

INFORMATION HANDOUT

WATER QUALITY

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

PERMITS

**UNITED STATES ARMY CORPS OF ENGINEERS
NATIONWIDE 404 PERMIT**

AGREEMENTS

**CALIFORNIA DEPARTMENT OF FISH AND GAME
NOTIFICATION NO.1600-209-0439-R1**

MATERIALS INFORMATION

**NATURALLY OCCURRING ASBESTOS SURVEY REPORT
OPTIONAL DISPOSAL**

FOR CONTRACT NO.: 02-2C9504

WATER QUALITY

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



**California Regional Water Quality Control Board
North Coast Region**

Geoffrey M. Hales, Chairman



Linda S. Adams
Acting Secretary for
Environmental Protection

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Edmund G. Brown, Jr.
Governor

June 13, 2011

In the Matter of

Water Quality Certification

for the

**California Department of Transportation
Highway 96 – Ukonom Culvert Rehabilitation Project
WDID No. 1A09149WNSI**

APPLICANT: California Department of Transportation
RECEIVING WATER: Klamath River and O'Neill Creek
HYDROLOGIC AREA: Klamath River Hydrologic Unit No. 105.00
COUNTY: Siskiyou
FILE NAME: CDOT - HWY 96, Ukonom Culvert Rehabilitation project

BY THE EXECUTIVE OFFICER:

1. On December 21, 2009, the North Coast Regional Water Quality Control Board (Regional Water Board) received an application 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 96, Ukonom Culvert Rehabilitation Project. Additional project information was received in April and May, 2011. The proposed project will cause disturbances to waters of the United States (U.S.) and waters of the State associated with the wetlands and drainages within the Klamath River Hydrologic Unit, No. 105.00 (Ukonom Sub-Area 105.31 and Seiad Valley Hydrologic Sub-Area No. 105.33).
2. The proposed project includes 85 drainage systems (culverts) located in Siskiyou County, on Highway 96 from post mile (PM) 0.42 to PM 11.90. Proposed construction activities include the installation of new culverts, replacement of existing culverts, installation of culvert liners, modification of culvert inlets and outlets, placement of asphalt concrete (AC) around inlets, and placement of rock slope

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protection (RSP) at the inlets and outlets to reduce erosion. Inlet modifications include installation of headwalls, flared end sections, and inlets. Existing pull-outs and shoulders will be used to stage equipment and materials.

3. Caltrans has determined that total project permanent impacts to streams identified as waters of the U.S. and State will be approximately 0.09 acres (3,920 sq. feet, 1,195 linear feet). The temporary project impacts to streams identified as waters of the U.S. and State will be approximately 0.047 acres (2,025 sq. feet, 613 linear feet). In addition, the project will result in a temporary impact to wetlands of 0.11 acres (4,640 sq. feet) and a permanent impact to wetlands of 0.025 acres (1,074 sq. feet, 211 linear feet). Also, the project will require the removal of 22 trees identified as riparian waters of the State for a total impact of 0.034 acres (1,500 sq. feet, 90 linear feet).
4. As mitigation to compensate for impacts associated with this project, Caltrans proposes both off-site mitigation and on-site revegetation following construction. The off-site mitigation plan includes wetland creation and stream enhancement near the confluence of O'Neill Creek and the Klamath River. The mitigation actions will include the construction of an off-channel alcove planted with wetland and riparian vegetation. The off-channel feature will provide wetland habitat as well as cold water refugia and rearing habitat for salmonids. In addition, the restoration effort will improve fish passage limitations along O'Neill Creek. The project will create 3,021 sq. feet of wetlands and 3,712 sq. feet of off-channel stream habitat, and enhance 1,400 sq. feet of stream habitat.
5. The mitigation project will be conducted in accordance with the Caltrans-prepared Mitigation and Monitoring Proposal at O'Neill Creek Restoration Site, dated April, 2011. Caltrans will perform on-site revegetation activities for wetland, stream and riparian resources disturbed during the project. The on-site restoration will encompass approximately 4,140 sq. feet of wetlands restoration, 1,625 sq. feet (593 linear ft.) of streams restoration, and 2,250 sq. feet (115 linear ft.) of riparian restoration. These efforts will be conducted in accordance with the Caltrans-prepared On-Site Restoration and Monitoring Proposal for the Ukonom Culvert Rehabilitation Project, dated May 2011.
6. Caltrans has applied for authorization from the United States Army Corps of Engineers to perform the project under their Nationwide Permit No. 3 Non-Reporting (Maintenance) pursuant to Clean Water Act, section 404. Caltrans has also applied for a California Department of Fish and Game (CDFG) 1602 Lake and Streambed Alteration Agreement. In December of 2002, Caltrans certified an Initial Study / Mitigated Negative Declaration (State Clearing House No.2009042004) for the project in order to comply with the California Environmental Quality Act. Based on

project changes and amended requirements, Caltrans certified an Addendum to the Initial Study in July, 2010. The Regional Water Board has considered the environmental documents and any proposed changes incorporated into the project or required as a condition of approval to avoid significant effects to the environment.

7. The Klamath River watershed is listed on the Clean Water Act section 303(d) list as impaired for sediment/siltation, temperature, nutrients, cyanobacteria hepatotoxic microcystins, organic enrichment/low dissolved oxygen, high pH, and mercury. In September 7, 2010 the State Water Resources Control Board adopted a Resolution approving amendments to the Water Quality Control Plan for the North Coast Region to establish: (1) site specific dissolved oxygen objectives for the Klamath River; (2) an Action Plan for the Klamath River Total Maximum Daily Loads (TMDLs) addressing temperature, dissolved oxygen, nutrient, and microcystin impairments in the Klamath River; and (3) an Implementation Plan for the Klamath and Lost River Basins. On December 28, 2010, the US Environmental Protection Agency approved the TMDLs for the Klamath River in California pursuant to CWA Section 303(d)(2). The TMDLs, Implementation Plan, and new dissolved oxygen objectives are in effect. Roads are a significant source of sediment in the watershed (directly, from surface erosion, and, indirectly, by triggering landslides). A focus on measures to reduce sediment discharges to surface waters from roads in the watershed, and measures to avoid, minimize, and mitigate impacts on riparian zones is essential for achieving TMDL compliance. In addition, activities that impact the riparian zone and reduce riparian vegetation are identified as sources contributing to increased stream temperatures.
8. Caltrans is listed as a responsible party in the Klamath River TMDL implementation plan with the following specific actions required:
 - Incorporate the following measures into the National Pollutant Discharge Elimination System (NPDES) permit Statewide Storm Water Permit and Waste Discharge Requirements for the State of California, Department of Transportation (Caltrans permit) to address sediment sources from road and highway facilities under Caltrans control: Inventory: Identify sources of excess sediment discharge or threatened discharge and quantify the discharge or threatened discharge from the source(s); Prioritize: Prioritize efforts to control the inventoried sediment sources based on, but not limited to, severity of threat to water quality and beneficial uses, the feasibility of source control, and source site accessibility. Schedule: Develop a schedule to implement the cleanup of excess sediment discharge sites. Implement: Develop and implement feasible sediment control practices to prevent, minimize, and control the discharge. Monitor and Adapt: Use monitoring results to direct adaptive management in order to refine excess sediment control practices and implementation schedules.

- Incorporate measures to meet the excess solar radiation allocation in the statewide Caltrans NPDES permit and CWA section 401 Water Quality Certifications;
 - Implement the measures outlined above to control the discharge of excess sediment from their facilities and comply with the Klamath TMDL allocations even if measures are not incorporated into the statewide Caltrans permit.
 - Implement measures to meet the excess solar radiation allocation, even if measures are not incorporated into the statewide Caltrans permit.
 - Fully assess all barriers and potential barriers to migration caused by Caltrans road and highway facilities along the mainstem Klamath River and in the tributary watersheds identified in the Thermal Refugia Protection Policy. Develop a priority ranking and time schedule for modifying the identified fish passage barriers to accommodate free passage of fish upstream and downstream.
9. Pursuant to Regional Water Board Resolution R1-2004-0087, *Total Maximum Daily Load Implementation Policy Statement for Sediment-Impaired Receiving Waters within the North Coast Region (Sediment TMDL Implementation Policy)*, the Executive Officer is directed to "rely on the use of all available authorities, including existing regulatory standards, and permitting and enforcement tools to more effectively and efficaciously pursue compliance with sediment-related standards by all dischargers of sediment waste."
10. To ensure compliance with sediment, temperature and other related Water Quality Objectives within the Basin Plan, and consistent with the U.S. EPA-established TMDLs, adequate wetland and riparian protection and stringent requirements to avoid, minimize, and mitigate the sediment and temperature impacts associated with the proposed project will be incorporated as enforceable conditions this Water Quality Certification. In addition, Caltrans will be required to conduct surface water monitoring, sampling, and analysis in accordance with the conditions of the Water Quality Certification. Additionally, storm water runoff monitoring, sampling, and analysis will be conducted as required by the State Water Resources Control Board (SWRCB) National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges from the State of California, Department of Transportation (Caltrans) Properties, Facilities and Activities Order No. 99 – 06 - DWQ. The surface water data collected will be utilized to assess the adequacy of BMPs during construction as well as site specific mitigation measures proposed to minimize impacts to the environment, including sediment and temperature impacts.

11. The federal antidegradation policy requires that state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. This Order is consistent with applicable federal and State antidegradation policies, as it does not authorize the discharge of increased concentrations of pollutants or increased volumes of treated wastewater, and does not otherwise authorize degradation of the waters affected by this project.
12. The main stem of the Klamath River from 100 yards below Iron Gate Dam to the Pacific Ocean is designated as a recreational reach under both federal and California Wild and Scenic Rivers Acts. These acts require preservation of the rivers free-flowing condition; anadromous and resident fisheries; and outstanding geologic, wildlife, flora and fauna, historic and cultural, visual, recreational, and water quality values. Recreational segments are generally developed, with parallel roads, bridges, and structures. All activities normally associated with public lands are permitted subject to the protection of free flowing condition and outstanding values. Implementation of the project would not affect the free-flowing condition of the Klamath River and would not affect the extraordinary values for which the segment was listed.

Receiving Waters: Klamath River and O'Neill Creek
Klamath River Hydrologic Unit No. 105.00;
Ukonom Hydrologic Sub-Area No. 105.31;
Seiad Valley Hydrologic Sub-Area No. 105.33.

Filled or Excavated Areas: Permanent – streams: 0.09 acres (3,920 ft²)
Permanent – wetlands: 0.025 acres (1,074 ft²)

Temporary – streams in project area: 0.037 acres (1,625 ft²)
Temporary – streams in mitigation area: 0.01 acres (1,400 ft²)
Total: 0.047 acres (2,025 ft²)

Temporary – wetlands in project area: 0.1 acres (4,140 ft²)
Temporary – wetlands in mitigation area: 0.01 acres (600 ft²)
Total: 0.11 acres (4,640 ft²)

Temporary - riparian areas: 0.034 acres (1,500 ft²)

Total Linear Impacts: Permanent – streams: 1,195 linear ft
Permanent – wetlands: 211 linear ft

Temporary - streams: 593 linear ft
Temporary - wetlands: 491 linear ft
Temporary - riparian areas: 90 linear ft

Dredge Volume: None

Fill Volume: Permanent - streams: 428 cubic yards
Permanent - wetlands: 23 cubic yards

Temporary - streams: 60 cubic yards
Temporary - wetlands: 62 cubic yards

Mitigation proposed: On-site: restoration of 4,140 ft² of wetlands, restoration of 1,625 ft² (593 linear ft) of streams, and 2,250 ft² (115 linear ft) of riparian areas

Off-site: 1,074 ft² of wetland creation, 600 ft² of wetland enhancement, 1,400 ft² of stream enhancement, and 600 linear ft of Riparian planting.

Latitude/Longitude: Culverts: 41.3834 N/123.4907 W to 41.5125 N/123.5227
O'Neill Creek: 41.8102 N / 123.1142 W

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE REGIONAL WATER BOARD CERTIFIES THAT THE CALTRANS HIGHWAY 96 - UKONOM CULVERT REHABILITATION PROJECT (FACILITY NO. 1A09149WNSI), 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 the Caltrans complies with the following terms and conditions:

All conditions of this order apply to Caltrans (and all its employees) and all contractors (and their employees), sub-contractors (and their employees), and any other entity or agency that performs activities or work on the project (including the off-site mitigation lands) as related to this Water Quality Certification.

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 this certification is conditioned upon total payment of any fee required under title 23, California Code of Regulations, section 3833, and owed by the applicant.
4. Except as may be modified by any preceding conditions, all certification actions are contingent on: a) the discharge being limited, and all proposed revegetation, avoidance, minimization, and mitigation measures being completed, in strict compliance with the applicant's project description and CEQA documentation, as approved herein, and b) compliance with all applicable water quality requirements and water quality control plans including the requirements of the Basin Plan, and amendments thereto.
5. 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.
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 as detailed in the Basin Plan.
7. Any change in the design or 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, consideration, and written concurrence.
8. Caltrans shall provide a copy of this Order and State Water Resources Control Board (SWRCB) Order No. 2003-0017-DWQ to the contractor, all subcontractors, and all utility companies 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, subcontractors, or utility companies.
9. 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, major concrete pours, dewatering activities, or water diversion activities with details regarding the construction schedule, in order to allow Regional Water Board staff to be present on-site during installation and removal activities, and to answer any public inquiries that may arise regarding the project. Caltrans shall provide Regional Water Board staff access to the project site to document compliance with this order.
 10. The Resident Engineer (or appropriately authorized agent) 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, 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 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.
 11. All activities and best management practices (BMPs) shall be implemented according to the submitted application and the conditions in this certification. BMPs for erosion, sediment, turbidity and pollutant 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, sediment, or other pollutant discharges to waters of the State. The BMPs shall be implemented in accordance with the Caltrans Construction Site Best Management Practice Manual (CCSBMPM) and all contractors and subcontractors shall comply with the CCSBMPM. In addition, BMPs for erosion and sediment control shall be utilized year round, regardless of season or time of year. Caltrans shall stage erosion and sediment control materials at the work site. All BMPs shall be installed properly and in accordance with the manufacturer's specifications. If the project Resident Engineer elects to install alternative BMPs for use on the project, Caltrans shall submit a proposal to Regional Water Board staff for review and concurrence.
 12. Caltrans shall prioritize the use of wildlife-friendly biodegradable (not photo-degradable) erosion control products wherever feasible. Caltrans shall not use or allow the use of erosion control products that contain synthetic netting for permanent erosion control (i.e. erosion control materials to be left in place for two years or after the completion date of the project). If Caltrans finds that erosion control netting or

products have entrapped or harmed wildlife, personnel shall remove the netting or product and replace it with wildlife-friendly biodegradable products. Caltrans shall not use or allow the use of erosion control products that contain synthetic materials within waters of the United States or waters of the State at any time. Caltrans shall request approval from the Regional Water Board if an exception from this requirement is needed for a specific location.

13. 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.
14. Caltrans is prohibited from discharging waste to waters of the State, unless explicitly authorized by this Order. For example, 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 waters of the State. In addition, none of the materials listed above shall be placed within 150 linear feet of waters of the State or where the materials may be washed by rainfall into waters of the State.
15. Caltrans shall submit, subject to approval by the Regional Water Board staff, a dewatering and/or diversion plan that appropriately describe the dewatered or diverted areas and how those areas will be handled during construction. The diversion/dewatering plans shall be submitted no later than 30 days prior to conducting the proposed activity. Information submitted shall include the area or work to be diverted or dewatered and method of the proposed activity. All diversion or dewatering activities shall be designed to minimize the impact to waters of the State and maintain natural flows upstream and downstream. All dewatering or diversion structures shall be installed in a manner that does not cause sedimentation, siltation or erosion upstream or downstream. All dewatering or diversion structures shall be removed immediately upon completion of project activities. The in-channel work will only be conducted between May 15th and October 15th. This Water Quality Certification does not authorize Caltrans to draft surface waters.
16. Fueling, lubrication, maintenance, storage and staging of vehicles and equipment shall be outside of waters of the U.S. 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 U.S. At no time shall Caltrans use any vehicle or equipment which leaks any substance that may impact water quality.

17. 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.
18. Caltrans shall implement appropriate BMPs to prevent the discharge of equipment fluids to the stream channel. The minimum requirements will include: storing hazardous materials at least 150 linear feet outside of the stream banks; checking equipment for leaks and preventing the use of equipment with leaks; pressure washing or steam cleaning equipment to remove fluid residue on any of its surfaces prior to its entering any stream channel in a manner that does not result in a discharge to waters of the State.
19. Caltrans and their contractor are not authorized to discharge wastewater (e.g., water that has contacted uncured concrete or cement, or asphalt) to surface waters, ground waters, or land. Wastewater may only be disposed of to a sanitary waste water collection system/facility (with authorization from the facility's owner or operator) or a properly-licensed disposal or reuse facility. If Caltrans or their contractor proposes an alternate disposal method, Caltrans or their contractor shall apply for a permit from the Regional Water Board. Plans to reuse or recycle wastewater require written approval from Regional Water Board staff.
20. Any potentially hazardous waste(s) (solids, liquids, or slurries) derived or encountered in this project shall undergo the appropriate characterization to demonstrate compliance with all applicable waste disposal laws and regulations. If unanticipated or anticipated waste are encountered or created during the project, Caltrans shall notify the Regional Water Board immediately and at least within 24 hours. Caltrans or their contractor shall prepare applicable work plans for handling, treating, transporting, and disposing of waste. The work plans shall be prepared and signed by an engineer or geologist with the appropriate and valid California licenses.
21. Caltrans shall provide analysis and verification that placing non-hazardous waste or inert materials (which may include discarded product or recycled materials) will not result in degradation of water quality, human health, or the environment. All project-generated waste shall be handled, transported, and disposed in strict compliance with all applicable State and Federal laws and regulations. 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. In accordance with State and Federal laws and regulations, Caltrans is liable and responsible for the proper disposal of waste generated by their project.

22. All imported fill material shall be clean and free of pollutants. All fill material shall be imported from a source that has the appropriate environmental clearances and permits. The reuse of low-level contaminated solids as fill on-site shall be performed in accordance with all State and Federal policies and established guidelines and must be submitted to the Regional Water Board for review and concurrence.
23. Only clean washed spawning gravel (0.5" – 4") with a cleanliness value of at least 85, using the Cleanness Value Test Method for California Test No. 227 will be placed in the streams. Gravel bag fabric shall be nonwoven polypropylene geotextile (or comparable polymer) and shall conform to the following requirements:
- Mass per unit area, grams per square meter, min ASTM Designation: D 5261 – 270
 - Grab tensile strength (25-mm grip), kilonewtons, min. ASTM Designation: D4632* 0.89
 - Ultraviolet stability, percent tensile strength retained after 500 hours, ASTM Designation: D4355, xenon arc lamp method 70 or appropriate test method for specific polymer
 - Gravel bags shall be between 600 mm and 800 mm in length, and between 400 mm and 500 mm in width.
 - Yarn used in construction of the gravel bags shall be as recommended by the manufacturer or bag supplier and shall be of a contrasting color. Gravel shall be between 0.5" – 4" in diameter, and shall be clean and free from clay balls, organic matter, and other deleterious materials. The opening of gravel-filled bags shall be secured to prevent gravel from escaping. Gravel-filled bags shall be between 13 kg and 22 kg in mass.
 - Caltrans shall request approval from the Regional Water Board if an exception from this requirement is needed for a specific location.
24. Surface water monitoring shall be conducted whenever a project activity is conducted within waters of the State (e.g. demolition, pier construction, stream

diversions). Surface water monitoring shall be conducted when any project activity has, or has the potential to, mobilize sediment and/or alter background conditions within waters of the State. In order to demonstrate compliance with receiving water limitations and applicable water quality standards, field measurements shall be collected whenever a project activity may alter background conditions.

25. Caltrans shall establish effluent, upstream (background) and downstream monitoring locations to demonstrate compliance with all applicable water quality objectives as detailed in the Basin Plan. The downstream location shall be no more than 50 feet from the effluent location. Field measurements shall be taken from each location four times daily for flow, pH, temperature, dissolved oxygen, total dissolved solids, turbidity and specific conductance. In addition, visual observations shall be made four times daily and include the appearance of the discharge including color, turbidity, floating or suspended matter or debris, appearance of the receiving water at the point of discharge (occurrence of erosion and scouring, turbidity, solids deposition, unusual aquatic growth, etc), and observations about the receiving water, such as the presence of aquatic life. Measurements shall be collected from each sampling location four times daily while work is being conducted within waters of the State.
26. Whenever, as a result of project activities, downstream measurements exceed the following water quality objectives, appropriate measurements shall be collected from all monitoring locations every hour during the period of increase, and shall continue until measurements demonstrate compliance with receiving water limitations and the water quality parameters are no longer increasing as a result of project activities.

pH	<7.0 or >8.5 (any changes >0.5 units)
temperature	>0.5°F above background
dissolved oxygen	<7 milligrams per liter (mg/L)
total dissolved solids	20% above natural background
turbidity	20% above natural background
specific conductance	>275 micromhos @ 77°F

If any measurements are beyond the water quality objectives 50 feet downstream of the source(s), all necessary steps shall be taken to install, repair, and/or modify BMPs to control the source(s). In addition, the overall distance from the source(s) to the downstream extent of the exceedance shall be measured.

