mitigation may be required if the Corps determines there will be a detrimental impact to aquatic habitat.
2. Notification to the Corps (in accordance with General Condition 27) is required if the applicant proposes to re-grade, discharge, install channel lining, or redeposit fill material.
3. The notification to the Corps (in accordance with General Condition 27) shall include an explanation of the project's benefit to water quality.

42. RECREATIONAL FACILITIES:

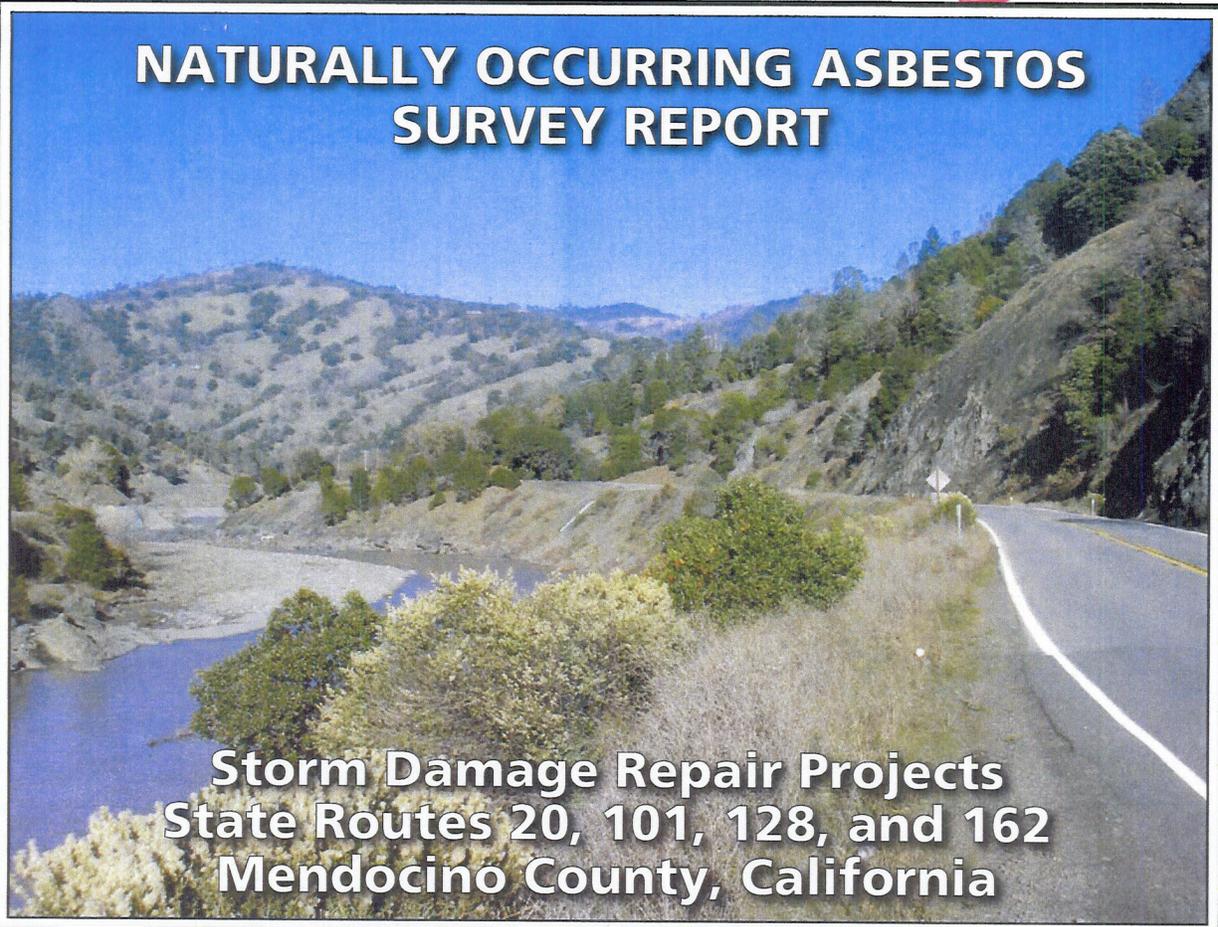
1. If buildings are proposed to be built in waters of the United States, including wetlands, the applicant must demonstrate that there is no on-site practicable alternative that is less environmentally damaging as defined by the Section 404(b)(1) guidelines.

44. MINING ACTIVITIES:

1. This NWP is revoked for mining activities in Humboldt and Del Norte Counties.

Fred Dastmalchi

NATURALLY OCCURRING ASBESTOS SURVEY REPORT



Storm Damage Repair Projects
State Routes 20, 101, 128, and 162
Mendocino County, California

PREPARED FOR:

**CALIFORNIA DEPARTMENT OF TRANSPORTATION – DISTRICT 3
703 B STREET
MARYSVILLE, CALIFORNIA 95901**



PREPARED BY:

**GEOCON CONSULTANTS, INC.
3160 GOLD VALLEY DRIVE, SUITE 800
RANCHO CORDOVA, CALIFORNIA 95742**



GEOCON

**GEOCON PROJECT NO. S8875-06-138
TASK ORDER NO. 138, CONTRACT NO. 03A0937**

JANUARY 2007



Project No. S8875-06-138
January 30, 2007

Mr. Mark Melani
California Department of Transportation – District 3
Environmental Engineering Office
703 B Street
Marysville, California 95901

Subject: STORM DAMAGE REPAIR PROJECTS
STATE ROUTES 20, 128, AND 162 AND US ROUTE 101
MENDOCINO COUNTY, CALIFORNIA
CONTRACT NO. 03A0937, TASK ORDER NO. 138, EA NOS. 01-473901, 01-474001,
01-474101, 01-476301, 01-476401, AND 01-476501
NATURALLY OCCURRING ASBESTOS SURVEY REPORT

Dear Mr. Melani:

In accordance with California Department of Transportation (Caltrans) Contract No. 03A0937, Task Order number 138, and Expenditure Authorization numbers 01-473901, 01-474001, 01-474101, 01-476301, 01-476401, and 01-476501 we have performed naturally occurring asbestos survey services along State Routes 20, 128, 162, and United States Route 101, in Mendocino County, California. The accompanying report summarizes the services performed including the collection of thirty-eight samples from the sites for asbestos analysis.

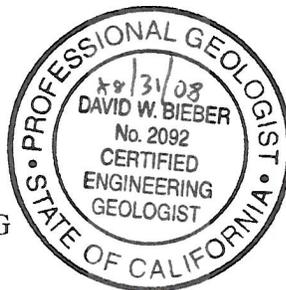
The contents of this report reflect the views of the author, who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

Please contact us should you have any questions concerning the contents of this report or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.

David W. Bieber, PGP, CEG, CHG
Senior Geologist



Ian M. Stevenson, PG
Project Geologist

IMS:DWB:jaj

(8 + 2CD) Addressee

State of California

Business, Transportation and Housing Agency

M e m o r a n d u m

To: Nesar Formoli
Project Engineer
2389 Gateway Oaks
Sacramento CA 95814

Date: February 2, 2007

File No: 01-Men-162
PM 19.76/21.44
Storm Damage Repair
Project

EA: 01-476401

From: DEPARTMENT OF TRANSPORTATION
Office of Environmental Engineering – South (OEES)

Subject: Site Investigation Transmittal

The naturally occurring asbestos (NOA) survey required for this project has been completed. The results of the survey are included in a January 30, 2007 report titled "Naturally Occurring Asbestos Survey Report, Storm Damage Repair Projects, State Routes 20, 101, 128, and 162, Mendocino County, California". The report was prepared by Geocon Consultant, Incorporated for Caltrans.

Based on the report, NOA was identified, above the regulatory limit of 0.25%. Therefore, SSPs S5-740 and 19-910 for NOA are required for the project as proposed. No other NSSP's, SSP's or other restrictions from OEES are required.

If there are any significant changes to the project scope, or if new information is identified, please contact the OEES, as soon as reasonably possible so the significance of the information and the need for additional studies can be assessed. If you have any questions or comments, please feel free to call me at (530) 741-4556.



Mark Melani,
Office of Environmental Engineering – South

cc: File
Sebastian Cohen, Project Manager
(Electronic copy only)

TABLE OF CONTENTS

NATURALLY OCCURRING ASBESTOS SURVEY REPORT		Page
1.0	INTRODUCTION.....	1
1.1	Project Description and Proposed Improvements.....	1
1.2	General Objectives.....	2
2.0	BACKGROUND	3
3.0	SCOPE OF SERVICES	4
3.1	Pre-field Activities.....	4
3.2	Field Activities.....	4
4.0	INVESTIGATIVE METHODS	5
4.1	Traffic Control	5
4.2	Quality Assurance/Quality Control (QA/QC) Procedures	5
4.3	Laboratory Analyses	5
5.0	FIELD OBSERVATIONS AND INVESTIGATIVE RESULTS.....	7
5.1	Site Geology.....	7
5.2	NOA Results	7
6.0	CONCLUSIONS AND RECOMMENDATIONS.....	9
6.1	EA 01-474101, SR 128, PM 50.4 to 50.9	9
6.2	EA 01-474001, US 101, PM 36.0 to 37.0 and 38.2 to 38.3	9
6.3	EA 01-473901, SR 20, PM 25.92 to 25.97	9
6.4	EA 01-476301, SR 162, PM 11.0 to 12.0	9
6.5	EA 01-476501, SR 162, PM 14.2 to 14.6, 16.5 to 16.75, and 19.25 to 19.75	10
6.6	EA 01-476401, SR 162, PM 19.76 to 21.44 (Figures 7a-7d)	10
6.7	NOA-containing Soil Management	11
6.8	Asbestos Worker Protection	11
7.0	REPORT LIMITATIONS.....	13

FIGURES

- 1a-1b. Vicinity Maps
- 2a-2b. EA 01-474101, SR 128 Site Plans
- 3a-2b. EA 01-474001, US 101 Site Plans
- 4. EA 01-473901, SR 20 Site Plan
- 5. EA 01-476301, SR 162 Site Plan
- 6a-6b. EA 01-476501, SR 162 Site Plan
- 7a-7d. EA 01-476401, SR 162 Site Plans

TABLES

- 1. Summary of Asbestos Analytical Results and Sample Locations

APPENDICES

- A. Laboratory Report and Chain-of-custody Documentation

NATURALLY OCCURRING ASBESTOS SURVEY REPORT

1.0 INTRODUCTION

This Naturally Occurring Asbestos (NOA) Survey Report for storm damage repair projects along State Routes (SR) 20, 128, 162, and United States Route (US) 101 in Mendocino County was prepared by Geocon Consultants, Inc. under Caltrans Contract No. 03A0937, Task Order Number (TO No.) 138, and Expenditure Authorization (EA) Nos. 01-473901, 01-474001, 01-474101, 01-476301, 01-476401, and 01-476501.

