FOR CONTRACT NO.: 02-2C990**4**

INFORMATION HANDOUT

WATER QUALITY

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION
BOARD ORDER NO. WDID Nos. 1A10020WNTR and 1A10021WNTR

PERMITS

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND GAME
NOTIFICATION NOS. 1600-2010-0035-R1 and 1600-2010-0036-R1

UNITED STATES ARMY CORPS OF ENGINEERS PERMIT FOR TRINITY RIVER AND MINNEHAHA CREEK
NATIONWIDE 404 PERMIT

UNITED STATES FOREST SERVICE SPECIAL USE PERMIT

MATERIALS INFORMATION

PRELIMINARY SITE INVESTIGATION REPORT

ASBESTOS AND LEAD CONTAINING PAINT SURVEY

FOUNDATION REPORTS

HYDRAULIC REPORTS

ROUTE: 02-Tri-3-68.5, 70.7

M e m o r a n d u m

Flex your power!
Be energy efficient!

To: JOE DOWNING
Senior Bridge Designer
Division of Engineering Services
Office of Bridge Design North

Date: November 5, 2009

File: 02-TRI-3-PM 68.5
Trinity River Bridge
(Scour Retrofit)
Bridge No. 05-0028
EA 02-2C9901

Attn: Mr. Lewis Shen

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

Subject: Foundation Report

Per your request, the Office of Geotechnical Design North (OGD-N) has prepared this foundation report for the scour retrofit of the Trinity River Bridge (Bridge No. 05-0028). This report includes review and evaluation of the existing bridge file and the General Plan dated August 10, 2009. In addition, four mud rotary borings (R- 08-001, R-08-002, R-09-001, and R-09-002) were drilled to determine the nature of foundation materials. Data are shown on the "Log of Test Borings" (LOTB), which will be forwarded when complete.

SCOPE OF WORK

The scope of this report includes:

1. Review of "As-Built" information of the existing bridge and site reconnaissance.
2. Review of available published information about the site including site geology and seismicity.
3. Work with District 2 design project engineers and Drilling Services in pursuit of the necessary permits to perform the field investigation.
4. Conducting the field investigation including two test borings.
5. Review of field findings.
6. Performing laboratory tests on the soil samples gathered from the field investigation.
7. Discussion of the project with Structure Design project engineer, and Structure Construction.

8. Performing engineering analysis, calculations, and developing recommendations.
9. Completing the report.

PROJECT DESCRIPTION

The project site is located on Highway 3, 37.5 miles north of the city of Weaverville in Trinity County. The proposed scour retrofit will replace the spread footings at Pier 2, Pier 3, and Pier 4 with piles on outriggers at each pier. The new foundations are also designed to support a new replacement bridge in the future. At the project location the highway consists of one southbound lane and one northbound lane. The existing structure was originally built in 1968. It is a 403.75 feet (ft) long four span box girder bridge.

The project area lies within the Klamath Mountains. Within the project limits, the topography consists of rolling terrain with occasional areas of steep slopes due to natural drainage features. The elevation varies from about 2490 ft to 2520 ft. The drainage is generally in the southeast direction.

The elevations used in this report are based on the North America Vertical Datum of 1988 (NAVD 88).

SITE GEOLOGY AND SUBSURFACE CONDITIONS

According to the the Geologic Map of California, Weed Sheet (Wagner, 1987), the site consists of Recent alluvium (Qal), Ordovician gabbroic and dioritic rocks (Ogb), and Ordovician Trinity peridotite (partially serpentinized) (Op).

Four borings were drilled to characterize subsurface conditions. One boring was drilled adjacent to Pier 2 (Boring R-08-002), one boring was drilled adjacent to Pier 3 (Boring R-09-001), and two borings were drilled adjacent to Pier 4 (Borings R-08-001 and R-09-002). The earth materials consisted of gravel, cobbles, and boulders in a silty sand matrix to an elevation of 2412 ft at R-08-001 and elevation 2434 ft at R-08-002. The underlying rock is a serpentinite, which is intensely weathered to fresh, soft to hard, and mostly very intensely to intensely fractured. The serpentinite was present to the deepest elevation drilled, 2381 ft.

The Caltrans DOT “Areas Likely to Contain Natural Occurring Asbestos, District 2,” 2005 was reviewed. According to this map and the geologic maps reviewed, the site is in an area known to contain naturally occurring asbestos. In addition, during our site reconnaissance the presence of serpentinite or ultramafic rock was observed in the project limits.

GROUNDWATER

For construction purposes, groundwater levels should be assumed to be at the elevation of the Trinity River. However, groundwater elevations may fluctuate as seasonal precipitation, and river changes.

SCOUR EVALUATION

Based on the memorandum "Final Hydraulic Report," (FHR) dated October 24, 2008 from the Office of Hydrology and Hydraulics, the bridge was determined to be scour critical. The FHR states, "In 1974, migration, degradation and local scour caused Pier 2 to settle over 2 feet. This settlement also caused damage to Abutment 1. In 1975 the superstructure was jacked back up to grade and Pier 2 footing was rebuilt and lowered from 2483.2 feet to 2474.7 feet (elevations converted to NAVD88). The Abutment 1 wing walls were also removed and replaced."

According to the FHR, based on a thalweg elevation of 2483.3 feet, "The riverbed has degraded 6 feet since 1966,"and "The long-term degradation over the life of the new outrigger bents is estimated to be 10 feet." It also states, "No contraction scour is anticipated. According to the "Addendum to the Final Hydraulic Report" dated September 3, 2009 "The potential local scour depth for the proposed 5-foot-diameter column with 6-foot diameter pile is estimated to be 15 feet. No contraction scour is anticipated. Adding degradation and local scour, and assuming a migrating thalweg, the total scour depth is 25.0 feet. This corresponds to elevation 2458.3 feet."

The FHR also states "The Abutment 1 fill is protected by rock slope protection (RSP) designed by District 2 and placed in 1991. The RSP has performed well to date. The new abutment designs should be addressed at the time of the bridge replacement. Until the bridge is replaced, Abutment 1 should be monitored and inspected during and after each high flow event to insure that the RSP is stable."

CORROSIVITY EVALUATION

Based on soil samples collected throughout the project site, native soil beneath the site is non-corrosive. Table 1 presents the summary of results.

Table 1. Soil Corrosion Test Summary

Location	SIC Number	Minimum Resistivity (Ohm-Cm)	pH	Chloride Content (ppm)	Sulfate Content (ppm)
Trinity River Bridge	C726849	16590	9.06	N/A	N/A

Note: Caltrans currently considers a site to be corrosive to foundation elements if one or more of the following conditions exist: Chloride concentration is greater than or equal to 500 ppm, sulfate concentration is greater than or equal to 2000 ppm, or the pH is 5.5 or less.

Seismicity

Based on the Caltrans California Seismic Hazard Map 1996, the controlling fault is the Cedar Mountain West Fault with a maximum credible earthquake moment magnitude of M_w=7.0, and is located about 50.3 miles northeast of the site. The Peak Horizontal Bedrock Acceleration, based on the above map is estimated to be 0.2g. The potential for surface rupture at the site due to fault movement is considered insignificant since there are no known faults projecting towards or passing directly through the project site. The potential for liquefaction is considered minimal.

Based on Borings R-08-01 and R-08-02, a Caltrans Seismic Design Criteria Acceleration Response Spectrum curve corresponding to soil Profile Type D is recommended for design, (see Figure 1).

As-Built Foundation Data

Spread footings were used at all locations when the bridge was built in 1968. The Pier 2 footing was deepened in 1974 after the original footing was scoured out. The following table summarizes the As-Built footing elevations.

Table 2. As-Built Spread Footing Elevations.

Support Location	Allowable Bearing Capacity (TSF)	Plan Bottom of Footing Elevation (ft)	As-Built (1968) Bottom of Footing Elevation (ft)	As-Built Repair (1974) Bottom of Footing Elevation (ft)
Abutment 1	2.0	2491.2	2491.2	n/a
Pier 2	3.0	2483.2	2483.2	2474.7
Pier 3	3.0	2483.2	2482.1	n/a
Pier 4	3.0	2483.2	2481.8	n/a
Abutment 5	2.0	2495.2	2495.2	n/a

FOUNDATION RECOMMENDATIONS

Based on the available information, we are providing the following foundation recommendations for the proposed scour retrofit and future replacement.

Cast-In-Drilled-Hole (CIDH) piles with 72” x 1.25” permanent steel casing and rock socket will be used for support of the outriggers at Pier 2, Pier 3, and Pier 4.

Table 3. Rock Socket and Permanent Casing Design Recommendations

Pier Foundation Design Recommendations													
Support Location	Pile Type	Cut-off Elevation (ft)	Service-1 Limit State Load (kips) per Support	Total Permissable Support Settlement (inches)	Required Factored Nominal Resistance (kips)				LFD Nominal Resistance		Design Tip Elevations (ft)	Rock Socket Specifed Tip Elevation (ft)	Steel Casing Specified Tip Elevation (ft)
					Strength Limit		Extreme Event						
					Comp. (Φ=0.7)	Tension (Φ=0.7)	Comp. (Φ=1.0)	Tension (Φ=1.0)	Compression	Tension			
Pier 2	72 inch CIDH w/ PP 72 inch x 1.25 inch Permanent Steel Casing 60 inch Rock Socket	2479	1350	1	2150	0	1600	0	2460	0	2398 (a-I) 2412 (a-II) 2404(a-III)	2398	2426
Pier 3	72 inch CIDH w/ PP 72 inch x 1.25 inch Permanent Steel Casing 60 inch Rock Socket	2479	1335	1	2115	0	1600	0	2520	0	2385.5 (a-I) 2400.5 (a-II) 2391.5 (a-III)	2385.5	2414.5
Pier 4	72 inch CIDH w/ PP 72 inch x 1.25 inch Permanent Steel Casing 60 inch Rock Socket	2479	1370	1	2170	0	1605	0	2515	0	2363 (a-I) 2377 (a-II) 2367 (a-III)	2363	2403

Design tip elevations are controlled by the following demands:

1. "Design tip elevations" are controlled by (a-I) Compression (Strength Limit), (a-II) Compression (Extreme Event), (a-III) Compression (LFD).
2. The "Specified Tip Elevation" shall not be raised above the design tip elevation for lateral.
3. Design tip elevation for Lateral Load is typically provided by SD.

Table 3. Rock Socket and Permanent Casing Pile Data Table

Pile Data Table						
Location	Pile Type	Nominal Resistance (kips)		Steel Casing Specified Tip Elevation (ft)	Design Tip Elevation (ft)	Specified Tip Elevation (ft)
		Compression	Tension			
Bent 2	72 inch CIDH w/ PP 72 inch x 1.25 inch Permanent Steel Casing 60 inch Rock Socket	3080	0	2426	2398 (a)	2398
Bent 3	72 inch CIDH w/ PP 72 inch x 1.25 inch Permanent Steel Casing 60 inch Rock Socket	3030	0	2414.5	2385.5 (a)	2385.5
Bent 4	72 inch CIDH w/ PP 72 inch x 1.25 inch Permanent Steel Casing 60 inch Rock Socket	3100	0	2403	2363 (a)	2363

Notes:
1. Design tip elevations are controlled by (a) compression.
2. The CIDH specified tip elevation shall not be raised.

GENERAL NOTES TO DESIGNER

1. The structure engineer shall show on the plans, in the pile data table, the minimum pile tip elevation required to meet the lateral load demands.

2. Should the specified pile tip elevation required to meet lateral load demands exceed the specified pile tip elevation given within this report, the Office of Geotechnical Design North should be contacted for further recommendations.

3. Support locations are to be plotted on the Log of Test Borings, in plan view, as stated in "Memos to Designers" 4-2. The plotting of the support locations should be made prior to the foundation review.

Construction Considerations

1. Permanent Casing Piles

1. The Contractor should consider the rotator or oscillator method. These may be the preferred methods of installation.

2. The Contractor should anticipate hard driving/drilling conditions due to very dense material and the presence of large cobbles and boulders.

3. If Contractor elects to drive the permanent casings, the Contractor should perform driveability studies at the locations of Pier 2, Pier 3, and Pier 4.

4. If driving is the chosen method for casing installation, Pile Dynamic Analysis (PDA) testing is recommended to monitor pile driving. The PDA testing/monitoring should help to prevent piles from being overstressed during driving.

5. If driving is the chosen method, driving shoes should be added to help minimize damage to the casing.

6. The permanent casing will be installed into bedrock. The Contractor should anticipate hard driving/drilling conditions. If the Contractor chooses to drive steel casings, caution should be taken to prevent damaging the tip of the casing.

7. No geotechnical capacity was given to the permanent casing.

8. Pile tips for the permanent casing should be at the elevation presented in Table 3. If the Contractor elects to install the steel casing below the elevation shown on the Plans, the rock socket should be extended below specified tip. In this case this Office should be contacted for pile tip evaluation.

9. If competent rock is encountered significantly higher than the specified permanent casing tip elevation, this Office should be contacted for pile tip evaluation.

10. If the methods of casing installation allow for a gap to form in the annular space between permanent casing and rock, the gap must be grouted to preserve lateral capacity.

11. Prior to rock socket construction, steel casing shall be cleaned out. Equipment or methods used during casing cleanout shall not cause blow-ins, scouring, or caving around or below the tip of the steel casing.

12. Shell thickness is based on structural requirements of the pile, not the driveability capability or other installation requirements depending on method.

2. CIDH Piles and Rock Sockets

1. Wet pile installation method shall be used for Piers 2 through Pier 4.

2. Uneven rock contact and loss of water/drilling fluid circulation should be anticipated during the CIDH pile construction due to the presence of variably weathered and fractured rock, caving of rock, and steep top of rock surface.

3. If temporary casing is used, it shall be removed.

4. Care shall be taken during construction of the rock socket not to disturb the material surrounding the bottom of the steel casing. Equipment and methods used for constructing the socket shall not cause scouring or caving around or below the tip of the steel casing.

5. The Contractor shall perform desanding and cleaning of the slurry before placing concrete.

6. The drilling of the rock socket, the placement of the reinforcement, and the concrete pour shall be completed in a continuous operation.

7. The Contractor shall submit drilling logs after completion of drilling. The drilling logs should include: penetration rate, material descriptions, estimated volume of cuttings (e.g., poor, good, excessive), and other information pertaining to the drilling process (e.g., loss of circulation, zones of cave in, down pressure).

8. Gamma-gamma testing shall be performed.

9. If rock socket tip elevation is deepened or over drilled, the inspection tubes must also be extended to three inches above the actual tip of the pile.

10. Core boxes are available for inspection at the Caltrans Office. Bidders are encouraged to view the rock core samples at the Translab facility (5900 Folsom Blvd. Sacramento) before submitting bids.

PROJECT INFORMATION

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

Data and information attached with the project plans are:

A. Log of Test Borings for Trinity River Bridge, Bridge Number 05-0028.

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

A. Foundation Report for Trinity River Bridge, Bridge Number 05-0028, dated November 5, 2009.

Data and information available for inspection at the District Office:

A. *N/A*

Data and information available for inspection at the Transportation Laboratory:

A. *Core Samples*

If any conceptual changes are made during final project design, the Office of Geotechnical Design North should review those changes to determine if these foundation recommendations are still applicable. If there are any questions, please contact Joseph Kaump at (916)-227-1044 or Reid Buell at (916)-227-1012.

JOSEPH KAUMP, P.G. 7837
Engineering Geologist
Geotechnical Design – North

REZA MAHALLATI, PE 49374
Senior Materials and Research Engineer
Geotechnical Design – North

Attachments: ARS Curve

c:

Reid Buell
R.E. Pending
Structure OE (E-copy)
Eskinder Taddese-PCE (E-copy)
Byron Berger DME (E-copy)
GDN File
GS File

Trinity River Bridge
(Scour Retrofit)
Br. No. 05-0028
02-2C9901

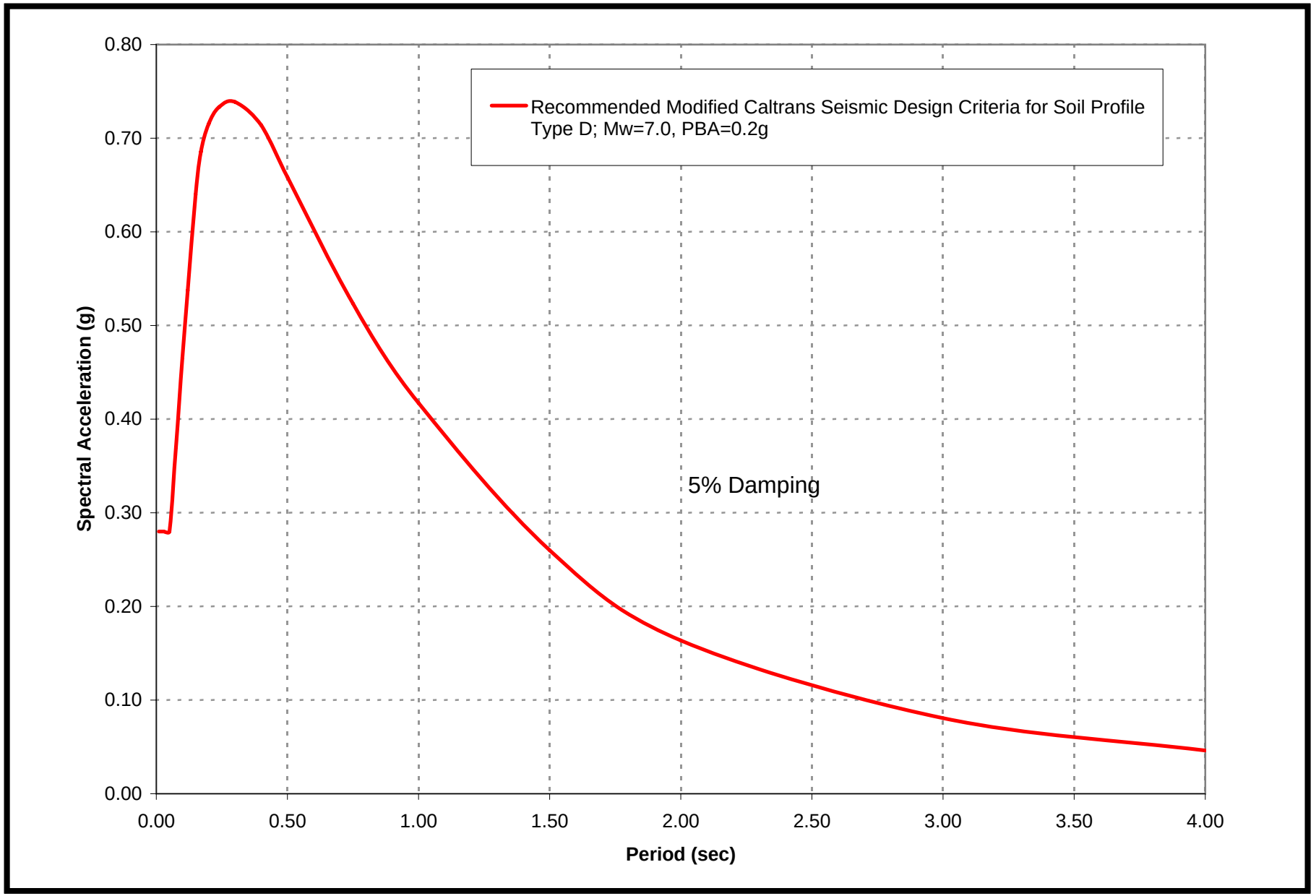


Figure 1. Acceleration Response Spectrum Recommended for Design

Memorandum

Flex your power!
Be energy efficient!

To: JOE DOWNING
Senior Bridge Designer
Division of Engineering Services
Office of Bridge Design North

Date: September 29, 2009

File: 02-TRI-3-PM 70.7
Minnehaha Creek Bridge
(Replace)
Bridge No. 05-0048
EA 02-2C9901

Attn: Mr. Lewis Shen

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

Subject: Foundation Report

Per your request, the Office of Geotechnical Design North (OGD-N) has prepared this Foundation Report for the replacement of the Minnehaha Creek Bridge (Bridge No. 05-0048). This report includes review and evaluation of the existing bridge file and the General Plan dated August 29, 2008. In addition, two mud rotary borings (R- 08-001 and R-08-002) were drilled to determine the nature of foundation materials. Data are shown on the "Log of Test Borings" (LOTB), which will be forwarded when complete.

SCOPE OF WORK

The scope of this report includes:

1. Review of "As-Built" information of the existing bridge and site reconnaissance.
2. Review of available published information about the site including site geology and seismicity.
3. Work with District 2 design project engineers and Drilling Services in pursuit of the necessary permits to perform the field investigation.
4. Conducting the field investigation including two test borings.
5. Review of field findings.
6. Performing laboratory tests on the soil samples gathered from the field investigation.
7. Discussion of the project with Structure Design project engineer, and Structure Construction.

8. Performing engineering analysis, calculations, and developing recommendations.
9. Completing the report.

PROJECT DESCRIPTION

The project site is located on Highway 3, 39.7 miles north of the city of Weaverville in Trinity County. The proposed replacement will be a single span 52 feet (ft) long bridge on spread footing foundations. At the project location the highway consists of one southbound lane and one northbound lane. The existing structure was originally built in 1968. It is a 28.5 ft long single span bridge.

The project area lies within the Klamath Mountains. Within the project limits, the topography consists of rolling terrain with occasional areas of steep slopes due to natural drainage features. The elevation varies from about 2600 ft to 2620 ft. The drainage is generally in the southeast direction.

The elevations used in this report are based on the North America Vertical Datum of 1988 (NAVD 88).

SITE GEOLOGY AND SUBSURFACE CONDITIONS

According to the the Geologic Map of California, Weed Sheet (Wagner, 1987), the site consists of Recent alluvium (Qal), Ordovician gabbroic and dioritic rocks (Ogb), and Ordovician Trinity peridotite (partially serpentinized) (Op).

Two borings were drilled to characterize subsurface conditions. One boring was drilled adjacent to the proposed Abutment 1 (Boring R-08-002), and one boring was drilled adjacent to the proposed Abutment 2 (Boring R-08-001). The earth materials consisted of sand with silt, lean clay with sand, gravelly lean clay, clayey sand with gravel,and silty sand to an elevation of 2607 ft at R-08-001 and elevation 2601 ft at R-08-002. The underlying layer is boulders and cobbles to elevation 2562 ft at R-08-001 and elevation 2566 ft at R-08-002. The next layer is a silty sand to elevation 2559 ft at R-08-001 and elevation 2550 at R-08-002. Very hard, fresh diorite is encountered at elevation 2559 ft at R-08-001 and elevation 2550 ft at R-08-002.

The Caltrans DOT "Areas Likely to Contain Natural Occurring Asbestos, District 2," 2005 was reviewed. According to this map and the geologic maps reviewed, the site is in an area known to contain naturally occurring asbestos. During our site reconnaissance the presence of serpentinite or ultramafic rock was not observed in the project limits.

GROUNDWATER

For construction purposes, groundwater levels should be assumed to be at the elevation of water in Minnehaha Creek.

SCOUR EVALUATION

Based on the memorandum "Revised Final Hydraulic Report for Minnehaha Creek Bridge," (FHR) dated April 20, 2009 from the Office of Hydrology and Hydraulics, the bridge was determined to be scour critical. The FHR states, "The channel has a history of degradation and has degraded at least 6 feet since the bridge was constructed in 1965. The spread footing at Abutment 1 has become exposed at the downstream end. Minnehaha Creek will likely continue to degrade and abutment footings will eventually become undermined due to degradation." It also states "The footing (Abutment 1) is exposed between 1 and 2 feet from the middle of the structure to the downstream end of the footing. This bridge has experienced approximately 0.12 ft/yr of degradation. Assuming 75 years degradation, the new abutment substructure should be able to at least withstand a channel elevation of 2594 feet."

The FHR also states: "The new Abutment 1 will be placed approximately 14 feet behind the existing Abutment 1 and the new Abutment 2 will be approximately 10 feet behind the existing Abutment 2. Placing these abutments out of the path of the channel flow will help minimize the possibility of future degradation and erosion at the new abutment foundations. The footings of both existing abutments are going to be left in place and the abutment walls will be removed to the top of existing grade at each abutment, to hold the existing rock and bank material in place."

"The new footing at Abutment 1 should be placed assuming that the channel bank could erode and reach elevation 2608 feet. The footing at the new Abutment 2 will be placed far enough out of the channel that there aren't any hydraulic concerns with the elevation of that footing."

"During high flows water flows out of the south side (Abutment 1 side) of the channel and flows along the highway, eroding bank material. This is a result of the steep slope in the area upstream of the bridge and the inherent characteristics of the channel, it is not caused by the structure itself. District Hydraulics should be consulted to determine if RSP is necessary for roadway protection."