Monitoring results shall be reported to appropriate Regional Water Board staff person by telephone within one hour of taking any measurements that exceed the limits detailed above (turbidity only if it is higher than 20 NTU as well). Upstream

- and downstream pictures within the working and/or disturbed area shall be taken and submitted to the appropriate Regional Water Board staff via e-mail or fax within 24 hours of the incident. All other monitoring data shall be reported on a monthly basis and is due to the Regional Water Board by the 15th of the following month.
27. Rainy Day Reports: 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 are present and have been installed appropriately and successfully. A brief report containing these photos shall be submitted within 30 days of the rainfall event that generated runoff from the disturbed areas. Once the site has demonstrated appropriate and effective erosion and sediment control, Caltrans may request a reprieve from this condition from the Regional Water Board.
28. The mitigation project shall be conducted in accordance with the Caltrans-prepared Mitigation and Monitoring Proposal at O'Neill Creek Restoration Site, dated April, 2011. Caltrans will perform on-site revegetation activities for wetland, stream and riparian resources disturbed during the project. The on-site restoration will encompass approximately 4,140 sq. feet of wetlands restoration, 1,625 sq. feet (593 linear ft.) of streams restoration, and 2,250 sq. feet (115 linear ft.) of riparian restoration. On-site revegetation shall be conducted in accordance with the Caltrans-prepared On-Site Restoration and Monitoring Proposal for the Ukonom Culvert Rehabilitation Project, dated May 2011. Monitoring reports summarizing the monitoring results will be submitted to the Regional Water Board on December 31 of the 1st, 3rd, and 5th year following the implementation of the initial planting. The off-site mitigation project shall be completed by October 31, 2012. The on-site revegetation actions shall be completed one year subsequent to the completion of the culvert rehabilitation project.
29. 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.

30. The Regional Water Board may add to or modify the conditions of this Order, as appropriate, and 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.
31. This Order is not transferable. In the event of any change in control of ownership of land presently owned or controlled by Caltrans, Caltrans 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.
32. The authorization of this certification for any dredge and fill activities expires on June 13, 2016. 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.
33. Please contact our staff Environmental Specialist / Caltrans Liaison Jeremiah Puget of at (707) 576-2835 or jpuget@waterboards.ca.gov if you have any questions.


Catherine Kuhlman
Executive Officer

110613_JJP_CDOT_Hwy96_UkonomCulverts_401cert

Weblink: State Water Resources Control Board Order No. 2003-0017 -DWQ,
General Waste Discharge Requirements for Dredge and Fill

California Environmental Protection Agency

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: Mr. Edward J Espinoza, California Department of Transportation,
P.O. 496073, Redding, CA 96049-6073

Copies sent to: Mr. Steve Rodgers, California Department of Transportation,
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Mr. Cabe Cornelius, California Department of Transportation,
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Ms. Jane Hicks, U.S. Army Corps of Engineers, Regulatory
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U.S. Army Corps of Engineers, District Engineer, 601 Startare
Drive, Box 14, Eureka, CA 95501

FOR CONTRACT NO.: 02-2C9504

PERMITS

UNITED STATES ARMY CORPS OF ENGINEERS

NATIONWIDE 404 PERMIT



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94103-139

JUN 30 2011

Regulatory Division

SUBJECT: File Number 2009-00046

Mr. Ed Espinoza
California Department of Transportation
P.O. Box 496073
Redding, California 96049-6073

Dear Mr. Espinosa:

This letter is written in response to your submittals of December 15, 2009 and May 9, 2011, concerning Department of the Army authorization for the Ukonom Culvert Rehabilitation Project located along State Route 96 between Somes Bar at post mile (PM) 0.42 and Happy Camp at PM 11.90, in Siskiyou County, California. This project would discharge fill material into waters of the U.S. in association with the replacement or repair of 41 culverts, as shown in Table 1, below. To partially compensate for temporary and permanent impacts to wetlands and other non-wetland waters of the U.S. associated with the project, you shall restore 4,140 sq. ft. of wetlands and 1,625 sq. ft. of other waters at the impact sites. And to compensate for impacts to 1,500 sq. ft. of riparian habitat, you shall restore 2,250 sq. ft. of riparian habitat. You shall mitigate for the remaining impacts to wetlands, other waters and riparian habitat by creating 3,021 sq. ft. of wetlands and 3,712 sq. ft. of other non-wetland waters of the U.S. at the O'Neill Creek mitigation site. Caltrans shall also enhance 600 sq. ft. of wetlands and 1,400 sq. ft. of other non-wetland waters of the U.S. at the O'Neill Creek mitigation site.

Table 1. Summary of impacts associated with the Ukonom Culvert Rehabilitation Project.

Post Mile (distance from Humboldt Co.)	Type of stream	Stream Impacts (ft. ³)		Wetland impacts (ft ³)	
		Permanent	Temporary	Permanent	Temporary
0.89	intermittent	40	60	-	-
1.29	perennial	500	260	-	-
1.52	intermittent	135	50	-	-
1.60	perennial	60	15	-	-
1.65	perennial	590	35	8	32
2.06	perennial	48	120	-	-
2.53	perennial	017	10	-	-
3.10	intermittent	210	10	-	-
3.18	perennial	10	-	-	-
3.66	perennial	110	25	-	-

4.36	perennial	70	20	-	-
4.64	perennial	175	20	-	-
5.47	perennial	-	-	36	16
6.07	intermittent	65	10	-	-
6.41	perennial	15	-	-	-
6.82	perennial	90	50	20	382
6.88	perennial	65	60	35	83
6.97	intermittent	15	-	50	136
7.07	perennial	35	60	-	89
7.09	perennial	50	20	-	-
7.88	perennial	20	30	-	-
8.04	intermittent	50	-	20	-
8.57	perennial	50	25	-	-
8.72	intermittent	25	-	-	-
8.82	perennial	50	25	-	-
8.99	perennial	-	-	30	327
9.53	intermittent	95	-	-	-
9.79	perennial	60	90	-	-
9.98	intermittent	20	-	-	-
10.40	intermittent	110	40	-	-
10.56	intermittent	15	-	-	1272
10.58	perennial	75	110	-	-
10.60	perennial	360	30	-	308
10.64	perennial	150	60	-	-
10.81	perennial	-	-	6	355
11.14	perennial	45	30	50	337
11.21	perennial	110	180	80	-
11.57	intermittent	115	-	235	-
11.63	perennial	122	130	155	-
11.72	perennial	50	15	-	65
11.79	perennial	35	15	-	-
11.90	perennial	50	15	-	638
Total		3870 ft ³	1625 ft ³	2148 ft ³	4040 ft ³

Based on a review of the information you submitted and inspections of the project site conducted by Corps personnel in February and March 2009, your project qualifies for authorization under Department of the Army Nationwide Permit 3 – *Maintenance* (72 Fed. Reg. 11092, March 12, 2007), pursuant to Section 404 of the Clean Water Act (33 U.S.C. Section 1344). See Enclosure 1. All work shall be completed in accordance with the plans and drawings titled “Drainage Plan and Profile,” sheets 3-45 of 45, dated June 15, 2009 (See Enclosure 2), and

“Preliminary Delineation of Wetlands and other Waters, Ukonom Culvert Rehabilitation Project State Route 96 Post Mile 0.42-11.9,” dated November 2008, sheets 3-38 of 38.

The project must be in compliance with the General Conditions cited in Enclosure 3 for this Nationwide Permit (NWP) authorization to remain valid. Non-compliance with any condition could result in the suspension, modification or revocation of the authorization for your project, thereby requiring you to obtain an Individual Permit from the Corps. This NWP authorization does not obviate the need to obtain other State or local approvals required by law.

This verification is valid until the NWP is modified, reissued, or revoked. All of the existing NWPs are scheduled to be modified, reissued, or revoked prior to March 18, 2012. It is incumbent upon you to remain informed of changes to the NWPs. We will issue a public notice when the NWPs are reissued. Furthermore, if you commence or are under contract to commence this activity before the date that the relevant nationwide permit is modified or revoked, you will have twelve months from the date of the modification or revocation of the NWP to complete the activity under the present terms and conditions of this nationwide permit. Upon completion of the project and all associated mitigation requirements, you shall sign and return the Certification of Compliance, Enclosure 4, verifying that you have complied with the terms and conditions of the permit.

This authorization will not be effective until you have obtained a concurrence from the California Coastal Commission or S.F. Bay Conservation and Development Commission that your certification that your project will comply with California's Coastal Zone Management Act. If the Commission fails to act on a valid request for concurrence with your certification within six months after receipt, the Corps will presume a concurrence has been obtained. You shall submit a copy of the concurrence to the Corps prior to the commencement of work.

To ensure compliance with this Nationwide Permit authorization, the following special conditions shall be implemented:

1. Project authorization is contingent upon receipt and approval of a final mitigation plan. The mitigation plan shall be submitted to the Eureka Field Office for review and approval by December 31, 2011. To compensate for the permanent loss of wetlands at the culvert locations, you shall create at least 3,021 square feet of wetlands and 3,712 sq. ft. of other waters at O'Neil Creek mitigation area. You shall also enhance 600 sq. ft. of wetlands and 1400 sq. ft square feet of other waters at O'Neill Creek mitigation area, unless the Corps approves of an alternate mitigation site. The mitigation plan shall fully document the means to increase hydrology, create hydric soils, and establish hydrophytic vegetation. The conceptual mitigation plan is documented in sixteen-page version of “Mitigation and Monitoring Proposal at O'Neil Creek Restoration Site,” dated April 2011.

2. Project authorization is also contingent upon completion of consultation with National Marine Fisheries Service regarding the proposed mitigation at O'Neil Creek before the construction work at the culverts begins. This provisional permit does not authorize you to take an endangered species. In order to legally take a listed species, you must have a separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit or a Biological Opinion (BO) under ESA Section 7 with "incidental take" provisions with which you must comply).
3. The proposed mitigation shall be implemented before or concurrently with the proposed repairs to the culverts.

Should you have any questions regarding this matter, please call Kelley Reid of our Regulatory Division at 707-443-0855. Please address all correspondence to the Regulatory Division and refer to the File Number at the head of this letter. If you would like to provide comments on our permit review process, please complete the Customer Survey Form available online at <http://per2.nwp.usace.army.mil/survey.html>.

Sincerely,



 Jane M. Hicks
Chief, Regulatory Division

Enclosures

Copies furnished (w/o enclosures):

US NMFS, Arcata, CA
CA DFG, Redding, CA
CA RWQCB, Santa Rosa, CA

Nationwide Permit 3 - Maintenance

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

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

(c) This NWP also authorizes temporary structures, fills, and work necessary to conduct the maintenance activity. Appropriate measures must be taken to maintain normal downstream flows and minimize flooding to the maximum extent practicable, when temporary structures, work, and discharges, including cofferdams, are necessary for construction activities, access fills, or dewatering of construction sites. Temporary fills must consist of materials, and be placed in a manner, that will not be eroded by expected high flows. Temporary fills must be removed in their entirety and the affected areas returned to preconstruction elevations. The areas affected by temporary fills must be revegetated, as appropriate. (d) This NWP does not authorize maintenance dredging for the primary purpose of navigation or beach restoration. This NWP does not authorize new stream channelization or stream relocation projects. *Notification:* For activities authorized by paragraph (b) of this NWP, the permittee must submit a preconstruction notification to the district engineer prior to commencing the activity (see general condition 27). Where maintenance dredging is proposed, the preconstruction notification must include information regarding the original design capacities and configurations of the outfalls, intakes, small impoundments, and canals. (Sections 10 and 404)

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

Enclosure 3 -

Enclosure 2 - 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 preconstruction 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 preconstruction

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 preconstruction 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 preconstruction 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 NWPs 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 $\frac{1}{10}$ acre and require preconstruction notification, unless the district engineer determines in writing that some other form of mitigation would be more environmentally appropriate and provides a projectspecific waiver of this requirement. For wetland losses of $\frac{1}{10}$ acre or less that require pre-construction notification, the district engineer may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

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

(e) Compensatory mitigation will not be used to increase the acreage losses allowed by the acreage limits of the NWPs. For example, if an NWP has an acreage limit of $\frac{1}{2}$ acre, it cannot be used to authorize any project resulting in the loss of greater than $\frac{1}{2}$ 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 activityspecific 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 1/5-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:

- (1) Until 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) If 45 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 $\frac{1}{10}$ 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 NWPs 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 preconstruction notification to the district engineer that result in the loss of greater than $\frac{1}{2}$ -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 preconstruction 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 preconstruction 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) *District Engineer's Decision:* 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 $\frac{1}{10}$ 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.

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.

ENCL-4

Permittee: Ed Espinosa, CalTrans

File Number: 2009-00046

**Certification of Compliance
for
Nationwide Permit**

"I hereby certify that the work authorized by the above referenced File Number and all required mitigation have been completed in accordance with the terms and conditions of this Nationwide Permit authorization."

(Permittee)

(Date)

Return to:

Kelley Reid
U.S. Army, Corps of Engineers
San Francisco District
Eureka Field Office, CESP-N-RN-E
601 Startare Drive
San Francisco, CA 95501

Enclosure 4

FOR CONTRACT NO.: 02-2C9504

AGREEMENTS

CALIFORNIA DEPARTMENT OF FISH AND GAME

NOTIFICATION NO.1600-209-0439-R1

Notice of Determination

TO: Office of Planning and Research **FROM:** Department of Fish and Game
Northern Region
601 Locust Street
Redding, CA 96001
Contact: Craig Martz
Phone: (530) 225-2281

For U.S. Mail:
P.O. Box 3044
Sacramento, CA 95812-3044

Street Address:
1400 Tenth Street
Sacramento, CA 95814

LEAD AGENCY (if different from above):
California Department of Transportation
Post Office Box 496073
Redding, CA 96049-6073
Contact: Cabe Cornelius
Phone: (530) 225-3514

SUBJECT: Filing of Notice of Determination pursuant to § 21108 of the Public Resources Code

State Clearinghouse Number: 2009042004

Project Title: Lake or Streambed Alteration Agreement No. 1600-2009-0439-R1, Ukonom Culvert Rehabilitation Project.

Project Location: Various locations along State Route (SR) 96 between Somes Bar (Latitude 41.381717° N, Longitude 123.492138° W) and Ti Bar (Latitude 41.524637° N, Longitude 123.526740° W) in Siskiyou County.

Project Description: The Project proposes to repair, rehabilitate, or replace 85 severely degraded culverts on unnamed tributaries to the Klamath River between Post Miles 0.42 and 11.90 on SR 96 in Siskiyou County.

This is to advise that the Department of Fish and Game (DFG), acting as the lead agency / a responsible agency approved the above-described project on the date signed below and has made the following determinations regarding the above described project:

1. The project will / will not have a significant effect on the environment. (This determination is limited to effects within DFG's jurisdiction when DFG acts as a responsible agency.)
 2. An environmental impact report / A negative declaration / A timber harvesting plan was prepared for this project pursuant to CEQA.
 3. Mitigation measures were / were not made a condition of DFG's approval of the project.
 4. A Statement of Overriding Considerations was / was not adopted by DFG for this project.
 5. Findings were / were not made by DFG pursuant to Public Resources Code § 21081(a). DFG did, however, adopt findings to document its compliance with CEQA.
 6. Compliance with the environmental filing fee requirement at Fish and Game Code § 711.4 (check one):
 - Payment is submitted with this notice.
 - A copy of a receipt showing prior payment is on file with DFG.
 - A copy of the CEQA Filing Fee No Effect Determination Form signed by DFG is attached to this notice.
- Lead Agency certification: DFG, as Lead Agency, has made the final EIR with comments and responses and record of project approval, or the Negative Declaration, available to the General Public at the DFG office identified above.
- Responsible Agency statement: The Mitigated Negative Declaration that was prepared by the Lead Agency for this project is available to the General Public at the office location listed above for the Lead Agency. DFG's CEQA Findings are available at the DFG office identified above.

Signed: _____

Curt Babcock
Acting Habitat Conservation Program Manager
Northern Region

Date: 8/23/10

Date Received for filing at OPR:

**CALIFORNIA DEPARTMENT OF FISH AND GAME
CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS FOR
LAKE OR STREAMBED ALTERATION AGREEMENT No. 1600-2009-0439-R1**

Introduction

The California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, *et seq.*) and the State CEQA Guidelines (Guidelines) (Section 15000, *et seq.*, Title 14, California Code of Regulations) require that no public agency shall approve or carry out a project for which a Mitigated Negative Declaration (MND) has been completed that identifies one or more significant effects, unless the agency makes the following finding as to each significant effect:

Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant effects on the environment.

As the lead agency for the project, the California Department of Transportation (Caltrans) adopted the MND for the Project on July 13, 2009. An addendum to the MND was prepared by Caltrans on July 13, 2010. Caltrans found that the Project will not result in significant environmental effects with the mitigation measures required in, or incorporated into the Project.

The California Department of Fish and Game (DFG) is entering into Lake or Streambed Alteration Agreement (Agreement) No. 1600-2009-0439-R1 with Mr. Edward Espinoza representing Caltrans. The project is located on unnamed tributaries to the Klamath River, Siskiyou County, in various sections, T12N, R6E and T 13N, R6E, Humboldt Base and Meridian.

Because DFG is issuing the Agreement, it is a Responsible Agency under CEQA for the Project. As a CEQA Responsible Agency, DFG is required by Guidelines Section 15096 to review the environmental document certified by the Lead Agency approving the projects or activities addressed in the Agreement and to make certain findings concerning a project's potential to cause significant, adverse environmental effects. However, when considering alternatives and mitigation measures approved by the Lead Agency, a Responsible Agency is more limited than the Lead Agency. When issuing the Agreement, DFG is responsible only for ensuring that the direct or indirect environmental effects of activities addressed in the Agreement are adequately mitigated or avoided. Consequently, the findings adopted or independently made by DFG with respect to an Agreement's activities are more limited than the findings of the Lead Agency funding, approving, or carrying out the project activities addressed in such Agreements.

Findings

DFG has considered the MND and addendum adopted by Caltrans. DFG has independently concluded that the Agreement should be issued under the terms and conditions specified therein. In this regard, DFG hereby adopts any findings of Caltrans as set forth in the MND and record of project approval, insofar as those findings pertain to the project's impacts on biological resources.

Signed: _____

Curt Babcoek
Acting Habitat Conservation Program Manager
Northern Region

Date: _____

8/25/10

CALIFORNIA DEPARTMENT OF FISH AND GAME
NORTHERN REGION
601 LOCUST STREET
REDDING, CA 96001



LAKE OF STREAMBED ALTERATION AGREEMENT
NOTIFICATION No. 1600-2009-0439-R1
Unnamed Tributaries to Klamath River

CALIFORNIA DEPARTMENT OF TRANSPORTATION
UKONOM CULVERT REHABILITATION

This Lake or Streambed Alteration Agreement (Agreement) is entered into between the California Department of Fish and Game (DFG) and the California Department of Transportation (Permittee) as represented by Mr. Edward Espinoza.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified DFG on December 17, 2009, that Permittee intends to complete the project described herein.

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

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

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

PROJECT LOCATION

Permittee proposes to repair or replace culverts on 85 unnamed tributaries to the Klamath River on State Route 96 between Somes Bar (Post Mile 0.42) and Ti Bar (Post Mile 11.90) in the County of Siskiyou, State of California; Project limits are between Latitude 41.381717 N, Longitude 123.492138 W, and Latitude 41.524637 N, Longitude 123.526740 W; U.S. Geological Survey (USGS) maps Somes Bar, Bark Shanty Gulch, and Dillon Mountain, Humboldt Base and Meridian.

PROJECT DESCRIPTION

The project is limited to replacement or rehabilitation of 85 severely degraded drainage systems along SR 96 between Post Miles 0.42 and 11.90 in Siskiyou County. The project includes replacing and/or relocating non-traversable drainage inlets, upgrading

or replacing culverts and end treatments, lining existing culverts to extend service life, placing rock slope protection (RSP) at eroded inlets and outlets, and placing asphalt-concrete (AC) aprons, dikes, and gutters to address erosion. Some culverts will be extended to provide a clear recovery zone for errant vehicles. All work shall be in accordance with submitted plans and diagrams and any subsequent revisions approved by the DFG in writing. Specific work includes:

- a. Replacing existing culverts at 28 locations, including upgrading culvert diameters at 9 locations.
- b. Extending culvert length at the inlet or outlet, and/or adding downdrains at 19 locations.
- c. Installing Type GO Inlets with AC aprons and dikes at 62 locations.
- d. Placing RSP at culvert outlets at 49 locations.
- e. Constructing temporary diversions to isolate the work area from flowing water at six locations. Temporary diversions may be necessary at an additional 20 locations depending on flow conditions at the time of work.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include: American peregrine falcon (*Falco peregrinus anatum*), osprey (*Pandion haliaetus*), coho salmon (*Oncorhynchus kisutch*), southern torrent salamander (*Rhyacotriton variegatus*) foothill yellow-legged frog (*Rana boylei*), western tailed frog (*Ascaphus truei*), bottlebrush sedge (*Carex hystericina*) as well as other non-game and game fishes, amphibians, reptiles, aquatic invertebrates, mammals, birds, and other aquatic and riparian species.