1.1 Project Description and Proposed Improvements

The projects consist of storm damage repairs for fourteen sites in Mendocino County, California. The approximate locations of the project sites are depicted on the Vicinity Maps, Figures 1a and 1b.

The repairs along SR 128 covered by EA 01-474101 consist of rebuilding the structural road section with geosynthetic material at two sites between PM 50.4 and 50.88. The SR 128 sites are depicted on the EA 01-474101, SR 128 Site Plan, Figures 2a and 2b.

The repairs along US 101 covered by EA 01-474001 consist of lane reconstruction, barrier replacement, and failed slope repair from PM 36.0 to 37.0 and 38.2 to 38.3. The US 101 sites where samples were collected are depicted on the EA 01-474001, US 101 Site Plan, Figures 3a and 3b.

The repairs included in EA 01-473901 consist of removal of a turnout area, replacement of an over-side drain, flattening and reconstructing an embankment, placement of an underdrain, and installation of a soldier pile tieback wall along SR 20 from Post Mile (PM) 25.92 to 25.97. The SR 20 site is depicted on the EA 01-473901, SR 20 Site Plan, Figure 4.

EA 01-476301 consists of roadway realignment, drainage system repair, and private drive relocation at nine locations along SR 162 from PM 11.0 to 12.0. The site is depicted on the EA 01-476301, SR 162 Site Plan, Figure 5.

EA 01-476501 consists of grinding and replacing the structural road section and installing new cross culverts and underdrains along SR 162 from PM 14.2 to 14.6, 16.5 to 16.75, and 19.25 to 19.75. The sites where samples were collected are depicted on the EA 01-476501, SR 162 Site Plan, Figures 6a and 6b.

EA 01-476401 consists of rebuilding the roadway prism and installation of underdrains at five locations along SR 162 from PM 19.76 to 21.44. The sites where samples were collected are depicted on the EA 01-476401, SR 162 Site Plan, Figures 7a through 7d.

1.2 General Objectives

The improvements proposed at the sites will require the disturbance of soil, rock outcrops, and existing pavement. The purpose of the scope of services outlined in TO No. 138 was to evaluate the sites for the presence of NOA related to possible serpentine and ultramafic rock within the project boundaries. The investigative results will be used by Caltrans to inform the construction contractor if NOA-impacted soil and rock are present within the project boundaries for health, safety and disposal purposes.

2.0 BACKGROUND

The sites are located within the vicinity of ultramafic rock according to geological mapping by Caltrans and the California Geological Survey (CGS) *Geologic Map of California – Ukiah Sheet* compiled by C.W. Jennings and R.G. Strand, published by the CGS in 1960 and *Geologic Map of California – Santa Rosa Sheet* compiled by D. L. Wagner and E.J. Bortugno, and published by the CGS in 1999. The construction activities proposed by Caltrans may disturb NOA-containing soils and/or rock units if present at the sites.

The California Air Resources Board (CARB) has mitigation practices for construction, grading, quarrying, and surface mining operations that may disturb natural occurrences of asbestos outlined in Title 17 California Code of Regulations (CCR), Section 93105. NOA potentially poses a health hazard when it becomes an airborne particulate. The construction activities proposed at the sites could disturb NOA-containing rock and soil, thereby potentially creating an airborne asbestos hazard. Mitigation practices can reduce the risk of exposure to asbestos-containing dust. The primary mitigation practice used for controlling exposure to potentially asbestos-containing dust is the implementation of engineering controls including wetting the materials being disturbed. If engineering controls do not adequately control exposure to potentially asbestos-containing dust, the use of personal protective equipment including wearing approved high efficiency particulate air asbestos masks is required during construction activities. Asbestos dust control methods similar to those in Title 17 CCR, Section 93105 are outlined in Title 17 CCR, Section 93106 for airborne asbestos in road surfacing applications. Using surfacing material with 0.25% or more asbestos material is not permitted and wetting of the material or the application of a surface sealant is recommended to minimize disturbance of the asbestos material. Onsite reuse or disposal of NOA-containing materials is allowed by 17 CCR 93106 and 17 CCR 93105 if it is buried under at least 0.25 foot (ft) of material that does not contain NOA.

3.0 SCOPE OF SERVICES

The scope of services as requested by Caltrans in TO No. 138 included a geologic assessment of the sites for NOA, collection of soil and rock samples for analysis to determine NOA content, and the preparation of this report.

3.1 Pre-field Activities

- Conducted a Task Order Meeting on December 27, 2006, to discuss the TO scope of services. Caltrans Quality assurance (QA) Manager Doug Coleman, and Geocon field supervisor Ian Stevenson were present. The purpose of the Task Order Meeting was to identify and discuss the project boundaries and conditions.
- Prepared a Health and Safety Plan dated December 22, 2006, to provide guidelines on the use of personal protective equipment and the health and safety procedures implemented during the field activities.
- Reviewed existing geological maps and studies of the general project area for information on the potential presence of NOA at the sites.
- Retained the services of EMSL Analytical Inc. (EMSL), a Caltrans-approved and California-certified analytical laboratory, to perform asbestos analysis.

3.2 Field Activities

Preliminary geological reconnaissances of the sites were performed on December 27, and 28, 2006, by Ian Stevenson, a California Professional Geologist (PG No. 8203). The geologic assessment included the collection of samples from fill, colluvium, alluvium, slide debris, and bedrock from the sites for NOA analysis.

A total of 38 samples were collected for NOA analysis; one sample for EA 473901, three samples for EA 01-474001, six samples for EA 01-474101, eight samples for EA 01-476301, ten samples for EA 01-476401, and ten samples for EA 01-476501. The samples were collected in a geographic sequence starting with SR 128, the US 101, the SR 20, and finally SR 162. Details of the field activities are presented in the following sections.

NOA sample locations were selected in the field by the Geocon field supervisor and the Caltrans Quality Assurance Manager. Sample locations were determined using a global positioning system (GPS), aerial photos, and Caltrans plans of the sites. The approximate sample locations are depicted on Figures 2a through 7d.

4.0 INVESTIGATIVE METHODS

Thirty-eight targeted samples were collected at the sites. Approximate locations of these samples are shown on Figures 2a through 7d. These samples consisted of six fill samples, fourteen colluvial samples, one alluvial sample, nine slide debris samples, and eight outcrop samples.

A targeted sample is one collected in a location where NOA is most likely to occur or from a material in which NOA is most likely to be found. Targeted samples are used as qualitative indicators of whether NOA exists at a particular location or in a particular geologic material. Targeted samples are not intended to indicate average NOA concentrations, but rather provide a “yes/no” assessment of whether NOA is present.

Soil samples were collected using a hand-auger or rock hammer to excavate site materials and obtain an approximate one quart sample in a resealable plastic bag. Each sample collected was marked with an identification number, the TO number, and the date and time collected. Samples were delivered to EMSL under chain-of-custody (COC) protocol.

4.1 Traffic Control

We established shoulder closures on the traffic side of the roadway where sampling was being performed at the sites using “SHOULDER WORK AHEAD” advance warning signs and cones.

4.2 Quality Assurance/Quality Control (QA/QC) Procedures

QA/QC procedures were performed during the field exploration activities. These procedures included decontamination of sampling equipment before each sample was collected and providing COC documentation for each sample submitted to the laboratory. The soil sampling equipment was cleansed between each boring by washing the equipment with an Alconox[®] solution followed by a double rinse with deionized water. General soil types for each sample were noted on the field logs. The decontamination water was discharged to the ground surface, away from the roadway and storm drain inlets.

4.3 Laboratory Analyses

Prior to submitting the samples to the laboratory, the COC documentation was reviewed for accuracy and completeness. Reproductions of the laboratory reports and COC documentation are presented in Appendix A. Thirty-eight NOA samples were submitted to EMSL for asbestos fiber analysis by CARB Test Method 435 (CARB 435) under a two-day turn-around-time (TAT) basis. CARB 435 preparation includes milling the sample to a -200 mesh size which also homogenizes the sample. EMSL analyzed the samples as follows:

- Each of the samples was analyzed by the polarized light microscopy (PLM) method for asbestos by CARB Method 435. The analytical sensitivity of the PLM analysis was 0.25% by area.
- Three of the samples submitted for PLM analysis were also analyzed for asbestos by the transmission electron microscopy method, EPA Test Method 600/R-93/116 (TEM), also referred to as the qualitative bulk fiber analysis "Point Count" Method. Caltrans requested a maximum lower detection limit for the TEM analysis of 0.25%; the analytical sensitivity of the TEM analysis was 0.01% by weight.

5.0 FIELD OBSERVATIONS AND INVESTIGATIVE RESULTS

5.1 Site Geology

We reviewed the *Geologic Map of California, Santa Rosa Sheet* (CGS, 1982) and the *Geologic Map of California, Ukiah Sheet* (CGS, 1960) prior to beginning the field work. The review was used to gather information regarding the potential presence of NOA at the sites. The depicted geologic materials in the vicinity of the SR 20 (EA 01-473901) site, as shown on the Ukiah Sheet, are undivided Cretaceous marine, Franciscan formation, and ultrabasic intrusive rocks. The depicted geologic materials in the vicinity of the US 101 (EA 01-474001) sites, as shown on the Ukiah Sheet, are Franciscan formation, and ultrabasic intrusive rocks. Geologic materials depicted in the vicinity of the SR 128 (EA 01-474101) sites, as shown on the Santa Rosa Sheet, consist of Coastal Belt Franciscan, Franciscan Complex, and ultramafic rocks. The depicted geologic materials in the vicinity of SR 162 (EA 01-476301) from PM 11 to 12, as depicted on the Ukiah Sheet, consist of Franciscan formation and ultrabasic intrusive rocks. Geologic materials depicted in the vicinity of SR 162 (EA 01-476401) from PM 19.76 to 21.44, as depicted on the Ukiah Sheet, consist of Middle Miocene marine, Franciscan formation, and ultrabasic intrusive rocks. Depicted geologic materials in the vicinity of SR 162 (EA 01-476501) from PM 14.2/14.6, 16.5/16.75, and 19.25/19.75, as depicted on the Ukiah Sheet, consist of Franciscan formation and ultrabasic intrusive rocks.