CORROSIVITY EVALUATION

Based on soil samples collected throughout the project site, native soil beneath the site is non-corrosive. Table 1 presents the summary of results.

Table 1. Soil Corrosion Test Summary

Location	SIC Number	Minimum Resistivity (Ohm-Cm)	pH	Chloride Content (ppm)	Sulfate Content (ppm)
Minnehaha Creek Bridge	C726850	6580	7.85	n/a	n/a

Note: Caltrans currently considers a site to be corrosive to foundation elements if one or more of the following conditions exist: Chloride concentration is greater than or equal to 500 ppm, sulfate concentration is greater than or equal to 2000 ppm, or the pH is 5.5 or less.

SEISMICITY

Based on the Caltrans California Seismic Hazard Map 1996, the controlling fault is the Cedar Mountain West Fault with a maximum credible earthquake moment magnitude of M_w=7.0, and is located about 49 miles northeast of the site. The Peak Horizontal Bedrock Acceleration, based on the above map is estimated to be 0.2g. The potential for surface rupture at the site due to fault movement is considered insignificant since there are no known faults projecting towards or passing directly through the project site. The potential for liquefaction is considered minimal.

Based on the Borings R-08-01 and R-08-02, a Caltrans Seismic Design Criteria Acceleration Response Spectrum curve corresponding to soil Profile Type C is recommended for design, (see Figure 1).

AS-BUILT FOUNDATION DATA

Spread footings were used at all locations when the bridge was built in 1968. The As-built construction "Foundation Report" states that at Abutment 1, "The material at plan grade of the right wingwall consisted of compact sand gravel and large boulders. This material was considered good for the design loading and the footing was constructed at plan grade. The remainder of the footing area had considerable soft saturated clay mixed with sand gravel etc. This material was suitable for the design loads and was removed to the elevations, (shown in Table 2), with no attempt to level the area. That is the large cobbles boulders etc. were left in place with the unsuitable material removed from around the large particles. The area was backfilled to Elevation 2600.0 ft with Class "C" Concrete and the footings constructed at Elevation 2600.0 ft."

The following table summarizes the As-Built footing elevations.

Table 2. As-Built Abutment 1 Spread Footing Elevations.

Support Location	Allowable Bearing Capacity (tsf)	Design Bearing Capacity (tsf)	Plan Bottom of Footing Elevation (ft)	As-Built (1968) Bottom of Footing Elevation (ft)
Left Wingwall	3.0	1.5	2604.0	2597.0
Left Abutment Wall	3.0	1.5	2602.0	2598.0
Right Abutment Wall	3.0	1.5	2600.0	2599.0
Right Wingwall	3.0	1.5	2600.83	2600.83

Table 3. As-Built Abutment 2 Spread Footing Elevations.

Support Location	Allowable Bearing Capacity (tsf)	Design Bearing Capacity (tsf)	Plan Bottom of Footing Elevation (ft)	As-Built (1968) Bottom of Footing Elevation (ft)
Left Wingwall	2.0	1.5	2604.0	2604.0
Left Abutment Wall	3.0	1.5	2602.0	2602.0
Right Abutment Wall	3.0	1.5	2600.0	2600.0
Right Wingwall	3.0	1.5	2600.83	2600.83

FOUNDATION RECOMMENDATIONS

Based on the available information, spread footings were selected to support the proposed structure. Table 4 is our foundation recommendations.

Table 4. Foundation Design Recommendations for Spread Footings, Bridge No. 05-0048[1,2]

Support Location	Footing Size (ft)		Bottom of Footing Elevation (ft)	Minimum Footing Embedment Depth (ft)	WSD (LRFD Service-I Limit State Load)		LRFD		
							Service	Strength (Φ=0.45)	Extreme Event (Φ=1.00)
	B	L			Permissible Gross Contact Stress (ksf)	Allowable Gross Bearing Capacity (ksf)	Net Permissible Contact Stress, (ksf)	Factored Gross Nominal Bearing Resistance, (ksf)	Factored Gross Nominal Bearing Resistance, (ksf)
Abut 1	8	32	2605.0	7.0	4.0	4.0	N/A	N/A	N/A
Abut 2	8	32	2610.0	5.0	4.0	4.0	N/A	N/A	N/A

Notes:
1) Recommendations are based on the foundation geometry and the load data provided by Structure Design in the Foundation Design Data Sheet. The footing contact area is taken as equal to the effective footing area, where applicable.
2) See MTD 4-1 for definitions and applications of the recommended design parameters.

Table 5. Spread Footing Data Table, Bridge No. 05-0048

Support Location	Working Stess Design (WSD)		Load and Resistance Factor Design (LRFD)		
	Permissible Gross Contact Stress (Settlement) (ksf)	Allowable Gross Bearing Capacity (ksf)	**Service** Net Permissible Contact Stress (Settlement) (ksf)	**Strength** Factored Gross Nominal Bearing Resistance, (Φ=0.45) (ksf)	**Extreme Event** Factored Gross Nominal Bearing Resistance, (Φ=1.00) (ksf)
Abutment 1	4.0	4.0	N/A	N/A	N/A
Abutment 2	4.0	4.0	N/A	N/A	N/A

GENERAL NOTES TO DESIGNER

1. Support locations are to be plotted on the Log of Test Borings, in plan view, as stated in "Memos to Designers" 4-2. The plotting of the support locations should be made prior to the foundation review.

Construction Considerations

1. If excavations for spread footings expose unsuitable materials for support of the proposed structure foundations, the unsuitable materials shall be removed and replaced with structure backfill compacted to a relative compaction of not less than 95%, or the bottom of footing elevation shall be lowered to undisturbed competent material.

2. Groundwater should not be encountered during footing excavation.

3. Spread footings shall be placed neat against competent materials. All loose materials shall be removed prior to placement of concrete.

4. Excavations completed to the bottom of footing and prior to placement of concrete must be inspected and approved by this Office or a representative of the Office of Structure Construction.

5. Difficult shoring installation should be anticipated for spread footing installation due to the presence of cobbles and boulders above and below the footing elevations.

PROJECT INFORMATION

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

Data and information attached with the project plans are:

A. Log of Test Borings for Minnehaha Creek Bridge, Bridge Number 05-0048.

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

A. Foundation Report for Minnehaha Creek Bridge, Bridge Number 05-0048, dated September 29, 2009.

Data and information available for inspection at the District Office:

A. *N/A*

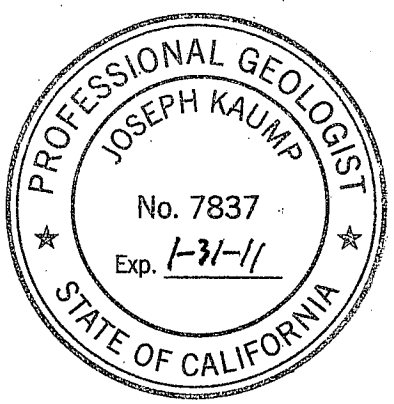
Data and information available for inspection at the Transportation Laboratory:

A. *Core Samples*

If any conceptual changes are made during final project design, the Office of Geotechnical Design North should review those changes to determine if these foundation recommendations are still applicable. If there are any questions, please contact Joseph Kaump at (916)-227-1044 or Reid Buell at (916)-227-1012.

JOSEPH KAUMP, P.G. 7837
Engineering Geologist
Geotechnical Design – North

REZA MAHALLATI, PE 49374
Senior Materials and Research Engineer
Geotechnical Design – North



Attachments: ARS curve

c:

Reid Buell
R.E. Pending
Structure OE (E-copy)
Eskinder Taddese-PCE (E-copy)
Byron Berger DME (E-copy)
GDN File
GS File

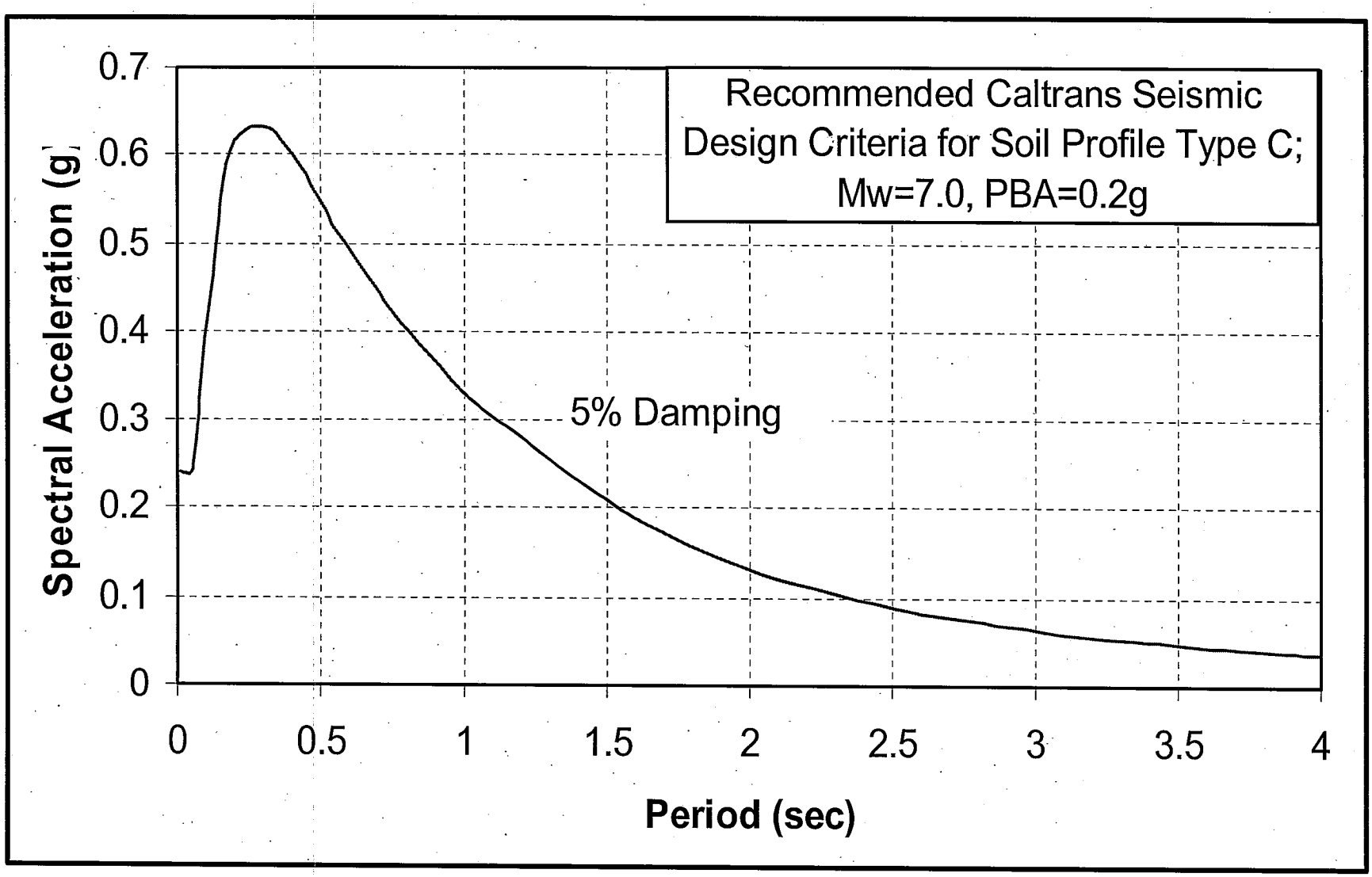


Figure 1. Preliminary Acceleration Response Spectrum Recommended for Design.

State of California Department of Transportation Structure Hydraulics

DIVISION OF STRUCTURES FINAL HYDRAULIC REPORT REVISED

Minnehaha Creek Bridge

Located South of the Town of Callahan
on State Route 3 over Minnehaha Creek in Trinity County

JOB:
Bridge No. 05-0048

LOCATION:
02-Tri-3-70.7

WRITTEN BY:	DATE:
Sharon Ropp	May 15, 2008

REVIEWED BY:	DATE:
Ronald McGaugh	May 15, 2008

Hydrology/Hydraulics Report

General:

It is proposed to replace the existing structure at Minnehaha Creek (Br No. 05-0048), located on Route 3 in Trinity County, near the town of Callahan, because this bridge has been classified as Scour Critical. According to the General Plan provided October 12, 2007, this project consists of a single span cast-in-place pre-stressed concrete slab bridge. The construction will be done in 2 stages to maintain traffic over the creek during construction. The new bridge will be 43 feet long and 38 feet wide

The existing structure was constructed in 1968. It is a simple span reinforced slab bridge on reinforced concrete closed end strutted abutments on spread footings. The existing structure is approximately 27 feet long and 32 feet wide.[i]

Basin:

Minnehaha Creek is a short tributary that begins at approximately 4200 feet elevation in the Shasta National Forest. It originates at the base of Billy's Peak in the Scott Mountains. Minnehaha Creek feeds into the Trinity River approximately 100 feet past the intersection with Hwy 3, at approximately 2600 feet elevation. Minnehaha Creek is about 2 miles long. The watershed area above this structure is approximately 3.75 square miles.[ii]

Discharge:

The design 50-year and 100-year discharges for the proposed bridge are approximately 1760 cubic feet per second (cfs) and 2170 cfs respectively. These discharges were computed using the Regional Regression equation for the North Coast Region. A channel slope of 0.088 ft/ft at the bridge and a Mannings roughness coefficient of 0.045 were also used.[iii]

Scour:

The existing bridge is considered Scour Critical. The bridge foundations have been determined to be unstable for the calculated scour conditions. The channel has a history of degradation and has degraded at least 6 feet since the bridge was constructed in 1965. The spread footing at Abutment 1 has become exposed at the downstream end. Minnehaha Creek will likely continue to degrade and the abutment footings will eventually become undermined due to degradation.

Scour (cont):

The thalweg in the channel is at approximately 2606 ft elevation. There is a drop in the channel, under the bridge about 12 feet from the upstream face near Abutment 1, which has added to the exposure at that footing. The steep slope and the hydraulic skew (approximately 5 degrees) have aided in creating the hole which has exposed the face of the Abutment 1 footing. The footing is exposed between 1 and 2 feet from the middle of the structure to the downstream end of the footing. This bridge has experienced approximately 0.12 ft/yr of degradation. Assuming 75 years degradation, the new abutment substructure should be able to at least withstand a channel elevation of 2594 feet[iv].

According to Caltrans Maintenance in this area, during high flows water backs up against the bridge and flows along the highway, eroding bank material. District Hydraulics should be consulted to determine if RSP is necessary for roadway protection.

Stage:

The 100-year discharge was modeled through the proposed bridge site using the Army Corps Hydraulic Engineering (HEC RAS) version 3.1.3 hydraulic modeling program. The average velocity and water surface elevation for the structure is listed below. A mannings roughness coefficient of 0.045 was used in the channel.

NEW MINNEHAHA CREEK BRIDGE ***100 Year Discharge***	
Average Velocity (upstream of bridge)	14 f/s
Water Surface Elevation[iv]	2615.17 feet

Backwater:

A model was also performed at the confluence of the Trinity River and Minnehaha Creek. It has been determined that the Trinity River does not impact Minnehaha Creek with any backwater effect at this bridge site.

Streambed:

According to the Preliminary Foundation Elevation Report, dated November 17, 2000, the original Log of Test Borings shows that the material supporting this structure is a weathered cobble and boulder conglomerate. The cementing agents for this conglomerate are weathered silt and clay. These cementing agents are considered unsuitable for scour resistance and thereby make the conglomerate unsuitable for scour resistance.

The stream channel is strewn with very large rocks and boulders but is relatively clear of vegetation. The banks upstream and downstream of the structure are heavily vegetated with grasses, shrubs and trees.

Debris:

Debris build up has not been noted to be a problem at this structure. It is recommended the new structure be designed to have a minimum of three feet of freeboard between the 50-year flood elevation and the soffit elevation to pass any debris under the structure during high flows.

Summary Information for Designers:

HYDROLOGIC / HYDRAULIC DATA SUMMARY		
Watershed Area = 3.75 mi^2		
	Design Flood	Base Flood
Frequency	50 yrs	100 yrs
Discharge	1760 cfs	2170 cfs
Water Surface Elevation w/ New Bridge[iv]	2614.36 ft	2615.17ft
Flood plain data are based upon information available when the plans were prepared and are shown to meet federal requirements. **The accuracy of said information is not warranted by the State and interested or affected parties should make their own investigation. Addendums may be necessary as Foundation Reports are completed.**		

Proposed Bridge Length	43 ft
Minimum Soffit Elevation[iv]	2617.36 ft
Average Upstream Velocity	14 ft/s

This report has been prepared under my direction as the professional engineer in responsible charge of the work, in accordance with the provisions of the Professional Engineers Act of the State of California.

Sharon Bertozzi Ropp

REGISTERED CIVIL ENGINEER SIGNATURE

REGISTRATION NUMBER: C65602 DATE: May 15, 2008

References:

[i] Bridge Report Br. No. 5-0048, August 28, 2007.
[ii] The following USGS quadrangles were used in determining the basin information: Carrville, Tangle Blue and Billys Peak.
[iii] Using an annual precipitation index of 85 inches.
[iv] These elevations are based on the NAVD88 datum. 3.32 feet was added to As-Built elevations (NGVD29) to convert to the NAVD88 datum.

STRUCTURE HYDRAULICS & HYDROLOGY
FINAL HYDRAULIC REPORT

Trinity River
Bridge No. 05-0028

Located north of the town of Coffee Creek
on State Route 3 over the Trinity River in Trinity County

JOB:
Bridge Repair – Scour Mitigation

LOCATION:
02-Tri-3-PM68.50

EA: 02-2C9901

WRITTEN BY:
Diane O'Brien

DATE: October 23, 2008

REVIEWED BY:
Ronald McGaugh

DATE: October 23, 2008

Trinity River
Br. No. 05-0028
02-Tri-3-PM68.50
EA 02-2C9901

Hydrology/Hydraulics Report

General

It is proposed to retrofit the foundation of the Trinity River Bridge by replacing all three piers with outrigger bents. These outrigger bents will remain in place when the superstructure is replaced in a future project. Hydraulic recommendations concerning the pier foundation were made assuming the life span of a new structure.

The existing 404-foot-long bridge, built in 1968, has 3 spans supported by reinforced concrete pier walls and segmented diaphragm abutments, all on spread footings. In 1974, migration, degradation and local scour caused Pier 2 to settle over 2 feet. This settlement also caused damage to Abutment 1. In 1975 the superstructure was jacked back up to grade and the Pier 2 footing was rebuilt and lowered from 2483.2 feet to 2474.7 feet (Elevations converted to NAVD88). The Abutment 1 wingwalls were also removed and replaced.

The SM&I Scour Evaluations Section identified this structure as scour critical in 2000 based on potential scour below the bottom of the footings at Piers 3 and 4. Further analysis per the Preliminary Hydraulic Review dated June 14, 2005 determined that the Pier 2 footing was also above the total scour elevation and would need to be retrofitted.

The foundation of each proposed outrigger bent will be two widely-spaced 5-foot-diameter CIDH piles with permanent steel casings. The existing pier walls and footings will be completely removed.

All calculated elevations in this report are based on the Vertical Datum NAVD88.

Basin

The Trinity River watershed above the Trinity River Bridge is approximately 157 square miles. The headwaters are in the Scott Mountain division of the Coast Range and the river flows south to the bridge site. The watershed is mountainous and heavily timbered. Elevations range from approximately 2500 feet at the bridge to over 6000 feet along the upper watershed boundaries. The Mean Annual Precipitation for the basin is 42.5 inches.

Discharge

The Trinity River above the bridge site is a gauged (USGS 11523200) watershed with 51 years of record. There is no regulation or diversion of the river upstream of the bridge. PKFQWin Version 5.0.0, a flood-frequency computation program, was used to estimate the Q100 discharge at the gauge, located less than 2 miles upstream of the bridge. There are no significant tributaries between the gauge and the bridge. The 100-year discharge at the Trinity River Bridge is estimated to be 30,000 cfs.

Stage

A one-dimensional water surface profile program, HEC-RAS 3.1.3, was used to model the flow for the Q100. The Manning's roughness coefficient used was 0.035. The Q100 maximum water surface elevation is 2504.9 feet. The bridge soffit will be lower than the estimated high water for the southern half of Span 1, ranging from approximately 1 foot of water against the girder at Abutment 1 to dropping below the soffit at about mid-span. In addition, the 6-foot-deep bent caps at Piers 2 and 3 will also be in the flow. This waterway infringement is not expected to significantly impact the hydraulic conveyance at this site.

Velocity

The average velocity through the bridge site during the 100-year flood event will be approximately 7 ft/s. A peak velocity of 11 ft/s is estimated to be experienced at the thalweg.

Streambed

The Trinity River in the vicinity of the bridge is a braided channel with coarse sediments. The low flow channel has shifted dramatically over the history of the bridge. It is currently undercutting the bank north of the bridge before turning to flow parallel to the upstream face of the bridge, directly at Abutment 1. The low flow channel then turns abruptly to flow under Span 1.

The exact spacing between the two, five-foot-diameter CIDH piles at each outrigger bent has not yet been determined. However, as illustrated on the General Plan (8/29/08), this clear distance should be at least equal to the width of the existing bridge (34 feet). When piles are widely spaced, hydraulic skew typically does not influence the local scour depth. Structure Hydraulics should review the final pile diameter and spacing when they are determined.

The riverbed has degraded 6 feet since 1966. Preliminary Investigations North surveyed the current thalweg elevation of 2483.3 feet in August 2008. This thalweg elevation correlates with the latest channel section measured in the field by SM&I Maintenance staff in August 2007. The long-term degradation over the life of the new outrigger bents is estimated to be 10 feet.

The potential local scour depth for the proposed 5-foot-diameter CIDH piles is estimated to be 12 feet. Increasing the local pier scour due to debris accumulation was determined not to be appropriate (see Drift section). No contraction scour is anticipated. Adding degradation and local scour, and assuming a migrating thalweg, the total scour depth is 22.0 feet. This corresponds to Elevation 2461.3 feet.

Abutments

Currently both abutment foundations are shallow. The Abutment 1 fill is protected by rock slope protection (RSP) designed by District 2 and placed in 1991. The RSP has performed well to date. The new abutment designs should be addressed at the time of the bridge replacement. Until the bridge is replaced, Abutment 1 should be monitored and inspected during and after each high flow event to insure that the RSP is stable.

In-Stream Mining

The Blue Rock Company aggregate mining operation is located 200 feet downstream of the bridge. In 1994 a Reclamation Plan was submitted including a request for an increase in extraction. However, there were numerous comments from District 2 Hydraulics, Structure Hydraulics, and other public entities insisting that the Reclamation Plan provide for streambed protection, particularly since it could threaten the structural integrity of the Trinity River Bridge. Suggested requirements included monitoring changes in channel elevations and bank erosion annually, submitting these cross-sections to Caltrans for review, and establishing a red-line streambed elevation at the bridge.

There is no indication in our files that this issue was resolved. Trinity County staff contacted in September 2008 stated that the Planning Commission approved the Reclamation Plan in 1994 but the owner is currently out of compliance due to his failure to submit the studies necessary to determine an acceptable red-line elevation. He also needs to update his financial assurance and submit an Idle Mine Plan. He hasn't operated in the stream in years, possibly not since 1994.

The major consumers of the Blue Rock Company aggregate are Local, State and Federal Governments, which are prohibited by law from purchasing from a mine that is out of compliance. So it is unlikely operations will resume until the owner has addressed the above. Trinity County also inspects the site once per year to confirm this.

The status of the Reclamation Plan should be kept track of and should also include a termination date for in-stream mining.

Drift

The existing bridge has a history of drift accumulating on the piers. The proposed large diameter, widely spaced, cylindrical piles are not expected to collect significant debris.

References

1. Trinity River Bridge (Scour Retrofit) General Plan dated 8/29/08.

2. Caltrans Bridge Maintenance Records.

Summary Information for the Bridge Designer

Below is a summary of key design parameters based on the hydrologic and hydraulic analysis performed for this structure.

HYDROLOGIC AND HYDRAULIC SUMMARY	
Drainage Area: 157 square miles	
Frequency	100-year
Discharge	30,000 cfs
Maximum Water Surface Elevation	2504.9 feet
Potential Scour at Piers 2, 3, and 4	12 feet
Estimated Long-Term Degradation	10 feet
Total Scour Depth	22 feet
Total Scour Elevation	2461.3 feet
Average Velocity	7 ft/sec
Peak Velocity	11 ft/sec
Flood plain data are based upon information available when the plans were prepared and are shown to meet federal requirements. The accuracy of said information is not warranted by the State and interested or affected parties should make their own investigation.	