The adverse effects the project could have on the fish or wildlife resources identified above include: disruption of raptor nesting behavior and decreased reproductive success due to construction disturbance; loss of occupied passerine nests including eggs and/or nestlings as a result of vegetation removal; direct amphibian mortality during construction and temporary loss of downstream habitat associated with construction de-watering; temporary and permanent impacts to aquatic species due to suspended sediment and the smothering and/or shading of egg masses and benthic invertebrate communities due to sediment deposition; direct removal of sensitive plants and occupied habitat as a result of construction activities.

Approximately 52 trees, primarily white alders, California bay, black oak, and madrone, may be removed during construction activities. Temporary vegetation impacts will be mitigated through riparian revegetation at four locations on-site. Unavoidable permanent impacts to riparian and wetland vegetation will be compensated at an off-site location.

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

- 1.1 **Documentation at Project Site.** Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to DFG personnel, or personnel from another state, federal, or local agency upon request.
- 1.2 **Providing Agreement to Persons at Project Site.** Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.
- 1.3 **Notification of Conflicting Provisions.** Permittee shall notify DFG if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, DFG shall contact Permittee to resolve any conflict.
- 1.4 **Project Site Entry.** Permittee agrees that DFG personnel may enter the project site at any time after notifying the Resident Engineer to verify compliance with the Agreement.
- 1.5 Permittee's notification (Notification of Lake or Streambed Alteration together with all maps, plans, photographs, drawings, and all other supporting documents submitted with notification to describe the activity) is hereby incorporated by reference into this Agreement. Permittee shall conduct project activities within the work areas and using the mitigative features described in the notification and supporting documents, unless such project activities, work areas or mitigative features are modified by the provisions of this Agreement, in which case the activities shall be conducted as described in this Agreement.

2. Avoidance and Minimization Measures

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

- 2.1 All work shall be confined to the period commencing June 1 and ending October 15, provided the stream is dry or at minimum flow. If weather conditions permit and the stream is dry or at minimum flow, the Permittee may perform work within the

stream channel or on the banks outside of the above referenced work window, provided a written request is made to DFG at least five (5) days before the proposed work period variance. Written approval from DFG for the proposed work period variance must be received by the Permittee prior to the start or with the continuation of work outside of the above referenced work window.

- 2.2 If work is performed within the stream channel or on the banks outside of the above referenced work window, the Permittee shall do all of the following:
 - a. Stage erosion and sediment control materials at the work site.
 - b. Monitor the seventy-two (72) hour forecast from the National Weather Service.
 - c. When the 72-hour forecast indicates a probability of precipitation of 60% or greater, or at the onset of any precipitation, ground disturbing activities shall cease and erosion control measures shall be implemented to stabilize exposed soils and prevent the mobilization of sediment into the stream channel or adjacent wetland or riparian areas.
- 2.3 The Permittee shall instruct all persons who will be completing any ground disturbing activity at a work site to comply with the conditions set forth in this Agreement and shall inspect each work site before, during, and after completion of any ground-disturbing activity at the work site.

HABITAT AND SPECIES PROTECTION

- 2.4 Removal of existing trees and shrubs shall occur after August 31 and before March 1 to avoid impacts to nesting birds.
- 2.5 To avoid disturbance to nesting peregrine falcons, no work shall take place at four (4) locations (PM 0.56, 0.68, 0.89, and 0.94) between February 15 and July 31. No take of peregrine falcons, including their nest, eggs, or young is authorized by this Agreement.
- 2.6 To avoid disturbance to nesting osprey, no work shall occur at six (6) locations (PM 9.53, 9.61, 11.30, 11.39, 11.49, and 11.57) between April 1 and August 15 if DFG determines the osprey nest to be occupied. No take of osprey, including their nest, eggs, or young is authorized by this Agreement.
- 2.7 Environmentally Sensitive Area (ESA) fencing shall be installed to protect wetland vegetation at the following eleven (11) locations: PM 2.53, 2.74, 5.44, 6.82, 6.88, 6.97, 8.04, 8.99, 11.14, 11.79, and 11.90.

- 2.8 ESA fencing shall also be installed at PM 2.06 to avoid potential impacts to a bottlebrush sedge population adjacent to the culvert inlet.
- 2.9 ESA fencing shall consist of temporary orange construction fence or other highly visible material that clearly delineates the limits of the work area. Environmentally Sensitive Areas shall be clearly shown on the project plans and drawings and ESA fencing shall be installed prior to the beginning of work. The Permittee shall ensure that the contractor, their subcontractors, and all personnel working on the project are instructed on the purpose of the ESA fencing and understand the limits of the work area.
- 2.10 The placement of ESA fencing shall be inspected and approved by DFG prior to the initiation of work. Permittee shall provide written notification for inspection a minimum of 5 working days prior to beginning work. If DFG is unable to conduct a site inspection during this period, the inspection may be conducted by the Environmental Construction Liaison and the results forwarded to DFG for approval.
- 2.11 Permittee shall perform pre-construction amphibian surveys within two weeks prior to initiating construction activities at the following eleven (11) locations: PM 1.29, 2.06, 3.66, 4.64, 6.88, 9.79, 10.60, 10.64, 11.14, 11.21, and 11.63. Any amphibian species found within the work area shall be relocated to a suitable habitat area outside of the construction limits.

CULVERTS AND INSTREAM STRUCTURES

- 2.12 Culverts shall extend beyond the road fill and shall not be perched (shotgunned). Culverts shall be installed at watercourse gradient or have downspouts or energy dissipaters (rock rip-rap or boulders) at the outfall to prevent erosion.
- 2.13 All work within the channel or on the banks shall be performed when the channel is dry or at minimum flow. If water is present during construction, all work shall be performed in isolation from surface or subsurface flow.
- 2.14 Where water is present, a temporary stream diversion shall be constructed to isolate the work area from flow. Temporary diversions may be constructed using gravel berms, clean washed spawning gravels, sand bags, K-rail, plastic sheeting, or a combination of these materials upstream from the culvert inlet. Flows will then be diverted into a temporary culvert, pipe, or conduit and released downstream from the work area.
- 2.15 At PM 1.29, the existing culvert will be used to isolate the work area from the active channel while an abandoned 60-inch diameter culvert is replaced with a new 72-inch diameter culvert.

- 2.16 Dewatering shall be done in a manner that prevents the discharge of material that could be deleterious to fish, plants or other aquatic life and maintains adequate flows to downstream reaches during all times natural flow would have supported aquatic life.
- 2.17 Any turbid water pumped from the work area shall be disposed of in an upland area where it will not drain directly to surface waters.
- 2.18 If clean washed spawning gravel (0.5" – 4") is used for diversion berms, it may be left in the channel following construction provided it is spread to a depth less than 6 inches and does not impede or redirect surface flows. All other temporary diversion materials shall be removed from the stream channel upon completion of work.
- 2.19 Structures and other materials not designed to withstand high seasonal flows shall be removed to areas above the high water mark before such flows occur.

RIPARIAN VEGETATION

- 2.20 Disturbance or removal of vegetation shall not exceed the minimum necessary to complete operations. Whenever possible, riparian vegetation shall be cut back rather than removed, leaving root systems intact.
- 2.21 Except where provided for within this agreement, the removal of riparian vegetation from the streambed or streambanks is prohibited without prior written approval from DFG. The work area shall be identified to all workers, as represented in plans.
- 2.22 A total of 2,186 square feet of riparian vegetation will be established on-site by planting alders and willows at four locations (PM 1.29, 10.4, 10.6, and 10.64) following completion of construction. Plantings shall be monitored for a minimum of five years, with a minimum 65% survival rate at the end of the monitoring period.
- 2.23 Permittee shall prepare a restoration and monitoring plan for the off-site mitigation area including but not limited to the following: a planting plan containing a list of the plant species that will be used and the type and number of plants to be installed; a discussion of the irrigation, animal and weed control measures to be used during the plant establishment period; an annual monitoring plan; and performance criteria that will be used to determine whether the mitigation is successful. The restoration plan shall be approved by the Department prior to the start of project construction.

EROSION AND SEDIMENT CONTROL

- 2.24 The project shall at all time feature adequate erosion and sediment control devices to prevent the degradation of water quality.
- 2.25 Soils exposed by project operations shall be treated to prevent sediment runoff and transport. Erosion control measures shall comply with contract specifications and may include applications of seed, rice straw, compost, fiber, commercial fertilizer, stabilizing emulsion and mulch, or combinations thereof.
- 2.26 Soils adjacent to the stream channel that are exposed by project operations shall be adequately stabilized when rainfall is reasonably expected during construction, and immediately upon completion of construction, to prevent the mobilization of such sediment into the stream channels or adjacent wetlands. National Weather Service forecasts shall be monitored by the Permittee to determine the chance of precipitation.
- 2.27 Following construction, all disturbed areas shall be stabilized and reseeded with a native seed mix consisting of California brome (*Bromus carinatus*), California blue wild-rye (*Elymus glaucus*), Idaho fescue (*Festuca idahoensis*), Spanish clover (*Lotus purshianus*), tufted hairgrass (*Deschampsia caespitosa*), California poppy (*Eschscholzia californica*), meadow barley (*Hordeum brachyantherum*), pine blue grass (*Poa secunda*) and three-weeks fescue (*Vulpia microstachys*)

EQUIPMENT ACCESS

- 2.28 Vehicles shall not be driven, or equipment operated, in water covered portions of a stream, or where wetland vegetation, riparian vegetation, or aquatic organisms may be destroyed, except as otherwise provided for in the Agreement to complete authorized work.

PETROLEUM, CHEMICAL AND OTHER POLLUTANTS

- 2.29 No staging, storage, or re-fueling areas for machinery, equipment, and/or materials shall be located within a distance of 100 feet from waters of the State unless approved in writing by DFG.
- 2.30 No equipment or machinery shall be operated within any flowing stream.
- 2.31 Any equipment or vehicles driven and/or operated within or adjacent to the stream channel shall be checked and maintained daily to prevent leaks of materials that, if introduced to water, could be deleterious to aquatic life, wildlife, or riparian habitat.

- 2.32 All equipment used during construction of this project shall be cleaned (i.e. free of dirt and debris that may harbor noxious weed seeds and parts) prior to its arrival on site and before leaving the project area.
- 2.33 Stationary equipment such as motors, pumps, generators, and welders that contain deleterious materials, located within or adjacent to a stream shall be positioned over drip pans.
- 2.34 All activities performed in or near a stream shall have absorbent materials designated for spill containment and clean up activities on-site for use in an accidental spill. The Permittee shall immediately notify the California Emergency Management Agency at 1-800-852-7550 and immediately initiate the clean up activities. DFG shall be notified by the Permittee and consulted regarding clean-up procedures.
- 2.35 No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete or washings thereof, asphalt, paint or other coating material, oil or petroleum products or other organic or earthen material from any construction, or associated activity of whatever nature shall be allowed to enter into, or placed where it may be washed by rainfall or runoff into, waters of the State. When operations are completed, any excess materials or debris shall be removed from the work area. No rubbish shall be deposited within 150 feet of the high water mark of any stream or lake.

CONTACT INFORMATION

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

To Permittee:

Mr. Edward Espinoza
Department of Transportation
1657 Riverside Drive
Redding, California 96001
Fax: (530) 225-3019
edward_espinoza@dot.ca.gov

To DFG:

Department of Fish and Game
Northern Region
601 Locust Street, California 96001
Attn: Lake and Streambed Alteration Program – Craig Martz
Notification #1600-2009-0439-R1
Fax: (530) 225-0324
cmartz@dfg.ca.gov

LIABILITY

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

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

SUSPENSION AND REVOCATION

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

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

ENFORCEMENT

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

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

OTHER LEGAL OBLIGATIONS

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

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

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

AMENDMENT

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

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

TRANSFER AND ASSIGNMENT

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

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

EXTENSIONS

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

If Permittee fails to submit a request to extend the Agreement prior to its expiration, Permittee must submit a new notification and notification fee before beginning or continuing the project the Agreement covers (Fish & G. Code, § 1605, subd. (f)).

EFFECTIVE DATE

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

TERM

This Agreement shall expire on December 31, 2014, unless it is terminated or extended before then. All provisions in the Agreement shall remain in force throughout its term. Permittee shall remain responsible for implementing any provisions specified herein to protect fish and wildlife resources after the Agreement expires or is terminated, as FGC section 1605(a)(2) requires.

AUTHORITY

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

AUTHORIZATION

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

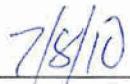
CONCURRENCE

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

FOR DEPARTMENT OF TRANSPORTATION



Edward Espinoza

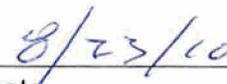


Date

FOR DEPARTMENT OF FISH AND GAME



Curt Babcock
Acting Habitat Conservation Program Manager



Date

FOR CONTRACT NO.: 02-2C9504

MATERIALS INFORMATION

NATURALLY OCCURRING ASBESTOS SURVEY REPORT

NATURALLY OCCURRING ASBESTOS SURVEY REPORT



**Ukonom Culvert Rehab
State Route 96, Post Mile R0.0/R12.0
Siskiyou County, California**

PREPARED FOR:

**CALIFORNIA DEPARTMENT OF TRANSPORTATION – DISTRICT 2
ENVIRONMENTAL ENGINEERING OFFICE
1657 RIVERSIDE DRIVE
REDDING, CALIFORNIA 96046**



PREPARED BY:

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



**GEOCON PROJECT NO. S9300-06-54
TASK ORDER NO. 54, EA NO. 02-2C9500**

JANUARY 2009



Project No. S9300-06-54

January 29, 2009

Mr. Tom Graves
California Department of Transportation – District 2
Environmental Engineering Office
1657 Riverside Drive
Redding, California 96046

Subject: UKONOM CULVERT REHAB
STATE ROUTE 96, POST MILE R0.0/R12.0
SISKIYOU COUNTY, CALIFORNIA
CONTRACT NO. 03A1368, TASK ORDER NO. 54, EA 02-2C9500
NATURALLY OCCURRING ASBESTOS SURVEY REPORT

Dear Mr. Graves:

In accordance with California Department of Transportation (Caltrans) Contract No. 03A1368, Task Order No. 54, and Expense Authorization 02-2C9500, we have performed environmental engineering services at the project site. The site consists of Caltrans right-of-way along State Route 96 between Post Mile R0.0 and R12.0 in Siskiyou County, California. The accompanying report summarizes the services performed including the excavation of 72 hand-auger borings for the collection of soil samples, the collection of six surface soil samples, and analysis of five soil samples for aerially deposited lead and 78 soil samples for naturally occurring asbestos.

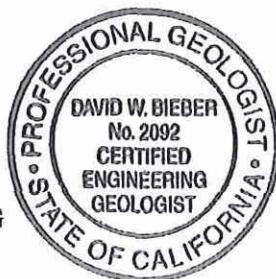
The contents of this report reflect the views of the author, who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute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

Please contact us if 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

(5 + 3CD) Addressee

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FIGURES

- 1. Vicinity Map
- 2-1 through 2-15. Site Plans

TABLES

- 1. Summary of Sample Coordinates
- 2. Summary of Asbestos Analytical Results and Sample Locations
- 3. Summary of Lead Analytical Results

APPENDICES

- A. Laboratory Reports and Chain-of-custody Documentation
- B. Resubmitted/Revised Culvert Locations

NATURALLY OCCURRING ASBESTOS SURVEY REPORT

1.0 INTRODUCTION

This Naturally Occurring Asbestos (NOA) Survey Report was prepared by Geocon Consultants, Inc. under California Department of Transportation (Caltrans) Contract No. 03A1368, Task Order (TO) No. 54, and Expenditure Authorization 02-2C9500.

1.1 Project Description and Proposed Improvements

The site consists of Caltrans right-of-way along State Route 96 (SR-96) between Post Mile (PM) R0.0 and R12.0, in Siskiyou County, California. The approximate site location is depicted on the attached Vicinity Map, Figure 1. Caltrans is proposing to repair, improve, or replace 89 culverts between PM R0.0 and R12.0. The culvert locations are depicted on the Site Plans, Figure 2-1 through 2-15.

1.2 General Objectives

The culvert improvements proposed along SR-96 will require the disturbance of soil, bedrock, and existing pavement. The purpose of the scope of services outlined in TO No. 54 was to evaluate the culvert locations for NOA in the surface and near surface soils and bedrock. Limited soil sampling for aerially deposited lead (ADL) was also performed for planning purposes. The investigative results will be used by Caltrans to evaluate potential NOA impacts within the project boundaries for construction worker health and safety, excess soil material disposal, and compliance monitoring purposes.

2.0 BACKGROUND

The site is comprised of existing right-of-way along approximately 12 miles of SR-96. Caltrans requested assessment of the site to provide data regarding the presence of NOA at culvert improvement locations. Caltrans additionally requested limited ADL sampling from five culvert locations within the project boundaries.

The California Air Resources Board (CARB) has mitigation practices for construction, grading, quarrying, and surface mining operations that may disturb natural occurrences of asbestos as outlined in Title 17 California Code of Regulations (CCR), Section 93105. NOA potentially poses a health hazard when it becomes an airborne particulate. The roadway improvement activities proposed on the site 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 filter equipped respirators 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 of material that contains less than 0.25% NOA.

3.0 SCOPE OF SERVICES

The scope of services as requested by Caltrans in TO No. 54 included the collection of soil and rock samples for laboratory analysis, the performance of a geologic assessment of the site for potentially asbestos-bearing geologic materials, and the preparation of this report.

3.1 Pre-field Activities

- Conducted a Task Order Meeting on November 4, 2008, to discuss the TO scope of services. Caltrans Quality Assurance (QA) Manager Tom Graves and Geocon field supervisor Ian Stevenson, PG, attended the meeting. The purpose of the TO Meeting was to identify and observe the project boundaries and conditions.
- Prepared a *Health and Safety Plan* dated October 31, 2008, 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 site and surrounding areas for information on the potential presence of NOA.
- Retained the services of EMSL Analytical, Inc. (EMSL), a Caltrans-approved and California-certified analytical laboratory, to perform the asbestos analyses.
- Retained the services of Advanced Technology Laboratories (ATL), a Caltrans-approved and California-certified analytical laboratory, to perform lead analyses of samples.

3.2 Field Activities

The NOA survey was performed on November 5 and 6, 2008, by Ian Stevenson, a California Professional Geologist. Seventy-eight NOA samples and 5 ADL samples were collected from 72 hand-auger borings and 6 bedrock outcrops. Following sample collection, the borings were backfilled with the soil cuttings. Details of the field activities are presented in the following sections.

3.2.1 Boring Locations

The sample locations were selected in the field by the Geocon field supervisor, based on the observed geology and the culvert location. The locations of the borings were determined using a differential global positioning system (GPS) capable of providing a horizontal position with an error of no more than 3.3 feet when satellite geometry allowed adequate signal reception.

The position in latitude and longitude for each boring location determined using the GPS is identified on the Summary of Sample Coordinates, Table 1. The latitude and longitude position data for seven sample locations were not available due to an insufficient number of satellites being properly aligned to triangulate the position at the time of sampling. The approximate soil boring locations are depicted on Figures 2-1 through 2-15.

4.0 INVESTIGATIVE METHODS

Prior to sample collection, Ian Stevenson, PG, conducted a reconnaissance assessment of the rock and soil types present on the site. Geologic materials that possibly contain NOA were observed in fill, slide debris, colluvium, and bedrock materials at 22 of the 89 culvert locations at the site. A targeted sample was collected from each culvert location, unless the observed geologic materials were of a type or from a source unlikely to contain NOA, in which case it was not sampled. Ten of the culvert locations were not sampled as the local geologic environment and sedimentary source areas were judged to not be conducive to the formation of NOA. Five soil samples for ADL analysis were split from NOA 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 re-sealable plastic bag. Samples collected with a hand-auger were retrieved from a depth of 0.5 to 1 foot. Each sample collected was marked with an identification number, the PM, and the date and time collected. Samples were delivered to EMSL and ATL under chain-of-custody (COC) protocol.

4.1 Traffic Control

Shoulder closure was established, where needed, using warning signs and cones in the work area.

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. The decontamination water was discharged to the ground surface within the Caltrans right-of-way, 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.

4.3.1 Naturally Occurring Asbestos Samples

Seventy-eight samples were submitted to EMSL for asbestos fiber analysis on a six to ten-day turn-around-time (TAT) basis. Each of the NOA samples was analyzed by the polarized light microscopy (PLM) method for asbestos by CARB Method 435 (CARB 435). The analytical sensitivity of the PLM analysis was 0.25% by area. The CARB 435 preparation includes milling the sample to a -200 mesh size which also homogenizes the sample.

4.3.2 Aerially Deposited Lead Samples

Five soil samples collected for lead analysis were analyzed by ATL on a ten working-day TAT basis for total lead following the United States Environmental Protection Agency (EPA) Test Method 6010B.