Ian Stevenson performed a NOA assessment of the lithology of outcrops visible within the Caltrans right-of-way at each of the sites. The observed geology at the sites is consistent with that depicted on the Santa Rosa and Ukiah Sheets. Visible outcrops in the vicinity of the sites consisted of fill, slide debris, sandstone, metasandstone, schist, slate, chert, shale, serpentinite, and basalt. Geologic conditions conducive to the formation of NOA minerals and/or materials likely to contain NOA were observed in fill, schist, slide debris, shale, chert, slate, serpentinite, and basalt at the sites.

5.2 NOA Results

Six fill samples, fourteen colluvial samples, one alluvial sample, nine slide debris samples, and eight outcrop samples were analyzed by EMSL for asbestos by PLM using CARB 435. Three of these samples were also analyzed by EMSL for asbestos by TEM and the CARB 435 sample preparation method. Eleven of these samples were reported to contain asbestos, with five samples reported to contain asbestos at or above the PLM CARB regulatory limit 0.25%. Four samples reported to contain asbestos above the CARB regulatory limit of 0.25% were collected along SR 162 between PM 21.17 and 21.44 within EA 01-476401. One sample collected along SR 162 at PM 16.53 within EA 01-476501 was also reported to contain asbestos at or above CARB regulatory limit of 0.25%. Six additional samples were reported to contain asbestos below the CARB regulatory limit of 0.25%; one along US 101 at approximate PM 36.9, EA 01-474001; two along SR 162 between PM 11.25

and 11.42, EA 01-476301; two along SR 162 between PM 11.53 and 11.54, EA 01-476501; and one along SR 162 at approximate PM 21.43, EA 01-476401.

A summary of the sample locations and asbestos analytical results for the six EAs are presented in Table 1. The NOA laboratory reports and COC documentation are presented in Appendix A.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 EA 01-474101, SR 128, PM 50.4 to 50.9

Geologic materials likely to contain NOA were observed in fill, colluvium, and slide debris at the sites. One fill sample, one colluvium sample, and one slide debris sample were collected at the approximate locations shown on Figures 2a and 2b, approximate PM 50.43, and analyzed for asbestos by PLM and reported as non-detect. Two fill samples and one colluvium sample were collected at approximate PM 50.8, analyzed for asbestos by PLM, and reported as non-detect. Engineering controls to minimize the aerial dispersion of NOA are not needed at the sites.

6.2 EA 01-474001, US 101, PM 36.0 to 37.0 and 38.2 to 38.3

Geologic materials likely to contain NOA were observed in fill material at the sites. Two samples collected from fill at the approximate locations shown on Figures 3a and 3b, approximate PM 36.9, were analyzed for asbestos by PLM and reported as non-detect. One of these samples (TO138101PM36.9NOA3) was also analyzed for asbestos by TEM and was reported to contain less than 0.1% asbestos by weight. One fill sample was collected at approximate PM 38.25, analyzed for asbestos by PLM, and reported as non-detect. Reported percentages of asbestos at the sites are below the CARB regulatory limit of 0.25%. Engineering controls to minimize the aerial dispersion of NOA are not needed at the sites.

6.3 EA 01-473901, SR 20, PM 25.92 to 25.97

Geologic conditions observed at the site are not conducive to the formation of NOA minerals and materials likely to contain asbestos were not observed at the site. One sample collected from colluvium on the south side of SR 20 at the approximate location shown on Figure 4 was analyzed for asbestos by the PLM method and was reported to be non detect. Engineering controls to minimize the aerial dispersion of NOA are not needed at the site.

6.4 EA 01-476301, SR 162, PM 11.0 to 12.0

Geologic materials likely to contain NOA were observed in slide debris, shale, schist, and serpentinite at the site. Three colluvium samples, three slide debris samples, and two outcrop samples at the approximate locations shown on Figure 5 were analyzed by PLM. One slide debris sample (TO138HWY162NOA4) was reported to contain chrysotile asbestos below CARB regulatory limit of 0.25% by PLM. One sample (TO138HWY162NOA7) was analyzed by PLM and TEM and reported as non-detect by PLM and less than 0.1% chrysotile asbestos by TEM, below the CARB regulatory limit of 0.25%. Engineering controls to minimize the aerial dispersion of NOA are not needed at the site.

6.5 EA 01-476501, SR 162, PM 14.2 to 14.6, 16.5 to 16.75, and 19.25 to 19.75

Geologic materials likely to contain NOA were noted in slide debris, basalt, and serpentinite at the sites. One colluvium sample, three slide debris samples, and one outcrop sample collected at the approximate locations shown on Figures 6a and 6b, between PM 14.2 and 14.6, were analyzed for asbestos by PLM and reported as non-detect. Three colluvium samples and two outcrop samples collected between PM 16.5 and 16.75 were analyzed for asbestos by PLM. Three samples (TO138HWY162NOA16, TO138HWY162NOA17, and TO138HWY162NOA18) were reported to contain asbestos, with one sample (TO138HWY162NOA16) reported to contain asbestos above the CARB regulatory limit of 0.25%. The samples reported to contain NOA were collected between PM 16.5 and 16.54. Engineering controls to minimize the aerial dispersion of NOA and disposal restrictions will be needed in this area.

Samples for NOA analysis were not collected between PM 19.25 and 19.75, as geologic conditions conducive to the formation of NOA minerals and/or geologic materials likely to contain asbestos were not noted.

6.6 EA 01-476401, SR 162, PM 19.76 to 21.44 (Figures 7a-7d)

Geologic materials likely to contain NOA were observed in shale, possible hydrothermally altered siliceous mudstone, and serpentinite at the sites. The sites where construction activities are proposed are located between PM 20.06 to 20.11, 20.64 to 20.66, 20.71 to 20.81, 20.86 to 20.90, and 21.198 to 21.125. Samples were collected at the approximate locations shown on Figures 7a through 7d. Three colluvium samples and two slide debris samples were collected between PM 20.11 and 21.17, analyzed for asbestos by PLM, and reported as non-detect. One colluvium sample, one alluvium sample, and three outcrop samples were collected between PM 21.25 and 21.44. These five samples (TO138HWY162NOA25, TO138HWY162NOA26, TO138HWY162NOA27, TO138HWY162NOA28, and TO138HWY162NOA29) were analyzed for asbestos by PLM. One of the samples (TO138HWY162NOA26) analyzed by PLM was also analyzed by TEM. All five were reported to contain asbestos by PLM, with four of the samples (TO138HWY162NOA25, TO138HWY162NOA26, TO138HWY162NOA27, and TO138HWY162NOA28) reported to contain asbestos above the CARB regulatory limit of 0.25%. The sample analyzed by TEM was reported to contain greater than 12% asbestos by weight. Samples containing asbestos above the CARB regulatory limit were collected between PM 21.17 and 21.44. This area is not located within one of the five construction locations for this EA. If construction activities that would cause the disturbance of soil, rock outcrops, or existing pavement are performed in this area, engineering controls to minimize the aerial dispersion of NOA and disposal restrictions will be needed.

6.7 NOA-containing Soil Management

NOA is a State of California regulated substance, and is reported on some of the sites at levels exceeding the CARB regulatory limit of 0.25%. Though asbestos was reported to be present at regulated levels, the asbestos content does not render these materials unsuitable for reuse within the Caltrans project boundaries. However, construction/maintenance activities involving these asbestos-containing materials may fall under regulatory jurisdiction of the California Division of the Occupational Safety and Health Administration (Cal-OSHA) under CCR Title 8 Section 5208. Mitigation measures during construction/maintenance activities should be utilized to minimize releases of NOA to air (dust control) and surface waters (stormwater discharge). If reused within the Caltrans right-of-way, the material from areas where asbestos was reported to be present at regulated levels can not be used in such a way as to fall under the definition of surfacing material. NOA-containing material must be covered by at least 0.25 ft of material that does not contain NOA and should ideally be placed in base of the deepest fills.

We recommend that excavated soils be stockpiled and resampled to characterize them with regards to NOA unless the soil is going to be used onsite as fill, and will be covered by hardscape or at least 3 inches of soil that does not contain asbestos at or above 0.25%. Stockpiled soil that does not contain asbestos at or above 0.25% can be used onsite as cover, or disposed of offsite without restriction. However, we recommend that soil reported to contain asbestos below 0.25% be disposed of offsite in a landfill because of the potential for trace levels of asbestos to be present. If soil is disposed of offsite at a location other than a landfill, we recommend that the facility owner be notified that the soil may contain trace levels of asbestos at less than regulated levels. Under CARB's Title 17, Section 93105, offsite disposal of the material from areas where asbestos was reported to be present at regulated levels requires asbestos content notification. Facility-specific landfill acceptance criteria should be determined for disposal of asbestos-containing soil materials.

6.8 Asbestos Worker Protection

Currently, regulatory exposure limits and health hazard data are not available for NOA in soils. Federal regulations governing asbestos define it as the asbestiform variety of the amphibole minerals actinolite, amosite, anthophyllite, crocidolite, and tremolite, and the asbestiform variety of serpentine, chrysotile. Asbestos fibers occurring in industrial materials are considered by the National Institute for Occupational Safety and Health (NIOSH) as potential occupational carcinogens. Prudence is recommended, therefore, in dealing with soils containing NOA. Engineering controls such as wet suppression should be utilized to minimize aerial dispersion of NOA fibers in planned work areas during excavation and road construction activities. Under Title 8 Section 5208 of the CCR, disturbance of asbestos-containing materials requires wet working methods and possible respiratory protection and air monitoring. The CARB has established protocols outlined in Title 17, Section 93105

for the implementation of worker health, safety and monitoring plans for excavation, grading and transport of NOA-containing soils. The excavation contractor should consult Title 17, Section 93105 and contact Cal-OSHA to establish the appropriate regulatory protocol and actions necessary for excavation and/or disturbance of asbestos-containing soils.