ALL CALCULATED ELEVATIONS IN THIS REPORT ARE BASED ON THE VERTICAL DATUM NAVD88.

Trinity River
Br. No. 05-0028
02-Tri-3-PM68.50
EA 02-2C9901

This report has been prepared under our direction as the professional engineers in responsible charge of the work, in accordance with the provisions of the Professional Engineers Act of the State of California.

Diane K. O'Brien

REGISTERED CIVIL ENGINEER (SIGNATURE)

REGISTRATION NUMBER C 48483 DATE: October 23, 2008

Ronald L McGaugh

REGISTERED CIVIL ENGINEER (SIGNATURE)

REGISTRATION NUMBER C 61217 DATE: October 23, 2008

DIVISION OF ENGINEERING
STRUCTURE DESIGN SERVICES
STRUCTURE HYDRAULICS & HYDROLOGY
ADDENDUM
TO THE FINAL HYDRAULIC REPORT

Trinity River
Bridge No. 05-0028

Located north of the town of Coffee Creek
on State Route 3 over the Trinity River in Trinity County

JOB:
Bridge Repair – Scour Mitigation

LOCATION:
02-Tri-3-PM68.50

EA: 02-2C9901

WRITTEN BY:
Diane O'Brien

DATE: September 3, 2009

REVIEWED BY:
Ronald McGaugh

DATE: September 3, 2009

Hydrology/Hydraulics Report

General

This Addendum supplements and supersedes some of the information contained in the Final Hydraulic Report for the Trinity River Bridge dated October 23, 2008. It addresses the following items only:

- Q50 and Overtopping Flood
- Revised local pier scour depth to reflect the change in pier geometry
- Recommendations for existing pier removal elevations

ALL CALCULATED ELEVATIONS IN THIS REPORT ARE BASED ON THE VERTICAL DATUM NAVD88.

The vertical transformation to adjust the existing As-Built plans (1966 & 1975) to NAVD88 is +3.18 feet.

Q50 and Overtopping Flood

PKFQWin Version 5.0.0, a flood-frequency computation program, was used to estimate the Q50 discharge at the stream gage located less than 2 miles upstream of the bridge. There are no significant tributaries between the gage and the bridge. The 50-year discharge at the Trinity River Bridge is estimated to be 23,000 cfs.

A one-dimensional water surface profile program, HEC-RAS 3.1.3, was used to model the flow for the Q50. The Manning's roughness coefficient used was 0.035. The Q50 maximum water surface elevation is 2503.5 feet.

The overtopping flood discharge and elevation cannot be calculated because the levee upstream of the bridge will overtop before the bridge is inundated.

Local Pier Scour

The foundation of each proposed outrigger bent will be two 5-foot-diameter columns each on a 6-foot-diameter pile. The 6-foot-diameter section begins at Elevation 2479 and continues down to bedrock. The two columns will have a center to center spacing of 67 feet.

The potential local scour depth for the proposed 5-foot-diameter column with 6-foot-diameter pile is estimated to be 15 feet. No contraction scour is anticipated. Adding degradation (see 10/23/08 FHR) and local scour, and assuming a migrating thalweg, the total scour depth is 25.0 feet. This corresponds to Elevation 2458.3 feet.

Existing Pier Removal Elevations

The existing pier walls for Piers 2, 3 and 4 should be removed down to the top of each footing. The spread footings can remain buried in the channel. The corresponding removal elevations are:

Pier 2: Elevation 2477.2 feet
Pier 3: Elevation 2484.2 feet
Pier 4: Elevation 2483.7 feet

Trinity River
Br. No. 05-0028
02-Tri-3-PM68.50
EA 02-2C9901

Summary Information for the Bridge Designer

Below is a summary of key design parameters based on the hydrologic and hydraulic analysis performed for this structure. See the Final Hydraulic Report dated October 23, 2008 for the complete study.

HYDROLOGIC AND HYDRAULIC SUMMARY		
Drainage Area: 157 square miles		
Frequency	100-year	50-year
Discharge	30,000 cfs	23,000 cfs
Maximum Water Surface Elevation	2504.9 feet	2503.5
Potential Scour at Piers 2, 3, and 4	15 feet	N/A
Estimated Long-Term Degradation	10 feet	N/A
Total Scour Depth	25 feet	N/A
Total Scour Elevation	2458.3 feet	N/A
Average Velocity	7 ft/sec	N/A
Peak Velocity	11 ft/sec	N/A
Flood plain data are based upon information available when the plans were prepared and are shown to meet federal requirements. The accuracy of said information is not warranted by the State and interested or affected parties should make their own investigation.		

Trinity River
Br. No. 05-0028
02-Tri-3-PM68.50
EA 02-2C9901

This report has been prepared under my direction as the professional engineer in responsible charge of the work, in accordance with the provisions of the Professional Engineers Act of the State of California.

REGISTERED CIVIL ENGINEER (SIGNATURE)

REGISTRATION NUMBER C 48483 DATE: September 3, 2009

PRELIMINARY SITE INVESTIGATION REPORT

Highway 3 Post Mile 68.5 and 70.7
Trinity County, California

PREPARED FOR:

CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 2
P.O. BOX 496073
REDDING, CALIFORNIA 96049

PREPARED BY:

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

GEOCON PROJECT NO. S9200-06-78
TASK ORDER NO. 78, EA NO. 02-2C9900

AUGUST 2009

GEOCON
CONSULTANTS, INC.
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Project No. S9300-06-78
August 21, 2009

Mr. Rajive Chadha
California Department of Transportation – District 3
Environmental Engineering Office
P.O. Box 911
Marysville, California 95901

Subject: HIGHWAY 3 POST MILE 68.5 AND 70.7
TRINITY COUNTY, CALIFORNIA
CONTRACT NO. 03A1368
TASK ORDER NO. 78, EA 02-2C9900
PRELIMINARY SITE INVESTIGATION REPORT

Dear Mr. Chadha:

In accordance with California Department of Transportation (Caltrans) Contract No. 03A1368, Task Order No. 78, and Expense Authorization 02-2C9900, we have performed environmental engineering services at the project site. The Site consists of two bridges and shoulder areas north and south of each bridge on California State Route 3 at Post Mile 68.5 and 70.7 in Trinity County, California. The accompanying report summarizes the services performed including a geological review, advancement of eleven hand-auger borings for shallow soil sampling to evaluate for the potential presence of aerially deposited lead and naturally occurring asbestos, collection of five shallow soil samples for Title 22 metals analysis, traffic stripe paint sampling for lead analysis, and asbestos and lead-containing paint survey for the two bridges located within the project boundaries.

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.

Joshua A. Goodwin, PG, CAC
Project Geologist

John E. Jumrend, PE, CEG
Principal

JAG:JEJ:jaj

(5+ 3CD) Addressee

TABLE OF CONTENTS

PRELIMINARY SITE INVESTIGATION REPORT

TABLE OF CONTENTS (continued)

PRELIMINARY SITE INVESTIGATION REPORT

1.0 INTRODUCTION

This Preliminary Site Investigation (PSI) report was prepared under California Department of Transportation (Caltrans) Contract No. 03A1368, Task Order (TO) No. 78, and Expense Authorization (EA) 02-2C9900.

1.1 Project Description and Proposed Improvements

The project consists of two sites on California State Route 3 (Highway 3) in Trinity County, California. The sites include the Trinity River Bridge (Bridge #05-0028), Post Mile (PM) 68.5 and the Minnehaha Creek Bridge (Bridge #05-0048), PM 70.7. Caltrans proposes retrofit work at the Trinity River Bridge and bridge replacement at the Minnehaha Creek Bridge. The approximate bridge locations are depicted on the attached Vicinity Map, Figure 1. Investigation areas and major roadway features are depicted on the Site Plans, Figures 2-1 and 2-2.

1.2 General Objectives

Roadway construction and associated bridge and shoulder improvements along Highway 3 will require the disturbance of soil and/or existing pavement at the project locations. The purpose of the scope of services outlined in Task Order No. 78 was to evaluate for the potential presence of aerially deposited lead (ADL), naturally occurring asbestos (NOA), and Title 22 metals in soil where soil disturbances are planned in the vicinity of each bridge. Additionally we collected two paint-chip samples, one from each site, to determine whether yellow traffic stripe paint within the limits of planned roadway improvements contains lead. We also performed asbestos-containing material (ACM) and lead-containing paint (LCP) surveys on the Trinity River and Minnehaha Creek bridges. The ACM and LCP bridge survey report is presented in Appendix A.

The investigative results will be used by Caltrans to inform the construction contractor if hazardous levels of target analytes are present within the project boundaries for health and safety purposes and for appropriate handling and disposal procedures, if necessary.

2.0 BACKGROUND

2.1 Potential Lead Soil Impacts

Ongoing testing by Caltrans has indicated that ADL impacted soils exists along major freeway routes due to emissions from vehicles powered by leaded gasoline.

2.2 Potential Lead-based Traffic Stripe Paint Impacts

Yellow traffic stripe paint utilized by Caltrans may contain lead-chromate. The potential for elevated lead warrants sampling and analytical testing of the paint stripe materials to determine appropriate health and safety procedures and proper management and disposal practices. Disposal of removed traffic stripe paint materials is dependent on the method utilized to remove these materials (i.e. focused stripe removal vs. pavement grinding).

2.3 Hazardous Waste Determination Criteria

Regulatory criteria to classify a waste as "California hazardous" for handling and disposal purposes are contained in the California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 11, Article 3, § 66261.24. Criteria to classify a waste as "Resource, Conservation, and Recovery Act (RCRA) hazardous" are contained in Chapter 40 of the Code of Federal Regulations (40 CFR), Section 261.

For waste containing metals, the waste is classified as California hazardous when: 1) the total metal content exceeds the respective Total Threshold Limit Concentration (TTLC); or 2) the soluble metal content exceeds the respective Soluble Threshold Limit Concentration (STLC) based on the standard Waste Extraction Test (WET). A waste may have the potential of exceeding the STLC when the waste's total metal content is greater than or equal to ten times the respective STLC value, since the WET uses a 1:10 dilution ratio. Hence, when a total metal is detected at a concentration greater than or equal to ten times the respective STLC, and assuming that 100 percent of the total metals are soluble, soluble metal analysis is required. A material is classified as RCRA hazardous, or Federal hazardous, when the soluble metal content exceeds the Federal regulatory level based on the Toxicity Characteristic Leaching Procedure (TCLP). The TTLC value for lead is 1,000 milligrams per kilogram (mg/kg). The STLC and TCLP values for lead are both 5.0 milligrams per liter (mg/l).

The above regulatory criteria are based on chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability and corrosivity; however, for the purposes of this investigation toxicity (i.e., lead concentrations) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for ignitability or corrosivity. Waste that is classified as either California-hazardous or RCRA-hazardous requires management as a hazardous waste.

The Department of Toxic Substances Control (DTSC) regulates and interprets hazardous waste laws in California. DTSC generally considers excavated or transported materials that exhibit "hazardous waste" characteristics to be a "waste" requiring proper management, treatment and disposal. Soil that contains lead above hazardous waste thresholds and is left in-place would not be necessarily classified by DTSC as a "waste." The DTSC has provided site-specific determinations that "movement of wastes

within an area of contamination does not constitute "land disposal" and, thus, does not trigger hazardous waste disposal requirements." Therefore, lead-impacted soil that is scarified in place, moisture-conditioned, and recompacted during roadway improvement activities might not be considered a "waste." DTSC should be consulted to confirm waste classification. It is noted that in addition to DTSC regulations, health and safety requirements and other local agency requirements may also apply to the handling and disposal of lead-impacted soil.

2.4 Naturally Occurring Asbestos

The California Air Resources Board (CARB) has mitigation practices for construction, grading, quarrying, and surface mining operations that may disturb natural occurrences of asbestos outlined in Title 17 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 an approved high efficiency particulate air filter equipped respirator 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. The North Coast Unified Air Quality Management District (NCUAQMD), which has jurisdiction at the sites covered under Task Order No. 78, has adopted 17 CCR 93106 as the governing document for reuse of surfacing material on sites with NOA.

3.0 SCOPE OF SERVICES

We performed the following scope of services as requested by Caltrans in Task Order No. 78:

3.1 Pre-field Activities

- Prepared a *Health and Safety Plan* dated March 2009, to provide guidelines on the use of personal protective equipment and the health and safety procedures implemented during the field activities.
- Reviewed geologic maps and reports pertaining to areas covered by the Task Order to determine if NOA-bearing rock units would be encountered during our field activities.

- Retained the services of Advanced Technology Laboratories (ATL), a Caltrans-approved and California-certified analytical laboratory, to perform the chemical analysis of soil and paint samples.
- Retained the services of EMSL Analytical, Inc. (EMSL), a Caltrans-approved and California-certified analytical laboratory, to perform the asbestos analysis of samples.

3.2 Field Activities

On June 25, 2009, we conducted preliminary site investigation activities at the Minnehaha Creek Bridge (Photo 1) and the Trinity River Bridge (Photo 2). At the Minnehaha Creek Bridge we advanced eleven hand-auger borings to a maximum approximate depth of 3.0 feet or until refusal. Seventeen soil samples were collected from the hand-auger borings, each of which were submitted for lead analysis and seven of which were split and submitted for NOA analysis subsequent to field homogenization. Following sample collection, the borings were backfilled with the excess soil cuttings.

We collected three soil samples (TRNOA1 through TRNOA3) for asbestos analysis from the Trinity River Bridge site in an area planned for equipment staging (Photos 3 and 4).

Five surface soil samples were collected for heavy metals analysis, three of which were collected adjacent to existing piers beneath the Trinity River Bridge (Photo 5) and two were collected beneath the Minnehaha Creek Bridge (Photo 6). We also collected one yellow traffic stripe paint sample at each of the investigation areas.

Additionally, we performed an ACM and LCP survey of the Trinity River Bridge and the Minnehaha Creek Bridge, the results of which are presented under separate cover. The *Asbestos and Lead-containing Paint Survey* report is presented in Appendix A.

We attempted to determine the coordinates of each sampling location using a differential global positioning system (GPS). The GPS was utilized during the field activities to locate the horizontal position of the sample locations with an error of no more than 3.3 feet. Coordinates could not be obtained for numerous sampling locations due to overhead obstructions or signal failure. The latitude and longitude of the boring locations are summarized in Table 1.The approximate boring locations are depicted on Figures 2-1 and 2-2.

4.0 INVESTIGATIVE METHODS

4.1 Aerially Deposited Lead

Soil sample locations were selected by the Geocon field supervisor and Caltrans Quality Assurance Manager based on anticipated soil disturbances that are to occur during the proposed bridge replacement activities at the Minnehaha Creek Bridge. Borings HA1 through HA6 were advanced along the shoulder

areas of southbound (SB) Highway 3 (Photo 7). Borings HA7 through HA11 were advanced along the shoulder areas of northbound (NB) Highway 3 (Photo 8). The approximate boring locations are shown on Figure 2-1.

Samples collected along the SB side of Highway 3 were collected from depth intervals of 0 to 1 foot, 1 to 2 feet and 2 to 3 feet. Due to rocky conditions encountered in alluvial material from which the samples were collected, we were unable to reach the target depth of 3 feet for borings HA2 through HA6.

Samples collected from the NB side of Highway 3 were collected from a depth interval of 0 to 1 foot. The target depth for these borings (1 foot) was shallower than those collected on from the SB shoulder because the NB shoulder is proposed for as an equipment staging area while the proposed construction activities on the SB shoulder include grading and excavation.

Soil samples were collected by hand-auger and were transferred directly from the hand-auger to a Ziploc® re-sealable plastic bag. Each sample was field homogenized within the sample bags and subsequently labeled, placed in a cooler, and delivered to ATL for analytical testing accompanied by chain-of-custody (COC) documentation.

Quality assurance/quality control (QA/QC) procedures were performed during the field sampling activities. These procedures included decontamination of sampling equipment before each boring was advanced 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 borings were backfilled with excess soil cuttings generated at each sampling location. The decontamination water was discharged to the ground surface away from surface water bodies or storm drain inlets.

4.2 Naturally Occurring Asbestos

Prior to sample collection we conducted a reconnaissance assessment of the rock and soil types present on the site. Outcrops composed of potentially NOA-bearing rocks (massive, blocky, gabbroic and partially serpentenized peridotite) were observed in road cuts north and south of the two investigation areas. Soil types observed at our sampling locations consisted of alluvial material (light brown, dry, loose, silty, fine to coarse sand) with mafic and metavolcanic (potentially NOA-bearing) and dioritic gravels to boulders.

At the Minnehaha Creek Bridge site, seven soil samples (NOA1 through NOA7) were collected for asbestos analysis from every other hand-auger boring at alternating depth intervals of 0 to 1 foot and 1 to 2 feet. NOA soil sample locations at the Minnehaha Creek Bridge site are shown on Figure 2-1.

Three soil samples (TRNOA1 through TRNOA3) were collected for asbestos analysis from the Trinity River Bridge site in an area planned for equipment staging. Soil samples TRNOA1 through TRNOA3 were collected from a depth interval of 0 to 1 foot at the locations shown on Figure 2-2.

4.3 Title 22 Metals

Five soil samples were collected from stream channel sediments below the two bridges in areas planned for grading or drilling activities. Three soil samples (MS1 through MS3) were collected below the Trinity River Bridge and two soil samples (MS4 and MS5) were collected below the Minnehaha Creek Bridge. The samples were collected using a hand trowel and transferred directly into 8-ounce glass jars with a Teflon®-lined lid.

Locations of soil samples collected for metals analysis were designated by Caltrans within the proposed construction area. Samples MS1 through MS3 were advanced adjacent to Trinity River Bridge piers at the locations shown on Figure 2-2. Samples MS4 and MS5 were advanced adjacent to the Minnehaha Creek Bridge in areas of planned soil disturbances at the locations shown on Figure 2-1. Each soil sample was labeled, placed in a cooler, and delivered to ATL for analytical testing accompanied by COC documentation.

4.4 Traffic Stripe Paint

Traffic stripe paint sampling locations were designated by Caltrans within the proposed construction areas. Traffic stripe paint samples P1 and P2 were obtained from the center-stripe on Highway 3 at the locations shown on Figures 2-2 and 2-1, respectively.

Each traffic stripe paint sample was collected using a hammer and chisel to chip of the traffic paint from the yellow center stripe. The traffic stripe paint samples were placed in labeled Ziploc® re-sealable plastic bags and delivered to ATL under COC documentation.

4.5 ACM and LCP Bridge Surveys

Two bulk samples of suspect ACM were collected from the Trinity River Bridge and two suspect ACM samples were collected from the Minnehaha Creek Bridge. The samples were collected after the material was wetted with a light mist of water. The samples were then cut from the substrate and transferred to a labeled container. Sampling locations were distributed throughout the homogeneous area (spaces where the material was observed). Potential LCP was not observed on either bridge during our surveys.

A detailed ACM and LCP survey report is presented in Appendix A.

4.6 Quality Assurance/Quality Control Procedures

QA/QC procedures were performed during the field exploration activities. These procedures included noting the general soil type for each boring on the field logs, the decontamination of sampling equipment before each sample was collected, and providing COC documentation for each sample submitted to the laboratories. 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.

4.7 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 B.

4.7.1 Aerially Deposited Lead Samples

The 17 soil samples were analyzed by ATL on a five working-day turn-around-time (TAT) for total lead following United States Environmental Protection Agency (EPA) Test Method 6010B.

4.7.2 Naturally Occurring Asbestos Samples

The soil samples collected for NOA analysis were submitted to EMSL for asbestos analysis in accordance with EPA Test Method 600/R-93/116 using polarized light microscopy (PLM) with a target analytical sensitivity of 0.25%. The samples were prepared for analysis by EMSL in accordance with CARB Method 435 milling process.

4.7.3 Title 22 Metals Samples

Five soil samples were relinquished to ATL for Title 22 metals analysis in accordance with EPA Test Method 6010B and 7471A (mercury). The laboratory analysis was requested on a five working-day TAT.

4.7.4 Traffic Stripe Paint Samples

The two yellow traffic stripe paint samples were analyzed by ATL on a five working-day TAT for total lead following EPA Test Method 6010B.

4.7.5 ACM and LCP Bridge Survey Samples

The four samples collected during the ACM bridge surveys were analyzed by EMSL for asbestos analysis in accordance with United States Environmental Protection Agency (EPA) Test Method 600/R-93/116 using polarized light microscopy (PLM) under chain-of-custody protocol. The samples were analyzed on a five working-day TAT.

No lead-containing paint was observed during our field activities.

4.7.6 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 various metals 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 the Weed Quadrangle* (CGS 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 Quadrangle* consist of Quaternary alluvium, Ordovician gabbroic and dioritic rocks (minor pyroxenite), and Ordovician Trinity peridotite (partially serpentenized).

We performed a NOA assessment of the lithology of outcrops visible within the Caltrans right-of-way. The observed geology is consistent with that depicted on the *Weed Quadrangle*.

The soil encountered during the advancement of the hand-auger borings was composed primarily of light brown, dry, loose, silty, fine to coarse sand with angular to rounded gravels to boulders composed of mafic, metavolcanic and dioritic rock-types to the total depth of the borings. Groundwater was not encountered during the site investigation activities.

5.2 ADL Soil Analytical Results

Total lead was detected in 9 of the 17 discrete soil samples analyzed at concentrations ranging from 5.0 to 10 mg/kg. None of the soil samples were reported with total lead concentrations greater than 50 mg/kg (ten times the soluble threshold limit concentration (STLC) value for lead of 5.0 mg/l) therefore, no samples were further analyzed for soluble lead.

A Summary of Lead Analytical Results is presented on Table 1. The laboratory reports and COC documentation are presented in Appendix B.

5.3 Naturally Occurring Asbestos

We collected seven soil samples from the Minnehaha Creek Bridge site for asbestos analysis. No asbestos was detected in samples NOA1, NOA2, and NOA3. In samples NOA4 through NOA7, less than 0.25% chrysotile asbestos was detected.

Three soil samples were collected from the Trinity River Bridge site for asbestos analysis. Less than 0.25% chrysotile asbestos was detected in samples TRNOA1 through TRNOA3.

The results of asbestos analysis for soil samples are presented in Table 2, Summary of Naturally Occurring Asbestos Analytical Results. The laboratory reports and COC documentation are presented in Appendix B.

5.4 Metals Results

Five soil samples were analyzed for Title 22 metals. The following metals were reported at concentrations exceeding the laboratory reporting limit (RL).

- Barium ranging from 13 to 19 mg/kg;
- Chromium ranging from 120 to 180 mg/kg;
- Cobalt ranging from 15 to 22 mg/kg;
- Copper ranging from 9.6 to 22 mg/kg;
- Lead at 1.3 and 2.1 mg/kg;
- Nickel ranging from 120 to 300 mg/kg;
- Selenium ranging from 1.0 to 1.5 mg/kg;
- Vanadium ranging from 34 to 100 mg/kg; and
- Zinc ranging from 11 to 27 mg/kg.

A Summary of Title 22 Metals Analytical Results is presented on Table 3. The laboratory reports and COC documentation are presented in Appendix B.

5.5 Traffic Stripe Paint Analytical Results

Total lead was detected in yellow traffic stripe paint samples P1 and P2 at respective concentrations of 17 and 3,500 mg/kg, respectively.

A Summary of Yellow Traffic Stripe Paint Sample Analytical Results – Total Lead is presented on Table 4. The laboratory reports and COC documentation are presented in Appendix B.

5.6 ACM and LCP Bridge Sample Analytical Results

The laboratory analyses indicated that chrysotile asbestos at a concentration of 80% was detected in samples representing approximately 20 square feet of nonfriable sheet packing used as barrier rail shims on Bridge 05-0028 (Trinity River Bridge).

No asbestos was detected in samples collected from Bridge 05-0048 (Minnehaha Creek Bridge) during our survey. A detailed ACM and LCP survey report is presented in Appendix A.

No paint samples were collected for lead analysis.

5.7 Laboratory QA/QC

We reviewed the laboratory QA/QC provided with the ATL laboratory reports. The data show acceptable surrogate recoveries and non-detect results for the method blanks. However, the relative percent differences (RPDs) for EPA Method 6010B were outside the RPD limit. The Case Narrative in the laboratory report for Workorder No. 106172 states “RPD for Duplicate (DUP) is outside criteria for samples 106172-010ADUP and 106172-022ADUP; however, the Laboratory Control Sample (LCS) validated the analytical batch.” The data showed acceptable recoveries and RPDs for the remainder of the matrix spikes and duplicates. Based on this limited data review, no additional qualifications of the soil data are necessary, and the data are of sufficient quality for the purposes of this report.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 ADL Soil Waste Classification/Disposal

Soil excavated to the maximum sampling depth of 3.0 feet along the SB shoulder of Highway 3 in the vicinity of borings HA1 through HA6 can be reused onsite or disposed of as non-hazardous soil since the total lead concentrations are less than 50 mg/kg. Reported lead levels are within the range of published naturally occurring background concentrations and therefore should not pose a threat to human health or the environment during the proposed road improvement activities.