4.3.3 Laboratory QA/QC Procedures

QA/QC procedures were performed as applicable for each method of analysis with specificity for each analyte listed in the test method's QA/QC. QA/QC measures for the lead analyses included the following:

- One method blank for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One spiked sample for every ten samples, batch of samples or type of matrix, whichever was more frequent, with the spike made at ten times the detection limit or at the analyte level.

5.0 FIELD OBSERVATIONS AND INVESTIGATIVE RESULTS

5.1 Site Geology

We reviewed the California Geological Survey's (CGS) *Geologic Map of California, Weed Sheet* (1987) prior to beginning the field work to gather information regarding the potential presence of NOA on the site. The depicted geologic materials on or adjacent to the site as shown on the Weed Sheet are primarily Quaternary landslide deposits; the Jurassic Galice Formation; and the Jurassic Rattlesnake Creek Terrane, Jurassic Hayfork Terrane, Jurassic Metavolcanics, Triassic Gabbro, and Permian and Triassic ultramafic rock of the Western Paleozoic and Triassic Belt. The geologic materials mapped immediately adjacent to the roadway at the culvert locations consists primarily of Quaternary landslide

deposits and the Jurassic Galice Formation. Ian Stevenson, PG, performed a NOA assessment of the lithology of outcrops visible within the Caltrans right-of-way. Rock types observed at the site consisted of metasandstone, slate, talc schist, metavolcanic rocks, and ultramafic rocks.

5.2 NOA Results

Seventy-eight samples were analyzed by EMSL for asbestos by the PLM method using the CARB 435 sample preparation method. Fifty-five of the samples submitted for asbestos analysis were reported as non-detect (ND) for NOA. Twenty-one samples were reported to contain tremolite and/or chrysotile asbestos below the regulatory limit of 0.25%. Two samples were reported to contain chrysotile asbestos at or above the regulatory limit of 0.25%. NOA results are presented in Table 2, Summary of Asbestos Analytical Results and Sample Locations. The NOA laboratory reports and COC documentation are presented in Appendix A.

5.3 ADL Soil Analytical Results

Total lead was detected in one of the five soil samples analyzed at a concentration of 9.6 milligrams per kilogram (mg/kg). None of the five soil samples was reported to have total lead concentrations greater than 50 mg/kg (i.e., greater than ten times the STLC value for lead of 5.0 milligrams per kilogram). Since the ADL analysis was performed for planning purposes and lead was not reported at or above 50 mg/kg, statistical analysis was not performed. ADL results are presented in Table 3, Summary of Lead Analytical Results. Laboratory reports and COC documentation are presented in Appendix A.

5.4 Review of Laboratory QA/QC

We reviewed the analytical laboratory QA/QC data provided with the ATL laboratory report. These data show acceptable non-detect results and surrogate recoveries for the method blanks and acceptable recoveries and relative percent differences (RPDs) for the matrix spikes and matrix spike duplicates (MS/MSDs). Based on the laboratory QA/QC data, no additional qualification of the data presented herein is necessary, and the data are of sufficient quality for the purposes of this report.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Naturally Occurring Asbestos

Engineering controls as specified by the CARB or the California Division of Occupational Safety and Health Administration (Cal-OSHA) to limit the aerial dispersion of asbestos include the following:

- CARB/Cal-OSHA asbestos controls required. Asbestos controls as described by CARB under CCR Title 17 Section 93105 and Cal-OSHA under CCR Title 8 Section 5208 are required.
- Cal-OSHA asbestos controls recommended. Asbestos controls as described by Cal-OSHA under CCR Title 8 Section 5208 recommended.
- Materials not regulated under CARB/Cal-OSHA. Asbestos controls not required by CARB or Cal-OSHA.

The level of engineering controls required or recommended for each culvert location is presented on Table 2 and Figures 2-1 through 2-15. A Caltrans-provided table detailing culvert locations, size, and excavation and barrow estimates is presented in Appendix B.

CARB/Cal-OSHA Asbestos Controls Required

The observed geology at 22 of the 89 culvert locations at the site is indicative of a geologic environment where NOA minerals are likely to occur. This includes locations reported as ND and locations reported to contain asbestos below the regulatory limit of 0.25%, but where geologic materials were noted to be ultramafic rock or to contain greater than 10% ultramafic rock by visual estimate. The presence of serpentine rock and/or NOA at these 22 culvert locations requires the use of engineering controls, as described by CARB under CCR Title 17 Section 93105, during disturbance activities to minimize potential aerial dispersion of asbestos. Additionally, construction/maintenance activities at these locations may fall under the regulatory jurisdiction of Cal-OSHA under CCR Title 8 Section 5208. It is recommended that mitigation measures to minimize the release of NOA to air (dust control) and surface waters (stormwater discharge) be utilized during construction/maintenance activities. Of these 22 locations, two (Drainage No. 51 and 65) were reported to contain asbestos at or above the regulatory limit of 0.25%.

Cal-OSHA Asbestos Controls Recommended

Soils from eight of the 89 culvert locations were reported to contain asbestos below the regulatory limit of 0.25% although the adjacent geology was not indicative of a geologic environment where NOA minerals are likely to occur. Construction/maintenance activities at these locations may fall under the regulatory jurisdiction of Cal-OSHA under CCR Title 8 Section 5208. It is recommended that mitigation measures to minimize the release of NOA to air (dust control) and surface waters (stormwater discharge) be utilized during construction/maintenance activities.

Materials Not Regulated Under CARB/Cal-OSHA

Fifty-nine of the 89 culvert locations at the site were reported as ND for asbestos and ultramafic rock was not observed, or was present at less than approximately 10% of the total geologic material present, based on visual estimates. Engineering controls to limit the potential aerial dispersion of asbestos are not required.

6.1.1 Potential NOA-containing Soils Management

NOA is a State of California regulated substance, and may be present in serpentinite and other ultramafic geologic materials. Though asbestos was reported to be present at 24 of the culvert locations, asbestos content does not render site materials unsuitable for reuse within the Caltrans project boundaries.

CARB/Cal-OSHA Asbestos Controls Required

Materials removed from the 22 culvert locations requiring CARB/Cal-OSHA asbestos controls may not be used as surfacing material, as described in CCR Title 17 Section 93106. If these materials are provided to another party, they must be accompanied by a written notification that they contain asbestos and/or serpentine. Materials removed from Drainage No. 51 or 65 and provided to another party must be accompanied by a written notification that they contain 0.25% or greater asbestos and serpentine. However, these materials may be re-used onsite if they are covered by a minimum of 0.25 foot of material that contains less than 0.25% asbestos.

Cal-OSHA Asbestos Controls Recommended

Materials removed from culvert locations where only Cal-OSHA asbestos controls are recommended may be used on- and offsite without restriction. However, if these materials are provided to another party it is recommended that they be accompanied by a written notification that they contain asbestos and/or contain serpentine at less than 0.25%.

Materials not Regulated under CARB/Cal-OSHA

Materials removed from these locations may be used on- and offsite without restriction with respect to potential NOA content.

6.1.2 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 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.

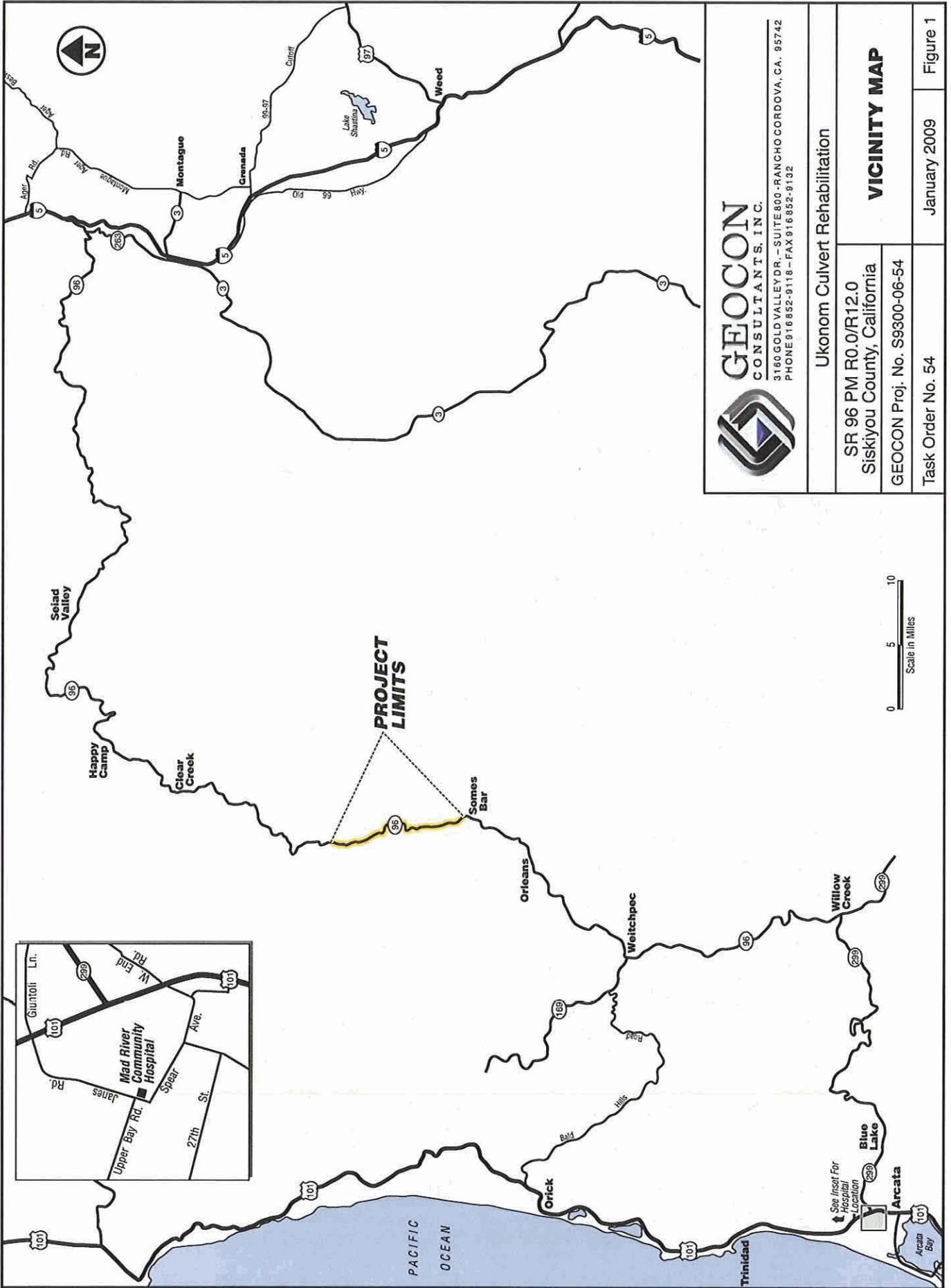
6.2 Aerially Deposited Lead

The maximum lead level reported in the samples we collected for this project was 9.6 mg/kg, which is below levels of regulatory concern and expected background. Based on the limited sampling performed, we do not recommend additional sampling of the culvert locations for lead, and engineering controls to limit exposure to lead in soil are not required.

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.



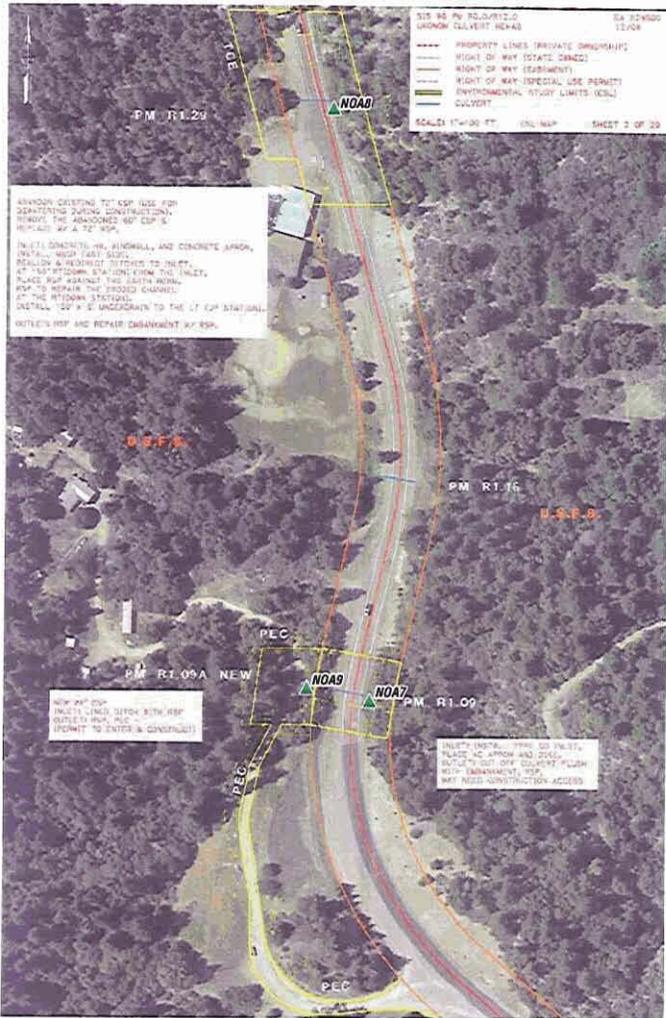
3160 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA. 95742
 PHONES 916 852-9118 - FAX 916 852-9132

Ukonom Culvert Rehabilitation

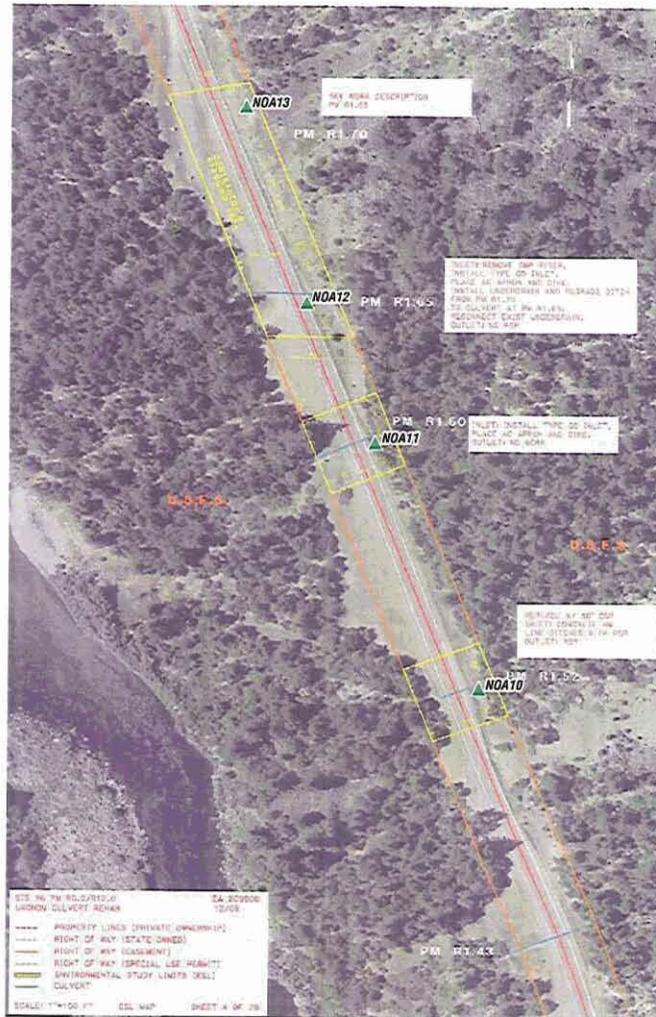
SR 96 PM R0.0/R12.0
 Siskiyou County, California
 GEOCON Proj. No. S9300-06-54

VICINITY MAP

Task Order No. 54 January 2009 Figure 1



SHEET 3



SHEET 4



- LEGEND:
- ▲ CARB/Cal-OSHA Asbestos Controls Required
 - Cal-OSHA California Occupational Safety and Health Administration
 - CARB California Air Resources Board

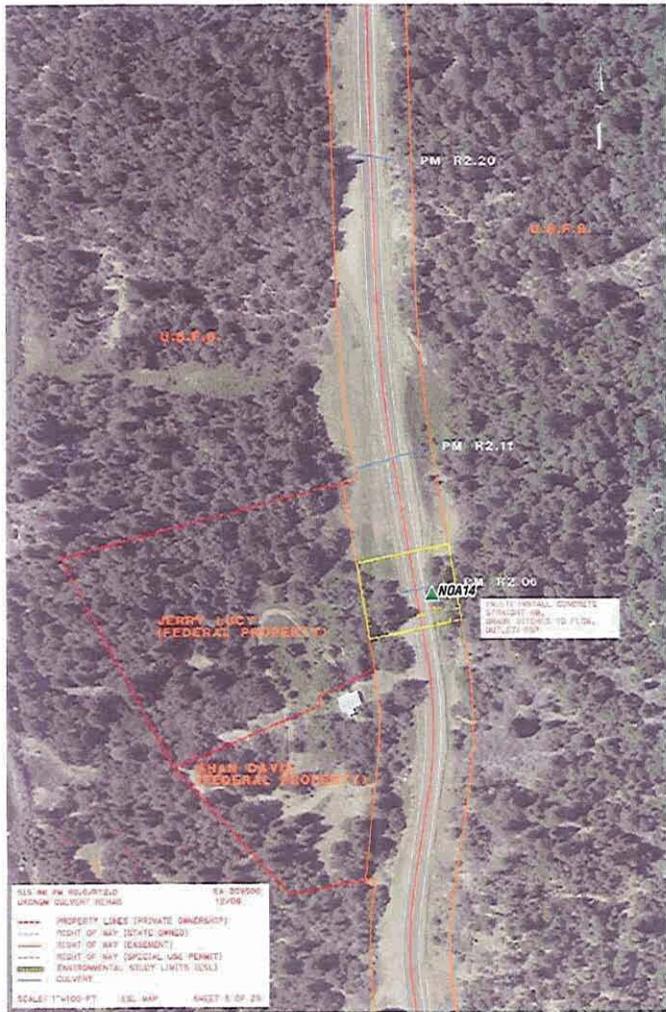




**GEOCON
CONSULTANTS, INC.**
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
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Ukonom Culvert Rehabilitation

SR 96 PM R0.0/R12.0 Siskiyou County, California	SITE PLAN
GEOCON Proj. No. S9300-06-54	
Task Order No. 54	January 2009 Figure 2-2



SHEET 5



SHEET 6

LEGEND:

- ▲ CARB/Cal-OSHA Asbestos Controls Required
- Cal-OSHA California Occupational Safety and Health Administration
- CARB California Air Resources Board



GEOCON CONSULTANTS, INC.
 3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742
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Ukonom Culvert Rehabilitation		
SR 96 PM R0.0/R12.0 Siskiyou County, California		SITE PLAN
GEOCON Proj. No. S9300-06-54		
Task Order No. 54	January 2009	Figure 2-3



LEGEND:

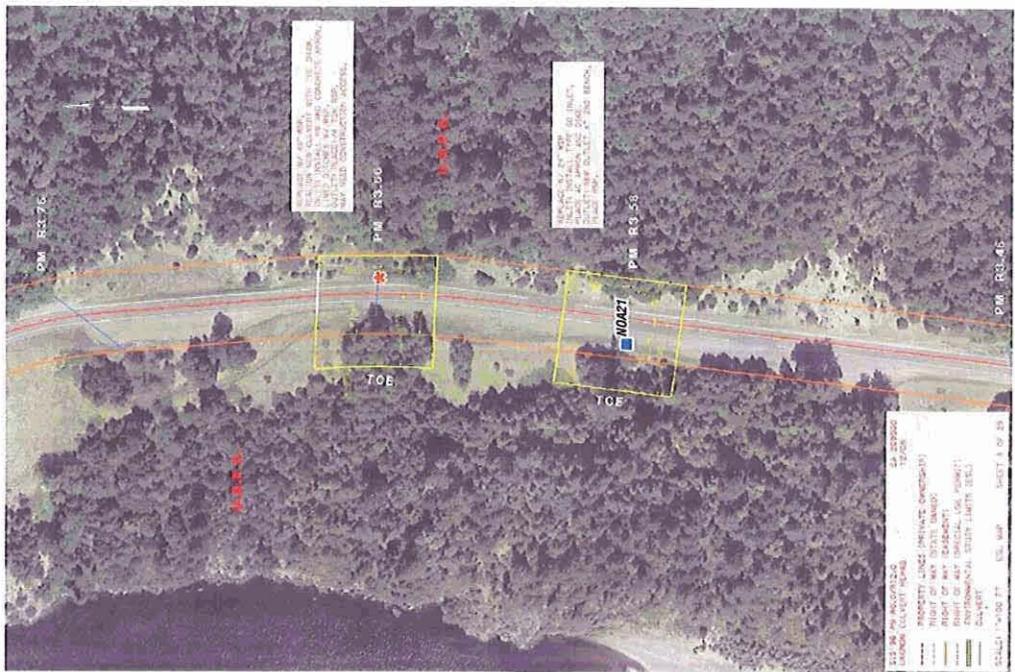
- ⊗ Cal-OSHA Asbestos Controls Recommended
- ▲ CARB/Cal-OSHA Asbestos Controls Required
- No Asbestos Controls Required
- ★ No Sample Collected
- Cal-OSHA California Occupational Safety and Health Administration
- CARB California Air Resources Board