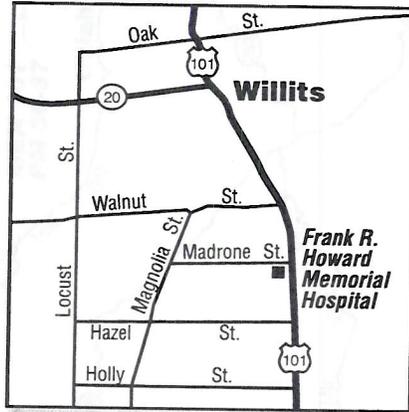
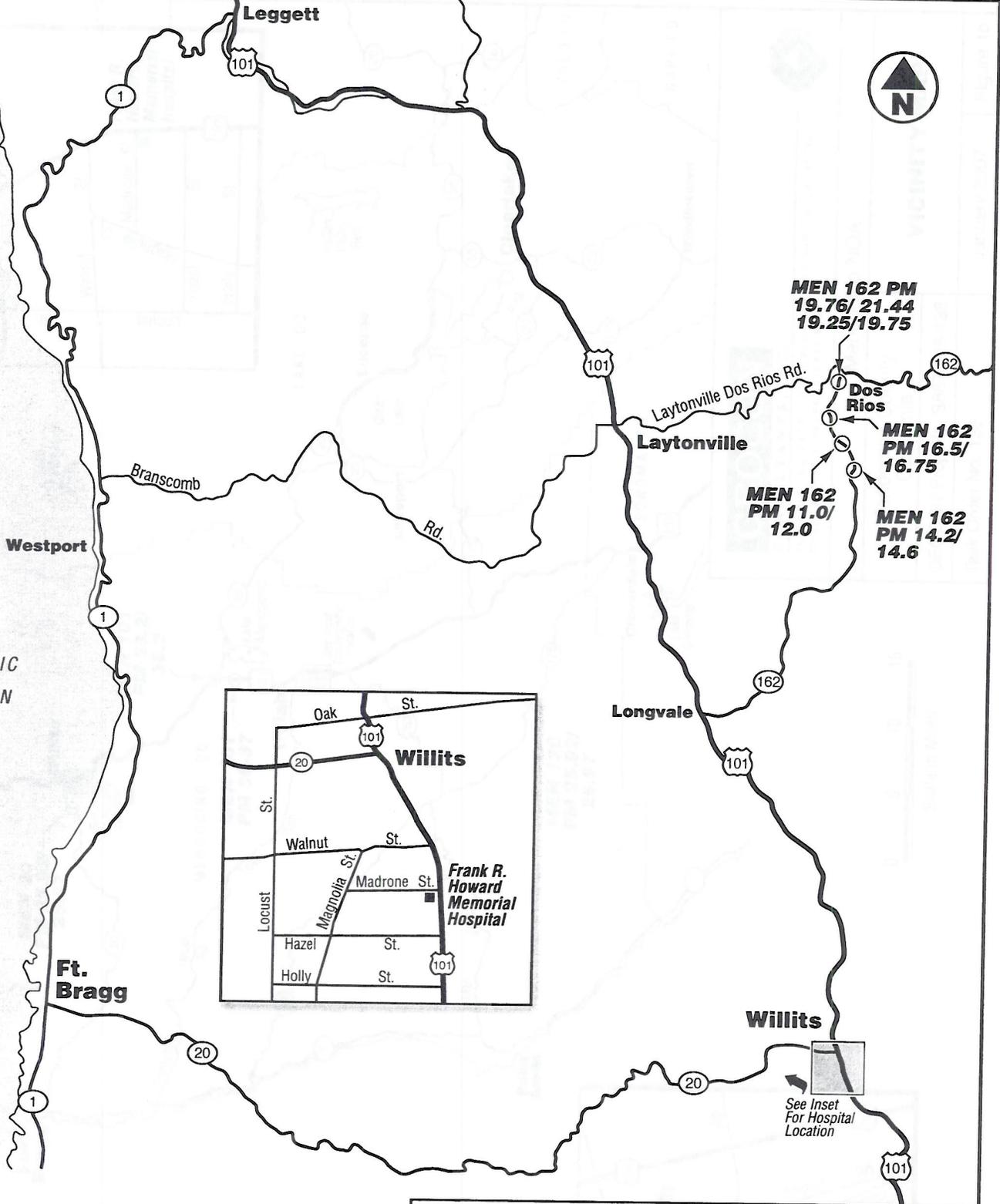
7.0 REPORT LIMITATIONS

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report and will require an update to reflect additional information obtained.

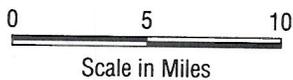
This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. Geocon strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.



PACIFIC OCEAN



See Inset For Hospital Location



GEOCON

CONSULTANTS, INC.

3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
PHONE 916 852-9118 - FAX 916 852-9132



Mendocino NOA

Mendocino County,
California

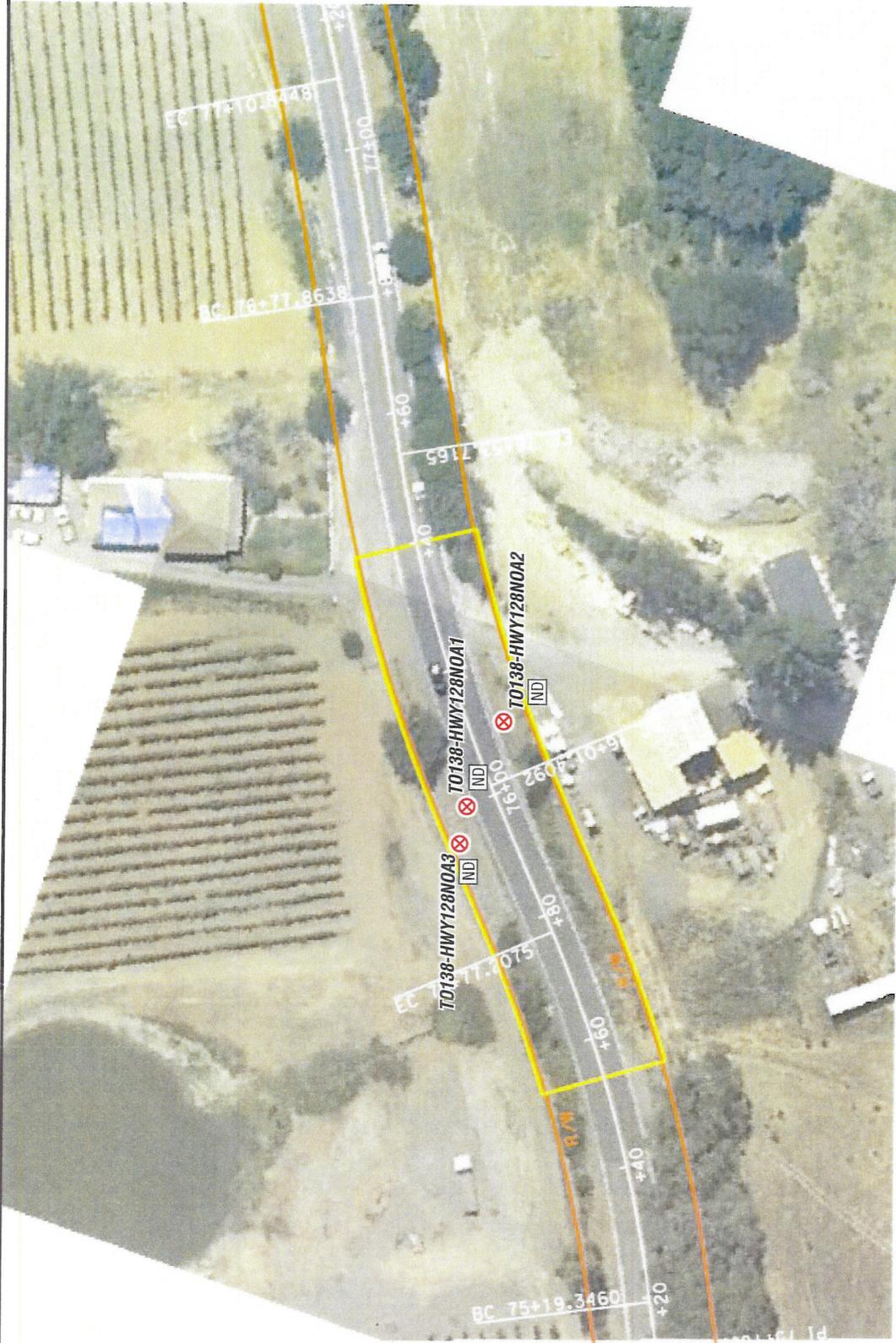
VICINITY MAP

GEOCON Proj. No. S8875-06-138

Task Order No. 138

January 2007

Figure 1a



LEGEND:

- T0138-HWY128NOA1** ⊗ Approximate Sample Location
- ND Percent Asbestos, California Air Resources Board Test Method 435



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
PHONE 916 852-9118 - FAX 916 852-9132



Mendocino NOA

Mendocino County, California	SITE PLAN SR 128 EA 01-474101
GEOCON Proj. No. S8875-06-138 Task Order No. 138	

January 2007 Figure 2a



GEOCON
 CONSULTANTS, INC.
 3160 GOLD VALLEY DR., SUITE 800 - RANCHO CORDOVA, CA. 95742
 PHONE 916 862-9118 - FAX 916 852-9132