6.2 Naturally Occurring Asbestos

Samples submitted for asbestos analysis were reported to contain chrysotile asbestos, but the reported levels were below the regulatory limit of 0.25% by PLM. Although the use of engineering controls as described in CCR Title 17, Section 93105 is not required at the site, Caltrans policy requires the use of engineering controls including the use of water for dust control/suppression to minimize potential aerial dispersion of NOA fibers in planned work areas during excavation and grading activities at sites where NOA is present. However, since the average percent asbestos is less than 0.25% based on CARB 435 testing, soils generated from the site during construction may be reused onsite without restriction. Construction/maintenance activities involving these asbestos-containing materials may fall under regulatory jurisdiction of the Cal/OSHA under CCR Title 8 Section 5208. The NCUAQMD, which has jurisdiction at the sites covered under Task Order No. 78, has adopted 17 CCR 93106 as the governing document for reuse of surfacing material at sites with NOA.

6.3 Title 22 Metals

Five soil samples were analyzed for Title 22 metals. The reported metals concentrations are within the range of published naturally occurring background concentrations and therefore should not pose a threat to human health or the environment during the proposed road improvement activities. Soil in vicinity of samples MS1 through MS5 can be reused onsite or disposed of as non-hazardous soil.

6.4 Traffic Stripe Paint Waste Classification/Disposal

The yellow traffic stripe paint was sampled per Caltrans' request since it may be removed from the underlying asphalt concrete by grinding or sand blasting, which would create a paint waste stream.

The reported concentrations of total lead for the yellow traffic stripe paint samples P1 and P2 were 17 mg/kg and 3,500 mg/kg, respectively. Since the total lead concentration of one of the yellow traffic stripe paint samples (P2) is greater than the TTLC value for lead of 1,000 mg/kg, the yellow traffic stripe paint may require disposal as a California hazardous waste. Paint chip sample P2 was collected south of the Minnehaha Creek Bridge at the location shown on Figure 2-1.

6.5 ACM and LCP Bridge Surveys

We recommend that asbestos-containing barrier rail shims (Category I nonfriable/nonhazardous materials) identified during our survey be removed and disposed of by a licensed contractor registered with Cal/OSHA for asbestos-related work prior to renovation, demolition, or other activities that would disturb the material. For budgetary planning purposes, our opinion of probable abatement costs for the removal, containerization, transportation, and disposal of asbestos-containing barrier rail shims is approximately $3,000.

No lead-containing paint was observed during our field activities.

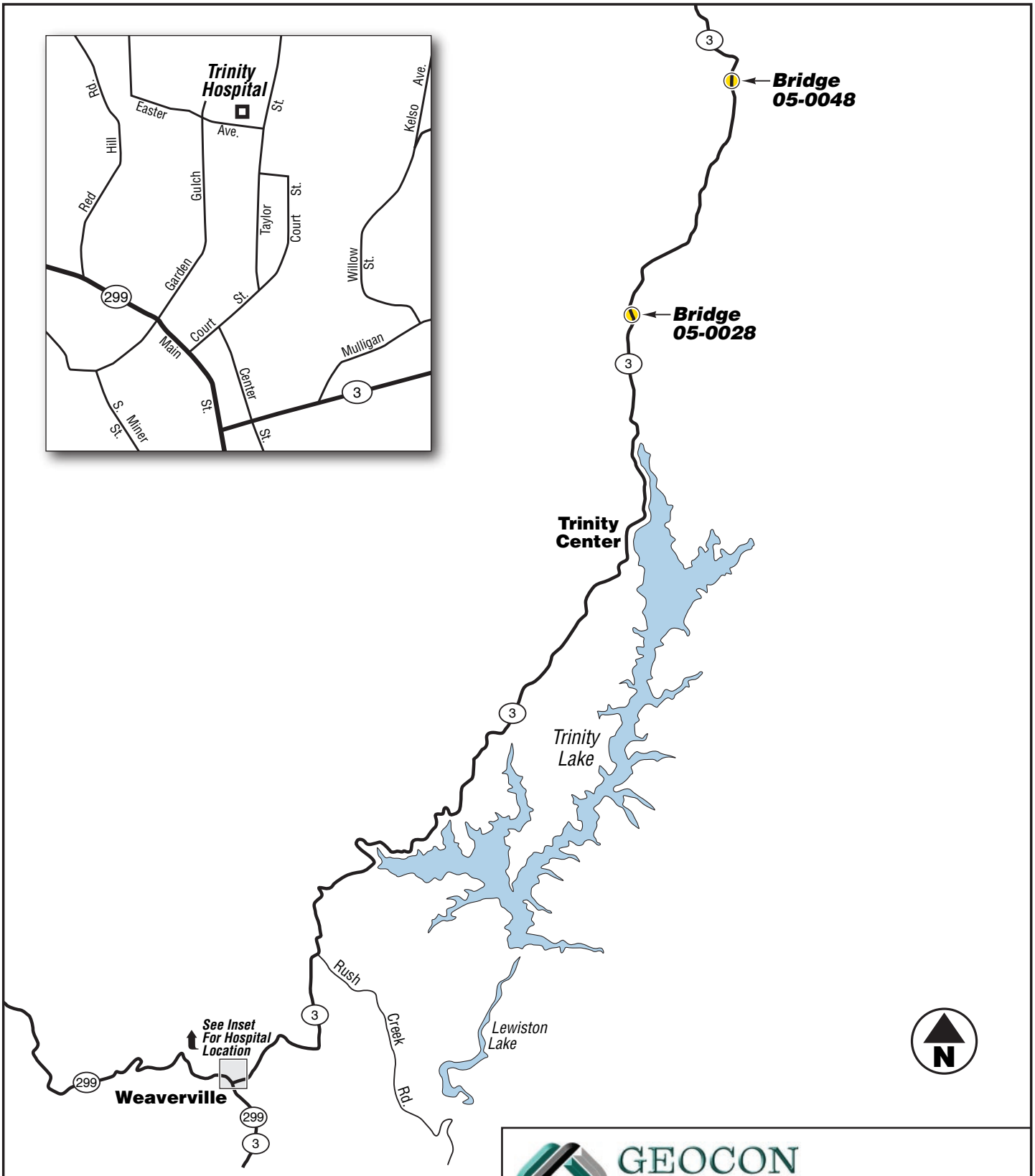
6.6 Worker Protection

Since the yellow paint chip sample collected at the Minnehaha Creek Bridge site was reported with a concentration of lead above hazardous waste levels, we recommend that a health and safety plan be prepared to minimize worker exposure. The health and safety plan should include a discussion of the constituents of concern, routes of exposure, permissible exposure limits, and personal protective measures. The health and safety plan should be reviewed and signed by the onsite construction workers prior to any field activities. We also recommend that contractors grinding asphalt which has been coated with yellow paint prepare a dust control plan. The dust control plan should include dust mitigation and monitoring procedures.

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, either 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.



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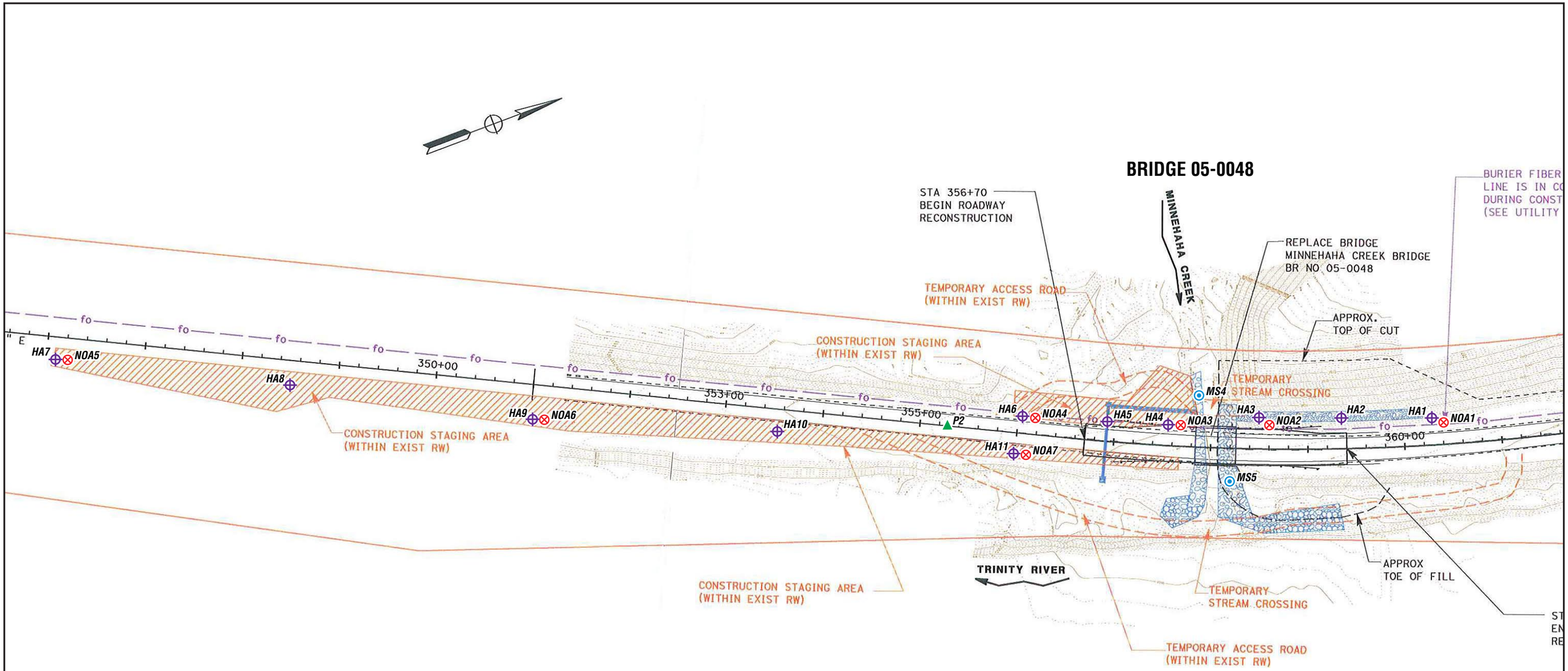
PHONE 916.852.9118 – FAX 916.852.9132

Highway 3, Post Mile 68.5 and 70.7

Trinity County, California	**VICINITY MAP**	
GEOCON Proj. No. S9300-06-78		
Task Order No. 78, EA 02-2C9900	August 2009	Figure 1



LEGEND:

- NOA1 ⊗ Approximate Naturally Occurring Asbestos (NOA) Soil Sample Location
- MS4 ⊙ Approximate Metals in Soil Sample Location
- HA1 ⊕ Approximate Aerially Deposited Lead (ADL) Sample Location
- P2 ▲ Approximate Center Stripe Yellow Paint Sample Location

0 100
Scale in Feet

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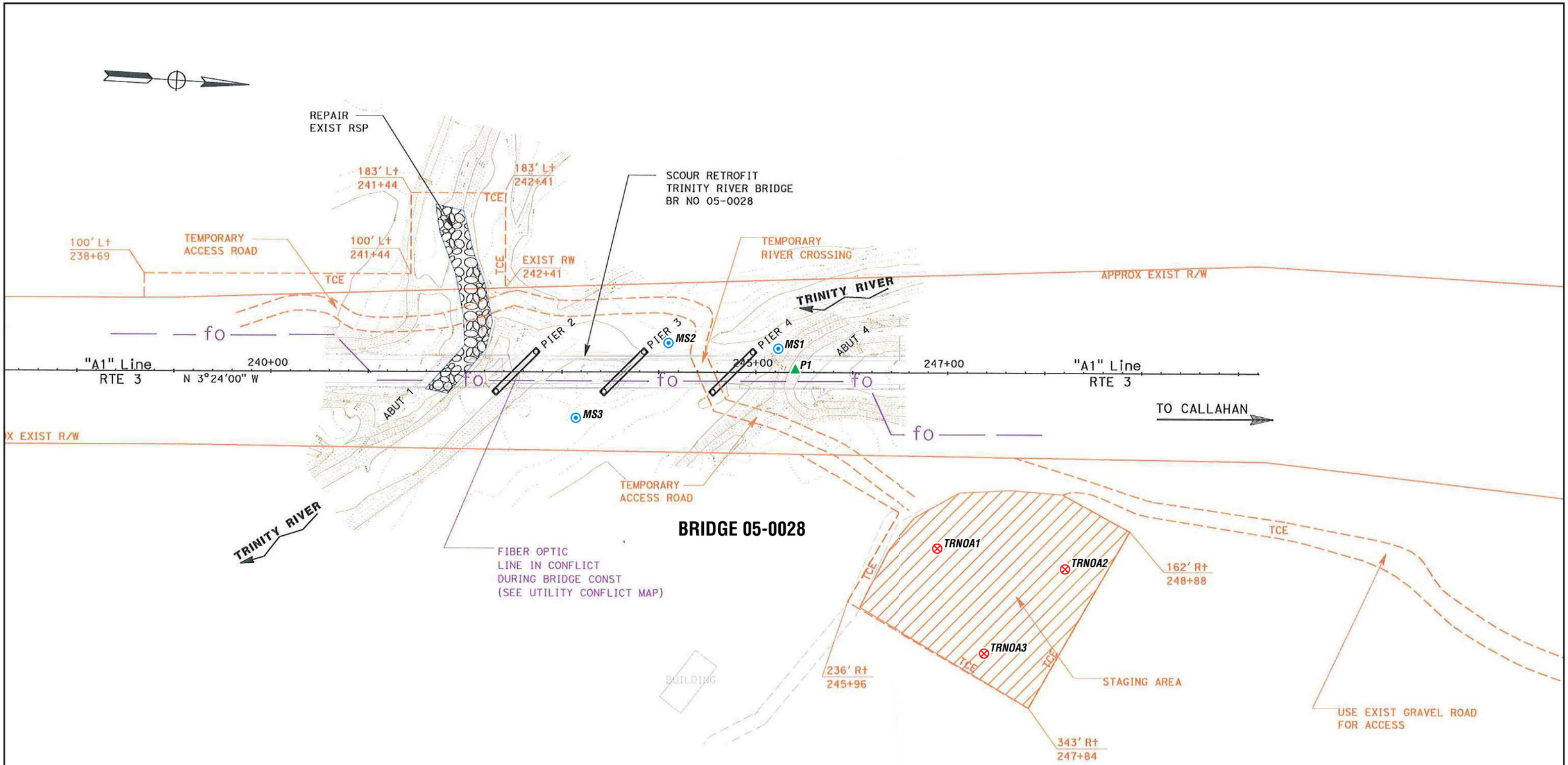
Highway 3, Post Mile 68.5 and 70.7

Trinity County, California	**SITE PLAN**	
GEOCON Proj. No. S9300-06-78		
Task Order No. 78, EA 02-2C9900	August 2009	Figure 2-1



LEGEND:

- TRNOA1 ⊗ Approximate Naturally Occurring Asbestos (NOA) Soil Sample Location
- MS1 ⊙ Approximate Metals in Soil Sample Location
- P1 ▲ Approximate Center Stripe Yellow Paint Sample Location

0 100
Scale in Feet

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Highway 3, Post Mile 68.5 and 70.7

Trinity County, California	**SITE PLAN**	
GEOCON Proj. No. S9300-06-78		
Task Order No. 78, EA 02-2C9900	August 2009	Figure 2-2

Photo 1 – Minnehaha Creek Bridge (Bridge 05-0048)

Photo 2 – Trinity River Bridge (Bridge 05-0028)

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PHOTOGRAPHS 1 & 2		
Highway 3, Post Mile 68.5 and 70.7 Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 3 – Northwesterly view of proposed staging area at Trinity River Bridge site (Figure 2-2).

Photo 4 – Northeasterly view of proposed staging area at Trinity River Bridge site (Figure 2-2).

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Photo 5 – Southerly view showing support piers beneath Trinity River Bridge (Figure 2-2).

Photo 6 – Westerly view showing typical conditions beneath Minnehaha Creek Bridge (Figure 2-1).

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PHOTOGRAPHS 5 & 6		
Highway 3, Post Mile 68.5 and 70.7 Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 7 – View of southbound shoulder on Highway 3 north of Minnehaha Creek Bridge (Figure 2-1).

Photo 8 – Southerly view of northbound shoulder on Highway 3 south of Minnehaha Creek Bridge (Figure 2-2).

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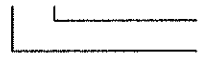
PHOTOGRAPHS 7 & 8		
Highway 3, Post Mile 68.5 and 70.7 Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

TABLE 1
SUMMARY OF LEAD ANALYTICAL RESULTS
HIGHWAY 3, POST MILE 68.5 AND 70.7
CALTRANS CONTRACT 03A1638, TASK ORDER NO. 78, EA 02-2C9900
TRINITY COUNTY, CALIFORNIA

BORING ID	SAMPLE DATE	LATITUDE	LONGITUDE	TOTAL LEAD (mg/kg)
HA1-0	6/25/2009	NA	NA	<5.0
HA1-1	6/25/2009	NA	NA	7.6
HA1-2	6/25/2009	NA	NA	<5.0
HA2-0	6/25/2009	NA	NA	5.8
HA2-1	6/25/2009	NA	NA	<5.0
HA3-0	6/25/2009	41.124804779	-122.700033433	6.5
HA3-1	6/25/2009	NA	NA	9.9
HA4-0	6/25/2009	NA	NA	<5.0
HA4-1	6/25/2009	NA	NA	<5.0
HA5-0	6/25/2009	NA	NA	8.2
HA5-1	6/25/2009	NA	NA	8.1
HA6-0	6/25/2009	NA	NA	<5.0
HA7-0	6/25/2009	NA	NA	6.2
HA8-0	6/25/2009	NA	NA	5.0
HA9-0	6/25/2009	NA	NA	10
HA10-0	6/25/2009	NA	NA	<5.0
HA11-0	6/25/2009	41.124286922	-122.700233733	<5.0

Notes:



Sample depth in feet
Boring identification

mg/kg = Milligrams per kilogram
< = Less than the laboratory reporting limits
NA = Not applicable (GPS signal unavailable at the time of our fieldwork.)

TABLE 2
SUMMARY OF NATURALLY OCCURRING ASBESTOS ANALYTICAL RESULTS
HIGHWAY 3, POST MILE 68.5 AND 70.7
CALTRANS CONTRACT 03A1638, TASK ORDER NO. 78, EA 02-2C9900
TRINITY COUNTY, CALIFORNIA

SAMPLE I.D.	SAMPLE DATE	SAMPLE DEPTH INTERVAL (feet)	ANALYTICAL METHOD	ASBESTOS %	ASBESTOS TYPE
NOA1-0	6/25/2009	0 to 1	PLM	ND	None Reported
NOA2-1	6/25/2009	1 to 2	PLM	ND	None Reported
NOA3-0	6/25/2009	0 to 1	PLM	ND	None Reported
NOA4-0	6/25/2009	0 to 1	PLM	<0.25	Chrysotile
NOA5-0	6/25/2009	0 to 1	PLM	<0.25	Chrysotile
NOA6-0	6/25/2009	0 to 1	PLM	<0.25	Chrysotile
NOA7-0	6/25/2009	0 to 1	PLM	<0.25	Chrysotile
TRNOA 1	6/25/2009	0 to 1	PLM	<0.25	Chrysotile
TRNOA 2	6/25/2009	0 to 1	PLM	<0.25	Chrysotile
TRNOA 3	6/25/2009	0 to 1	PLM	<0.25	Chrysotile

Notes: PLM = Polarized Light Microscopy
ND = Not detected

TABLE 3
SUMMARY OF TITLE 22 METALS ANALYTICAL RESULTS
HIGHWAY 3, POST MILE 68.5 AND 70.7
CALTRANS CONTRACT 03A1638, TASK ORDER NO. 78, EA 02-2C9900
TRINITY COUNTY, CALIFORNIA

Sample ID	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
		Results reported in mg/kg																
MS1-0	6/25/2009	<2.0	<1.0	16	<1.0	<1.0	180	20	9.6	<1.0	<0.10	<1.0	300	1.4	<1.0	<1.0	51	14
MS2-0	6/25/2009	<2.0	<1.0	13	<1.0	<1.0	180	18	15	<1.0	<0.10	<1.0	290	1.0	<1.0	<1.0	34	11
MS3-0	6/25/2009	<2.0	<1.0	14	<1.0	<1.0	120	17	15	<1.0	<0.10	<1.0	230	1.1	<1.0	<1.0	100	13
MS4-0	6/25/2009	<2.0	<1.0	19	<1.0	<1.0	180	22	22	2.1	<0.10	<1.0	190	1.5	<1.0	<1.0	75	27
MS5-0	6/25/2009	<2.0	<1.0	13	<1.0	<1.0	130	15	19	1.3	<0.10	<1.0	120	<1.0	<1.0	<1.0	57	17
Published Background (mg/kg)		0.6	3.5	509	1.28	0.36	122	14.9	28.7	23.9	0.26	1.3	57	0.058	0.8	0.56	112	149

Notes: mg/kg = Milligrams per kilogram

< = Less than the laboratory reporting limits

Published Background = Mean concentration in California soil. Reference: Bradford, G.R., et al, Kearney Foundation of Soil Science, Division of Agriculture and Natural resources, University of California, "Background Concentrations of Trace and Major Elements in California Soils," March 1996

TABLE 4

SUMMARY OF YELLOW TRAFFIC STRIPE PAINT SAMPLE ANALYTICAL RESULTS - TOTAL LEAD

HIGHWAY 3, POST MILE 68.5 AND 70.7

CALTRANS CONTRACT 03A1638, TASK ORDER NO. 78, EA 02-2C9900

TRINITY COUNTY, CALIFORNIA

SAMPLE ID	SAMPLE DATE	LOCATION	TOTAL LEAD (mg/kg)
P1	6/25/2009	BRIDGE 05-0028	17
P2	6/25/2009	BRIDGE 05-0048	**3,500**

Notes:

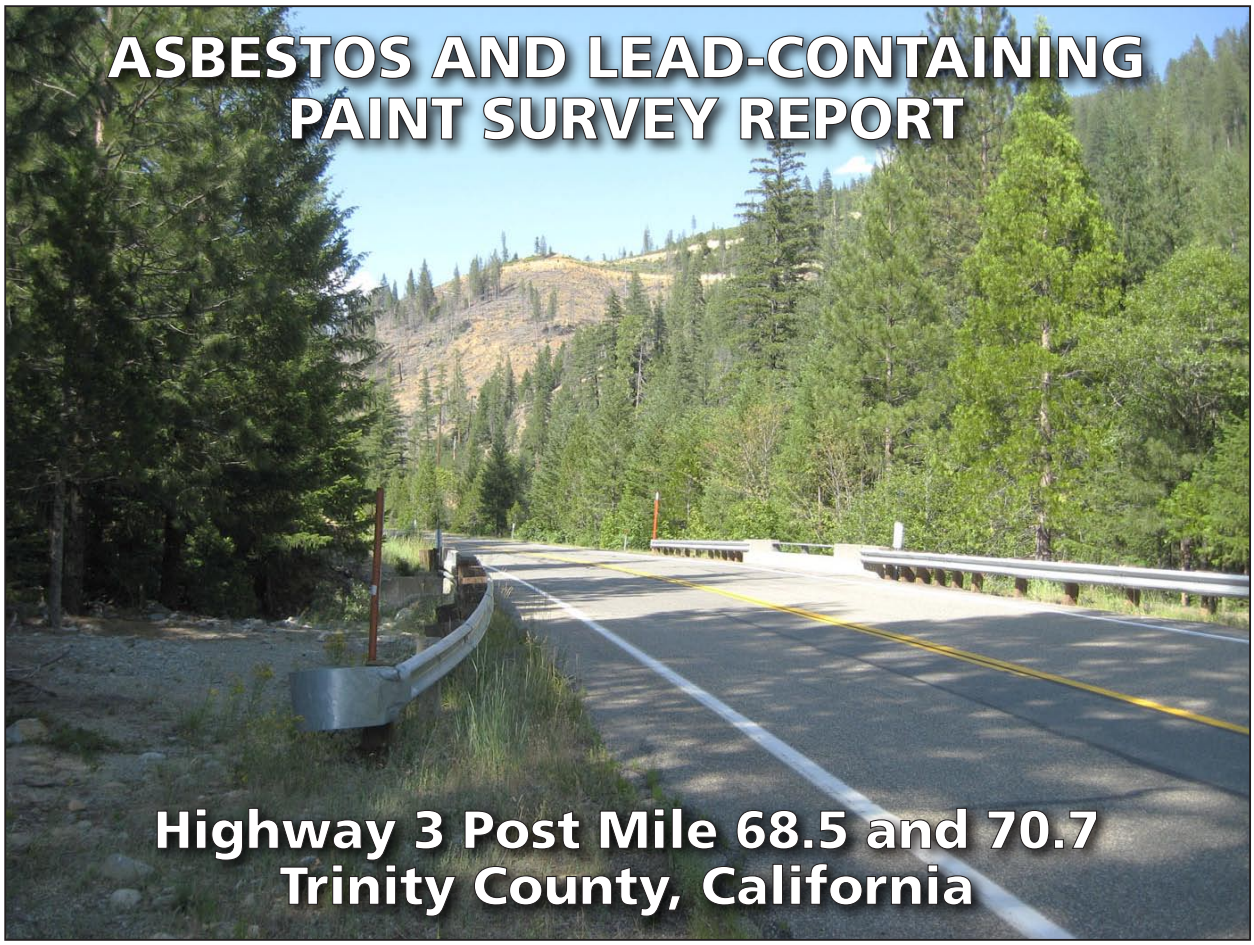
mg/kg = Milligrams per kilogram

< = Less than the laboratory reporting limit

Bold text = Reported concentration exceeds California hazardous waste Total Threshold Limit Concentration (TTLC) of 1,000 mg/kg.