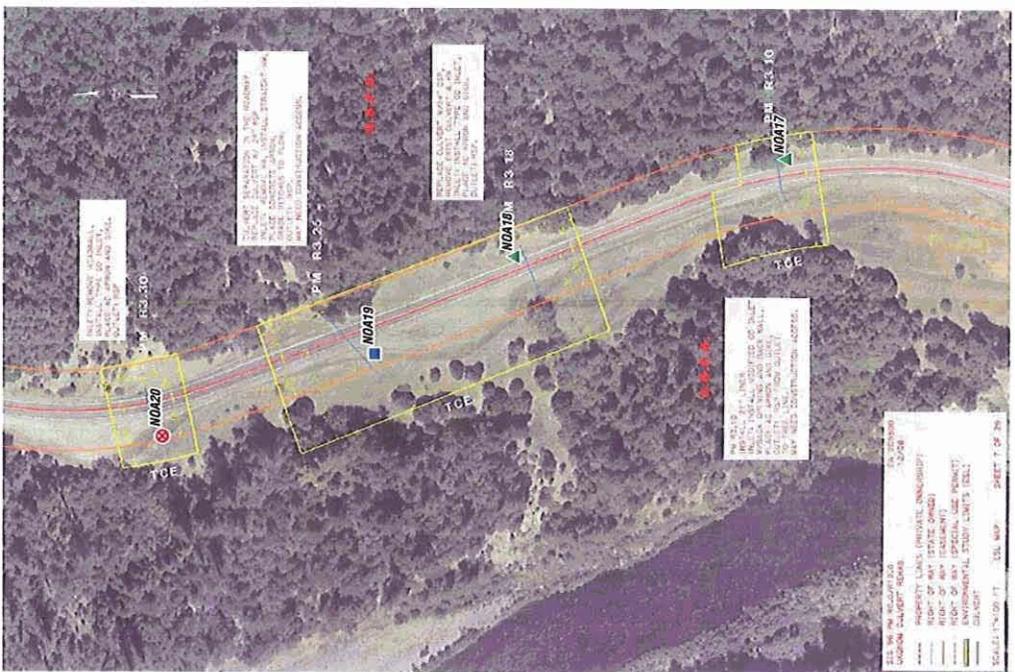
GEOCON CONSULTANTS, INC.
 3180 GOLD VALLEY DR - SUITE 808 - RANCHO CORDOVA, CA 95742
 PHONE 916.852.9118 - FAX 916.852.9132

Ukonom Culvert Rehabilitation

SR 96 PM R0.0/R12.0 Siskiyou County, California	SITE PLAN
GEOCON Proj. No. S9300-06-54	
Task Order No. 54	January 2009
	Figure 2-4



SHEET 8



SHEET 7



LEGEND:

- ⊗ Cal-OSHA Asbestos Controls Recommended
 - ⊕ No Asbestos Controls Required
 - ⊙ No Sample Collected
- Cal-OSHA California Occupational Safety and Health Administration
 CARB California Air Resources Board



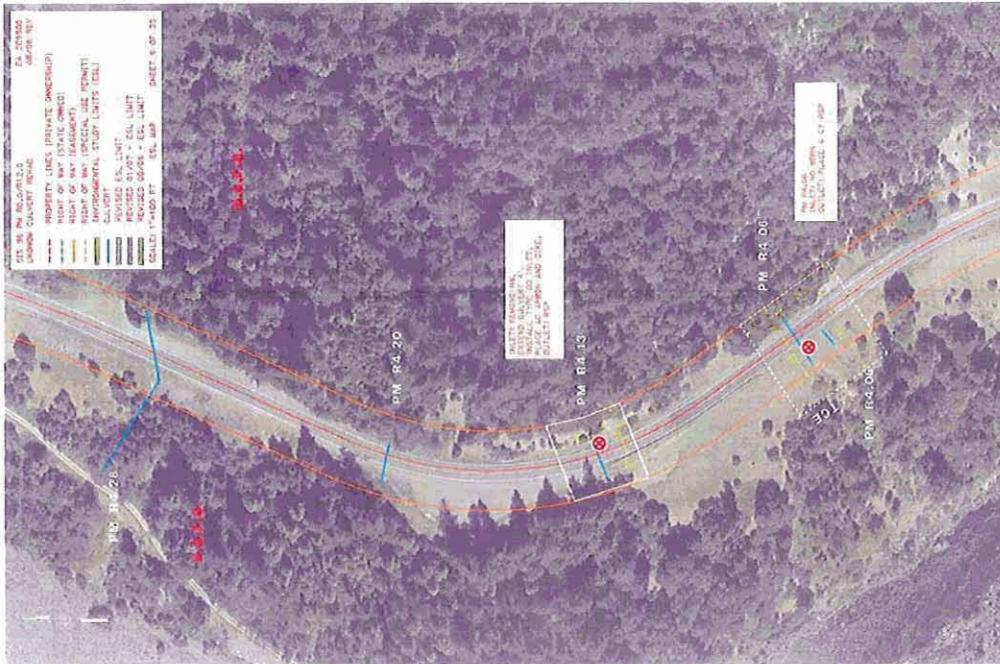
GEOCON CONSULTANTS, INC.
 3185 GOLD VALLEY DR. - SUITE 800 - RANCHO CORDOVA, CA 95742
 PHONE 916.852.9118 - FAX 916.852.9132

Ukonom Culvert Rehabilitation

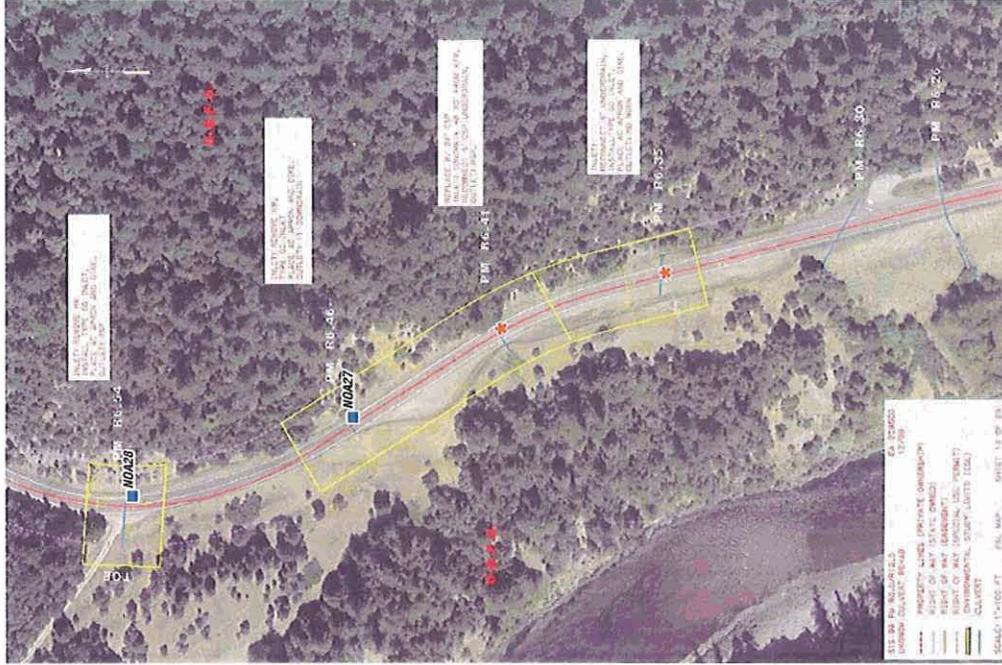
SR 96 PM R0.0/R12.0 Siskiyou County, California	SITE PLAN
GEOCON Proj. No. S9300-06-54	
Task Order No. 54	January 2009
	Figure 2-5



SHEET 10



SHEET 9



LEGEND:

- No Asbestos Controls Required
- ★ No Sample Collected



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 Siskiyou County, California
 GEOCON Proj. No. S9300-06-54

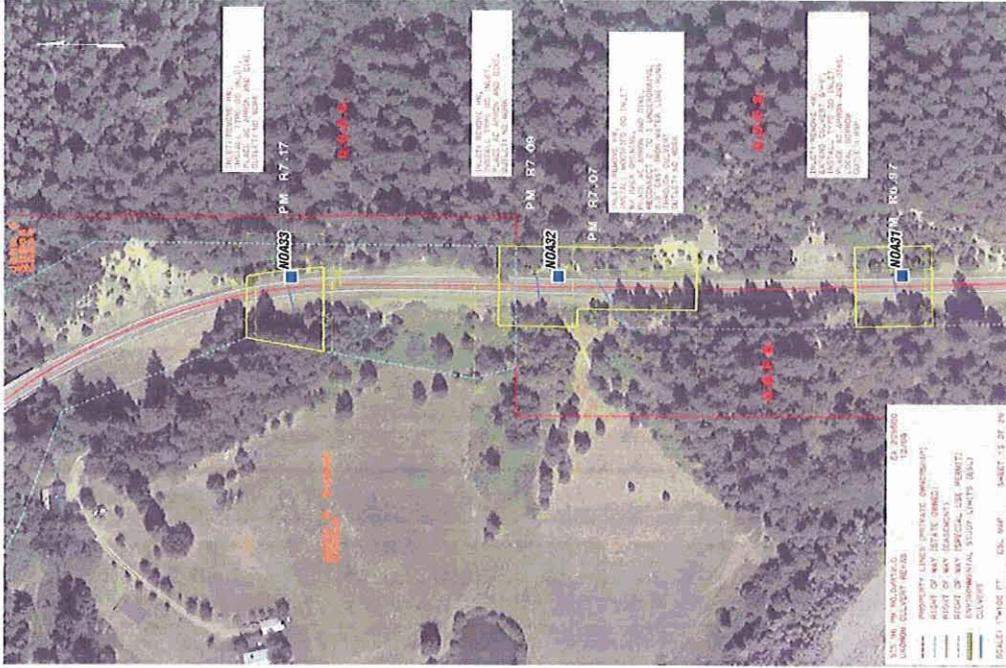
SHEET 14

SHEET 13

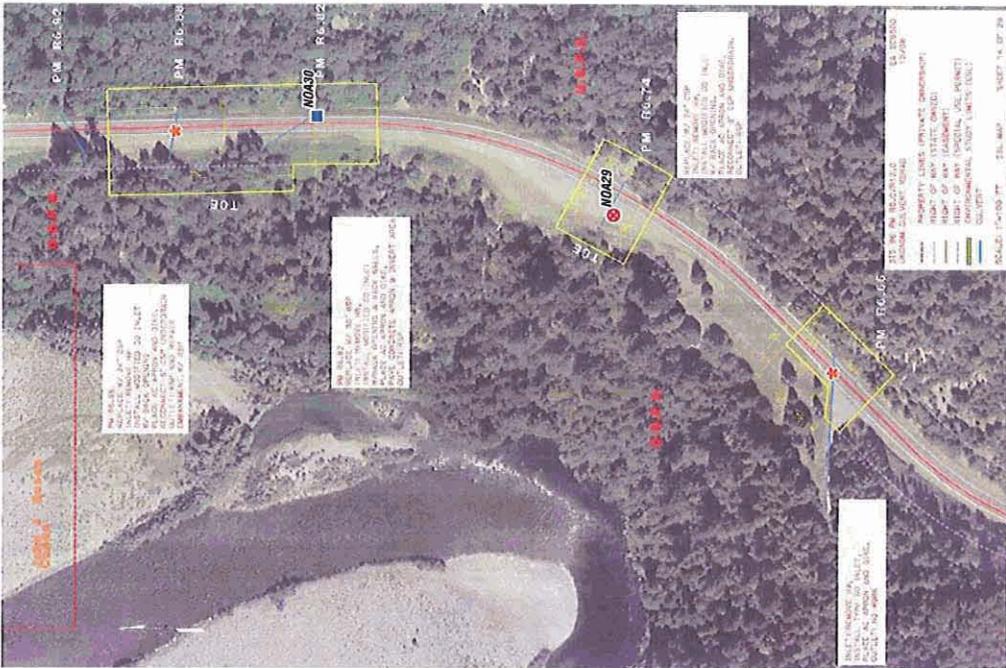
Task Order No. 54

January 2009

Figure 2-7



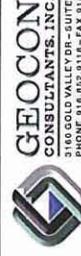
SHEET 16



SHEET 15

LEGEND:

- ⊗ Cal-OSHA Asbestos Controls Recommended
- ⊕ No Asbestos Controls Required
- ★ No Sample Collected
- California Occupational Safety and Health Administration
- CARB California Air Resources Board



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 Siskiyou County, California

SITE PLAN

GEOCON Proj. No. S9900-06-54

Task Order No. 54

January 2009

Figure 2-8



LEGEND:

- No Asbestos Controls Required
- ★ No Sample Collected



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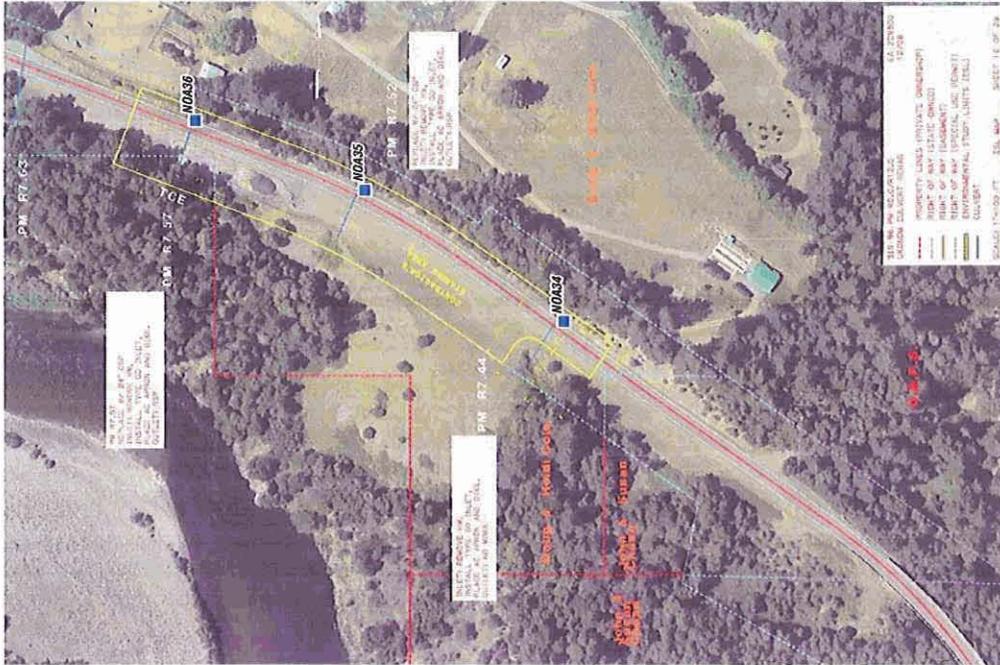
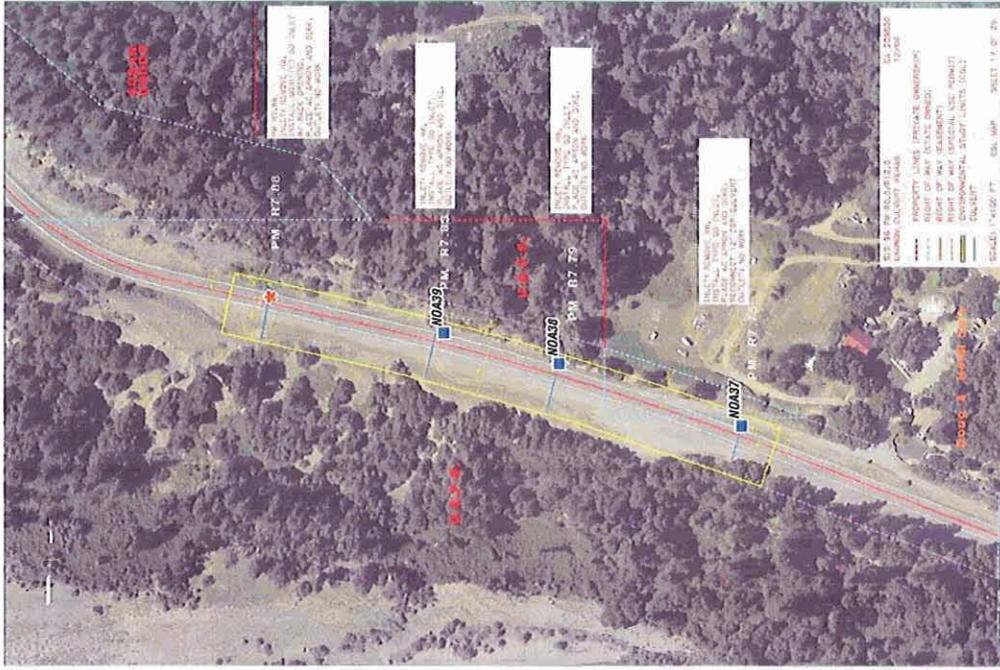
SR 96 PM R0.0/R12.0
 Siskiyou County, California
 GEOCON Proj. No. S9300-06-54

SHEET 18

Task Order No. 54

January 2009

Figure 2-9



SHEET 17



LEGEND:

- ▲ CARB/Cal-OSHA Asbestos Controls Required
- No Asbestos Controls Required
- Cal-OSHA California Occupational Safety and Health Administration
- CARB California Air Resources Board

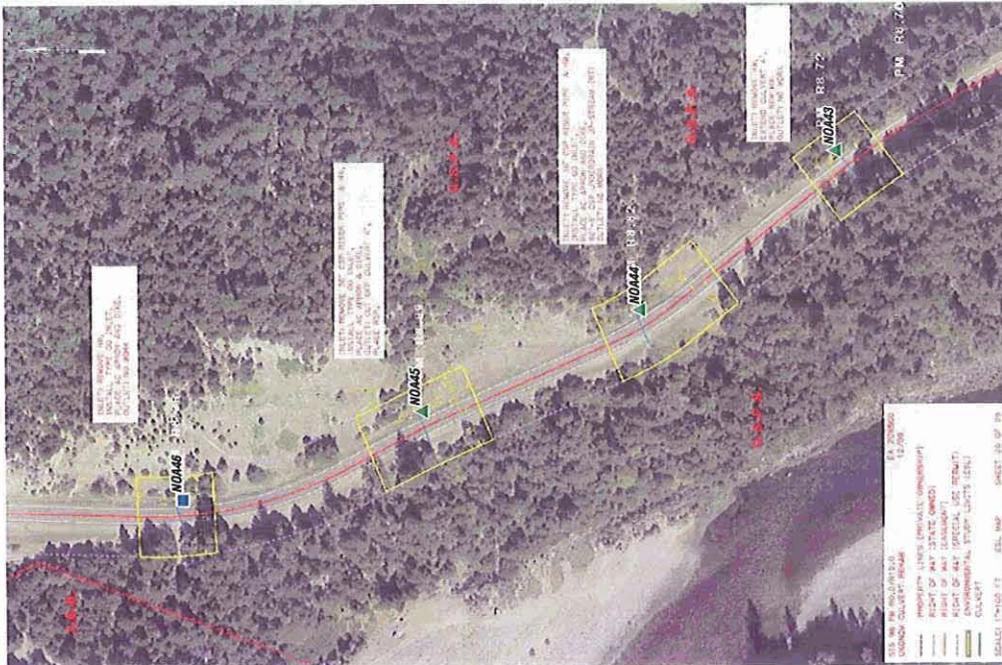


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 GEOCON Proj. No. S9300-06-54

SITE PLAN

January 2009
 Task Order No. 54
 Figure 2-11





SHEET 24



SHEET 23

LEGEND:

- Cal-OSHA Asbestos Controls Recommended
 - ▲ CARB/Cal-OSHA Asbestos Controls Required
 - No Asbestos Controls Required
- Cal-OSHA California Occupational Safety and Health Administration
 CARB California Air Resources Board



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SR 96 PM R0.0/RT12.0 Siskiyou County, California	SITE PLAN
GEOCON Proj. No. S9900-06-54	
Task Order No. 54	January 2009
Figure 2-12	



LEGEND:

- ▲ CARB/Cal-OSHA Asbestos Controls Required
- No Asbestos Controls Required
- California Occupational Safety and Health Administration
- CARB California Air Resources Board



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 Siskiyou County, California
 GEOCON Proj. No. S9300-06-54