Mendocino NOA

Mendocino County,
 California
 GEOCON Proj. No. S8875-06-138

SITE PLAN
 SR 128
 EA 01-474101

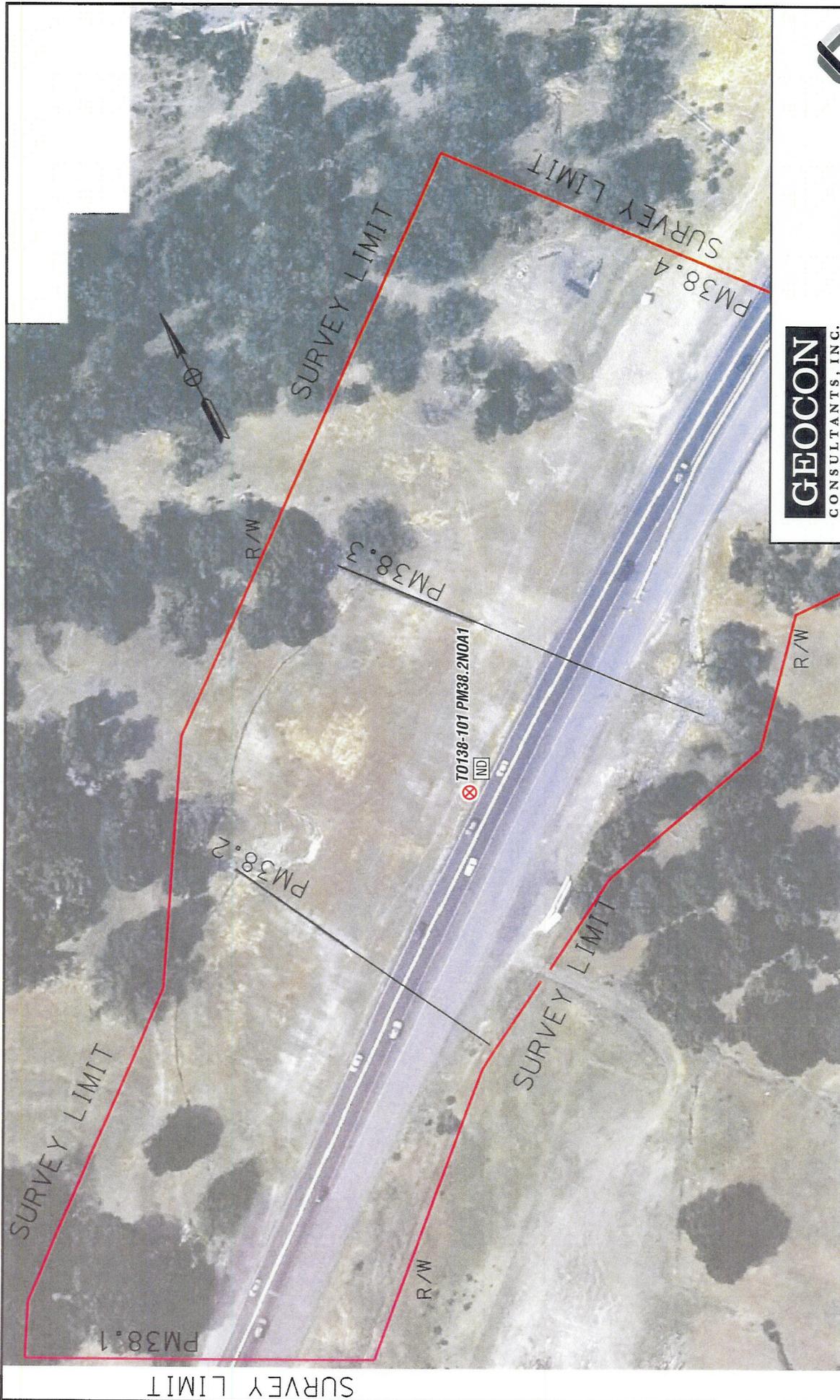
Task Order No. 138

January 2007
 Figure 2b

LEGEND:

- TO138-HWY128PM50.88NOA1 ⊗ Approximate Sample Location
- IND ⊗ Percent Asbestos, California Air Resources Board Test Method 435





GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
PHONE 916 852-9118 - FAX 916 852-9132



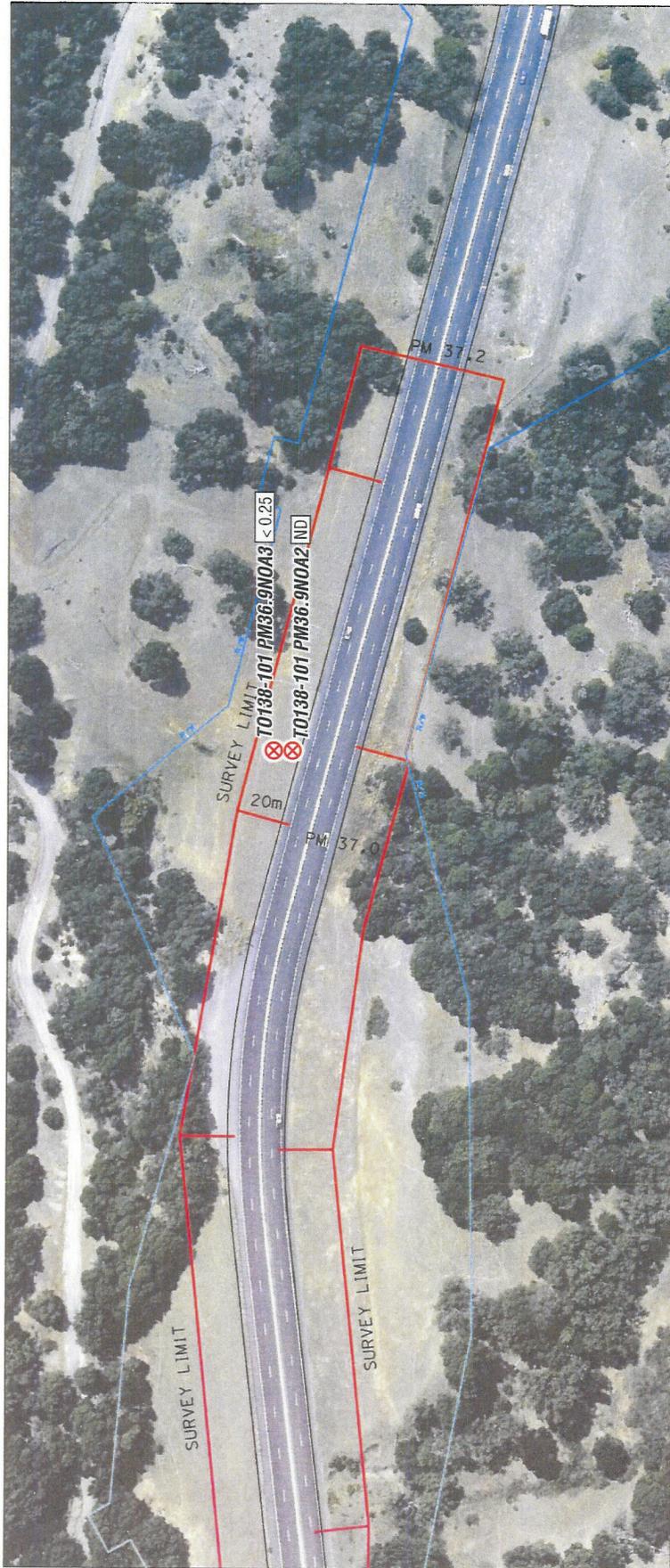
Mendocino NOA

Mendocino County, California	SITE PLAN SR 101 EA 01-474001
GEOCON Proj. No. S8875-06-138	January 2007
Task Order No. 138	Figure 3a

LEGEND:

- T0138-101 PM38.2NOA1 ⊗ Approximate Sample Location
- Ⓜ Percent Asbestos, California Air Resources Board Test Method 435





LEGEND:

- T0138-101 PM36.9NOA2 ⊗ Approximate Sample Location
- ⊗ Percent Asbestos, California Air Resources Board Test Method 435
- <0.25



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
PHONE 916 852-9118 - FAX 916 852-9132



Mendocino NOA

Mendocino County,
California

SITE PLAN
SR 101
EA 01-474001

GEOCON Proj. No. S8875-06-138

Task Order No. 138

January 2007

Figure 3b



GEOCON

CONSULTANTS, INC.

3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
 PHONE 916 852-9118 - FAX 916 852-9132



Mendocino NOA

Mendocino County,
California

SITE PLAN
SR 20
EA 01-473901

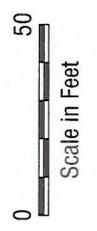
GEOCON Proj. No. S8875-06-138

Task Order No. 138

January 2007
Figure 4

LEGEND:

- TO138-HWY20NOA1 ⊗ Approximate Sample Location
- [ND] Percent Asbestos, California Air Resources Board Test Method 435





⊗ TO138-HWY162NOA2 ND
 ⊗ TO138-HWY162NOA1 ND

162

TO138-HWY162NOA4 <0.25
 ⊗ TO138-HWY162NOA3 ND
 ⊗ TO138-HWY162NOA5 ND
 ⊗ TO138-HWY162NOA6 ND

⊗ TO138-HWY162NOA7 <0.25/<0.1
 ⊗ TO138-HWY162NOA8 ND

162

LEGEND:

TO138-HWY162NOA1 ⊗ Approximate Sample Location

<0.25 Percent Asbestos, California Air Resources Board Test Method 435

0  500
 Approx. Scale in Feet

GEOCON
 CONSULTANTS, INC.

3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
 PHONE 916 852-9118 - FAX 916 852-9132



Mendocino NOA

Mendocino County,
 California

SITE PLAN
SR 162
EA 01-476301

GEOCON Proj. No. S8875-06-138

Task Order No. 138

January 2007

Figure 5



LEGEND:

- TO138-HWY162NOA13** ⊗ Approximate Sample Location
- ND Percent Asbestos, California Air Resources Board Test Method 435



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
PHONE 916 852-9118 - FAX 916 852-9132



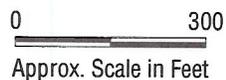
Mendocino NOA	
Mendocino County, California	SITE PLAN SR 162 EA 01-476501
GEOCON Proj. No. S8875-06-138	
Task Order No. 138	January 2007 Figure 6a



LEGEND:

TO138-HWY162NOA15 ⊗ Approximate Sample Location

0.75 Percent Asbestos, California Air Resources Board Test Method 435



GEOCON
CONSULTANTS, INC.