APPENDIX A

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT



Highway 3 Post Mile 68.5 and 70.7
Trinity County, California

PREPARED FOR:

CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 2
P.O. BOX 496073
REDDING, CALIFORNIA 96049

PREPARED BY:

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

GEOCON PROJECT NO. S9300-06-78
TASK ORDER NO. 78, EA NO. 02-2C9900

AUGUST 2009

GEOCON
CONSULTANTS, INC.
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Project No. S9300-06-78
August 21, 2008

Mr. Rajive Chadha
California Department of Transportation – District 3
703 B Street
Marysville, California 95901

Subject: TRINITY RIVER BRIDGE AND MINNEHAHA CREEK BRIDGE
HIGHWAY 3 POST MILE 68.5 AND 70.7
TRINITY COUNTY, CALIFORNIA
CONTRACT NO. 03A1368
TASK ORDER NO. 78, EA NO. 02-2C9900
ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

Dear Mr. Chadha:

In accordance with California Department of Transportation Contract No. 03A1368 and Task Order No. 78, we have performed an asbestos and lead-containing paint (LCP) survey of the Trinity River and Minnehaha Creek bridges in Trinity County, California. The scope of services included surveying the two bridges for suspect asbestos-containing materials and LCP, collecting bulk samples, and submitting the samples to the laboratory for analyses.

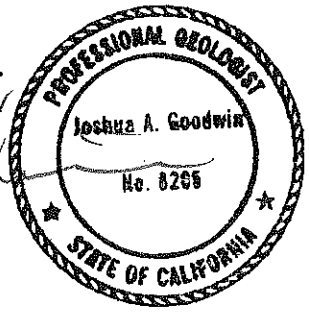
The accompanying report summarizes the services performed and laboratory analysis.

The contents of this report reflect the views of Geocon Consultants, Inc., who are 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 questions concerning the contents of this report or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.



Joshua A. Goodwin, PG, CAC
Senior Project Geologist

John E. Juhrend, PE, CEG
Contract Manager

JAG:JEJ:jaj

(5 + 3 CD) Addressee

TABLE OF CONTENTS

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT Page

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

1.0 INTRODUCTION

This asbestos and lead-containing paint (LCP) survey report was prepared by Geocon Consultants, Inc. under Caltrans Contract No. 03A1368, Task Order No. 78 (TO-78).

1.1 Project Description

The project consists of the Trinity River and Minnehaha Creek bridges on Interstate 80 in Trinity County, California. We performed asbestos and LCP survey activities at the project location. The project location is depicted on the Vicinity Map, Figure 1, and Site Plans, Figures A-1 and A-2.

1.2 General Objectives

The purpose of the scope of services outlined in TO-78 was to determine the presence and quantity of asbestos and LCP at the project location prior to renovation activities. Caltrans will use the information obtained from this investigation for waste profiling, determining California Occupational Safety and Health Administration (Cal/OSHA) applicability, and coordinating asbestos and LCP disturbance activities.

> *It was <u>not</u> Geocon's intent during this inspection to conduct an evaluation of lead-based paint hazards in accordance with U.S. Department of Housing and Urban Development (HUD) guidelines. HUD protocol generally requires a very extensive sampling strategy that includes sampling of paint on each surface type (e.g., wall, ceiling, window sill, window frame, door frame, molding, etc.) in each room.*

2.0 BACKGROUND

2.1 Asbestos

The *Code of Federal Regulations (CFR)*, 40 CFR 61, Subpart M, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Federal Occupational Safety and Health Administration (FED OSHA) classify asbestos-containing material (ACM) as any material or product that contains *greater than* 1% asbestos. Nonfriable ACM is classified by NESHAP as either Category I or Category II material defined as follows:

- **Category I** – asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.
- **Category II** – all remaining types of nonfriable asbestos-containing material not included in Category I that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Regulated asbestos-containing material (RACM), a hazardous waste when friable, is classified as any manufactured material that contains *greater than* 1% asbestos by dry weight *and* is:

- Friable (can be crumbled, pulverized, or reduced to powder by hand pressure); or
- Category I material that has become friable; or
- Category I material that has been subjected to sanding grinding, cutting or abrading; or
- Category II nonfriable material that has a high probability of becoming crumbled, pulverized, or reduced to a powder during demolition or renovation activities.

Activities that disturb materials containing *any* amount of asbestos are subject to certain requirements of the Cal/OSHA asbestos standard contained in Title 8, CCR Section 1529. Typically, removal or disturbance of more than 100 square feet of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor, but associated waste labeling is not required if the material contains 1% or less asbestos. When the asbestos content of a material exceeds 1%, virtually all requirements of the standard become effective.

Materials containing more than 1% asbestos are also subject to NESHAP regulations (40 CFR Part 61, Subpart M). RACM (friable ACM and nonfriable ACM that will become friable during demolition operations) must be removed from structures prior to demolition. Certain nonfriable ACM and materials containing 1% or less asbestos may remain in structures during demolition; however, there are waste handling/disposal issues and Cal/OSHA work requirements that must be followed. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

With respect to potential worker exposure, notification, and registration requirements, Cal/OSHA defines asbestos-containing construction material (ACCM) as construction material that contains more than 0.1% asbestos (Title 8, CCR 341.6).

2.2 Lead Paint

Construction activities (including renovation and demolition) that disturb materials or paints containing *any* amount of lead are subject to certain requirements of the Cal/OSHA lead standard contained in Title 8, CCR, Section 1532.1. Deteriorated paint is defined by Title 17, CCR, Division 1, Chapter 8, §35022 as a surface coating that is cracking, chalking, flaking, chipping, peeling, non-intact, failed, or otherwise separating from a component. Renovation or demolition of a deteriorated LCP component would require waste characterization and appropriate disposal. Intact LCP on a component is currently accepted by most landfill facilities; however, contractors are responsible for segregating and characterizing waste streams prior to disposal.

For a solid waste containing lead, the waste is classified as California hazardous when: 1) the total lead content equals or exceeds the respective Total Threshold Limit Concentration (TTLC) of 1,000 milligrams per kilogram (mg/kg); or 2) the soluble lead content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) of 5 milligrams per liter (mg/l) based on the standard Waste Extraction Test (WET). A waste has the potential for exceeding the lead STLC when the waste's total lead content is greater than or equal to ten times the respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when total lead is detected at a concentration greater than or equal to 50 mg/kg, and assuming that 100 percent of the total lead is soluble, soluble lead analysis is required. Lead-containing waste is classified as "Resource, Conservation, and Recovery Act" (RCRA) hazardous, or Federal hazardous, when the soluble lead content equals or exceeds the Federal regulatory level of 5 mg/l based on the Toxicity Characteristic Leaching Procedure (TCLP).

The above regulatory criteria are based on chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability; however, for the purposes of this investigation, toxicity (i.e., lead concentrations) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for ignitability or other criteria. Waste that is classified as either California hazardous or RCRA hazardous requires management as a hazardous waste.

Potential hazards exist to workers who remove or cut through LCP coatings during demolition. Dust containing hazardous concentrations of lead may be generated during scraping or cutting materials coated with lead-containing paint. Torching of these materials may produce lead oxide fumes. Therefore, air monitoring and/or respiratory protection may be required during the demolition of materials coated with LCP. Guidelines regarding regulatory provisions for construction work where workers may be exposed to lead are presented in the Title 8, CCR, Section 1532.1.

2.3 Architectural Drawings and Previous Survey Activities

Caltrans provided various bridge as-built drawings for our review. We observed no evidence of asbestos-containing materials or lead-containing paints on the as-built drawings we reviewed. Previous survey reports for the project were not available for our review.

3.0 SCOPE OF SERVICES

Mr. Joshua A. Goodwin, a California-Certified Asbestos Consultant (CAC), certification No. 05-3754 (expiration June 16, 2010), and Certified Lead-Related Construction Inspector/Assessor with the California Department of Public Health (DPH), certification numbers I-19737 (expiration June 7, 2010), performed the asbestos and LCP survey at the project location on June 25, 2009.

3.1 Asbestos

Suspect ACM were grouped into homogeneous areas with representative samples randomly collected from each. In addition, each potential ACM was evaluated for condition (evidence of deterioration, physical damage, and water damage) and friability. A total of four bulk asbestos samples of suspect materials were collected.

Our procedures for inspection and sampling in accordance with TO-78 are discussed below:

- Collected bulk asbestos samples after first wetting friable material with a light mist of water. The samples were then cut from the substrate and transferred to a labeled container. Note that when multiple samples were collected, the sampling locations were distributed throughout the homogeneous area (spaces where the material was observed).
- Relinquished bulk asbestos samples to EMSL Analytical, Inc., a California-licensed and Caltrans-approved subcontractor, for asbestos analysis in accordance with United States Environmental Protection Agency (EPA) Test Method 600/R-93/116 using polarized light microscopy (PLM) under chain-of-custody protocol. EMSL Analytical, Inc. is a laboratory accredited by the National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NIST-NVLAP) for bulk asbestos fiber analysis. The laboratory analyses were requested on a standard turn-around-time.

3.2 Lead Paint

We did not observe suspect LCP at Bridge 05-0028 or 05-0048 during our field activities.

4.0 INVESTIGATIVE RESULTS

4.1 Asbestos

The laboratory analyses indicated that chrysotile asbestos at a concentration of 80% was detected in samples representing approximately 20 square feet of nonfriable sheet packing used as barrier rail shims on Bridge 05-0028 (Trinity River Bridge).

No asbestos was detected in samples collected from Bridge 05-0048 (Minnehaha Creek Bridge) during our survey.

Sample identification numbers, material descriptions, approximate quantities, friability assessments, and photo references are summarized on Table 1. Approximate sample locations are presented on Figures A-1 and A-2. Reproductions of the laboratory report and chain-of-custody documentation are presented in Appendix A.

4.2 Lead Paint

We did not observe suspect LCP at either bridge during our field activities.

5.0 RECOMMENDATIONS

Based on our findings, we recommend the following:

5.1 Asbestos

We recommend that asbestos-containing barrier rail shims (Category I nonfriable/nonhazardous materials) identified during our survey be removed and disposed of by a licensed contractor registered with Cal/OSHA for asbestos-related work prior to renovation, demolition, or other activities that would disturb the material. For budgetary planning purposes, our opinion of probable abatement costs for the removal, containerization, transportation, and disposal of asbestos-containing barrier rail shims is approximately $3,000.

We also recommend the notification of contractors (that will be conducting renovation, demolition, or related activities) of the presence of asbestos (i.e., provide the contractor[s] with a copy of this report and a list of asbestos removed by asbestos abatement contractor[s] during subsequent abatement activities). Contractors should be instructed not to disturb asbestos during their work. Contractors are responsible for informing the landfill of the contractor's intent to dispose of asbestos waste. Some landfills may require additional waste characterization. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

Written notification to U.S. EPA Region IX and the California Air Resources Board is required ten working days prior to commencement of *any* demolition activity (whether asbestos is present or not). For notification instructions, please see the following internet link: http://www.arb.ca.gov/enf/asbestos/asbestosform.htm.

5.2 Lead Paint

No lead-containing paint was observed during our field activities.

6.0 REPORT LIMITATIONS

This asbestos and LCP survey was conducted in conformance with generally accepted standards of practice for identifying and evaluating asbestos and LCP in structures. The survey addressed only the structures identified in Section 1.1. Due to the nature of structure surveys, asbestos and LCP use, and laboratory analytical limitations, some ACM or LCP at the project location may not have been identified. Spaces such as cavities, voids, crawlspaces, and pipe chases, may have been concealed to our investigator. Previous renovation work may have concealed or covered spaces or materials, or may have partially demolished materials and left debris in inaccessible areas. Additionally, renovation activities may have partially replaced ACM with indistinguishable non-ACM. Asbestos and/or LCP may exist in areas that were not accessible or sampled in conjunction with this TO.

During renovation or demolition operations, suspect materials may be uncovered which are different from those accessible for sampling during this assessment. Personnel in charge of renovation/demolition should be alerted to note materials uncovered during such activities that differ substantially from those included in this or previous assessment reports. If suspect ACM and/or LCP are found, additional sampling and analysis should be performed to determine if the materials contain asbestos or lead.

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.

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.

TABLE 1

SUMMARY OF ASBESTOS RESULTS

TRINITY RIVER BRIDGE AND MINNEHAHA CREEK BRIDGE

CALTRANS CONTRACT 03A1638, TASK ORDER NO. 78, EA 02-2C9900

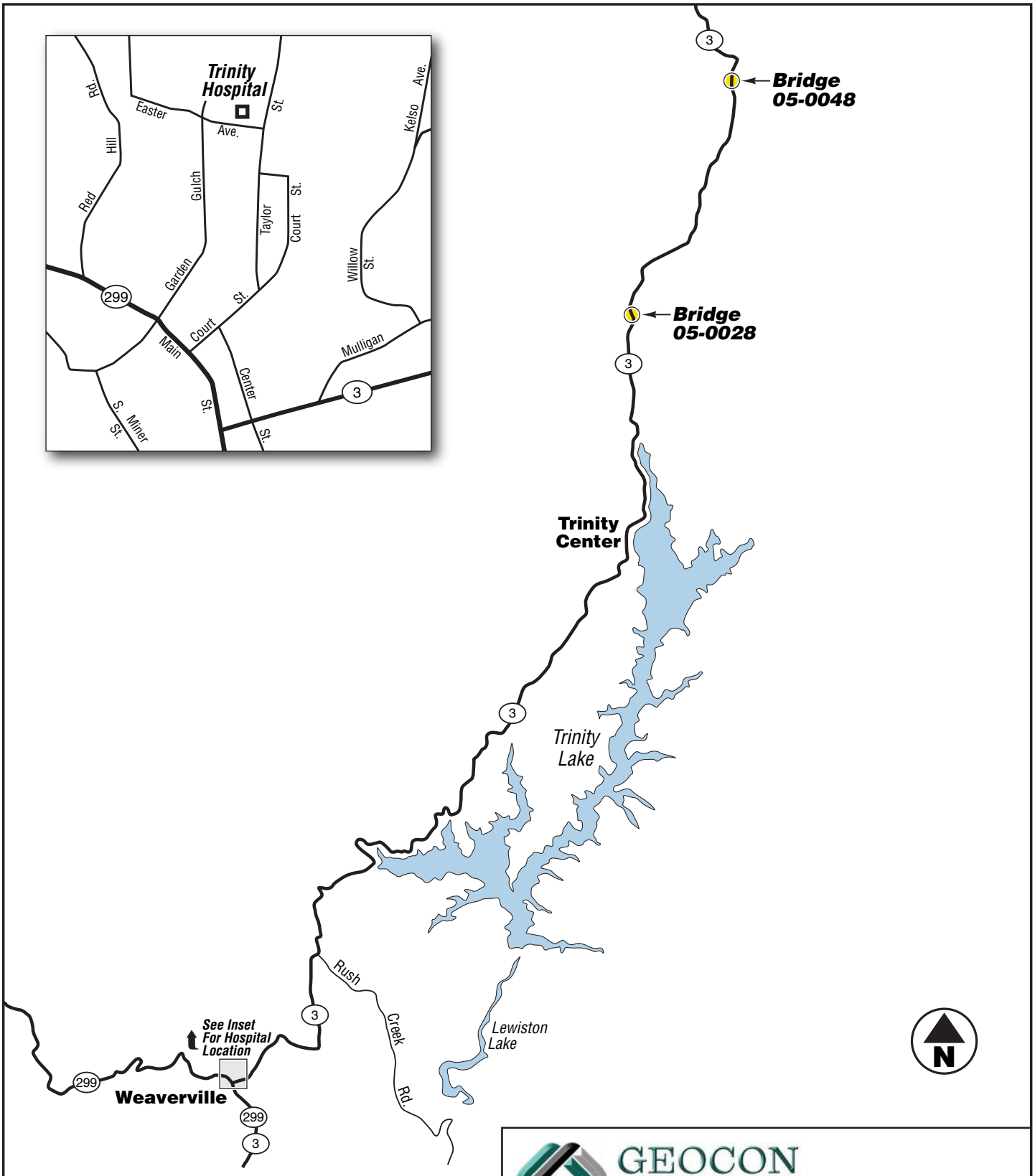
TRINITY COUNTY, CALIFORNIA

Polarized Light Microscopy (PLM) - EPA Test Method 600/R-93/116

Bridge No.	Sample Group No.	Description of Material	Approximate Quantity	Friable	Site Photo	Asbestos Content
05-0028	1A	Barrier Rail Shims	20 square feet	No	3	80%
	1B	Barrier Rail Shims		No	4	80%
05-0048	1A	Expansion Joint Material	NA	NA	10	ND
	1B	Expansion Joint Material	NA	NA	11	ND

Notes: NA = Not applicable (no asbestos detected)

ND = Not detected



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

Highway 3, Post Mile 68.5 and 70.7

Trinity County, California	**VICINITY MAP**	
GEOCON Proj. No. S9300-06-78		
Task Order No. 78, EA 02-2C9900	August 2009	Figure 1

LEGEND:

1A Approximate Asbestos Sample Location

0 30

Scale in Feet

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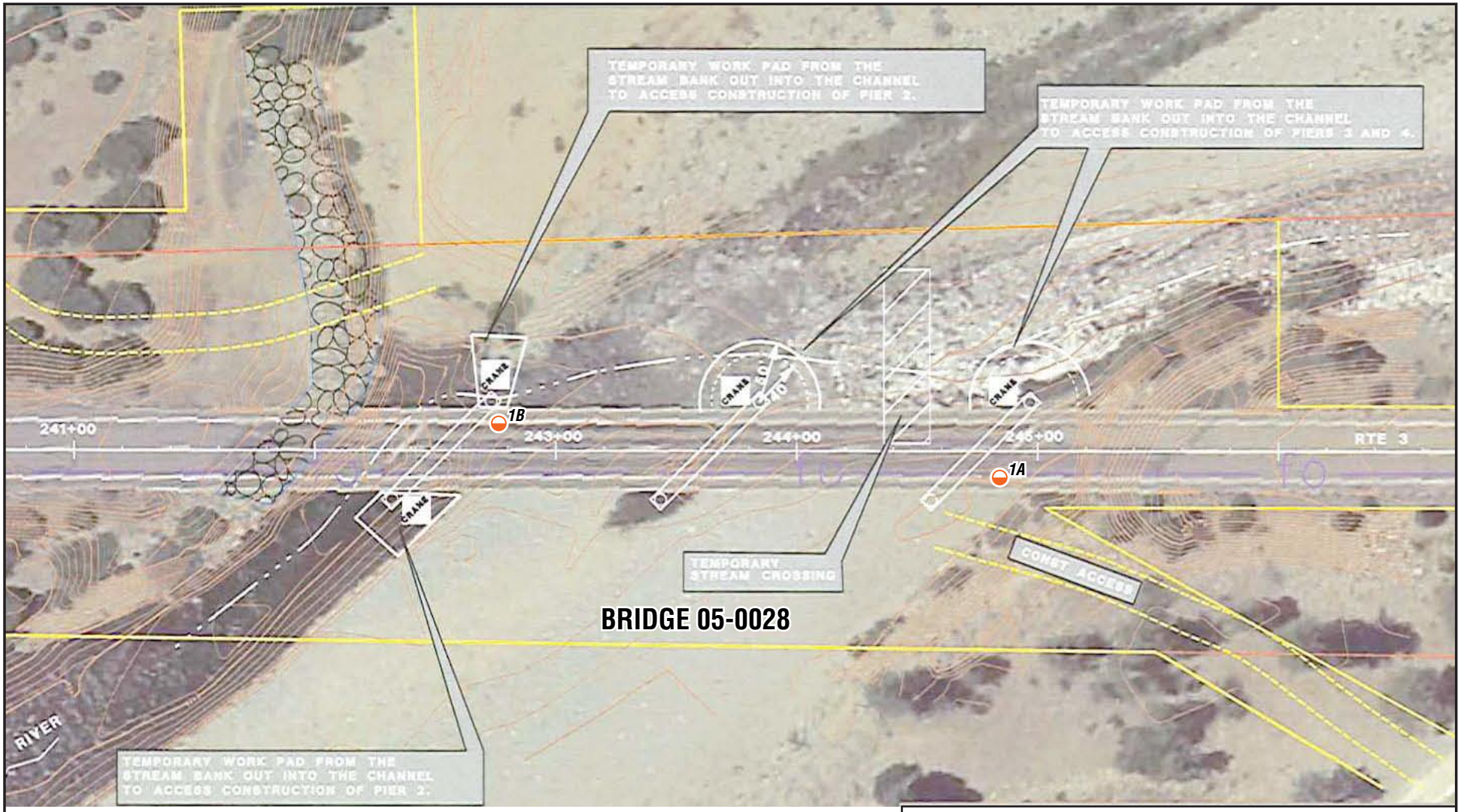
Highway 3, Post Mile 68.5 and 70.7

Trinity County, California	**SITE PLAN**	
GEOCON Proj. No. S9300-06-78		
Task Order No. 78, EA 02-2C9900	August 2009	Figure A-1



LEGEND:

1A Approximate Asbestos Sample Location

0 60

Scale in Feet

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PHONE 916.852.9118 – FAX 916.852.9132

Highway 3, Post Mile 68.5 and 70.7

Trinity County, California	**SITE PLAN**	
GEOCON Proj. No. S9300-06-78		
Task Order No. 78, EA 02-2C9900	August 2009	Figure A-2

Photo 1 –Trinity River Bridge (Bridge 05-0028)

Photo 2 – Bridge 05-0028 deck joint (non-suspect)

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PHONE 916.852.9118 – FAX 916.852.9132

PHOTOGRAPHS 1, & 2		
Highway 3 Bridges Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 3 – Bridge 05-0028 barrier rail shims

Photo 4 – Bridge 05-0028 barrier rail shims

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PHONE 916.852.9118 – FAX 916.852.9132

PHOTOGRAPHS 3 & 4		
Highway 3 Bridges Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 5 – Bridge 05-0028 abutment

Photo 6– Bridge 05-0028 support pier

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

PHOTOGRAPHS 5 & 6		
Highway 3 Bridges Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 7 – Bridge 05-0028 drainpipe (non-suspect)

Photo 8 – Bridge 05-0028 support piers (view looking north)

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

PHOTOGRAPHS 7 & 8		
Highway 3 Bridges Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 9 – Minnehaha Creek Bridge (Bridge 05-0048)

Photo 10 –Bridge 05-0048 expansion joint material

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

PHOTOGRAPHS 9 & 10		
Highway 3 Bridges Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 11 –Bridge 05-0048 expansion joint material

Photo 12 –Bridge 05-0048 abutment

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

APPENDIX A

EMSL Analytical, Inc
2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577
Phone: (510) 895-3675 Fax: (510) 895-3680 Email: milpitaslab@emsl.com

Attn: **Josh Goodwin**
Geocon Consultants
3160 Gold Valley Drive
Suite 800
Rancho Cordova, CA 95742

Fax: (916) 852-9132 Phone: (916) 852-9118
Project: **S9300-06-78**

Customer ID: GECN80
Customer PO: S9300-06-78
Received: 06/29/09 10:00 AM
EMSL Order: 090905074

EMSL Proj: S9300-06-**
Analysis Date: 7/2/2009

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos	
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**%**	**Type**
05-0028-1A Barrier Rail Shims *090905074-0001*	Barrier Rail	White Fibrous Homogeneous			20%	Non-fibrous (other)	**80%**	**Chrysotile**
05-0028-1B Barrier Rail Shims *090905074-0002*	Barrier Rail	White Fibrous Homogeneous			20%	Non-fibrous (other)	**80%**	**Chrysotile**
05-0048-1A Expansion Joint Material *090905074-0003*	Expansion Joint	Black Fibrous Homogeneous	80%	Cellulose	20%	Non-fibrous (other)	**None Detected**	
05-0048-1B Expansion Joint Material *090905074-0004*	Expansion Joint	Black Fibrous Homogeneous	80%	Cellulose	20%	Non-fibrous (other)	**None Detected**	

Analyst(s)

Adam C. Fink (4)

Baojia Ke, Laboratory Manager
or other approved signatory

THIS IS THE LAST PAGE OF THE REPORT.