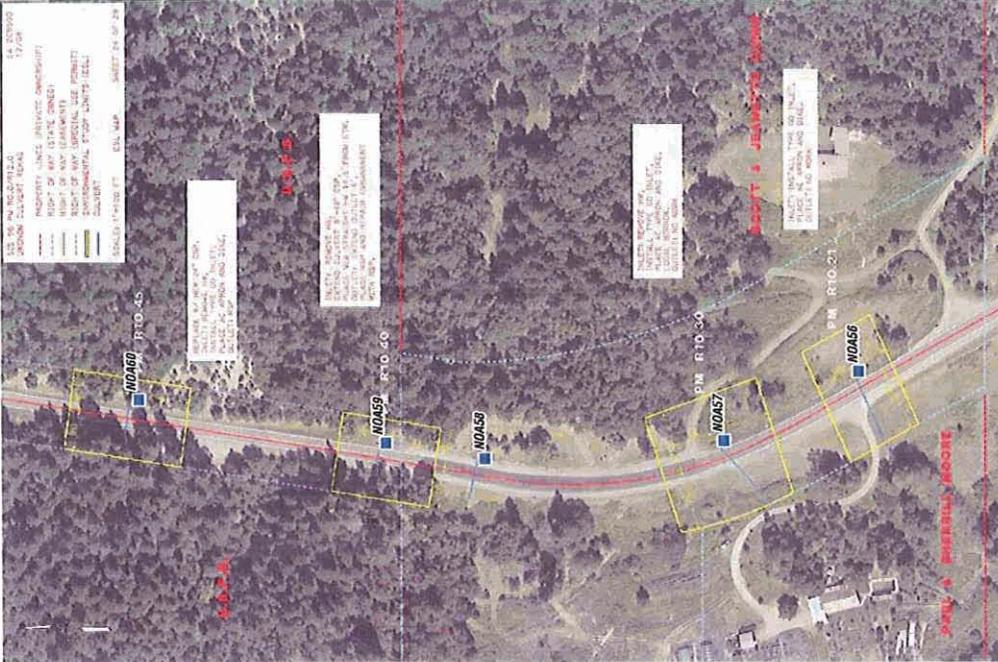
SHEET 26

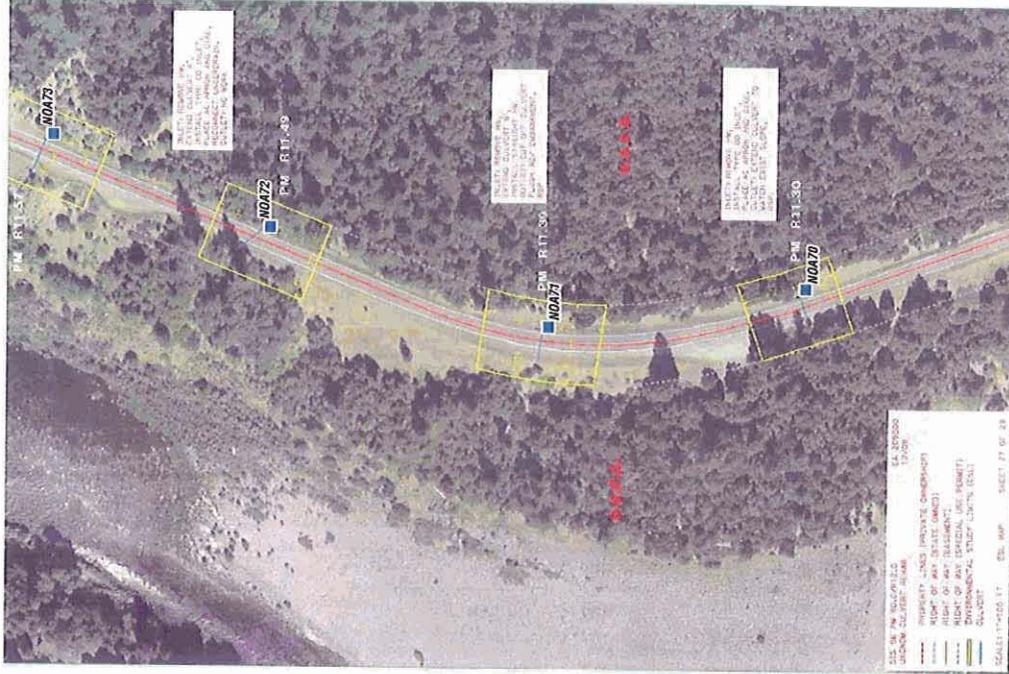
SHEET 25

Task Order No. 54

January 2009

Figure 2-13





LEGEND:

- ⊗ Cal-OSHA Asbestos Controls Recommended
- No Asbestos Controls Required
- ⊗ Cal-OSHA California Occupational Safety and Health Administration
- CARB California Air Resources Board



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Ukonom Culvert Rehabilitation	
SR 96 PM R0.0/R12.0	SITE PLAN
Siskiyou County, California	
GEOCON Proj. No. S9300-06-54	January 2009
Task Order No. 54	Figure 2-14

SHEET 28

SHEET 27

TABLE 1
 SUMMARY OF SAMPLE COORDINATES
 CALTRANS TASK ORDER NO. 54, EA 02-2C9500
 UKONOM CULVERT REHABILITATION NOA SURVEY
 STATE ROUTE 96 POST MILE R0.0/R12.0
 SISKIYOU COUNTY, CALIFORNIA

DRAINAGE NUMBER	SAMPLE ID	DATE	CULVERT LOCATION	LATITUDE	LONGITUDE
1	NOA-1	11/5/2008	PM 0.42	41.381842734	-123.491678963
2	NOA-2	11/5/2008	PM 0.50	41.382531193	-123.492892794
3	NOA-3	11/5/2008	PM 0.56	---	---
4	NOA-4	11/5/2008	PM 0.68	41.385142952	-123.493444289
5	NOA-5	11/5/2008	PM 0.89	41.387907818	-123.493640646
6	NOA-6	11/5/2008	PM 0.94	---	---
7	NOA-7	11/5/2008	PM 1.09	41.390425264	-123.495733209
8	NOA-9	11/5/2008	PM 1.09	41.390517300	-123.496192798
9	NOA-8	11/5/2008	PM 1.29	41.393067844	-123.496147270
10	NOA-10	11/5/2008	PM 1.52	41.396263477	-123.497444496
11	NOA-11	11/5/2008	PM 1.60	41.397335801	-123.498193010
12	NOA-12	11/5/2008	PM 1.65	41.397976368	-123.498562039
13	NOA-13	11/5/2008	PM 1.70	41.398659830	-123.498967032
14	NOA-14	11/5/2008	PM 2.06	41.403598168	-123.500615933
15	NOA-15	11/5/2008	PM 2.53	41.409942416	-123.499088982
16	NOA-16	11/5/2008	PM 2.74	41.412956875	-123.499650845
17	NOA-17	11/5/2008	PM 3.10	41.417996496	-123.499509089
18	NOA-18	11/5/2008	PM 3.18	41.419146746	-123.500091448
19	NOA-19	11/5/2008	PM 3.25	41.420116422	-123.500434944
20	NOA-20	11/5/2008	PM 3.30	41.421586161	-123.500908445
21	NOA-21	11/5/2008	PM 3.58	41.424758703	-123.500589585
22	---	---	PM 3.66	---	---
23	NOA-22	11/5/2008	PM 4.06	41.431190544	-123.503040007
24	NOA-23	11/5/2008	PM 4.13	41.432054119	-123.503967435
25	NOA-24	11/5/2008	PM 4.36	41.439704166	-123.503524181
26	---	---	PM 4.64	---	---
27	NOA-25	11/5/2008	PM 4.99	41.443191282	-123.506107313
28	---	---	PM 5.44	---	---
29	---	---	PM 5.47	---	---
30	---	---	PM 6.07	---	---
31	---	---	PM 6.35	---	---
32	NOA-26	11/5/2008	PM 6.41	41.456956917	-123.497104863
33	NOA-27	11/5/2008	PM 6.46	41.457507202	-123.497668038
34	NOA-28	11/5/2008	PM 6.54	41.458771543	-123.498341433
35	---	---	PM 6.65	---	---
36	NOA-29	11/5/2008	PM 6.74	41.461126125	-123.496289223
37	NOA-30	11/5/2008	PM 6.82	41.462474682	-123.495914603
38	---	---	PM 6.88	---	---
39	NOA-31	11/5/2008	PM 6.97	41.464584292	-123.496014523
40/41	NOA-32	11/5/2008	PM 7.07/7.09	41.465895369	-123.496058226
42	NOA-33	11/5/2008	PM 7.17	41.467351253	-123.496099209
43	NOA-34	11/5/2008	PM 7.44	41.470046510	-123.499380587
44	NOA-35	11/5/2008	PM 7.52	41.470632943	-123.500643707
45	NOA-36	11/5/2008	PM 7.57	41.470951783	-123.501757631
46	NOA-37	11/5/2008	PM 7.75	---	---

TABLE 1
 SUMMARY OF SAMPLE COORDINATES
 CALTRANS TASK ORDER NO. 54, EA 02-2C9500
 UKONOM CULVERT REHABILITATION NOA SURVEY
 STATE ROUTE 96 POST MILE R0.0/R12.0
 SISKIYOU COUNTY, CALIFORNIA

DRAINAGE NUMBER	SAMPLE ID	DATE	CULVERT LOCATION	LATITUDE	LONGITUDE
47	NOA-38	11/5/2008	PM 7.79	---	---
48	NOA-39	11/5/2008	PM 7.83	---	---
49	---	---	PM 7.88	---	---
50	NOA-40	11/5/2008	PM 8.04	41.473612015	-123.509685134
51	NOA-41	11/5/2008	PM 8.47	41.479335375	-123.510020922
52	NOA-42	11/5/2008	PM 8.57	41.480643164	-123.511028508
53	NOA-43	11/5/2008	PM 8.72	41.482647604	-123.512455055
54	NOA-44	11/5/2008	PM 8.82	41.483617821	-123.513620147
55	NOA-45	11/5/2008	PM 8.89	41.484686597	-123.514297298
56	NOA-46	11/5/2008	PM 8.99	41.485756992	-123.514783675
57	NOA-47	11/6/2008	PM 9.18	41.488039294	-123.516187443
58	NOA-48	11/6/2008	PM 9.31	41.489056283	-123.518335613
59	NOA-49	11/6/2008	PM 9.39	41.489929941	-123.519112060
60	NOA-50	11/6/2008	PM 9.46	41.490966300	-123.519708006
61	NOA-51	11/6/2008	PM 9.53	41.491822436	-123.520151668
62	NOA-52	11/6/2008	PM 9.61	41.493040782	-123.520260463
63	NOA-53	11/6/2008	PM 9.70	41.494307162	-123.520703360
64	NOA-54	11/6/2008	PM 9.79	41.495525763	-123.520657568
65	NOA-55	11/6/2008	PM 9.98	41.497971084	-123.521159067
66	NOA-56	11/6/2008	PM 10.21	41.501217936	-123.523353080
67	NOA-57	11/6/2008	PM 10.30	41.502009393	-123.523695752
68	NOA-58	11/6/2008	PM 10.32	---	---
69	NOA-59	11/6/2008	PM 10.40	41.503380439	-123.523655666
70	NOA-60	11/6/2008	PM 10.45	41.504658350	-123.523602511
71	NOA-61	11/6/2008	PM 10.56	41.505880100	-123.523391088
72	NOA-62	11/6/2008	PM 10.58	41.506171599	-123.523380080
73	NOA-63	11/6/2008	PM 10.60	41.506531659	-123.523371179
74	NOA-64	11/6/2008	PM 10.64	41.507334622	-123.523410643
75	NOA-65	11/6/2008	PM 10.81	41.509134553	-123.524635683
76	NOA-66	11/6/2008	PM 10.88	41.509750654	-123.525858675
77	NOA-67	11/6/2008	PM 11.07	41.511835255	-123.527941630
78	NOA-68	11/6/2008	PM 11.14	41.512903630	-123.527978678
79	NOA-69	11/6/2008	PM 11.21	41.513869079	-123.528403552
80	NOA-70	11/6/2008	PM 11.30	41.515138605	-123.529029135
81	NOA-71	11/6/2008	PM 11.39	41.516353772	-123.529245571
82	NOA-72	11/6/2008	PM 11.49	41.517669184	-123.528661634
83	NOA-73	11/6/2008	PM 11.57	41.518638973	-123.528184811
84	NOA-74	11/6/2008	PM 11.63	41.519488671	-123.527769374
85	NOA-75	11/6/2008	PM 11.72	41.520791958	-123.527259163
86	---	---	PM 11.76	---	---
87	NOA-76	11/6/2008	PM 11.79	41.522038190	-123.527195686
88	NOA-77	11/6/2008	PM 11.85	41.522812642	-123.527173068
89	NOA-78	11/6/2008	PM 11.90	41.523688910	-123.527139824

--- = GPS data not available

TABLE 2
 SUMMARY OF ASBESTOS ANALYTICAL RESULTS AND SAMPLE LOCATIONS
 CALTRANS TASK ORDER NO. 54, EA 02-2C9500
 UKONOM CULVERT REHABILITATION NOA SURVEY
 STATE ROUTE 96 POST MILE R0.0/R12.0
 SISKIYOU COUNTY, CALIFORNIA

DRAINAGE NO.	SAMPLE I.D.	CULVERT LOCATION	SAMPLE TYPE	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE	ASBESTOS CONTROLS
1	NOA-1	PM 0.42	Colluvium	PLM	<0.25	TREMOLITE	Cal-OSHA
2	NOA-2	PM 0.50	Colluvium	PLM	<0.25 <0.25	CHRYSOTILE TREMOLITE	Cal-OSHA
3	NOA-3	PM 0.56	Colluvium	PLM	<0.25 <0.25	CHRYSOTILE TREMOLITE	Cal-OSHA
4	NOA-4	PM 0.68	Colluvium	PLM	<0.25 <0.25	CHRYSOTILE TREMOLITE	CARB/Cal-OSHA ⁽¹⁾
5	NOA-5	PM 0.89	Fill	PLM	<0.25 <0.25	CHRYSOTILE TREMOLITE	CARB/Cal-OSHA ⁽¹⁾
6	NOA-6	PM 0.94	Fill	PLM	<0.25	CHRYSOTILE	CARB/Cal-OSHA ⁽¹⁾
7	NOA-7	PM 1.09	Fill	PLM	<0.25	CHRYSOTILE	CARB/Cal-OSHA ⁽¹⁾
8	NOA-9	PM 1.09	Fill	PLM	<0.25	CHRYSOTILE	CARB/Cal-OSHA ⁽¹⁾
9	NOA-8	PM 1.29	Fill	PLM	<0.25	CHRYSOTILE	CARB/Cal-OSHA ⁽¹⁾
10	NOA-10	PM 1.52	Fill	PLM	<0.25	CHRYSOTILE	CARB/Cal-OSHA ⁽¹⁾
11	NOA-11	PM 1.60	Colluvium	PLM	ND	---	CARB/Cal-OSHA ⁽¹⁾
12	NOA-12	PM 1.65	Colluvium	PLM	<0.25	CHRYSOTILE	CARB/Cal-OSHA ⁽¹⁾
13	NOA-13	PM 1.70	Colluvium	PLM	ND	---	CARB/Cal-OSHA ⁽¹⁾

TABLE 2
 SUMMARY OF ASBESTOS ANALYTICAL RESULTS AND SAMPLE LOCATIONS
 CALTRANS TASK ORDER NO. 54, EA 02-2C9500
 UKONOM CULVERT REHABILITATION NOA SURVEY
 STATE ROUTE 96 POST MILE R0.0/R12.0
 SISKIYOU COUNTY, CALIFORNIA

DRAINAGE NO.	SAMPLE I.D.	CULVERT LOCATION	SAMPLE TYPE	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE	ASBESTOS CONTROLS
14	NOA-14	PM 2.06	Fill	PLM	<0.25	CHRYSOTILE	CARB/Cal-OSHA ⁽¹⁾
15	NOA-15	PM 2.53	Fill	PLM	<0.25	CHRYSOTILE	CARB/Cal-OSHA ⁽¹⁾
16	NOA-16	PM 2.74	Fill	PLM	<0.25	CHRYSOTILE	CARB/Cal-OSHA ⁽¹⁾
17	NOA-17	PM 3.10	Fill	PLM	ND	---	CARB/Cal-OSHA ⁽¹⁾
18	NOA-18	PM 3.18	Colluvium	PLM	<0.25	CHRYSOTILE	CARB/Cal-OSHA ⁽¹⁾
19	NOA-19	PM 3.25	Fill	PLM	ND	---	NR
20	NOA-20	PM 3.30	Fill	PLM	<0.25	CHRYSOTILE	Cal-OSHA
21	NOA-21	PM 3.58	Fill	PLM	ND	---	NR
22	---	PM 3.66	---	---	---	---	NR
23	NOA-22	PM 4.06	Fill	PLM	ND	---	NR
24	NOA-23	PM 4.13	Colluvium	PLM	ND	---	NR
25	NOA-24	PM 4.36	Colluvium	PLM	ND	---	NR
26	---	PM 4.64	---	---	---	---	NR
27	NOA-25	PM 4.99	Slate/Talc Schist	PLM	ND	---	NR
28	---	PM 5.44	---	---	---	---	NR
29	---	PM 5.47	---	---	---	---	NR

TABLE 2
 SUMMARY OF ASBESTOS ANALYTICAL RESULTS AND SAMPLE LOCATIONS
 CALTRANS TASK ORDER NO. 54, EA 02-2C9500
 UKONOM CULVERT REHABILITATION NOA SURVEY
 STATE ROUTE 96 POST MILE R0.0/R12.0
 SISKIYOU COUNTY, CALIFORNIA

DRAINAGE NO.	SAMPLE I.D.	CULVERT LOCATION	SAMPLE TYPE	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE	ASBESTOS CONTROLS
30	---	PM 6.07	---	---	---	---	NR
31	---	PM 6.35	---	---	---	---	NR
32	NOA-26	PM 6.41	Colluvium	PLM	ND	---	NR
33	NOA-27	PM 6.46	Talc Schist	PLM	ND	---	NR
34	NOA-28	PM 6.54	Colluvium	PLM	ND	---	NR
35	---	PM 6.65	---	---	---	---	NR
36	NOA-29	PM 6.74	Fill	PLM	<0.25	TREMOLITE	Cal-OSHA
37	NOA-30	PM 6.82	Colluvium	PLM	ND	---	NR
38	---	PM 6.88	---	---	---	---	NR
39	NOA-31	PM 6.97	Colluvium	PLM	ND	---	NR
40/41	NOA-32	PM 7.07/7.09	Metavolcanic	PLM	ND	---	NR
42	NOA-33	PM 7.17	Colluvium	PLM	ND	---	NR
43	NOA-34	PM 7.44	Colluvium	PLM	ND	---	NR
44	NOA-35	PM 7.52	Colluvium	PLM	ND	---	NR
45	NOA-36	PM 7.57	Colluvium	PLM	ND	---	NR
46	NOA-37	PM 7.75	Colluvium	PLM	ND ⁽²⁾	---	NR

TABLE 2
 SUMMARY OF ASBESTOS ANALYTICAL RESULTS AND SAMPLE LOCATIONS
 CALTRANS TASK ORDER NO. 54, EA 02-2C9500
 UKONOM CULVERT REHABILITATION NOA SURVEY
 STATE ROUTE 96 POST MILE R0.0/R12.0
 SISKIYOU COUNTY, CALIFORNIA

DRAINAGE NO.	SAMPLE I.D.	CULVERT LOCATION	SAMPLE TYPE	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE	ASBESTOS CONTROLS
47	NOA-38	PM 7.79	Colluvium	PLM	ND	---	NR
48	NOA-39	PM 7.83	Fill	PLM	ND	---	NR
49	---	PM 7.88	---	---	---	---	NR
50	NOA-40	PM 8.04	Talc Schist	PLM	ND	---	NR
51	NOA-41	PM 8.47	Slide Debris	PLM	0.50	CHRYSTOTILE	CARB/Cal-OSHA
52	NOA-42	PM 8.57	Slide Debris	PLM	ND	---	CARB/Cal-OSHA ⁽¹⁾
53	NOA-43	PM 8.72	Slide Debris	PLM	<0.25	CHRYSTOTILE	CARB/Cal-OSHA ⁽¹⁾
54	NOA-44	PM 8.82	Slide Debris	PLM	ND	---	CARB/Cal-OSHA ⁽¹⁾
55	NOA-45	PM 8.89	Slide Debris	PLM	ND	---	CARB/Cal-OSHA ⁽¹⁾
56	NOA-46	PM 8.99	Slate	PLM	ND	---	NR
57	NOA-47	PM 9.18	Colluvium	PLM	ND	---	NR
58	NOA-48	PM 9.32	Colluvium	PLM	ND	---	NR
59	NOA-49	PM 9.39	Colluvium	PLM	ND	---	NR
60	NOA-50	PM 9.46	Colluvium	PLM	ND	---	NR
61	NOA-51	PM 9.53	Colluvium	PLM	<0.25	CHRYSTOTILE	Cal-OSHA
62	NOA-52	PM 9.61	Colluvium	PLM	<0.25	CHRYSTOTILE	Cal-OSHA

TABLE 2
 SUMMARY OF ASBESTOS ANALYTICAL RESULTS AND SAMPLE LOCATIONS
 CALTRANS TASK ORDER NO. 54, EA 02-2C9500
 UKONOM CULVERT REHABILITATION NOA SURVEY
 STATE ROUTE 96 POST MILE R0.0/R12.0
 SISKIYOU COUNTY, CALIFORNIA