3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
PHONE 916 852-9118 - FAX 916 852-9132



Mendocino NOA

Mendocino County,
California

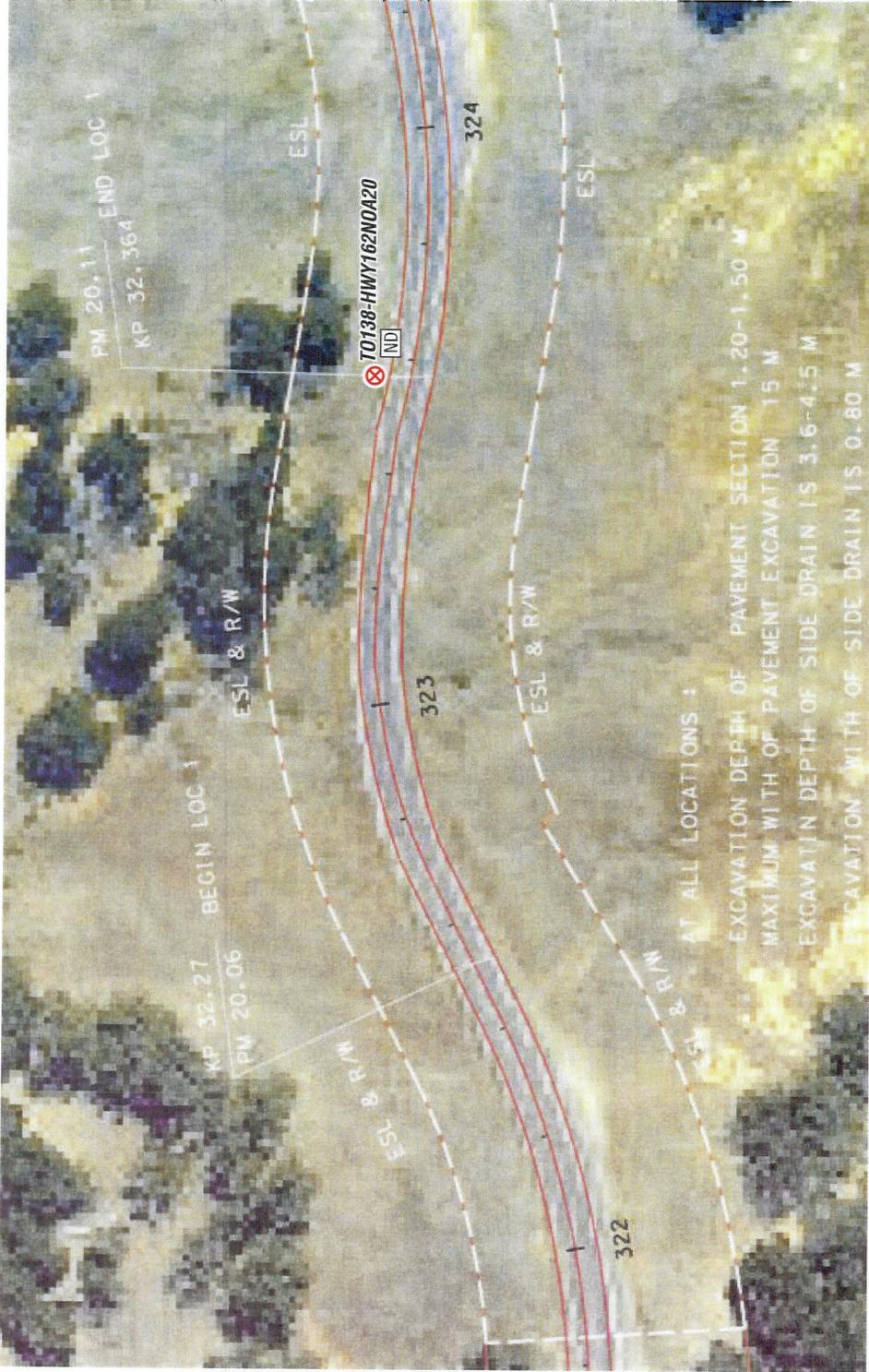
SITE PLAN
SR 162
EA 01-476501

GEOCON Proj. No. S8875-06-138

Task Order No. 138

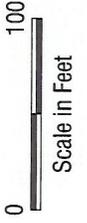
January 2007

Figure 6b



LEGEND:

- TO138-HWY162NOA20** ⊗ Approximate Sample Location
- ⊗ Percent Asbestos, California Air Resources Board Test Method 435



GEOCON

CONSULTANTS, INC.

3160 GOLD VALLEY DR., SUITE 800 - RANCHO CORDOVA, CA. 95742
 PHONE 916.852.9118 - FAX 916.852.9132



Mendocino NOA

Mendocino County,
 California

SITE PLAN
SR 162
EA 01-476401

GEOCON Proj. No. S8875-06-138

Task Order No. 138

January 2007

Figure 7a

MAXIMUM WIDTH OF PAVEMENT EXCAVATION 15 M
 EXCAVATION DEPTH OF SIDE DRAIN IS 3.6-4.5 M
 EXCAVATION WIDTH OF SIDE DRAIN IS 0.5 M



LEGEND:

- TO138-HWY162NOA23** ⊗ Approximate Sample Location
- ND** Percent Asbestos, California Air Resources Board Test Method 435



GEOCON
 CONSULTANTS, INC.

3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
 PHONE 916 852-9118 - FAX 916 852-9132



Mendocino NOA

Mendocino County,
 California

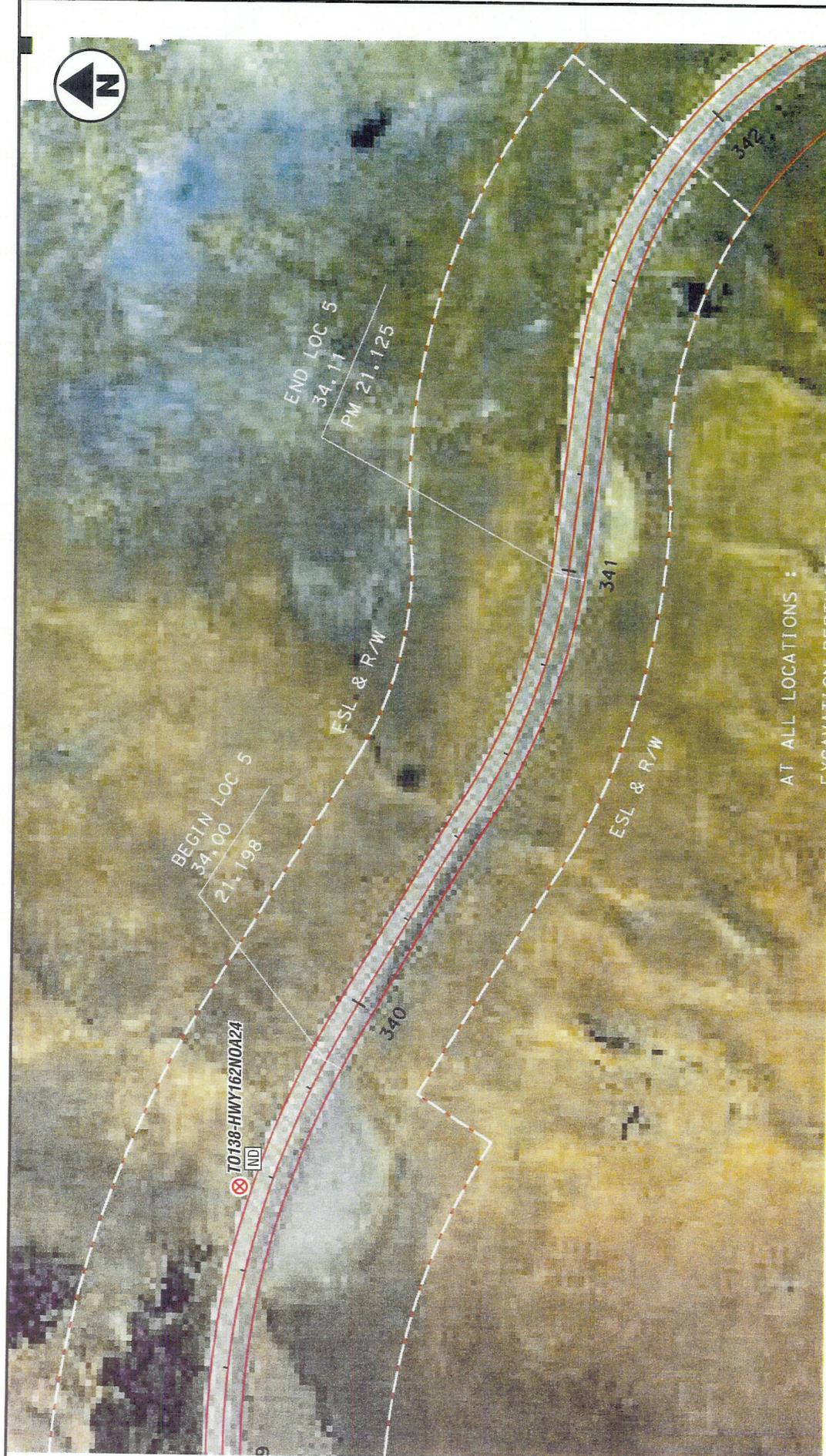
SITE PLAN
SR 162
EA 01-476401

GEOCON Proj. No. S8875-06-138

Task Order No. 138

January 2007

Figure 7b



GEOCON

CONSULTANTS, INC.
 3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
 PHONE 916 852-9118 - FAX 916 852-9132



Mendocino NOA

Mendocino County,
 California

SITE PLAN
SR 162
EA 01-476401

GEOCON Proj. No. S8875-06-138

Task Order No. 138

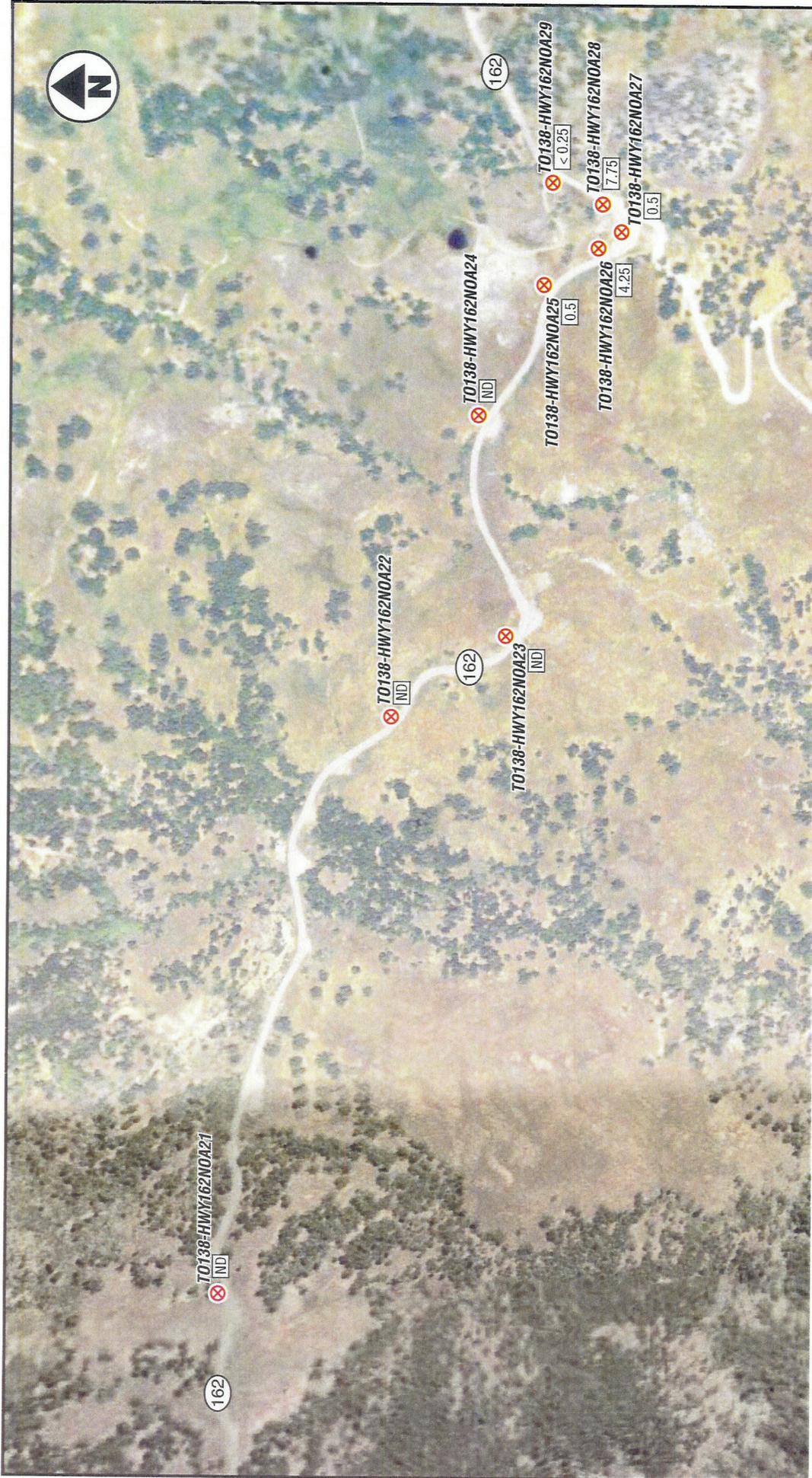
January 2007

Figure 7c

LEGEND:

- T0138-HWY162NOA24 ⊗ Approximate Sample Location
- IND Percent Asbestos, California Air Resources Board Test Method 435





GEOCON

CONSULTANTS, INC.
 3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
 PHONE 916.852.9118 - FAX 916.852.9132



Mendocino NOA

Mendocino County,
 California

SITE PLAN
SR 162
EA 01-476401

GEOCON Proj. No. S8875-06-138

Task Order No. 138

January 2007 Figure 7d

LEGEND:

- TO138-HWY162NOA21 Approximate Sample Location
- Percent Asbestos, California Air Resources Board Test Method 435

TABLE 1
 SUMMARY OF ASBESTOS ANALYTICAL RESULTS AND SAMPLE LOCATIONS
 CALTRANS TASK ORDER NO. 138
 STATE ROUTE 20, 101, 128, AND 162, MENDOCINO NOA
 MENDOCINO COUNTY, CALIFORNIA

SAMPLE I.D.	EA No.	SHOWN ON FIGURE	SAMPLE LOCATION (APPROXIMATE)	ROCK/SOIL TYPE	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE
TO138 HWY 128 NOA1	01-474101	2a	Southbound Shoulder PM 50.43	Slide Debris	PLM	<0.25	ND
TO138 HWY 128 NOA2	01-474101	2a	Northbound Shoulder PM 50.43	Colluvium	PLM	<0.25	ND
TO138 HWY 128 NOA3	01-474101	2a	Rip Rap PM 50.43	Fill	PLM	<0.25	ND
TO138 HWY 128 PM 50.88 NOA1	01-474101	2b	Southbound Shoulder PM 50.88	Colluvium	PLM	<0.25	ND
TO138 HWY 128 PM 50.88 NOA2	01-474101	2b	Southbound Shoulder PM 50.88	Fill	PLM	<0.25	ND
TO138 HWY 128 PM 50.88 NOA3	01-474101	2b	Northbound Shoulder PM 50.88	Fill	PLM	<0.25	ND
TO138 101 PM38.2 NOA1	01-474001	3a	Southbound Shoulder PM38.25	Fill	PLM	<0.25	ND
TO138 101 PM36.9 NOA2	01-474001	3b	Southbound Shoulder PM36.9	Fill	PLM	<0.25	ND
TO138 101 PM36.9 NOA3	01-474001	3b	Southbound Shoulder PM36.9	Fill/Loose Rock	PLM/TEM	<0.25/<0.1	ND (PLM) Chrysotile (TEM)
TO138 HWY 20 NOA1	01-473901	4	Eastbound Shoulder PM25.92	Colluvium	PLM	<0.25	ND
TO138 HWY 162 NOA1	01-476301	5	Northbound Shoulder PM11.92	Colluvium	PLM	<0.25	ND

TABLE 1
 SUMMARY OF ASBESTOS ANALYTICAL RESULTS AND SAMPLE LOCATIONS
 CALTRANS TASK ORDER NO. 138
 STATE ROUTE 20, 101, 128, AND 162, MENDOCINO NOA
 MENDOCINO COUNTY, CALIFORNIA

SAMPLE I.D.	EA No.	SHOWN ON FIGURE	SAMPLE LOCATION (APPROXIMATE)	ROCK/SOIL TYPE	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE
TO138 HWY 162 NOA2	01-476301	5	Northbound Shoulder PM11.92	Outcrop	PLM	<0.25	ND
TO138 HWY 162 NOA3	01-476301	5	Northbound Shoulder PM11.5	Slide Debris	PLM	<0.25	ND
TO138 HWY 162 NOA4	01-476301	5	Northbound Shoulder PM11.42	Slide Debris	PLM	<0.25	Chrysotile
TO138 HWY 162 NOA5	01-476301	5	Northbound Shoulder PM11.5	Slide Debris	PLM	<0.25	ND
TO138 HWY 162 NOA6	01-476301	5	Northbound Shoulder PM11.45	Colluvium	PLM	<0.25	ND
TO138 HWY 162 NOA7	01-476301	5	Northbound Shoulder PM11.25	Colluvium	PLM/TEM	<0.25/<0.1	ND (PLM) Chrysotile (TEM)
TO138 HWY 162 NOA8	01-476301	5	Northbound Shoulder PM11.25	Outcrop	PLM	<0.25	ND
TO138 HWY 162 NOA9	01-476501	6a	Northbound Shoulder PM14.44	Slide Debris	PLM	<0.25	ND
TO138 HWY 162 NOA10	01-476501	6a	Northbound Shoulder PM14.48	Slide Debris	PLM	<0.25	ND
TO138 HWY 162 NOA11	01-476501	6a	Northbound Shoulder PM14.52	Slide Debris	PLM	<0.25	ND
TO138 HWY 162 NOA12	01-476501	6a	Northbound Shoulder PM14.44	Outcrop	PLM	<0.25	ND
TO138 HWY 162 NOA13	01-476501	6a	Northbound Shoulder PM14.24	Colluvium	PLM	<0.25	ND

TABLE 1
 SUMMARY OF ASBESTOS ANALYTICAL RESULTS AND SAMPLE LOCATIONS
 CALTRANS TASK ORDER NO. 138
 STATE ROUTE 20, 101, 128, AND 162, MENDOCINO NOA
 MENDOCINO COUNTY, CALIFORNIA

SAMPLE I.D.	EA No.	SHOWN ON FIGURE	SAMPLE LOCATION (APPROXIMATE)	ROCK/SOIL TYPE	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE
TO138 HWY 162 NOA15	01-476501	6b	Northbound Shoulder PM16.5	Colluvium	PLM	<0.25	ND
TO138 HWY 162 NOA16	01-476501	6b	Northbound Shoulder PM16.53	Colluvium	PLM	0.75	Chrysotile
TO138 HWY 162 NOA17	01-476501	6b	Northbound Shoulder PM16.53	Outcrop	PLM	<0.25	Chrysotile
TO138 HWY 162 NOA18	01-476501	6b	Northbound Shoulder PM16.54	Outcrop	PLM	<0.25	Chrysotile
TO138 HWY 162 NOA19	01-476501	6b	Northbound Shoulder PM16.54	Colluvium	PLM	<0.25	ND
TO138 HWY 162 NOA20	01-476401	7a	Northbound Shoulder PM20.11	Slide Debris	PLM	<0.25	ND
TO138 HWY 162 NOA21	01-476401	7a	Northbound Shoulder PM20.16	Slide Debris	PLM	<0.25	ND
TO138 HWY 162 NOA22	01-476401	7b	Northbound Shoulder PM20.78	Colluvium	PLM	<0.25	ND
TO138 HWY 162 NOA23	01-476401	7b	Northbound Shoulder PM20.87	Colluvium	PLM	<0.25	ND
TO138 HWY 162 NOA24	01-476401	7c	Northbound Shoulder PM21.17	Colluvium	PLM	<0.25	ND
TO138 HWY 162 NOA25	01-476401	7d	Northbound Shoulder PM21.25	Colluvium	PLM	0.5	Chrysotile
TO138 HWY 162 NOA26	01-476401	7d	Northbound Shoulder PM21.29	Outcrop	PLM/TEM	4.25/>12 (1)	Chrysotile (PLM & TEM)
TO138 HWY 162 NOA27	01-476401	7d	Northbound Shoulder PM21.31	Outcrop	PLM	0.50	Chrysotile

TABLE 1
 SUMMARY OF ASBESTOS ANALYTICAL RESULTS AND SAMPLE LOCATIONS
 CALTRANS TASK ORDER NO. 138
 STATE ROUTE 20, 101, 128, AND 162, MENDOCINO NOA
 MENDOCINO COUNTY, CALIFORNIA

SAMPLE I.D.	EA No.	SHOWN ON FIGURE	SAMPLE LOCATION (APPROXIMATE)	ROCK/SOIL TYPE	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE
TO138 HWY 162 NOA28	01-476401	7d	Northbound Shoulder PM21.37	Outcrop	PLM	7.75	Chrysotile
TO138 HWY 162 NOA29	01-476401	7d	Northbound Shoulder PM21.43	Alluvium	PLM	<0.25	Chrysotile

Notes:

- PLM = Polarized Light Microscopy
- TEM = Transmission Electron Microscopy
- ND = Non Detect
- <0.25 = Present at less than laboratory method detection limits
- <0.01 = Present at less than laboratory method detection limits for TEM
- EA No. = Expense Authorization Number
- (1) = Analysis terminated as content has exceeded 10% by mass-calculation

APPENDIX

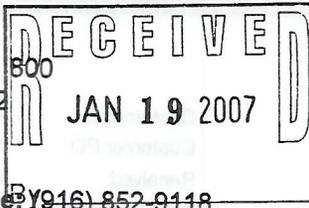
A

EMSL Analytical, Inc.