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	***Bill To:***	Geocon Consultants
Address1:	3160 Gold Valley Drive, Suite 800	*Address1:*	3160 Gold Valley Drive, Suite 800
Address2:		*Address2:*	
City, State:	Rancho Cordova, CA	*City, State:*	Rancho Cordova, CA
Zip/Post Code:	95742	*Zip/Post Code:*	95742
Country:	USA	*Country:*	USA
Contact Name:	Josh Goodwin	***Attn:***	Josh Goodwin
Phone:	916-852-9118	*Phone:*	916-852-9118
Fax:	916-852-9132	*Fax:*	916-852-9132
Email:	goodwin@geoconinc.com	*Email:*	goodwin@geoconinc.com
EMSL Rep:	Daniel Kocher	***P.O. Number:***	
Project Name/Number:	S9300-06-78		

MATRIX			TURNAROUND			
☐ **Air**	☐ **Soil**	☐ **Micro-Vac**	☐ **3 Hours**	☐ **6 Hours**		☐ **24 Hours (1 day)**
☒ **Bulk**	☐ **Drinking Water**		☐ **48 Hours (2 days)**	☐ **72 Hours (3 days)**	☐ **96 Hours (4 days)**	☒ **120 Hours (5 days)**
☐ **Wipe**	☐ **Wastewater**		☐ **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.

PCM - Air
- ☐ NIOSH 7400(A) Issue 2: August 1994
- ☐ OSHA w/TWA
- ☐ Other:

PLM - Bulk
- ☒ EPA 600/R-93/116
- ☐ EPA Point Count
- ☐ NY Stratified Point Count
- ☐ PLM NOB (Gravimetric) NYS 198.1
- ☐ NIOSH 9002:
- ☐ EMSL Standard Addition:

SEM Air or Bulk
- ☐ Qualitative
- ☐ Quantitative

TEM Air
- ☐ AHERA 40 CFR, Part 763 Subpart E
- ☐ NIOSH 7402
- ☐ EPA Level II

TEM BULK
- ☐ Drop Mount (Qualitative)
- ☐ Chatfield SOP - 1988-02
- ☐ TEM NOB (Gravimetric) NYS 198.4
- ☐ EMSL Standard Addition:

PLM Soil
- ☐ EPA Protocol Qualitative
- ☐ EPA Protocol Quantitative
- ☐ EMSL MSD 9000 Method fibers/gram

TEM WATER
- ☐ EPA 100.1
- ☐ EPA 100.2
- ☐ NYS 198.2

TEM Microvac/Wipe
- ☐ ASTM D 5755-95 (quantative method)
- ☐ Wipe Qualitative

XRD
- ☐ Asbestos
- ☐ Silica NIOSH 7500

OTHER
- ☐

M. Edwards
6/24/09 9:00AM f/e

090905074

Chain of Custody

Asbestos Lab Services

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

Please print all information legibly.

Client Sample # (s) 05-0028-1A - 05-0048-1B **Total Samples #:** 4

Relinquished: Josh Goodwin **Date:** 6/26/09 **Time:** 1430

Received: M. Edwards **Date:** 6/29/09 **Time:** 10:00 AM ~~DRS~~

Relinquished: _____ **Date:** _____ **Time:** _____

Received: _____ **Date:** _____ **Time:** _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
05-0028-1A	barrier rail Shims	
05-0028-1B	" " "	
05-0048-1A	expansion joint material	
05-0048-1B	" " "	

APPENDIX B

July 13, 2009

ACCREDITED IN ACCORDANCE WITH nelac

Josh Goodwin
Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95742

TEL: (916) 852-9118
FAX: (916) 852-9132

ELAP No.: 1838
NELAP No.: 02107CA
NEVADA.: CA-401
CSDLAC No.: 10196

Workorder No.: 106172

RE: Highway 3 PSI, S9300-06-78

Attention: Josh Goodwin

Enclosed are the results for sample(s) received on June 29, 2009 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

CLIENT: Geocon Consultants, Inc.
Project: Highway 3 PSI, S9300-06-78
Lab Order: 106172

CASE NARRATIVE

Analytical Comments for Method 6010

RPD for Duplicate (DUP) is outside criteria for samples 106172-010ADUP and 106172-022ADUP; however, the Laboratory Control Sample (LCS) validated the analytical batch.

Advanced Technology Laboratories
3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562. 989.4045 Fax: 562.989.4040

Advanced Technology Laboratories

Date: 7/13/2009

ANALYTICAL RESULTS

LEAD BY ICP
EPA 6010B

CLIENT:	Geocon Consultants, Inc.	**Lab Order:**	106172
Project:	Highway 3 PSI, S9300-06-78	**Date Received**	6/29/2009 8:45:00 AM
Project No:		**Matrix:**	Soil
Analyte:	Lead	**Analyst:**	CL

Laboratory ID	Client Sample ID	Results	Units	QC Batch	PQL	DF	Date Collected	Date Analyzed
106172-001A	HA1-0	ND	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-002A	HA1-1	7.6	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-003A	HA1-2	ND	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-004A	HA2-0	5.8	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-005A	HA2-1	ND	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-006A	HA3-0	6.5	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-007A	HA3-1	9.9	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-008A	HA4-0	ND	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-009A	HA4-1	ND	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-010A	HA5-0	8.2	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-011A	HA5-1	8.1	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-012A	HA6-0	ND	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-013A	HA7-0	6.2	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-014A	HA8-0	5.0	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-015A	HA9-0	10	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-016A	HA10-0	ND	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009
106172-017A	HA11-0	ND	mg/Kg	56355	5.0	1	6/25/2009	7/5/2009

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
S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
DO	Surrogate Diluted Out		

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	MS1-0
Lab Order:	106172	**Collection Date:**	6/25/2009 1:00:00 PM
Project:	Highway 3 PSI, S9300-06-78	**Matrix:**	SOIL
Lab ID:	106172-018A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	EPA 3050B			**EPA 6010B**		
RunID: ICP8_090710K	QC Batch: 56336			PrepDate:	7/2/2009	Analyst: **SRB**
Antimony	ND	2.0		mg/Kg	1	7/10/2009 10:47 PM
Arsenic	ND	1.0		mg/Kg	1	7/10/2009 10:47 PM
Barium	16	1.0		mg/Kg	1	7/10/2009 10:47 PM
Beryllium	ND	1.0		mg/Kg	1	7/10/2009 10:47 PM
Cadmium	ND	1.0		mg/Kg	1	7/10/2009 10:47 PM
Chromium	180	1.0		mg/Kg	1	7/10/2009 10:47 PM
Cobalt	20	1.0		mg/Kg	1	7/10/2009 10:47 PM
Copper	9.6	2.0		mg/Kg	1	7/10/2009 10:47 PM
Lead	ND	1.0		mg/Kg	1	7/10/2009 10:47 PM
Molybdenum	ND	1.0		mg/Kg	1	7/10/2009 10:47 PM
Nickel	300	1.0		mg/Kg	1	7/10/2009 10:47 PM
Selenium	1.4	1.0		mg/Kg	1	7/10/2009 10:47 PM
Silver	ND	1.0		mg/Kg	1	7/10/2009 10:47 PM
Thallium	ND	1.0		mg/Kg	1	7/10/2009 10:47 PM
Vanadium	51	1.0		mg/Kg	1	7/10/2009 10:47 PM
Zinc	14	1.0		mg/Kg	1	7/10/2009 10:47 PM
MERCURY BY COLD VAPOR TECHNIQUE						
				EPA 7471A		
RunID: AA5_090702C	QC Batch: 56328			PrepDate:	7/2/2009	Analyst: **IL**
Mercury	ND	0.10		mg/Kg	1	7/2/2009 03:47 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

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	MS2-0
Lab Order:	106172	**Collection Date:**	6/25/2009 1:05:00 PM
Project:	Highway 3 PSI, S9300-06-78	**Matrix:**	SOIL
Lab ID:	106172-019A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	EPA 3050B			**EPA 6010B**		
RunID: ICP8_090710K	QC Batch: 56336			PrepDate:	7/2/2009	Analyst: **SRB**
Antimony	ND	2.0		mg/Kg	1	7/10/2009 11:02 PM
Arsenic	ND	1.0		mg/Kg	1	7/10/2009 11:02 PM
Barium	13	1.0		mg/Kg	1	7/10/2009 11:02 PM
Beryllium	ND	1.0		mg/Kg	1	7/10/2009 11:02 PM
Cadmium	ND	1.0		mg/Kg	1	7/10/2009 11:02 PM
Chromium	180	1.0		mg/Kg	1	7/10/2009 11:02 PM
Cobalt	18	1.0		mg/Kg	1	7/10/2009 11:02 PM
Copper	15	2.0		mg/Kg	1	7/10/2009 11:02 PM
Lead	ND	1.0		mg/Kg	1	7/10/2009 11:02 PM
Molybdenum	ND	1.0		mg/Kg	1	7/10/2009 11:02 PM
Nickel	290	1.0		mg/Kg	1	7/10/2009 11:02 PM
Selenium	1.0	1.0		mg/Kg	1	7/10/2009 11:02 PM
Silver	ND	1.0		mg/Kg	1	7/10/2009 11:02 PM
Thallium	ND	1.0		mg/Kg	1	7/10/2009 11:02 PM
Vanadium	34	1.0		mg/Kg	1	7/10/2009 11:02 PM
Zinc	11	1.0		mg/Kg	1	7/10/2009 11:02 PM
MERCURY BY COLD VAPOR TECHNIQUE						
				EPA 7471A		
RunID: AA5_090702C	QC Batch: 56328			PrepDate:	7/2/2009	Analyst: **IL**
Mercury	ND	0.10		mg/Kg	1	7/2/2009 03:49 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

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	MS3-0
Lab Order:	106172	**Collection Date:**	6/25/2009 1:12:00 PM
Project:	Highway 3 PSI, S9300-06-78	**Matrix:**	SOIL
Lab ID:	106172-020A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	EPA 3050B			**EPA 6010B**		
RunID: ICP8_090710K	QC Batch: 56336			PrepDate:	7/2/2009	Analyst: **SRB**
Antimony	ND	2.0		mg/Kg	1	7/10/2009 11:09 PM
Arsenic	ND	1.0		mg/Kg	1	7/10/2009 11:09 PM
Barium	14	1.0		mg/Kg	1	7/10/2009 11:09 PM
Beryllium	ND	1.0		mg/Kg	1	7/10/2009 11:09 PM
Cadmium	ND	1.0		mg/Kg	1	7/10/2009 11:09 PM
Chromium	120	1.0		mg/Kg	1	7/10/2009 11:09 PM
Cobalt	17	1.0		mg/Kg	1	7/10/2009 11:09 PM
Copper	15	2.0		mg/Kg	1	7/10/2009 11:09 PM
Lead	ND	1.0		mg/Kg	1	7/10/2009 11:09 PM
Molybdenum	ND	1.0		mg/Kg	1	7/10/2009 11:09 PM
Nickel	230	1.0		mg/Kg	1	7/10/2009 11:09 PM
Selenium	1.1	1.0		mg/Kg	1	7/10/2009 11:09 PM
Silver	ND	1.0		mg/Kg	1	7/10/2009 11:09 PM
Thallium	ND	1.0		mg/Kg	1	7/10/2009 11:09 PM
Vanadium	100	1.0		mg/Kg	1	7/10/2009 11:09 PM
Zinc	13	1.0		mg/Kg	1	7/10/2009 11:09 PM
MERCURY BY COLD VAPOR TECHNIQUE						
				EPA 7471A		
RunID: AA5_090702C	QC Batch: 56328			PrepDate:	7/2/2009	Analyst: **IL**
Mercury	ND	0.10		mg/Kg	1	7/2/2009 03:51 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

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	MS4-0
Lab Order:	106172	**Collection Date:**	6/25/2009 4:00:00 PM
Project:	Highway 3 PSI, S9300-06-78	**Matrix:**	SOIL
Lab ID:	106172-021A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	EPA 3050B			**EPA 6010B**		
RunID: ICP8_090710K	QC Batch: 56336			PrepDate:	7/2/2009	Analyst: **SRB**
Antimony	ND	2.0		mg/Kg	1	7/10/2009 11:14 PM
Arsenic	ND	1.0		mg/Kg	1	7/10/2009 11:14 PM
Barium	19	1.0		mg/Kg	1	7/10/2009 11:14 PM
Beryllium	ND	1.0		mg/Kg	1	7/10/2009 11:14 PM
Cadmium	ND	1.0		mg/Kg	1	7/10/2009 11:14 PM
Chromium	180	1.0		mg/Kg	1	7/10/2009 11:14 PM
Cobalt	22	1.0		mg/Kg	1	7/10/2009 11:14 PM
Copper	22	2.0		mg/Kg	1	7/10/2009 11:14 PM
Lead	2.1	1.0		mg/Kg	1	7/10/2009 11:14 PM
Molybdenum	ND	1.0		mg/Kg	1	7/10/2009 11:14 PM
Nickel	190	1.0		mg/Kg	1	7/10/2009 11:14 PM
Selenium	1.5	1.0		mg/Kg	1	7/10/2009 11:14 PM
Silver	ND	1.0		mg/Kg	1	7/10/2009 11:14 PM
Thallium	ND	1.0		mg/Kg	1	7/10/2009 11:14 PM
Vanadium	75	1.0		mg/Kg	1	7/10/2009 11:14 PM
Zinc	27	1.0		mg/Kg	1	7/10/2009 11:14 PM
MERCURY BY COLD VAPOR TECHNIQUE						
				EPA 7471A		
RunID: AA5_090702C	QC Batch: 56328			PrepDate:	7/2/2009	Analyst: **IL**
Mercury	ND	0.10		mg/Kg	1	7/2/2009 03:57 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

CLIENT:	Geocon Consultants, Inc.	**Client Sample ID:**	MS5-0
Lab Order:	106172	**Collection Date:**	6/25/2009 4:15:00 PM
Project:	Highway 3 PSI, S9300-06-78	**Matrix:**	SOIL
Lab ID:	106172-022A		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	EPA 3050B			**EPA 6010B**		
RunID: ICP8_090710K	QC Batch: 56336			PrepDate:	7/2/2009	Analyst: **SRB**
Antimony	ND	2.0		mg/Kg	1	7/10/2009 11:20 PM
Arsenic	ND	1.0		mg/Kg	1	7/10/2009 11:20 PM
Barium	13	1.0		mg/Kg	1	7/10/2009 11:20 PM
Beryllium	ND	1.0		mg/Kg	1	7/10/2009 11:20 PM
Cadmium	ND	1.0		mg/Kg	1	7/10/2009 11:20 PM
Chromium	130	1.0		mg/Kg	1	7/10/2009 11:20 PM
Cobalt	15	1.0		mg/Kg	1	7/10/2009 11:20 PM
Copper	19	2.0		mg/Kg	1	7/10/2009 11:20 PM
Lead	1.3	1.0		mg/Kg	1	7/10/2009 11:20 PM
Molybdenum	ND	1.0		mg/Kg	1	7/10/2009 11:20 PM
Nickel	120	1.0		mg/Kg	1	7/10/2009 11:20 PM
Selenium	ND	1.0		mg/Kg	1	7/10/2009 11:20 PM
Silver	ND	1.0		mg/Kg	1	7/10/2009 11:20 PM
Thallium	ND	1.0		mg/Kg	1	7/10/2009 11:20 PM
Vanadium	57	1.0		mg/Kg	1	7/10/2009 11:20 PM
Zinc	17	1.0		mg/Kg	1	7/10/2009 11:20 PM
MERCURY BY COLD VAPOR TECHNIQUE						
				EPA 7471A		
RunID: AA5_090702C	QC Batch: 56328			PrepDate:	7/2/2009	Analyst: **IL**
Mercury	ND	0.10		mg/Kg	1	7/2/2009 03:59 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

CLIENT: Geocon Consultants, Inc.
Work Order: 106172
Project: Highway 3 PSI, S9300-06-78

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **MB-56336**	SampType: **MBLK**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110585**
Client ID: **PBS**	Batch ID: **56336**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **7/8/2009**	SeqNo: **1740451**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	1.0									

Sample ID: **106172-022ADUP**	SampType: **DUP**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110585**
Client ID: **MS5-0**	Batch ID: **56336**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **7/8/2009**	SeqNo: **1740453**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	1.0						0	0	20	

Sample ID: **106172-022AMS**	SampType: **MS**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110585**
Client ID: **MS5-0**	Batch ID: **56336**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **7/8/2009**	SeqNo: **1740454**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	109.318	1.0	125.0	0	87.5	33	120				

Sample ID: **106172-022AMSD**	SampType: **MSD**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110585**
Client ID: **MS5-0**	Batch ID: **56336**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **7/8/2009**	SeqNo: **1740455**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	106.546	1.0	125.0	0	85.2	33	120	109.3	2.57	20	

Sample ID: **LCS-56336**	SampType: **LCS**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110585**
Client ID: **LCSS**	Batch ID: **56336**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **7/8/2009**	SeqNo: **1740459**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	50.898	1.0	50.00	0	102	80	120				

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: 106172
Project: Highway 3 PSI, S9300-06-78

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **MB-56336** SampType: **MBLK** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **7/2/2009** RunNo: **110690**
Client ID: **PBS** Batch ID: **56336** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **7/10/2009** SeqNo: **1742281**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	0.116	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	0.072	1.0									
Nickel	0.074	1.0									
Selenium	ND	1.0									
Silver	0.048	1.0									
Thallium	ND	1.0									
Vanadium	0.022	1.0									
Zinc	0.359	1.0									

Sample ID: **LCS-56336** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **7/2/2009** RunNo: **110690**
Client ID: **LCSS** Batch ID: **56336** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **7/10/2009** SeqNo: **1742282**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	52.797	2.0	50.00	0	106	80	120				
Arsenic	44.334	1.0	50.00	0	88.7	80	120				
Barium	49.221	1.0	50.00	0	98.4	80	120				
Beryllium	47.892	1.0	50.00	0	95.8	80	120				
Cadmium	45.305	1.0	50.00	0	90.6	80	120				
Chromium	48.106	1.0	50.00	0.1159	96.0	80	120				
Cobalt	45.138	1.0	50.00	0	90.3	80	120				
Copper	52.736	2.0	50.00	0	105	80	120				
Lead	50.656	1.0	50.00	0	101	80	120				

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: 106172
Project: Highway 3 PSI, S9300-06-78

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **LCS-56336** SampType: **LCS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **7/2/2009** RunNo: **110690**
Client ID: **LCSS** Batch ID: **56336** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **7/10/2009** SeqNo: **1742282**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	49.189	1.0	50.00	0.07156	98.2	80	120				
Nickel	44.708	1.0	50.00	0.07437	89.3	80	120				
Selenium	41.728	1.0	50.00	0	83.5	80	120				
Silver	50.602	1.0	50.00	0.04754	101	80	120				
Thallium	46.623	1.0	50.00	0	93.2	80	120				
Vanadium	50.496	1.0	50.00	0.02225	101	80	120				
Zinc	44.395	1.0	50.00	0.3586	88.1	80	120				

Sample ID: **106172-022A-DUP** SampType: **DUP** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **7/2/2009** RunNo: **110690**
Client ID: **MS5-0** Batch ID: **56336** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **7/10/2009** SeqNo: **1742288**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0						0	0	20	
Arsenic	ND	1.0						0	0	20	
Barium	10.866	1.0						13.31	20.2	20	R
Beryllium	ND	1.0						0	0	20	
Cadmium	0.356	1.0						0.4680	0	20	
Chromium	76.069	1.0						131.2	53.2	20	R
Cobalt	10.478	1.0						14.82	34.3	20	R
Copper	13.019	2.0						18.75	36.1	20	R
Lead	0.902	1.0						1.277	0	20	
Molybdenum	ND	1.0						0	0	20	
Nickel	90.269	1.0						117.5	26.2	20	R
Selenium	1.240	1.0						0.8129	41.6	20	R
Silver	ND	1.0						0	0	20	
Thallium	ND	1.0						0	0	20	
Vanadium	42.805	1.0						56.78	28.1	20	R
Zinc	13.740	1.0						17.43	23.7	20	R

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: 106172
Project: Highway 3 PSI, S9300-06-78

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **106172-022A-MS** SampType: **MS** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **7/2/2009** RunNo: **110690**
Client ID: **MS5-0** Batch ID: **56336** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **7/10/2009** SeqNo: **1742289**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	111.719	2.0	125.0	0	89.4	25	106				
Arsenic	97.878	1.0	125.0	0	78.3	42	113				
Barium	121.357	1.0	125.0	13.31	86.4	19	140				
Beryllium	110.129	1.0	125.0	0	88.1	50	109				
Cadmium	98.222	1.0	125.0	0.4680	78.2	48	106				
Chromium	224.272	1.0	125.0	131.2	74.4	44	116				
Cobalt	113.812	1.0	125.0	14.82	79.2	47	107				
Copper	144.972	2.0	125.0	18.75	101	49	124				
Lead	110.739	1.0	125.0	1.277	87.6	33	120				
Molybdenum	107.294	1.0	125.0	0	85.8	46	111				
Nickel	212.465	1.0	125.0	117.5	76.0	43	111				
Selenium	97.008	1.0	125.0	0.8129	77.0	43	104				
Silver	119.644	1.0	125.0	0	95.7	53	114				
Thallium	103.387	1.0	125.0	0	82.7	41	107				
Vanadium	160.186	1.0	125.0	56.78	82.7	48	116				
Zinc	113.870	1.0	125.0	17.43	77.2	24	129				

Sample ID: **106172-022A-MSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **7/2/2009** RunNo: **110690**
Client ID: **MS5-0** Batch ID: **56336** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **7/10/2009** SeqNo: **1742290**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	114.616	2.0	125.0	0	91.7	25	106	111.7	2.56	20	
Arsenic	98.353	1.0	125.0	0	78.7	42	113	97.88	0.484	20	
Barium	119.451	1.0	125.0	13.31	84.9	19	140	121.4	1.58	20	
Beryllium	109.049	1.0	125.0	0	87.2	50	109	110.1	0.986	20	
Cadmium	98.224	1.0	125.0	0.4680	78.2	48	106	98.22	0.00208	20	
Chromium	192.141	1.0	125.0	131.2	48.7	44	116	224.3	15.4	20	
Cobalt	111.258	1.0	125.0	14.82	77.2	47	107	113.8	2.27	20	
Copper	146.165	2.0	125.0	18.75	102	49	124	145.0	0.819	20	
Lead	110.382	1.0	125.0	1.277	87.3	33	120	110.7	0.323	20	

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: 106172
Project: Highway 3 PSI, S9300-06-78

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **106172-022A-MSD** SampType: **MSD** TestCode: **6010_S** Units: **mg/Kg** Prep Date: **7/2/2009** RunNo: **110690**
Client ID: **MS5-0** Batch ID: **56336** TestNo: **EPA 6010B** **EPA 3050B** Analysis Date: **7/10/2009** SeqNo: **1742290**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	107.830	1.0	125.0	0	86.3	46	111	107.3	0.499	20	
Nickel	216.739	1.0	125.0	117.5	79.4	43	111	212.5	1.99	20	
Selenium	97.212	1.0	125.0	0.8129	77.1	43	104	97.01	0.210	20	
Silver	119.828	1.0	125.0	0	95.9	53	114	119.6	0.154	20	
Thallium	103.634	1.0	125.0	0	82.9	41	107	103.4	0.239	20	
Vanadium	152.628	1.0	125.0	56.78	76.7	48	116	160.2	4.83	20	
Zinc	114.798	1.0	125.0	17.43	77.9	24	129	113.9	0.811	20	

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: 106172
Project: Highway 3 PSI, S9300-06-78

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

Sample ID: **MB-56355A**	SampType: **MBLK**	TestCode: **6010_SPB**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110504**
Client ID: **PBS**	Batch ID: **56355**	TestNo: **EPA 6010B**	**EPA 3050M**	Analysis Date: **7/5/2009**	SeqNo: **1738698**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	5.0									