DRAINAGE NO.	SAMPLE I.D.	CULVERT LOCATION	SAMPLE TYPE	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE	ASBESTOS CONTROLS
63	NOA-53	PM 9.7	Colluvium	PLM	ND	---	NR
64	NOA-54	PM 9.79	Colluvium	PLM	ND	---	NR
65	NOA-55	PM 9.98	Colluvium	PLM	0.25	CHRYSOTILE	CARB/Cal-OSHA
66	NOA-56	PM 10.21	Colluvium	PLM	ND	---	NR
67	NOA-57	PM 10.30	Colluvium	PLM	ND	---	NR
68	NOA-58	PM 10.32	Colluvium	PLM	ND	---	NR
69	NOA-59	PM 10.40	Colluvium	PLM	ND	---	NR
70	NOA-60	PM 10.45	Colluvium	PLM	ND	---	NR
71	NOA-61	PM 10.56	Fill	PLM	ND	---	NR
72	NOA-62	PM 10.58	Slide Debris	PLM	ND	---	NR
73	NOA-63	PM 10.6	Colluvium	PLM	ND	---	NR
74	NOA-64	PM 10.64	Colluvium	PLM	ND	---	NR
75	NOA-65	PM 10.81	Colluvium	PLM	ND	---	CARB/Cal-OSHA ⁽¹⁾
76	NOA-66	PM 10.88	Colluvium	PLM	ND	---	NR
77	NOA-67	PM 11.07	Colluvium	PLM	ND	---	NR

TABLE 2
 SUMMARY OF ASBESTOS ANALYTICAL RESULTS AND SAMPLE LOCATIONS
 CALTRANS TASK ORDER NO. 54, EA 02-2C9500
 UKONOM CULVERT REHABILITATION NOA SURVEY
 STATE ROUTE 96 POST MILE R0.0/R12.0
 SISKIYOU COUNTY, CALIFORNIA

DRAINAGE NO.	SAMPLE I.D.	CULVERT LOCATION	SAMPLE TYPE	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE	ASBESTOS CONTROLS
78	NOA-68	PM 11.14	Colluvium	PLM	<0.25	CHRYSTILE	Cal-OSHA
79	NOA-69	PM 11.21	Colluvium	PLM	ND	---	NR
80	NOA-70	PM 11.30	Colluvium	PLM	ND	---	NR
81	NOA-71	PM 11.39	Colluvium	PLM	ND	---	NR
82	NOA-72	PM 11.49	Colluvium	PLM	ND	---	NR
83	NOA-73	PM 11.57	Colluvium	PLM	ND	---	NR
84	NOA-74	PM 11.63	Colluvium	PLM	ND	---	NR
85	NOA-75	PM 11.74	Colluvium	PLM	ND	---	NR
86	---	PM 11.76	---	---	---	---	NR
87	NOA-76	PM 11.79	Colluvium	PLM	ND	---	NR
88	NOA-77	PM 11.85	Colluvium	PLM	ND	---	NR
89	NOA-78	PM 11.90	Colluvium	PLM	ND	---	NR

TABLE 2
SUMMARY OF ASBESTOS ANALYTICAL RESULTS AND SAMPLE LOCATIONS
CALTRANS TASK ORDER NO. 54, EA 02-2C9500
UKONOM CULVERT REHABILITATION NOA SURVEY
STATE ROUTE 96 POST MILE R0.0/R12.0
SISKIYOU COUNTY, CALIFORNIA

DRAINAGE NO.	SAMPLE I.D.	CULVERT LOCATION	SAMPLE TYPE	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE	ASBESTOS CONTROLS
--------------	-------------	------------------	-------------	-------------------	------------	---------------	-------------------

Notes:

PLM = Polarized Light Microscopy

ND = None Detected

<0.25 = Less than the laboratory method reporting limit

--- = Not Applicable

NR= Asbestos Controls Not Required

CARB = California Air Resources Board

Cal-Osha = California Occupational Safety and Health Administration

(1) = Although asbestos was reported below regulatory limits, sampled materials were observed to contain greater than 10% ultramafic materials, by visual estimate, or to be derived from ultramafic bedrock which may contain asbestos

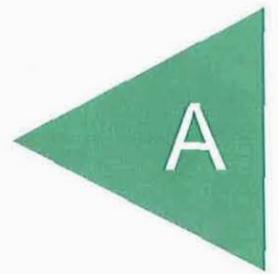
(2) = Tremolite - like fibers present, but not conclusive

TABLE 3
SUMMARY OF LEAD ANALYTICAL RESULTS
CALTRANS TASK ORDER NO. 54, EA 02-2C9500
UKONOM CULVERT REHABILITATION NOA SURVEY
STATE ROUTE 96, POST MILE R0.0/R12.0
SISKIYOU COUNTY, CALIFORNIA

BORING ID	CULVERT LOCATION	SAMPLE DATE	TOTAL LEAD (mg/kg)
NOA-4	PM0.68	11/5/2008	<5.0
NOA-21	PM3.58	11/5/2008	<5.0
NOA-47	PM9.18	11/6/2008	9.6
NOA-58	PM10.32	11/6/2008	<5.0
NOA-77	PM11.85	11/6/2008	<5.0

Notes: mg/kg = Milligrams per kilogram
< = Less than laboratory test method reporting limits

APPENDIX





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Project: Saskyou 96 NOA, 59300-06-54

EMSL Proj:
Analysis Date: 11/21/2008
Report Date: 11/24/2008

**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
NOA-1 090808864-0001	PMO.42 0804	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Tremolite
NOA-2 090808864-0002	PMO.50 0824	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile <0.25% Tremolite
NOA-3 090808864-0003	PMO.56 0827	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile <0.25% Tremolite
NOA-4 090808864-0004	PMO.68 0850	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile <0.25% Tremolite
NOA-5 090808864-0005	PMO.89 0900	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile <0.25% Tremolite
NOA-6 090808864-0006	PMO.94 0909	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-7 090808864-0007	PM1.09 0913	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-8 090808864-0008	PM1.29 0925	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-9 090808864-0009	PM1.09 0935	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-10 090808864-0010	PM1.52 0945	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

Analyst(s) _____

Adam C. Fink (58)
Alan Tahrn (20)

Baojia Ke, Laboratory Manager
or other approved signatory

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Project: **Saskyou 96 NOA, 59300-06-54**

EMSL Proj:
Analysis Date: 11/21/2008
Report Date: 11/24/2008

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
NOA-11 090808864-0011	PM1.60 0953	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-12 090808864-0012	PM1.65 1005	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-13 090808864-0013	PM1.7 1009	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-14 090808864-0014	PM2.06 1020	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-15 090808864-0015	PM2.53 1026	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-16 090808864-0016	PM2.74 1036	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-17 090808864-0017	PM3.10 1046	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-18 090808864-0018	PM3.18 1056	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-19 090808864-0019	PM3.25 1104	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-20 090808864-0020	PM3.30 1114	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

Analyst(s)

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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
NOA-21 090808864-0021	PM3.58 1124	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-22 090808864-0022	PM4.06 1135	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-23 090808864-0023	PM4.13 1155	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-24 090808864-0024	PM4.36 1200	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-25 090808864-0025	PM4.99 1206	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-26 090808864-0026	PM6.41 1223	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-27 090808864-0027	PM6.46 1300	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-28 090808864-0028	PM6.54 1313	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-29 090808864-0029	PM6.79 1321	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Tremolite
NOA-30 090808864-0030	PM6.82 1395	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Analyst(s)

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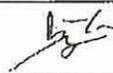
**PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB
435 Prep (Milling) Level A for 0.25% Target Analytical Sensitivity**

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
NOA-31 090808864-0031	PM6.97 1358	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-32 090808864-0032	PM7.085 1420	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-33 090808864-0033	PM7.17 1430	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-34 090808864-0034	PM7.44 1443	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-35 090808864-0035	PM7.52 1445	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-36 090808864-0036	PM7.57 1504	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-37 090808864-0037	PM7.75 1510	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-38 090808864-0038	PM7.79 1525	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-39 090808864-0039	PM7.93 1530	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-40 090808864-0040	PM8.04 1540	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Tremolite-like fibers present but not conclusive. Fiber identification with TEM recommended

Analyst(s)

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Report Date: 11/24/2008

**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
NOA-41 <i>090808864-0041</i>	PM8.47 1550	Brown Non-Fibrous Homogeneous		99.50% Non-fibrous (other)	0.50% Chrysotile
NOA-42 <i>090808864-0042</i>	PM8.57 1600	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-43 <i>090808864-0043</i>	PM8.72 1610	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-44 <i>090808864-0044</i>	PM8.82 1613	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-45 <i>090808864-0045</i>	PM8.89 1617	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-46 <i>090808864-0046</i>	PM8.99 162	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-47 <i>090808864-0047</i>	PM9.18 0830	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-48 <i>090808864-0048</i>	PM9.32 0842	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-49 <i>090808864-0049</i>	PM9.39 0850	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-50 <i>090808864-0050</i>	PM9.46 0900	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Analyst(s) _____

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**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
NOA-51 090808864-0051	PM9.53 0910	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-52 090808864-0052	PM9.61 0916	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-53 090808864-0053	PM9.7 0923	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-54 090808864-0054	PM9.79 0930	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-55 090808864-0055	PM9.98 0938	Brown Non-Fibrous Homogeneous		99.75% Non-fibrous (other)	0.25% Chrysotile
NOA-56 090808864-0056	PM10.21 0942	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-57 090808864-0057	PM10.30 0950	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-58 090808864-0058	PM10.32 0957	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-59 090808864-0059	PM10.40 1003	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-60 090808864-0060	PM10.45 1020	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Analyst(s)

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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
NOA-61 <i>090808864-0061</i>	PM10.56 1025	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-62 <i>090808864-0062</i>	PM10.58 1032	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-63 <i>090808864-0063</i>	PM10.6 1056	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-64 <i>090808864-0064</i>	PM10.64 1102	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-65 <i>090808864-0065</i>	PM10.81 1108	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-66 <i>090808864-0066</i>	PM10.88 1116	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-67 <i>090808864-0067</i>	PM11.07 1124	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-68 <i>090808864-0068</i>	PM 11.14 1130	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
NOA-69 <i>090808864-0069</i>	PM11.21 1136	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-70 <i>090808864-0070</i>	PM11.30 1140	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Analyst(s)

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EMSL Proj:
Analysis Date: 11/21/2008
Report Date: 11/24/2008

**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
NOA-71 090808864-0071	PM11.39 1146	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-72 090808864-0072	PM11.49 1153	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-73 090808864-0073	PM11.57 1158	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-74 090808864-0074	PM11.63 1204	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-75 090808864-0075	PM11.74 1210	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-76 090808864-0076	PM11.79 1214	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-77 090808864-0077	PM11.85 1221	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
NOA-78 090808864-0078	PM11.90 1225	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected

Analyst(s)

Adam C. Fink (58)
Alan Tahrn (20)


Baojia Ke, Laboratory Manager
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.

90808864



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.

Company:	Geocon Consultants Inc.	Bill To:	Geocon Consultants Inc.
Address1:	3160 Gold Valley Drive	Address1:	3160 Gold Valley Drive
Address2:	Suite 800	Address2:	Suite 800
City, State:	Rancho Cordova, CA	City, State:	Rancho Cordova, CA
Zip/Post Code:	95742	Zip/Post Code:	95742
Country:		Country:	
Contact Name:	Ian Stevenson	Attn:	Ian Stevenson
Phone:	916-852-9118	Phone:	916-852-9118
Fax:	916-852-9132	Fax:	916-852-9132
Email:	stevenson@geoconinc.com	Email:	stevenson@geoconinc.com
EMSL Rep:		P.O. Number:	
Project Name/Number: <i>22 Siskiyou 96 NOA / 59300-06-54</i>			

MATRIX			TURNAROUND			
<input type="checkbox"/> Air	<input checked="" type="checkbox"/> Soil	<input type="checkbox"/> Micro-Vac	<input type="checkbox"/> 3 Hours	<input type="checkbox"/> 6 Hours	<input type="checkbox"/> Same Day or 12 Hours*	<input type="checkbox"/> 24 Hours (1 day)
<input type="checkbox"/> Bulk	<input type="checkbox"/> Drinking Water		<input type="checkbox"/> 48 Hours (2 days)	<input type="checkbox"/> 72 Hours (3 days)	<input type="checkbox"/> 96 Hours (4 days)	<input type="checkbox"/> 120 Hours (5 days)
<input type="checkbox"/> Wipe	<input type="checkbox"/> Wastewater		<input checked="" type="checkbox"/> 144+ hours (6-10 days)			

TEM AIR, 3 hours, 6 hours, Please call ahead to schedule. There is a premium charge for 3-hour tat, please call 1-800-220-3675 for price prior to sending samples. You will be asked to sign an authorization form for this service.

*12 hours (must arrive by 11:00a.m. Mon - Fri.), Please Refer to Price Quote

PCM - Air <input type="checkbox"/> NIOSH 7400(A) Issue 2: August 1994 <input type="checkbox"/> OSHA w/TWA <input type="checkbox"/> Other:	TEM Air <input type="checkbox"/> AHERA 40 CFR, Part 763 Subpart E <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II	TEM WATER <input type="checkbox"/> EPA 100.1 <input type="checkbox"/> EPA 100.2 <input type="checkbox"/> NYS 198.2
PLM - Bulk <input type="checkbox"/> EPA 600/R-93/116 <input type="checkbox"/> EPA Point Count <input type="checkbox"/> NY Stratified Point Count <input type="checkbox"/> PLM NOB (Gravimetric) NYS 198.1 <input type="checkbox"/> NIOSH 9002: <input type="checkbox"/> EMSL Standard Addition:	TEM BULK <input type="checkbox"/> Drop Mount (Qualitative) <input type="checkbox"/> Chatfield SOP - 1988-02 <input type="checkbox"/> TEM NOB (Gravimetric) NYS 198.4 <input type="checkbox"/> EMSL Standard Addition:	TEM Microvac/Wipe <input type="checkbox"/> ASTM D 5755-95 (quantative method) <input type="checkbox"/> Wipe Qualitative
SEM Air or Bulk <input type="checkbox"/> Qualitative <input type="checkbox"/> Quantitative	PLM Soil <input type="checkbox"/> EPA Protocol Qualitative <input type="checkbox"/> EPA Protocol Quantitative <input type="checkbox"/> EMSL MSD 9000 Method fibers/gram	XRD <input type="checkbox"/> Asbestos <input type="checkbox"/> Silica NIOSH 7500 OTHER <input checked="" type="checkbox"/> CARB 435



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 Fax: (510) 895-3680
<http://www.emsl.com>

(916) 869-4308

Please print all information legibly.

Client Sample # (s) NOA 1 - NOA 78 Total Samples #: 78

Relinquished: [Signature] Date: 11/6/08 Time: 2000

Received: [Signature] Date: 11/7/08 Time: _____

Relinquished: _____ Date: _____ Time: _____

Received: M. Edwards Date: 11/10/2008 Time: 9:00 AM

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
NOA-1	PM 0.42 0804 <u>11/5/08</u>	
NOA-2	PM 0.50 0824	
NOA-3	PM-0.56 0827	
NOA-4	PM-0.68 0850	
NOA-5	PM-0.89 0900	
NOA-6	PM-0.94 0909	
NOA-7	PM 1.09 0913	
NOA-8	PM 1.29 0925	
NOA-9	PM 1.09 0935	
NOA 10	PM 1.52 0945	
NOA 11	PM 1.60 0953	
NOA 12	PM 1.65 1005	
NOA 13	PM 1.7 1009	
NOA 14	PM 2.06 1020	

Level
A

90808864

2



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<http://www.emsl.com>

Please print all information legibly.

Client Sample # (s) NOA1 - NOA28 Total Samples #: 28

Relinquished: [Signature] Date: 11/6/08 Time: 1000

Received: GSO Date: 11/7/08 Time: _____

Relinquished: _____ Date: _____ Time: _____

Received: _____ Date: _____ Time: _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
NOA15	PM 2.53 1026 11/5/08	
NOA16	PM 2.74 1036	
NOA17	PM 3.10 1046	
NOA18	PM 3.18 1056	
NOA19	PM 3.25 1104	
NOA20	PM 3.30 1114	
NOA21	PM 3.58 1124	
NOA22	PM 4.06 1135	
NOA23	PM 4.13 1155	
NOA24	PM 4.36 1200	
NOA25	PM 4.99 1206	
NOA26	PM 6.41 1223	
NOA27	PM 6.96 1300	
NOA28	PM 6.54 1313	

level A



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 CA 94577
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 3675 (888) 455-3675
 Fax: (510) 895-3680
<http://www.emsl.com>

Please print all information legibly.

Client Sample # (s) NOA1 - NOA 78 Total Samples #: 79

Relinquished: [Signature] Date: 11/6/08 Time: 2000

Received: GSO Date: 11/7/08 Time: _____

Relinquished: _____ Date: _____ Time: _____

Received: _____ Date: _____ Time: _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)	Level
NOA 29	PM 6.74 1321 11/6/08		A
NOA 30	PM 6.82 1345		
NOA 31	PM 6.97 1358		
NOA 32	PM 7.085 1420		
NOA 33	PM 7.17 1430		
NOA 34	PM 7.44 1443		
NOA 35	PM 7.52 1445		
NOA 36	PM 7.57 1504		
NOA 37	PM 7.75 1510		
NOA 38	PM 7.79 1525		
NOA 39	PM 7.83 1530		
NOA 40	PM 8.04 1540		
NOA 41	PM 8.47 1550		
NOA 42	PM 8.57 1600		

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
N0A43	PM 8.72 1610	11/5/08
N0A44	PM 8.82 1613	
N0A45	PM 8.89 1617	
N0A 46	PM 8.99 162	
N0A 47	PM 9.18 0830	11/6/08
N0A48	PM 9.32 0842	
N0A 49	PM 9.39 0850	
N0A50	PM 9.46 0900	
N0A51	PM 9.53 0910	
N0A52	PM 9.61 0916	
N0A53	PM 9.7 0923	
N0A 54	PM 9.79 0930	
N0A 55	PM 9.8 0938	
N0A56	PM 10.21 0942	

Level A

Asbestos Lab Services

Chain of Custody



Please print all information legibly.

Client Sample # (s) N0A1
 Relinquished: [Signature] Date: 11/6/08
 Received: 650 Date: 11/7/08
 Relinquished: _____ Date: _____
 Received: _____ Date: _____

Total Samples #: 78
 Time: 2000
 Time: _____
 Time: _____
 Time: _____
 http://www.emsl.com
 Phone: (510) 895-3675
 Fax: (510) 895-3680
 2235 Polvorosa Ave
 Suite 230
 San Leandro,
 CA 94577

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CA 94577
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3675 (888) 455-3675
Fax: (510) 895-3680
<http://www.emsl.com>

Please print all information legibly.

Client Sample # (s) NOA1 - NOA78 Total Samples #: 78
 Relinquished: [Signature] Date: 11/6/08 Time: 2000
 Received: 650 Date: 11/7/08 Time: _____
 Relinquished: _____ Date: _____ Time: _____
 Received: _____ Date: _____ Time: _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
NOA 57	PM 10.30 0950	11/6/08
NOA 58	PM 10.32 0957	
NOA 59	PM 10.40 1003	
NOA 60	PM 10.46 1020	
NOA 61	PM 10.56 1025	
NOA 62	PM 10.58 1032	
NOA 63	PM 10.6 1056	
NOA 64	PM 10.64 1102	
NOA 65	PM 10.81 1108	
NOA 66	PM 10.88 1116	
NOA 67	PM 11.07 1124	
NOA 68	PM 11.14 1130	
NOA 69	PM 11.21 1136	
NOA 70	PM 11.30 1140	

Level
A

90808867



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Fax: (510) 895-3680
<http://www.emsl.com>

Please print all information legibly.

Client Sample # (s) NOA1 - NOA78 Total Samples #: 78

Relinquished: [Signature] Date: 11/6/08 Time: 2000

Received: 650 Date: 11/7/08 Time: _____

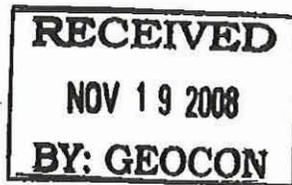
Relinquished: _____ Date: _____ Time: _____

Received: _____ Date: _____ Time: _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
NOA 71	PM 11.39 1146 11/6/08	
NOA 72	PM 11.49 1153	
NOA 73	PM 11.57 1158	
NOA 74	PM 11.63 1209	
NOA 75	PM 11.74 1210	
NOA 76	PM 11.79 1214	
NOA 77	PM 11.85 1221	
NOA 78	PM 11.90 1225	

Level A

November 14, 2008



Ian Stevenson
Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95742
TEL: (916) 869-4308
FAX: (916) 852-9132

ELAP No.: 1838
NELAP No.: 02107CA
NEVADA.: CA-401
Arizona: AZ0689
CSDLAC No.: 10196
Workorder No.: 102110

RE: Siskiyou 96 NOA, S9300-06-54

Attention: Ian Stevenson

Enclosed are the results for sample(s) received on November 08, 2008 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,


Eddie F. Rodriguez
Laboratory Director

The cover letter is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.



Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 14-Nov-08

CLIENT: Geocon Consultants, Inc.
Project: Siskiyou 96 NOA, S9300-06-54

Lab Order: 102110

Lab ID: 102110-001 **Collection Date:** 11/5/2008
Client Sample ID: NOA 4 PM 0.68 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
----------	--------	-----	------	-------	----	---------------

LEAD BY ICP

EPA 3050M

EPA 6010B

RunID: ICP6_081113A	QC Batch: 50182	PrepDate: 11/13/2008	Analyst: CL
Lead	ND	5.0	mg/Kg
		1	11/13/2008 05:47 PM

Lab ID: 102110-002 **Collection Date:** 11/5/2008
Client Sample ID: NOA 21 PM 3.58 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
----------	--------	-----	------	-------	----	---------------

LEAD BY ICP

EPA 3050M

EPA 6010B

RunID: ICP6_081113A	QC Batch: 50182	PrepDate: 11/13/2008	Analyst: CL
Lead	ND	5.0	mg/Kg
		1	11/13/2008 05:49 PM

Lab ID: 102110-003 **Collection Date:** 11/6/2008
Client Sample ID: NOA 47 PM 9.18 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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LEAD BY ICP

EPA 3050M

EPA 6010B

RunID: ICP6_081113A	QC Batch: 50182	PrepDate: 11/13/2008	Analyst: CL
Lead	9.6	5.0	mg/Kg
		1	11/13/2008 05:52 PM

Lab ID: 102110-004 **Collection Date:** 11/6/2008
Client Sample ID: NOA 58 PM 10.32 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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LEAD BY ICP

EPA 3050M

EPA 6010B

RunID: ICP6_081113A	QC Batch: 50182	PrepDate: 11/13/2008	Analyst: CL
Lead	ND	5.0	mg/Kg
		1	11/13/2008 05:54 PM

Qualifiers: B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
E Value above quantitation range
ND Not Detected at the Reporting Limit
Results are wet unless otherwise specified



Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 14-Nov-08

CLIENT: Geocon Consultants, Inc.
Project: Siskiyou 96 NOA, S9300-06-54

Lab Order: 102110

Lab ID: 102110-005
Client Sample ID: NOA 77 PM 11.85

Collection Date: 11/6/2008
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
LEAD BY ICP						
	EPA 3050M			EPA 6010B		
RunID: ICP6_081113A	QC Batch: 50182			PrepDate: 11/13/2008	Analyst: CL	
Lead	ND	5.0		mg/Kg	1	11/13/2008 05:56 PM

Qualifiers: B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
S Spike/Surrogate outside of limits due to matrix interference
DO Surrogate Diluted Out
E Value above quantitation range
ND Not Detected at the Reporting Limit
Results are wet unless otherwise specified





Advanced Technology Laboratories

Date: 14-Nov-08

CLIENT: Geocon Consultants, Inc.
Work Order: 102110
Project: Siskiyou 96 NOA, S9300-06-54

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

Sample ID	SampType	TestCode	Units	Prep Date	RunNo	Client ID	Batch ID	TestNo	EPA	Analysis Date	SeqNo	Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
MB-50182A	MBLK	6010_SPB	mg/Kg	11/13/2008	101733	PBS	50182	EPA 6010B	EPA 3050M	11/13/2008	1583869	Lead	ND	5.0										
LCS-50182	LCS	6010_SPB	mg/Kg	11/13/2008	101733	LCSS	50182	EPA 6010B	EPA 3050M	11/13/2008	1583870	Lead	266.668	5.0	250.0	0	107	80	120					
102111-005ADUP	DUP	6010_SPB	mg/Kg	11/13/2008	101733	ZZZZZZ	50182	EPA 6010B	EPA 3050M	11/13/2008	1583881	Lead	3.735	5.0						4.244	0	20		
102111-005AMS	MS	6010_SPB	mg/Kg	11/13/2008	101733	ZZZZZZ	50182	EPA 6010B	EPA 3050M	11/13/2008	1583882	Lead	188.690	5.0	250.0	4.244	73.8	33	120					
MB-50182B	MBLK	6010_SPB	mg/Kg	11/13/2008	101733	PBS	50182	EPA 6010B	EPA 3050M	11/13/2008	1583883	Lead	ND	5.0										

Qualifiers:

- | | | | | | |
|----|---|---|--------------------------------------|---|--|
| B | Analyte detected in the associated Method Blank | E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| ND | Not Detected at the Reporting Limit | R | RPD outside accepted recovery limits | S | Spike/Surrogate outside of limits due to matrix interference |
| DO | Surrogate Diluted Out | | Calculations are based on raw values | | |



CLIENT: Geocon Consultants, Inc.
Work Order: 102110
Project: Siskiyou 96 NOA, S9300-06-54

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

Sample ID: 102111-015ADUP	SampType: DUP	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 11/13/2008	RunNo: 101733						
Client ID: ZZZZZZ	Batch ID: 50182	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 11/13/2008	SeqNo: 1583894						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 4.617 5.0 4.612 0 20

Sample ID: 102111-015AMS	SampType: MS	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 11/13/2008	RunNo: 101733						
Client ID: ZZZZZZ	Batch ID: 50182	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 11/13/2008	SeqNo: 1583895						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 186.871 5.0 250.0 4.612 72.9 33 120

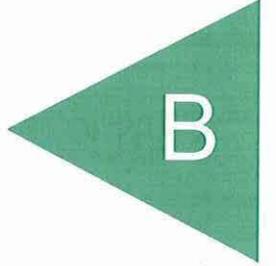
Sample ID: 102111-015AMSD	SampType: MSD	TestCode: 6010_SPB	Units: mg/Kg	Prep Date: 11/13/2008	RunNo: 101733						
Client ID: ZZZZZZ	Batch ID: 50182	TestNo: EPA 6010B	EPA 3050M	Analysis Date: 11/13/2008	SeqNo: 1583896						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Lead 176.311 5.0 250.0 4.612 68.7 33 120 186.9 5.82 20

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

APPENDIX



B

ATTACHMENT A

RESUBMITTED - REVISED CULVERT LOCATIONS

7/1/08

UKONOM					PM 0.0/12.0					EA 02-2C9500				
Drainage No.	SIS 96		Estimate	Estimate	Drainage No.			Estimate	Estimate	Drainage No.	EA 02-2C9500		Estimate	Estimate
	PM	Size	Excav. (cy)	Borrow (cy)		PM	Size	Excav. (cy)	Borrow (cy)		PM	Size	Excav. (cy)	Borrow (cy)
		Inches					Inches					Inches		
1	0.42	24	5	0	50	8.04	36	5	0	50	8.04	36	5	0
2	0.50	24	27	0	51	8.47	24	0	2	51	8.47	24	0	2
3	0.56	24	10	3	52	8.57	24	5	0	52	8.57	24	5	0
4	0.68	24	125	5	53	8.72	24	1	2	53	8.72	24	1	2
5	0.89	24	95	0	54	8.82	24	15	1	54	8.82	24	15	1
6	0.94	24	5	0	55	8.89	24	6	0	55	8.89	24	6	0
7	1.09	24	15	9	56	8.99	24	1	3	56	8.99	24	1	3
8	1.09A*	24	34	0	57	9.18	24	5	0	57	9.18	24	5	0
9	1.29	72	210	10	58	9.31	24	8	70	58	9.31	24	8	70
10	1.52	24	80	0	59	9.39	24	10	25	59	9.39	24	10	25
11	1.60	24	2	2	60	9.46	24	0	0	60	9.46	24	0	0
12	1.65	24	2	0	61	9.53	24	8	0	61	9.53	24	8	0
13	1.70	36*	452	0	62	9.61	24	15	1	62	9.61	24	15	1
14	2.06	24	2	0	63	9.70	24	0	0	63	9.70	24	0	0
15	2.53	24	2	25	64	9.79	36	5	50	64	9.79	36	5	50
16	2.74	24	80	0	65	9.98	24	8	5	65	9.98	24	8	5
17	3.10	24	2	5	66	10.21	24	0	0	66	10.21	24	0	0
18	3.18	24	130	2	67	10.30	24	0	20	67	10.30	24	0	20
19	3.25	24	120	0	68	10.32	24	1	1	68	10.32	24	1	1
20	3.30	24	5	0	69	10.40	48	30	10	69	10.40	48	30	10
21	3.58	24	130	0	70	10.45	24	70	8	70	10.45	24	70	8
22	3.66	36	175	1	71	10.56	24	10	3	71	10.56	24	10	3
23	4.06	24	0	0	72	10.58	36*	208	0	72	10.58	36*	208	0
24	4.13	24	0	1	73	10.60	36	50	3	73	10.60	36	50	3
25	4.36	24	5	4	74	10.64	36	35	5	74	10.64	36	35	5
26	4.64	24	250	0	75	10.81	24	4	1	75	10.81	24	4	1
27	4.99	24	0	2	76	10.88	24	2	1	76	10.88	24	2	1
28	5.44	24	0	0	77	11.07	24	15	4	77	11.07	24	15	4
29	5.47	24	96	2	78	11.14	24	85	2	78	11.14	24	85	2
30	6.07	24	60	2	79	11.21	24	40	5	79	11.21	24	40	5
31	6.35	24	1	4	80	11.30	24	10	2	80	11.30	24	10	2
32	6.41	24	112	0	81	11.39	24	15	3	81	11.39	24	15	3
33	6.46	24	5	0	82	11.49	24	3	1	82	11.49	24	3	1
34	6.54	24	7	0	83	11.57	24	65	3	83	11.57	24	65	3
35	6.65	24	0	0	84	11.63	30	155	10	84	11.63	30	155	10
36	6.74	24	120	0	85	11.72	30	72	3	85	11.72	30	72	3
37	6.82	36	173	15	86	11.76	24	5	3	86	11.76	24	5	3
38	6.88	24	105	1	87	11.79	24	25	1	87	11.79	24	25	1
39	6.97	24	5	10	88	11.85	24	5	1	88	11.85	24	5	1
40	7.07	24	0	1	89	11.90	24	115	1	89	11.90	24	115	1
41	7.09	24	0	2										
42	7.17	24	0	1										
43	7.44	24	0	1										
44	7.52	24	110	1										
45	7.57	24	123	0										
46	7.75	24	1	0										
47	7.79	24	1	1										
48	7.83	24	0	0										
49	7.88	24	0	1										

LEGEND

	New Location/Relocation of Culvert
	Replace Culvert

FOR CONTRACT NO.: 02-2C9504

OPTIONAL DISPOSAL

INFORMATIONAL HANDOUT

FOR CONSTRUCTION CONTRACT
IN SISKIYOU COUNTY
FROM HUMBOLDT COUNTY LINE TO TI CREEK BRIDGE
ON ROUTE 96

Project Location
SIS-96-PM 0.0/12.0
Ukonom Culvert Rehab

OPTIONAL DISPOSAL SITE
Bunker Hill, SIS-96-PM 28.5

Note: The records from which this compilation was assembled, may be inspected in the District 2 Office at 1657 Riverside Drive, Redding, CA 96001 or Contact the Disposal Site Coordinator, Linda Garner (530) 225-3375, e-mail: Linda_S_Garner@dot.ca.gov

Facts stated herein are as known to the State of California, Caltrans, and are to be verified by the Contractor as per Section 6-2 of the Standard Specifications.

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General Provisions

This disposal site is provided by Caltrans, at the option of Siskiyou Telephone Company for the disposal of excavated mud materials generated during the process of locating telephone facilities for the Ukonom Culvert Rehab Project, located on Route 96 in Siskiyou County, from post mile 0.0 to 12.0, which is from the Humboldt County line to Ti Creek Bridge.

The mud material will be deposited at an existing Caltrans disposal site area on an undeveloped lot located within Siskiyou County off of highway 96 at PM 28.5, on State owned property.

This site is used by Caltrans Maintenance and other contractors for various purposes, without exclusive use to anyone. All safety precautions must be observed. The Maintenance Supervisor contact Lloyd Lea ("L.J."), shall be contacted at least 48 hours prior to the beginning of work (phone # (530) 496-3608).

Buried man-made objects may exist within areas designated for excavation.

- The State assumes no liability for damage to Contractor's equipment. No compensation will be made to the contractor for the handling of non-hazardous man-made objects.

Existing facilities at the disposal site shall be protected from damage by the Contractor in accordance with Section 7-1.11 "Preservation of Property", of the standard specifications.

The only materials to be disposed at this site by Siskiyou Telephone:

- Mud material; quantity estimated at approximately 3000 gallons.

Winter Restrictions for this site:

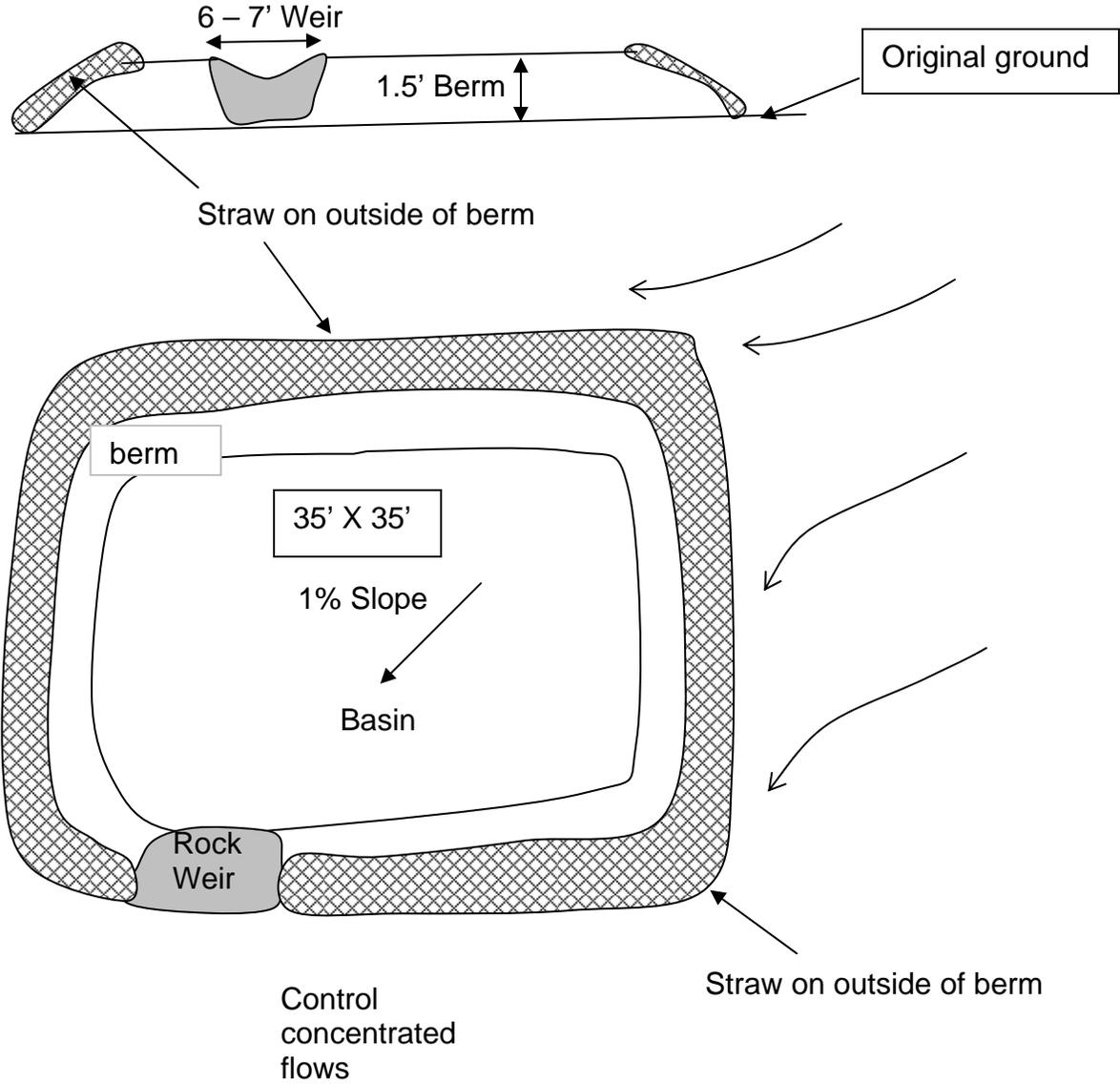
- The paved Forest Service road to the disposal site is subject to restrictions and conditions; therefore the use of this site is strictly prohibited if the ground is frozen or if snow is present. During these conditions, the contractor will need to use an alternative disposal site.

Placement of disposed material:

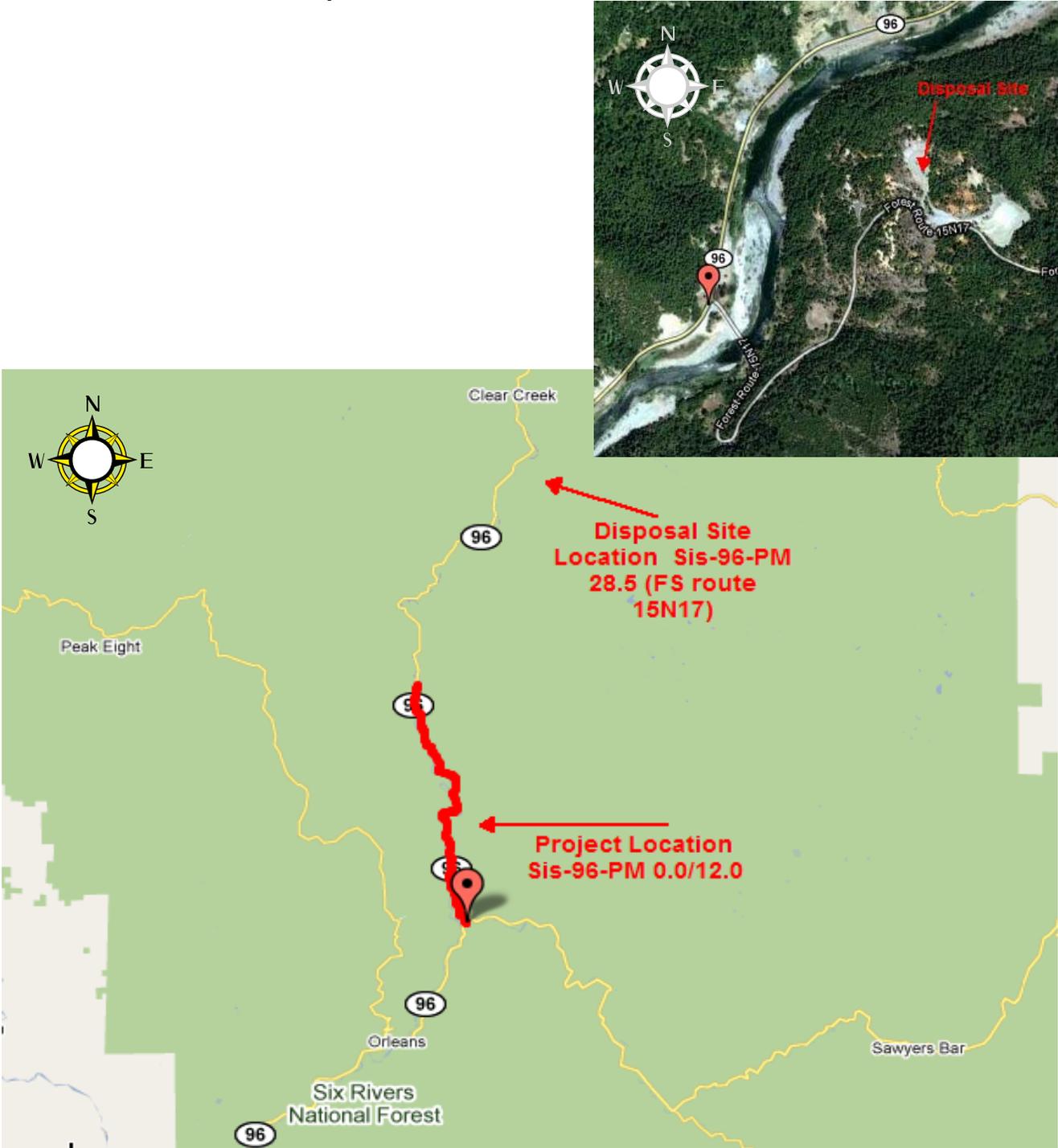
- The contractor is responsible for the equipment and materials to construct a waste decant site (mud tub) with a rock weir. Based on an estimated disposal of 3000 gallons of mud, the waste decant site will be constructed on original ground (1% slope) with the dimensions of 35 feet square with a 1.5 foot berm and weir. The weir will be constructed out of $\frac{3}{4}$ to 1 inch crushed clean rock with a width of at least 6 – 7 feet (see drawing on page 3).
- The location of the waste decant site shall be designated by the Maintenance Supervisor and the location shall be clearly marked in the field at the disposal site. The approximate location is indicated on the enclosed aerial map. The location shall avoid top of slopes and drainage ditches.
- Construction Storm Water Best Management Practices shall apply to this site. No additional compensation shall be made for placement of erosion control measures at the disposal site. Drainage into disposal site ditches is prohibited.
- At completion of the project and after the waste decant site has sufficiently drained, the decant site shall be buried, regraded, and covered with erosion control, with final approval given by the Maintenance Supervisor.

Waste Decant Site (Mud Tub) Drawing

(See page 2 for construction details and required dimensions)



Location Map
Disposal Site SIS-96-PM 28.5



Site Plan

Use of this site will be under the direction of Maintenance staff

Approved Disposal Site – Bunker Hill SIS-96-PM 28.5 (Right on Forest Service Route 15N17) State Property