2235 Polvorosa Drive, Suite 230, San Leandro, CA 94577 ♦ (510) 895-3675 ♦ sanleandrolab@emsl.com

EMSL

Client: Geocon Consultants
3160 Gold Valley Drive Ste. 800
Rancho Cordova, CA 95742



EMSL Reference: 090700029

Attention: Ian Stevenson
Fax: (916) 852-9132 **Phone:** (916) 852-9118
Project: S8875-06-138 / Mendocino NOA

Date Received: 01/02/07
Date Analyzed: 01/04/07
Date Reported: 01/05/07

Asbestos Analysis of Vermiculite via Modified EPA 600/R-93/116 Method Utilizing Analytical Electron Microscopy (Section 2.5) with CARB 435 Prep (Milling) Level B for 0.1% Target Analytical Sensitivity

Client Sample ID	EMSL Sample ID	Asbestos Type(s)	# of Asbestos Structures Detected	Analytical Sensitivity %	Asbestos Weight %	Comments
TO138-101PM36.9 NOA3	090700029-0009	Chrysotile	44	0.1	<0.1	
TO138HWY 162NOA7	090700029-0017	Chrysotile	5	0.1	<0.1	
TO138HWY 162NOA2	090700029-0035	Chrysotile	n/a	n/a	>12%*	

*Asbestos content of chrysotile is > 12%. Analysis terminated as content has exceeded 10% by mass-calculation.

Approved EMSL Signatory

EMSL maintains liability limited to cost of analysis. This method requires the laboratory to analyze the sample until the first fiber found compromises 5% of the total mass. Due to the size and mass of different asbestos fibers, the analytical sensitivity will vary between samples and may prevent the laboratory from achieving the target sensitivity on all samples. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL is not responsible for sample collection activities or analytical method limitations. Interpretation and use of results are the responsibility of the client.



EMSL Analytical, Inc

2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577

Phone: (510) 895-3675 Fax: (510) 895-3680 Email: milpitaslab@emsl.com



Attn: **Ian Stevenson**
Geocon Consultants
3160 Gold Valley Dr.
Suite 800
Rancho Cordova, CA 95742

Customer ID: GECN80
Customer PO: S8875-06-138
Received: 01/02/07 10:15 AM
EMSL Order: 090700029

Fax: (916) 852-9132 Phone: (916) 852-9118
Project: **S8875-06-138 / Mendocino NOA**

EMSL Proj: GEC9-511
Analysis Date: 1/5/2007
Report Date: 1/5/2007

PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB 435 Prep (Milling) Level A for 0.25% Target Analytical Sensitivity

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TO138-101PM36.9NOA2 090700029-0008	Fill 1630 12/27	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
TO138-101PM36.9NOA3 090700029-0009	Fill, rocks 1630 12/27	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
TO138HWY20NO A1 090700029-0010	Colluvium 0745 12/28	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
TO138HWY162NO A1 090700029-0011	Colluvium 0935 12/28	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
TO138HWY162NO A2 090700029-0012	Outcrop 0935 12/28	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
TO138HWY162NO A3 090700029-0013	Slide debris PM11.5 1030 12/28	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
TO138HWY162NO A4 090700029-0014	Slide debris 1030 12/28	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

Analyst(s)
Lansing Wong (6)
Nonette Patron (32)



or other approved signatory

This report relates only to the samples listed above and may not be reproduced except in full, without EMSL's written approval. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMSL is not responsible for sample collection activities or method limitations. Some samples may contain asbestos fibers below the resolution limit of PLM. EMSL recommends that samples reported as none detected or less than the limit of detection undergo additional analysis via TEM. Samples received in good condition unless otherwise noted.



EMSL Analytical, Inc

2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577

Phone: (510) 895-3675 Fax: (510) 895-3680 Email: milptaslab@emsl.com



Attn: **Ian Stevenson**
Geocon Consultants
3160 Gold Valley Dr.
Suite 800
Rancho Cordova, CA 95742

Fax: (916) 852-9132 Phone: (916) 852-9118
Project: **S8875-06-138 / Mendocino NOA**

Customer ID: GECN80
Customer PO: S8875-06-138
Received: 01/02/07 10:15 AM
EMSL Order: 090700029

EMSL Proj: GEC9-511
Analysis Date: 1/5/2007
Report Date: 1/5/2007

PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB 435 Prep (Milling) Level A for 0.25% Target Analytical Sensitivity

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TO138HWY162NO A12 090700029-0022	Outcrop PM 14.44 1330 12/28	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
TO138HWY162NO A13 090700029-0023	Colluvium 1355 12/28	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
TO138HWY162NO A15 090700029-0024	Colluvium PM 16.5 1450 12/28	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
TO138HWY162NO A16 090700029-0025	Colluvium PM 16.53 1500 12/28	Gray Non-Fibrous Homogeneous		99.25% Non-fibrous (other)	0.75% Chrysotile
TO138HWY162NO A17 090700029-0026	Outcrop PM 16.53 1510 12/28	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
TO138HWY162NO A18 090700029-0027	Outcrop PM 16.54 1515 12/28	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
TO138HWY162NO A19 090700029-0028	Colluvium PM16.54 1520 12/28	Tan Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Analyst(s) _____

Lansing Wong (6)
Nonette Patron (32)

or other approved signatory

This report relates only to the samples listed above and may not be reproduced except in full, without EMSL's written approval. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMSL is not responsible for sample collection activities or method limitations. Some samples may contain asbestos fibers below the resolution limit of PLM. EMSL recommends that samples reported as none detected or less than the limit of detection undergo additional analysis via TEM. Samples received in good condition unless otherwise noted.



EMSL Analytical, Inc

2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577

Phone: (510) 895-3675 Fax: (510) 895-3680 Email: milpitaslab@emsl.com



Attn: **Ian Stevenson**
Geocon Consultants
3160 Gold Valley Dr.
Suite 800
Rancho Cordova, CA 95742

Customer ID: GECN80
Customer PO: S8875-06-138
Received: 01/02/07 10:15 AM
EMSL Order: 090700029

Fax: (916) 852-9132 Phone: (916) 852-9118
Project: S8875-06-138 / Mendocino NOA

EMSL Proj: GEC9-511
Analysis Date: 1/5/2007
Report Date: 1/5/2007

**PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB
435 Prep (Milling) Level A for 0.25% Target Analytical Sensitivity**

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
TO138HWY162NO A27 090700029-0036	Outcrop PM 21.31 1705 12/28	Gray Non-Fibrous Homogeneous		99.50% Non-fibrous (other)	0.50% Chrysotile
TO138HWY162NO A28 090700029-0037	Outcrop PM 21.37 1710 12/28	Gray Fibrous Heterogeneous		92.25% Non-fibrous (other)	7.75% Chrysotile
TO138HWY162NO A29 090700029-0038	Alluvium PM 21.43 1715 12/28	Gray Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

Analyst(s)
Lansing Wong (6)
Nonette Patron (32)



or other approved signatory

This report relates only to the samples listed above and may not be reproduced except in full, without EMSL's written approval. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMSL is not responsible for sample collection activities or method limitations. Some samples may contain asbestos fibers below the resolution limit of PLM. EMSL recommends that samples reported as none detected or less than the limit of detection undergo additional analysis via TEM. Samples received in good condition unless otherwise noted.



Chain of Custody

Asbestos Lab Services

EMSL Analytical, Inc.
 Suite 230
 2235 Polvorosa Ave
 San Leandro,
 CA 94577
 Phone: (510) 895-
 3675 (888) 455-3675
 Fax: (510) 895-3680
<http://www.emsl.com>

Please print all information legibly.

Client Sample # (s) TO138 Hwy 128 NOA1 - TO138 Hwy 162 NOA29

Total Samples #: 28

Relinquished: _____ Date: _____ Time: _____

Received: [Signature] Date: 1/2/07 Time: 10:15 Courier

Relinquished: _____ Date: _____ Time: _____

Received: _____ Date: _____ Time: _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
TO138 Hwy 128 NOA1	slide debris 1301/12/27	
TO138 Hwy 128 NOA2	colluvium 1305 12/27	
TO138 Hwy 128 NOA3	Rip Rap 1305 12/27	
TO138 Hwy 128 PM50.88 NOA1	colluvium 1355 12/27	
TO138 Hwy 128 PM50.88 NOA2	fill 1400 12/27	
TO138 Hwy 128 PM50.88 NOA3	fill 1415 12/27	
TO138 -101 PM38.2 NOA1	slide debris/Fill 1603 12/27	
TO138 -101 PM36.9 NOA2	fill 1630 12/27	
TO138 -101 PM36.9 NOA3	fill/rocks 1630 12/27	
TO138 Hwy 20 NOA1	colluvium 0745 12/28	
TO138 Hwy 162 NOA1	outcrop's colluvium 0935 12/28	
TO138 Hwy 162 NOA2	colluvium's outcrop 0935 12/28	
TO138 Hwy 162 NOA3	slide debris PM11.5 1030 12/28	
TO138 Hwy 162 NOA4	slide debris 1030 12/28	

level
↓
level A/
level A
↓



Chain of Custody

Asbestos Lab Services

EMSL Analytical, Inc.
 Suite 230
 2235 Polvorosa Ave
 San Leandro,
 CA 94577
 Phone: (510) 895-
 3675 (888) 455-3675
 Fax: (510) 895-3680
<http://www.emsl.com>

Please print all information legibly.

Client Sample # (s) TO138 Hwy 128 NOA 1 - TO138 Hwy 162 NOA 29

Total Samples #: 28

Relinquished: _____ Date: _____

Time: _____

Received: _____ Date: _____

Time: _____

Relinquished: _____ Date: _____

Time: _____

Received: _____ Date: _____

Time: _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
TO138 Hwy 162 NOA 20	slide debris/col PM 20.11 1600 12/28	
TO138 Hwy 162 NOA 21	slide debris/col PM 20.16 1605 12/28	
TO138 Hwy 162 NOA 22	col / slide debris PM 20.78 1615 12/28	
TO138 Hwy 162 NOA 23	colluvium PM 20.87 1630 12/28	
TO138 Hwy 162 NOA 24	colluvium PM 21.17 1640 12/28	
TO138 Hwy 162 NOA 25	colluvium PM 21.25 1645 12/28	
TO138 Hwy 162 NOA 26	outcrop PM 21.29 1659 12/28	
TO138 Hwy 162 NOA 27	outcrop PM 21.31 1705 12/28	
TO138 Hwy 162 NOA 28	outcrop PM 21.37 1710 12/28	
TO138 Hwy 162 NOA 29	alluvium PM 21.43 1715 12/28	

Level A
↓
Level A
↓
Level A
↓