Sample ID: **LCS-56355**	SampType: **LCS**	TestCode: **6010_SPB**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110504**
Client ID: **LCSS**	Batch ID: **56355**	TestNo: **EPA 6010B**	**EPA 3050M**	Analysis Date: **7/5/2009**	SeqNo: **1738699**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	271.888	5.0	250.0	0	109	80	120				

Sample ID: **106172-010ADUP**	SampType: **DUP**	TestCode: **6010_SPB**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110504**
Client ID: **HA5-0**	Batch ID: **56355**	TestNo: **EPA 6010B**	**EPA 3050M**	Analysis Date: **7/5/2009**	SeqNo: **1738710**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	5.638	5.0						8.195	37.0	20	R

Sample ID: **106172-010AMS**	SampType: **MS**	TestCode: **6010_SPB**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110504**
Client ID: **HA5-0**	Batch ID: **56355**	TestNo: **EPA 6010B**	**EPA 3050M**	Analysis Date: **7/5/2009**	SeqNo: **1738711**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	210.716	5.0	250.0	8.195	81.0	33	120				

Sample ID: **MB-56355B**	SampType: **MBLK**	TestCode: **6010_SPB**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110504**
Client ID: **PBS**	Batch ID: **56355**	TestNo: **EPA 6010B**	**EPA 3050M**	Analysis Date: **7/5/2009**	SeqNo: **1738712**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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: 106172
Project: Highway 3 PSI, S9300-06-78

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_SPB

Sample ID: **106172-017ADUP**	SampType: **DUP**	TestCode: **6010_SPB**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110504**
Client ID: **HA11-0**	Batch ID: **56355**	TestNo: **EPA 6010B**	**EPA 3050M**	Analysis Date: **7/5/2009**	SeqNo: **1738720**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	4.559	5.0						4.179	0	20	

Sample ID: **106172-017AMS**	SampType: **MS**	TestCode: **6010_SPB**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110504**
Client ID: **HA11-0**	Batch ID: **56355**	TestNo: **EPA 6010B**	**EPA 3050M**	Analysis Date: **7/5/2009**	SeqNo: **1738721**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	210.616	5.0	250.0	4.179	82.6	33	120				

Sample ID: **106172-017AMSD**	SampType: **MSD**	TestCode: **6010_SPB**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110504**
Client ID: **HA11-0**	Batch ID: **56355**	TestNo: **EPA 6010B**	**EPA 3050M**	Analysis Date: **7/5/2009**	SeqNo: **1738722**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	207.788	5.0	250.0	4.179	81.4	33	120	210.6	1.35	20	

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: 106172
Project: Highway 3 PSI, S9300-06-78

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: **MB-56328**	SampType: **MBLK**	TestCode: **7471_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110468**
Client ID: **PBS**	Batch ID: **56328**	TestNo: **EPA 7471A**		Analysis Date: **7/2/2009**	SeqNo: **1737760**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.10									

Sample ID: **LCS-56328**	SampType: **LCS**	TestCode: **7471_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110468**
Client ID: **LCSS**	Batch ID: **56328**	TestNo: **EPA 7471A**		Analysis Date: **7/2/2009**	SeqNo: **1737761**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.773	0.10	0.8300	0	93.2	80	120				

Sample ID: **106204-005A-MS**	SampType: **MS**	TestCode: **7471_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110468**
Client ID: **ZZZZZZ**	Batch ID: **56328**	TestNo: **EPA 7471A**		Analysis Date: **7/2/2009**	SeqNo: **1737762**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.851	0.10	0.8300	0.05321	96.1	70	130				

Sample ID: **106204-005A-MSD**	SampType: **MSD**	TestCode: **7471_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110468**
Client ID: **ZZZZZZ**	Batch ID: **56328**	TestNo: **EPA 7471A**		Analysis Date: **7/2/2009**	SeqNo: **1737763**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.823	0.10	0.8300	0.05321	92.8	70	130	0.8509	3.29	20	

Sample ID: **106204-005A-DUP**	SampType: **DUP**	TestCode: **7471_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110468**
Client ID: **ZZZZZZ**	Batch ID: **56328**	TestNo: **EPA 7471A**		Analysis Date: **7/2/2009**	SeqNo: **1737765**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.047	0.10						0.05321	0	20	

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		

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

FOR LABORATORY USE ONLY

P.O. #:
Logged By: _____ Date: 6/29/09

Method of Transport: Client ☐ ATL ☐ CA OverN ☐ FedEx ☐ Other: GSO

Sample Condition Upon Receipt:
1. CHILLED 2.4 Y ☐ N ☐ 4. SEALED Y ☐ N ☒
2. HEADSPACE (VOA) NA Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☐ N ☐
3. CONTAINER INTACT Y ☒ N ☐ 6. PRESERVED Y ☐ N ☒

Client: Geocon Consultants
Address: 3160 Gold Valley Drive, Suite 800
Tel: 916-852-9118
Attention: Josh Goodwin
City: Rancho Cordova State: CA Zip Code: 95742
Fax: 916-852-9132

Project Name: Highway 3 PSI
Project #: S9300-06-78
Sampler: (Printed Name)JOSH GOODWIN (Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Josh Goodwin	6/26/09	1600	GSO	6/26/09	1600
				06/29/09	8:45

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Josh Goodwin
Print Name Date 6/26/09
Signature

Send Report To:
Attn: Josh Goodwin
Co:
Addr:
City: State: Zip:

Bill To:
Attn:
Co: Same as above
Addr:
City: State: Zip:

Special Instructions/Comments:
Please homogonize lead only samples in lab Please send data to Kari Cook and Josh Goodwin

Anticipate solubles

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ATL workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested

SPECIFY APPROPRIATE MATRIX

PRESERVATION

QA/QC
RTNE ☐
CT ☐
SWRCB Logcode ☐
OTHER

ITEM	LAB USE ONLY: Lab No.	Sample Description: Sample ID / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	6010B (Total Metal)	8015B (GRO) / 8020 (BTEX)	8015B (DRO)	8021 (BTEX)	TITLE 22 / CAM 17 (6010 / 7000)	Total Lead 6010B	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	REMARKS
	106172-001	HA1 - 0	6/25	1150									X		X							
	002	HA1 - 1		1152																		
	003	HA1 - 2		1155																		
	004	HA2 - 0		1220																		
	005	HA2 - 1		1225																		
	006	HA3 - 0		1230																		
	007	HA3 - 1		1235																		
	008	HA4 - 0		1430																		
	009	HA4 - 1		1435																		

- TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☐ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives:
H=HCl $N=HNO_3$ $S=H_2SO_4$ C=4°C
$Z=Zn(AC)_2$ O=NaOH $T=Na_2S_2O_3$

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

FOR LABORATORY USE ONLY

P.O. #: _____
Logged By: _____ Date: _____

Method of Transport: Client ☐ ATL ☐ CA OverN ☐ FedEx ☐ Other: _____

Sample Condition Upon Receipt: 1. CHILLED Y ☐ N ☐ 2. HEADSPACE (VOA) Y ☐ N ☐ 3. CONTAINER INTACT Y ☐ N ☐ 4. SEALED Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☐ N ☐ 6. PRESERVED Y ☐ N ☐

Client: Geocon Consultants
Attention: Josh Goodwin
Address: 3160 Gold Valley Drive, Suite 800
City: Rancho Cordova State: CA Zip Code: 95742
Tel: 916-852-9118
Fax: 916-852-9132

Project Name: Highway 3 PSI
Project #: S9300-06-78
Sampler: (Printed Name) JOSH GOODWIN (Signature)

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (Signature and Printed Name)	Date	Time
Josh Goodwin	6/26/09	1600	GSO	6/26/09	1602
				06/29/09	8:45

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Josh Goodwin 6/26/09
Print Name Date
Signature

Send Report To:
Attn: Josh Goodwin
Co: _____
Addr: _____
City: State: Zip:

Bill To:
Attn: _____
Co: Same as above
Addr: _____
City: State: Zip:

Special Instructions/Comments:
Please homogonize lead only samples in lab Please send data to Kari Cook and Josh Goodwin

Anticipate Solubles

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ATL workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested

SPECIFY APPROPRIATE MATRIX

PRESERVATION

QA/QC: RTNE ☐ CT ☐ SWRCB Logcode ☐ OTHER _____

ITEM	LAB USE ONLY: Lab No.	Sample Description: Sample ID / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	6010B (Total Metal)	8015B (GRO) / 8020 (BTEX)	8015B (DRO)	8021 (BTEX)	TITLE 22 / CAM 17 (6010 / 7000)	Total Lead 6010B	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	REMARKS
	106172-010	HA 5 - 0	6/25	1448									X		X				5 day	1	P	
	011	HA 5 - 1	6/25	1452																		
	012	HA 6 - 0		1500																		
	013	HA 7 - 0		1520																		
	014	HA 8 - 0		1530																		
	015	HA 9 - 0		1535																		
	016	HA 10 - 0		1540																		
	017	HA 11 - 0		1545																		

- TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☐ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl $N=HNO_3$ $S=H_2SO_4$ C=4°C $Z=Zn(AC)_2$ O=NaOH $T=Na_2S_2O_3$

CHAIN OF CUSTODY RECORD

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

FOR LABORATORY USE ONLY

P.O. #: _____
Logged By: _____ Date: _____

Method of Transport: Client ☐ ATL ☐ CA OverN ☐ FedEx ☐ Other: _____

Sample Condition Upon Receipt:
1. CHILLED Y ☐ N ☐ 4. SEALED Y ☐ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☐ N ☐
3. CONTAINER INTACT Y ☐ N ☐ 6. PRESERVED Y ☐ N ☐

Client: Geocon Consultants
Attention: Josh Goodwin
Address: 3160 Gold Valley Drive, Suite 800
City: Rancho Cordova State: CA Zip Code: 95742
Tel: 916-852-9118
Fax: 916-852-9132

Project Name: Highway 3 PSI
Project #: S9300-06-78
Sampler: (Printed Name) JOSH GOODWIN (Signature)

Relinquished by: (Signature and Printed Name) Josh Goodwin Date: 6/25 Time: 1600
Received by: (Signature and Printed Name) Date: 6/26/09 Time: 650

Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: 06/26/09 Time: 8:45

Relinquished by: (Signature and Printed Name) Date: Time:
Received by: (Signature and Printed Name) Date: Time:

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Josh Goodwin 6/25
Print Name Date
Signature

Send Report To:
Attn: Josh Goodwin
Co:
Addr:
City: State: Zip:

Bill To:
Attn:
Co: Same as above
Addr:
City: State: Zip:

Special Instructions/Comments:
~~Please homogonize lead only samples in lab~~ Please send data to Kari Cook and Josh Goodwin

Anticipate solubles

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ATL workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested: 8081A (Pesticides), 8082 (PCB), 8260B (Volatiles), 8270C (BNA), 6010B (Total Metal), 8015B (GRO) / 8020 (BTEX), 8015B (DRO), 8021 (BTEX), TITLE 22 / CAM 17 (6010 / 7000)13

SPECIFY APPROPRIATE MATRIX: SOIL, WATER, GROUND WATER, WASTEWATER

PRESERVATION: QA/QC RTNE ☐ CT ☐ SWRCB ☐ Logcode____ OTHER _____

ITEM	LAB USE ONLY: Lab No.	Sample Description: Sample ID / Location	Date	Time	TAT	Container(s) #	Container(s) Type	REMARKS
	606172-017 ~~018~~	MS1-0	6/25/09	1300	5day	1	G	
	~~018~~ 019	MS2-0		1305				
	~~019~~ 020	MS3-0		1312				
	~~020~~ 021	MS4-0		1600				
	~~021~~ 022	MS5-0		1615				

X = 8021 (BTEX); X = SOIL

- TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☐ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl $N=HNO_3$ $S=H_2SO_4$ C=4°C $Z=Zn(AC)_2$ O=NaOH $T=Na_2S_2O_3$

July 08, 2009

ACCREDITED IN ACCORDANCE WITH nelac

Josh Goodwin
Geocon Consultants, Inc.
3160 Gold Valley Drive, Suite 800
Rancho Cordova, CA 95742

TEL: (916) 852-9118
FAX: (916) 852-9132

ELAP No.: 1838
NELAP No.: 02107CA
NEVADA.: CA-401
CSDLAC No.: 10196

Workorder No.: 106174

RE: Highway 3 PSI, S9300-06-78

Attention: Josh Goodwin

Enclosed are the results for sample(s) received on June 29, 2009 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

CLIENT: Geocon Consultants, Inc. **Lab Order:** 106174
Project: Highway 3 PSI, S9300-06-78

Lab ID: 106174-001 **Collection Date:** 6/25/2009 2:08:00 PM
Client Sample ID: P1 **Matrix:** PAINT CHIP

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	EPA 3050B			**EPA 6010B**		
RunID: ICP6_090708C	QC Batch: 56336			PrepDate: 7/2/2009	Analyst: **CL**	
Lead	17	4.0		mg/Kg	1	7/8/2009 11:56 AM

Lab ID: 106174-002 **Collection Date:** 6/25/2009 4:45:00 PM
Client Sample ID: P2 **Matrix:** PAINT CHIP

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
ICP METALS						
	EPA 3050B			**EPA 6010B**		
RunID: ICP6_090708C	QC Batch: 56336			PrepDate: 7/2/2009	Analyst: **CL**	
Lead	3500	4.0		mg/Kg	1	7/8/2009 11:58 AM

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

CLIENT: Geocon Consultants, Inc.
Work Order: 106174
Project: Highway 3 PSI, S9300-06-78

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: **MB-56336**	SampType: **MBLK**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110585**
Client ID: **PBS**	Batch ID: **56336**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **7/8/2009**	SeqNo: **1740451**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	1.0									

Sample ID: **106172-022ADUP**	SampType: **DUP**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110585**
Client ID: **ZZZZZZ**	Batch ID: **56336**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **7/8/2009**	SeqNo: **1740453**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	1.0						0	0	20	

Sample ID: **106172-022AMS**	SampType: **MS**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110585**
Client ID: **ZZZZZZ**	Batch ID: **56336**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **7/8/2009**	SeqNo: **1740454**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	109.318	1.0	125.0	0	87.5	33	120				

Sample ID: **106172-022AMSD**	SampType: **MSD**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110585**
Client ID: **ZZZZZZ**	Batch ID: **56336**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **7/8/2009**	SeqNo: **1740455**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	106.546	1.0	125.0	0	85.2	33	120	109.3	2.57	20	

Sample ID: **LCS-56336**	SampType: **LCS**	TestCode: **6010_S**	Units: **mg/Kg**	Prep Date: **7/2/2009**	RunNo: **110585**
Client ID: **LCSS**	Batch ID: **56336**	TestNo: **EPA 6010B**	**EPA 3050B**	Analysis Date: **7/8/2009**	SeqNo: **1740459**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	50.898	1.0	50.00	0	102	80	120				

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		

1 of 1

CHAIN OF CUSTODY RECORD

Page ~~Page~~ of

Advanced Technology Laboratories

3275 Walnut Avenue
Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

FOR LABORATORY USE ONLY

P.O. #: _____

Logged By: _____ Date: _____

Method of Transport: Client ☐ ATL ☐ CA OverN ☐ FedEx ☐ Other: GSO

Sample Condition Upon Receipt:
1. CHILLED 2.4 Y ☐ N ☐ 4. SEALED Y ☐ N ☐
2. HEADSPACE (VOA) Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☐ N ☐
3. CONTAINER INTACT Y ☐ N ☐ 6. PRESERVED Y ☐ N ☐

Client: Geocon Consultants
Attention: Josh Goodwin
Address: 3160 Gold Valley Drive, Suite 800
City: Rancho Cordova State: CA Zip Code: 95742
Tel: 916-852-9118
Fax: 916-852-9132

Project Name: Highway 3 PSI
Project #: S9300-06-78
Sampler: (Printed Name) JOSH GOODWIN (Signature)

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Josh Goodwin	6/26/09	1600	GSO	6/26/09	1600
				06/29/09	8:45

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter:
Josh Goodwin
Print Name Date
Signature

Send Report To:
Attn: Josh Goodwin
Co:
Addr:
City: State: Zip:

Bill To:
Attn:
Co: Same as above
Addr:
City: State: Zip:

Special Instructions/Comments:
~~Please homogonize lead only samples in lab~~ Please send data to Kari Cook and Josh Goodwin
Anticipate solubles
Please analyze yellow paint only

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):
- Sample :$2.00 / sample /mo (after 45 days)
- Records: $1 /ATL workorder /mo (after 1 year)

Circle or Add Analysis(es) Requested

SPECIFY APPROPRIATE MATRIX

PRESERVATION

QA/QC: RTNE ☐ CT ☐ SWRCB Logcode ☐ OTHER

ITEM	LAB USE ONLY: Lab No.	Sample Description: Sample ID / Location	Date	Time	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	8270C (BNA)	6010B (Total Metal) Pb	8015B (GRO) / 8020 (BTEX)	8015B (DRO)	8021 (BTEX)	TITLE 22 / CAM 17 (6010 / 7000)	SOIL	WATER	GROUND WATER	WASTEWATER	TAT	Container(s) #	Container(s) Type	REMARKS
	106174-01	P1	6/25	1408				X										5day			
	-02	P2	6/25	1645				X													

- TAT starts 8AM the following day if samples received after 3 PM

TAT: ☐ A = Overnight ≤ 24 hrs ☐ B = Emergency Next Workday ☐ C = Critical 2 Workdays ☐ D = Urgent 3 Workdays ☐ E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

Preservatives:
H=HCl N=HNO_3 S=H_2SO_4 C=4°C
Z=$Zn(AC)_2$ O=NaOH T=$Na_2S_2O_3$

EMSL Analytical, Inc
2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577
Phone: (510) 895-3675 Fax: (510) 895-3680 Email: milpitaslab@emsl.com

Attn: **Josh Goodwin**
Geocon Consultants
3160 Gold Valley Drive
Suite 800
Rancho Cordova, CA 95742

Fax: (916) 852-9132 Phone: (916) 852-9118
Project: **S9300-06-78**

Customer ID: GECN80
Customer PO: S9300-06-78
Received: 06/29/09 10:00 AM
EMSL Order: 090905076

EMSL Proj: S9300-06-**
Analysis Date: 6/30/2009

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
NOA1-0 *090905076-0001*	0-1 Foot, 1150	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	**None Detected**
NOA2-1 *090905076-0002*	1-2 Foot, 1235	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	**None Detected**
NOA3-0 *090905076-0003*	0-1 Foot, 1430	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	**None Detected**
NOA4-0 *090905076-0004*	0-1 Foot, 1515	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	**<0.25% Chrysotile**
NOA5-0 *090905076-0005*	0-1 Foot, 1520	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	**<0.25% Chrysotile**
NOA6-0 *090905076-0006*	0-1 Foot, 1535	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	**<0.25% Chrysotile**
NOA7-0 *090905076-0007*	0-1 Foot, 1545	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	**<0.25% Chrysotile**
TRNOA 1 *090905076-0008*	0-6 Inch, 1330	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	**<0.25% Chrysotile**
TRNOA 2 *090905076-0009*	0-6 Inch, 1334	Brown Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	**<0.25% Chrysotile**

Analyst(s)

Adam C. Fink (10)

Baojia Ke, Laboratory Manager
or other approved signatory

EMSL Analytical, Inc
2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577
Phone: (510) 895-3675 Fax: (510) 895-3680 Email: milpitaslab@emsl.com

Attn: **Josh Goodwin**
Geocon Consultants
3160 Gold Valley Drive
Suite 800
Rancho Cordova, CA 95742

Fax: (916) 852-9132 Phone: (916) 852-9118
Project: **S9300-06-78**

Customer ID: GECN80
Customer PO: S9300-06-78
Received: 06/29/09 10:00 AM
EMSL Order: 090905076

EMSL Proj: S9300-06-**
Analysis Date: 6/30/2009

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

			Non-Asbestos			Asbestos	
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**% Type**
TRNOA 3 *090905076-0010*	0-6 Inch, 1340	Brown Non-Fibrous Homogeneous			100.00%	Non-fibrous (other)	**<0.25% Chrysotile**

Analyst(s)

Adam C. Fink (10)

Baojia Ke, Laboratory Manager
or other approved signatory

THIS IS THE LAST PAGE OF THE REPORT.

90905076

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	***Bill To:***	Geocon Consultants
Address1:	3160 Gold Valley Drive, Suite 800	*Address1:*	3160 Gold Valley Drive, Suite 800
Address2:		*Address2:*	
City, State:	Rancho Cordova, CA	*City, State:*	Rancho Cordova, CA
Zip/Post Code:	95742	*Zip/Post Code:*	95742
Country:	USA	*Country:*	USA
Contact Name:	Josh Goodwin	***Attn:***	Josh Goodwin
Phone:	916-852-9118	*Phone:*	916-852-9118
Fax:	916-852-9132	*Fax:*	916-852-9132
Email:	goodwin@geoconinc.com	*Email:*	goodwin@geoconinc.com
EMSL Rep:	Daniel Kocher	***P.O. Number:***	
Project Name/Number:	S9300-06-78		

MATRIX			TURNAROUND			
☐ Air	☒ Soil	☐ Micro-Vac	☐ 3 Hours	☐ 6 Hours		☐ 24 Hours (1 day)
☐ Bulk	☐ Drinking Water		☐ 48 Hours (2 days)	☐ 72 Hours (3 days)	☐ 96 Hours (4 days)	☒ 120 Hours (5 days)
☐ Wipe	☐ Wastewater		☐ 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.

PCM - Air
- ☐ NIOSH 7400(A) Issue 2: August 1994
- ☐ OSHA w/TWA
- ☐ Other:

PLM - Bulk
- ☐ EPA 600/R-93/116
- ☐ EPA Point Count
- ☐ NY Stratified Point Count
- ☐ PLM NOB (Gravimetric) NYS 198.1
- ☐ NIOSH 9002:
- ☐ EMSL Standard Addition:

SEM Air or Bulk
- ☐ Qualitative
- ☐ Quantitative

TEM Air
- ☐ AHERA 40 CFR, Part 763 Subpart E
- ☐ NIOSH 7402
- ☐ EPA Level II

TEM BULK
- ☐ Drop Mount (Qualitative)
- ☐ Chatfield SOP - 1988-02
- ☐ TEM NOB (Gravimetric) NYS 198.4
- ☐ EMSL Standard Addition:

PLM Soil
- ☐ EPA Protocol Qualitative
- ☐ EPA Protocol Quantitative
- ☐ EMSL MSD 9000 Method fibers/gram

TEM WATER
- ☐ EPA 100.1
- ☐ EPA 100.2
- ☐ NYS 198.2

TEM Microvac/Wipe
- ☐ ASTM D 5755-95 (quantative method)
- ☐ Wipe Qualitative

XRD
- ☐ Asbestos
- ☐ Silica NIOSH 7500

OTHER (AA)
- ☒ CARB 435 to 0.25% Level A ONLY PER Josh

M. Edwards
6/29/09 9:10AM file

90905076

Chain of Custody

Asbestos Lab Services

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

Please print all information legibly.

Client Sample # (s) NOA1-0 - TRNOA3 **Total Samples #:** 10

Relinquished: Josh Goodwin **Date:** 6/26 **Time:** 1430

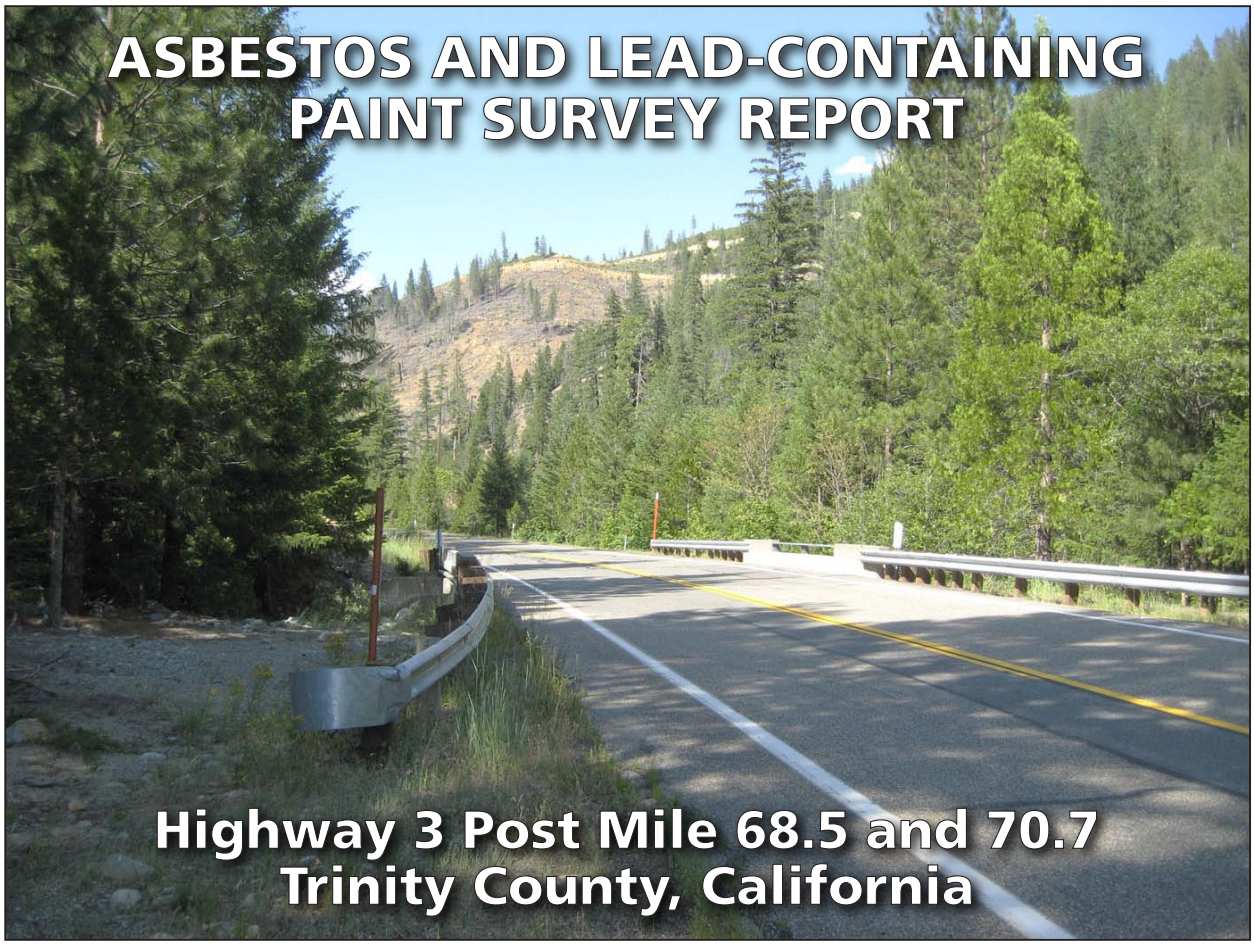
Received: M. Edwards **Date:** 6/29/09 **Time:** 9:00 AM FJ

Relinquished: _____ **Date:** _____ **Time:** _____

Received: _____ **Date:** _____ **Time:** _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
NOA1-0	Soil 0-1 foot 1150	
NOA2-1	Soil 1-2 foot 1235	
NOA3-0	Soil 0-1 foot 1430	
NOA4-0	Soil 0-1 foot 1515	
NOA5-0	Soil 0-1 foot 1520	
NOA6-0	Soil 0-1 foot 1535	
NOA7-0	Soil 0-1 foot 1545	
TRNOA1	Soil 0-6 inch 1330	
TRNOA2	Soil 0-6 inch 1334	
TRNOA3	Soil 0-6 inch 1340	

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT



Highway 3 Post Mile 68.5 and 70.7
Trinity County, California

PREPARED FOR:

CALIFORNIA DEPARTMENT OF TRANSPORTATION
DISTRICT 2
P.O. BOX 496073
REDDING, CALIFORNIA 96049

PREPARED BY:

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

GEOCON PROJECT NO. S9300-06-78
TASK ORDER NO. 78, EA NO. 02-2C9900

AUGUST 2009

GEOCON
CONSULTANTS, INC.
GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS

Project No. S9300-06-78
August 21, 2008

Mr. Rajive Chadha
California Department of Transportation – District 3
703 B Street
Marysville, California 95901

Subject: TRINITY RIVER BRIDGE AND MINNEHAHA CREEK BRIDGE
HIGHWAY 3 POST MILE 68.5 AND 70.7
TRINITY COUNTY, CALIFORNIA
CONTRACT NO. 03A1368
TASK ORDER NO. 78, EA NO. 02-2C9900
ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

Dear Mr. Chadha:

In accordance with California Department of Transportation Contract No. 03A1368 and Task Order No. 78, we have performed an asbestos and lead-containing paint (LCP) survey of the Trinity River and Minnehaha Creek bridges in Trinity County, California. The scope of services included surveying the two bridges for suspect asbestos-containing materials and LCP, collecting bulk samples, and submitting the samples to the laboratory for analyses.

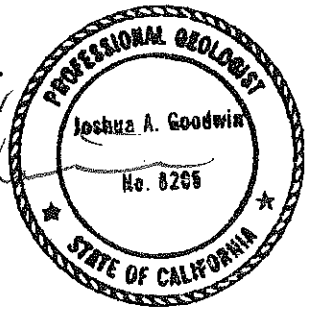
The accompanying report summarizes the services performed and laboratory analysis.

The contents of this report reflect the views of Geocon Consultants, Inc., who are 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 questions concerning the contents of this report or if we may be of further service.

Sincerely,

GEOCON CONSULTANTS, INC.



Joshua A. Goodwin, PG, CAC
Senior Project Geologist

John E. Juhrend, PE, CEG
Contract Manager

JAG:JEJ:jaj

(5 + 3 CD) Addressee

TABLE OF CONTENTS

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT Page

ASBESTOS AND LEAD-CONTAINING PAINT SURVEY REPORT

1.0 INTRODUCTION

This asbestos and lead-containing paint (LCP) survey report was prepared by Geocon Consultants, Inc. under Caltrans Contract No. 03A1368, Task Order No. 78 (TO-78).

1.1 Project Description

The project consists of the Trinity River and Minnehaha Creek bridges on Interstate 80 in Trinity County, California. We performed asbestos and LCP survey activities at the project location. The project location is depicted on the Vicinity Map, Figure 1, and Site Plans, Figures A-1 and A-2.

1.2 General Objectives

The purpose of the scope of services outlined in TO-78 was to determine the presence and quantity of asbestos and LCP at the project location prior to renovation activities. Caltrans will use the information obtained from this investigation for waste profiling, determining California Occupational Safety and Health Administration (Cal/OSHA) applicability, and coordinating asbestos and LCP disturbance activities.

> *It was <u>not</u> Geocon's intent during this inspection to conduct an evaluation of lead-based paint hazards in accordance with U.S. Department of Housing and Urban Development (HUD) guidelines. HUD protocol generally requires a very extensive sampling strategy that includes sampling of paint on each surface type (e.g., wall, ceiling, window sill, window frame, door frame, molding, etc.) in each room.*

2.0 BACKGROUND

2.1 Asbestos

The *Code of Federal Regulations (CFR)*, 40 CFR 61, Subpart M, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Federal Occupational Safety and Health Administration (FED OSHA) classify asbestos-containing material (ACM) as any material or product that contains *greater than* 1% asbestos. Nonfriable ACM is classified by NESHAP as either Category I or Category II material defined as follows:

- **Category I** – asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products.
- **Category II** – all remaining types of nonfriable asbestos-containing material not included in Category I that when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Regulated asbestos-containing material (RACM), a hazardous waste when friable, is classified as any manufactured material that contains *greater than* 1% asbestos by dry weight *and* is:

- Friable (can be crumbled, pulverized, or reduced to powder by hand pressure); or
- Category I material that has become friable; or
- Category I material that has been subjected to sanding grinding, cutting or abrading; or
- Category II nonfriable material that has a high probability of becoming crumbled, pulverized, or reduced to a powder during demolition or renovation activities.

Activities that disturb materials containing *any* amount of asbestos are subject to certain requirements of the Cal/OSHA asbestos standard contained in Title 8, CCR Section 1529. Typically, removal or disturbance of more than 100 square feet of material containing more than 0.1% asbestos must be performed by a registered asbestos abatement contractor, but associated waste labeling is not required if the material contains 1% or less asbestos. When the asbestos content of a material exceeds 1%, virtually all requirements of the standard become effective.

Materials containing more than 1% asbestos are also subject to NESHAP regulations (40 CFR Part 61, Subpart M). RACM (friable ACM and nonfriable ACM that will become friable during demolition operations) must be removed from structures prior to demolition. Certain nonfriable ACM and materials containing 1% or less asbestos may remain in structures during demolition; however, there are waste handling/disposal issues and Cal/OSHA work requirements that must be followed. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

With respect to potential worker exposure, notification, and registration requirements, Cal/OSHA defines asbestos-containing construction material (ACCM) as construction material that contains more than 0.1% asbestos (Title 8, CCR 341.6).

2.2 Lead Paint

Construction activities (including renovation and demolition) that disturb materials or paints containing *any* amount of lead are subject to certain requirements of the Cal/OSHA lead standard contained in Title 8, CCR, Section 1532.1. Deteriorated paint is defined by Title 17, CCR, Division 1, Chapter 8, §35022 as a surface coating that is cracking, chalking, flaking, chipping, peeling, non-intact, failed, or otherwise separating from a component. Renovation or demolition of a deteriorated LCP component would require waste characterization and appropriate disposal. Intact LCP on a component is currently accepted by most landfill facilities; however, contractors are responsible for segregating and characterizing waste streams prior to disposal.

For a solid waste containing lead, the waste is classified as California hazardous when: 1) the total lead content equals or exceeds the respective Total Threshold Limit Concentration (TTLC) of 1,000 milligrams per kilogram (mg/kg); or 2) the soluble lead content equals or exceeds the respective Soluble Threshold Limit Concentration (STLC) of 5 milligrams per liter (mg/l) based on the standard Waste Extraction Test (WET). A waste has the potential for exceeding the lead STLC when the waste's total lead content is greater than or equal to ten times the respective STLC value since the WET uses a 1:10 dilution ratio. Hence, when total lead is detected at a concentration greater than or equal to 50 mg/kg, and assuming that 100 percent of the total lead is soluble, soluble lead analysis is required. Lead-containing waste is classified as "Resource, Conservation, and Recovery Act" (RCRA) hazardous, or Federal hazardous, when the soluble lead content equals or exceeds the Federal regulatory level of 5 mg/l based on the Toxicity Characteristic Leaching Procedure (TCLP).

The above regulatory criteria are based on chemical concentrations. Wastes may also be classified as hazardous based on other criteria such as ignitability; however, for the purposes of this investigation, toxicity (i.e., lead concentrations) is the primary factor considered for waste classification since waste generated during the construction activities would not likely warrant testing for ignitability or other criteria. Waste that is classified as either California hazardous or RCRA hazardous requires management as a hazardous waste.

Potential hazards exist to workers who remove or cut through LCP coatings during demolition. Dust containing hazardous concentrations of lead may be generated during scraping or cutting materials coated with lead-containing paint. Torching of these materials may produce lead oxide fumes. Therefore, air monitoring and/or respiratory protection may be required during the demolition of materials coated with LCP. Guidelines regarding regulatory provisions for construction work where workers may be exposed to lead are presented in the Title 8, CCR, Section 1532.1.

2.3 Architectural Drawings and Previous Survey Activities

Caltrans provided various bridge as-built drawings for our review. We observed no evidence of asbestos-containing materials or lead-containing paints on the as-built drawings we reviewed. Previous survey reports for the project were not available for our review.

3.0 SCOPE OF SERVICES

Mr. Joshua A. Goodwin, a California-Certified Asbestos Consultant (CAC), certification No. 05-3754 (expiration June 16, 2010), and Certified Lead-Related Construction Inspector/Assessor with the California Department of Public Health (DPH), certification numbers I-19737 (expiration June 7, 2010), performed the asbestos and LCP survey at the project location on June 25, 2009.

3.1 Asbestos

Suspect ACM were grouped into homogeneous areas with representative samples randomly collected from each. In addition, each potential ACM was evaluated for condition (evidence of deterioration, physical damage, and water damage) and friability. A total of four bulk asbestos samples of suspect materials were collected.

Our procedures for inspection and sampling in accordance with TO-78 are discussed below:

- Collected bulk asbestos samples after first wetting friable material with a light mist of water. The samples were then cut from the substrate and transferred to a labeled container. Note that when multiple samples were collected, the sampling locations were distributed throughout the homogeneous area (spaces where the material was observed).
- Relinquished bulk asbestos samples to EMSL Analytical, Inc., a California-licensed and Caltrans-approved subcontractor, for asbestos analysis in accordance with United States Environmental Protection Agency (EPA) Test Method 600/R-93/116 using polarized light microscopy (PLM) under chain-of-custody protocol. EMSL Analytical, Inc. is a laboratory accredited by the National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program (NIST-NVLAP) for bulk asbestos fiber analysis. The laboratory analyses were requested on a standard turn-around-time.

3.2 Lead Paint

We did not observe suspect LCP at Bridge 05-0028 or 05-0048 during our field activities.

4.0 INVESTIGATIVE RESULTS

4.1 Asbestos

The laboratory analyses indicated that chrysotile asbestos at a concentration of 80% was detected in samples representing approximately 20 square feet of nonfriable sheet packing used as barrier rail shims on Bridge 05-0028 (Trinity River Bridge).

No asbestos was detected in samples collected from Bridge 05-0048 (Minnehaha Creek Bridge) during our survey.

Sample identification numbers, material descriptions, approximate quantities, friability assessments, and photo references are summarized on Table 1. Approximate sample locations are presented on Figures A-1 and A-2. Reproductions of the laboratory report and chain-of-custody documentation are presented in Appendix A.

4.2 Lead Paint

We did not observe suspect LCP at either bridge during our field activities.

5.0 RECOMMENDATIONS

Based on our findings, we recommend the following:

5.1 Asbestos

We recommend that asbestos-containing barrier rail shims (Category I nonfriable/nonhazardous materials) identified during our survey be removed and disposed of by a licensed contractor registered with Cal/OSHA for asbestos-related work prior to renovation, demolition, or other activities that would disturb the material. For budgetary planning purposes, our opinion of probable abatement costs for the removal, containerization, transportation, and disposal of asbestos-containing barrier rail shims is approximately $3,000.

We also recommend the notification of contractors (that will be conducting renovation, demolition, or related activities) of the presence of asbestos (i.e., provide the contractor[s] with a copy of this report and a list of asbestos removed by asbestos abatement contractor[s] during subsequent abatement activities). Contractors should be instructed not to disturb asbestos during their work. Contractors are responsible for informing the landfill of the contractor's intent to dispose of asbestos waste. Some landfills may require additional waste characterization. Contractors are responsible for segregating and characterizing waste streams prior to disposal.

Written notification to U.S. EPA Region IX and the California Air Resources Board is required ten working days prior to commencement of *any* demolition activity (whether asbestos is present or not). For notification instructions, please see the following internet link: http://www.arb.ca.gov/enf/asbestos/asbestosform.htm.

5.2 Lead Paint

No lead-containing paint was observed during our field activities.

6.0 REPORT LIMITATIONS

This asbestos and LCP survey was conducted in conformance with generally accepted standards of practice for identifying and evaluating asbestos and LCP in structures. The survey addressed only the structures identified in Section 1.1. Due to the nature of structure surveys, asbestos and LCP use, and laboratory analytical limitations, some ACM or LCP at the project location may not have been identified. Spaces such as cavities, voids, crawlspaces, and pipe chases, may have been concealed to our investigator. Previous renovation work may have concealed or covered spaces or materials, or may have partially demolished materials and left debris in inaccessible areas. Additionally, renovation activities may have partially replaced ACM with indistinguishable non-ACM. Asbestos and/or LCP may exist in areas that were not accessible or sampled in conjunction with this TO.

During renovation or demolition operations, suspect materials may be uncovered which are different from those accessible for sampling during this assessment. Personnel in charge of renovation/demolition should be alerted to note materials uncovered during such activities that differ substantially from those included in this or previous assessment reports. If suspect ACM and/or LCP are found, additional sampling and analysis should be performed to determine if the materials contain asbestos or lead.

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.

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.

TABLE 1

SUMMARY OF ASBESTOS RESULTS

TRINITY RIVER BRIDGE AND MINNEHAHA CREEK BRIDGE

CALTRANS CONTRACT 03A1638, TASK ORDER NO. 78, EA 02-2C9900

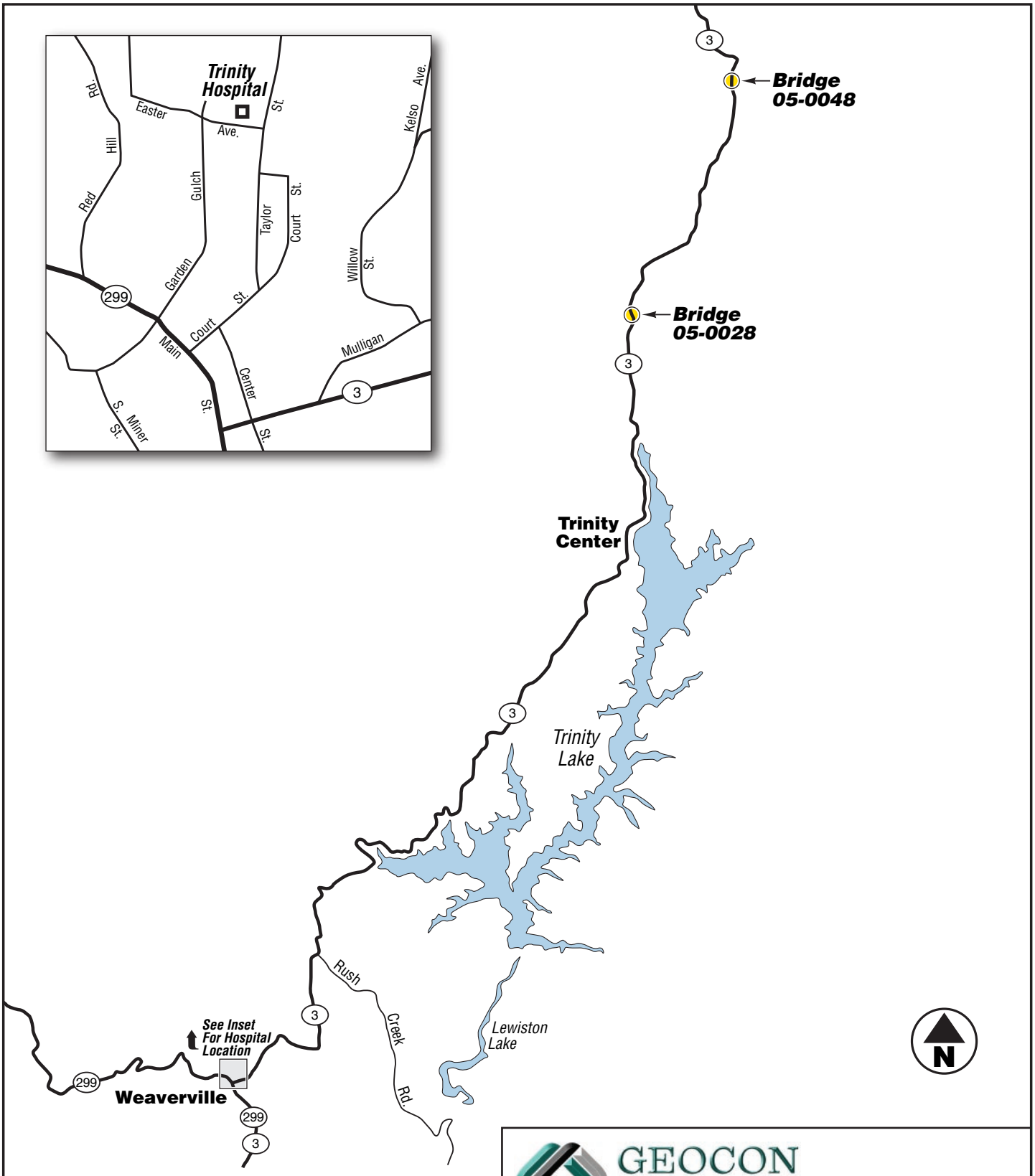
TRINITY COUNTY, CALIFORNIA

Polarized Light Microscopy (PLM) - EPA Test Method 600/R-93/116

Bridge No.	Sample Group No.	Description of Material	Approximate Quantity	Friable	Site Photo	Asbestos Content
05-0028	1A	Barrier Rail Shims	20 square feet	No	3	80%
	1B	Barrier Rail Shims		No	4	80%
05-0048	1A	Expansion Joint Material	NA	NA	10	ND
	1B	Expansion Joint Material	NA	NA	11	ND

Notes: NA = Not applicable (no asbestos detected)

ND = Not detected



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

Highway 3, Post Mile 68.5 and 70.7

Trinity County, California	**VICINITY MAP**	
GEOCON Proj. No. S9300-06-78		
Task Order No. 78, EA 02-2C9900	August 2009	Figure 1

LEGEND:

1A Approximate Asbestos Sample Location

0 30

Scale in Feet

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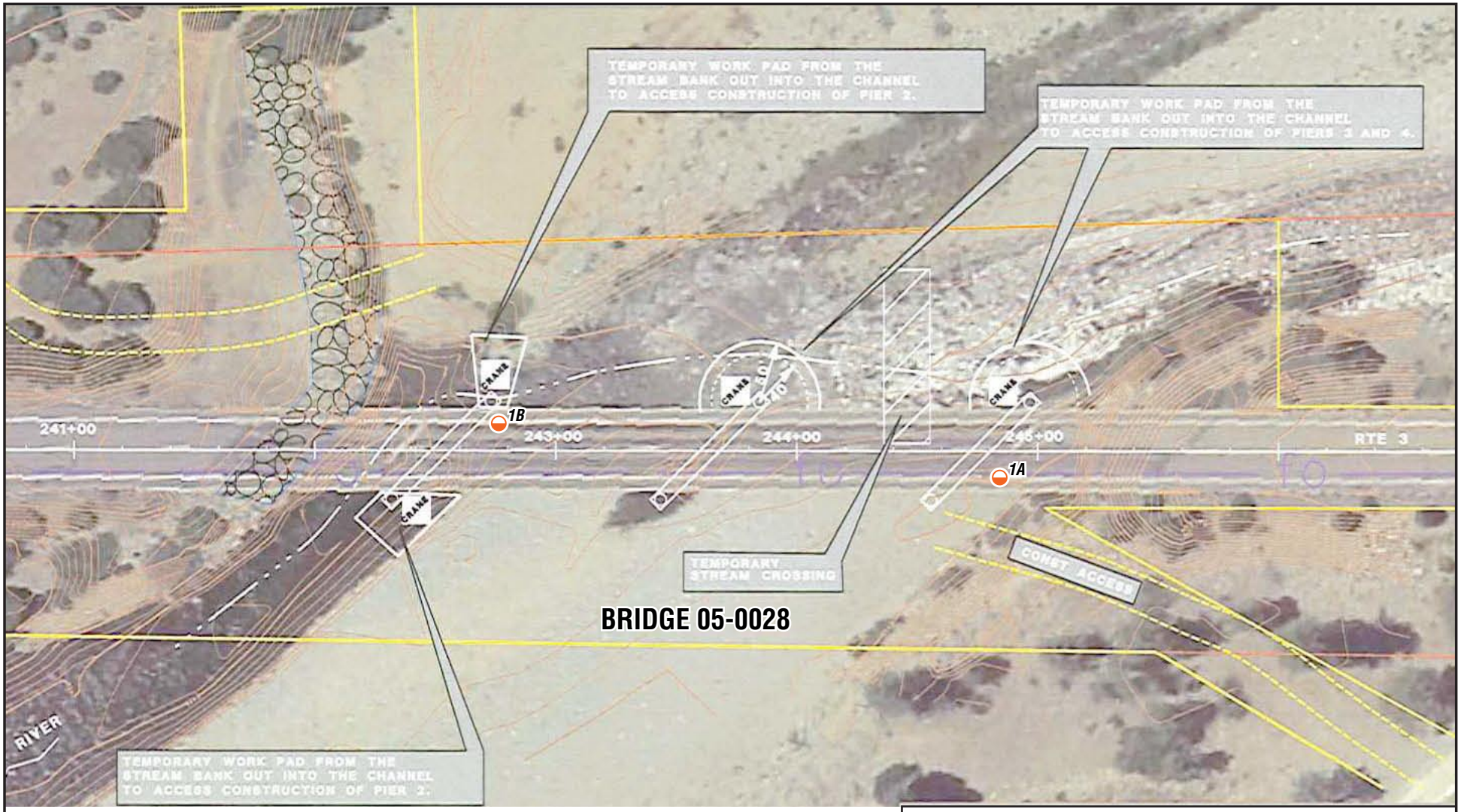
Highway 3, Post Mile 68.5 and 70.7

Trinity County, California	**SITE PLAN**	
GEOCON Proj. No. S9300-06-78		
Task Order No. 78, EA 02-2C9900	August 2009	Figure A-1



LEGEND:

1A Approximate Asbestos Sample Location

0 60

Scale in Feet

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Highway 3, Post Mile 68.5 and 70.7

Trinity County, California	**SITE PLAN**	
GEOCON Proj. No. S9300-06-78		
Task Order No. 78, EA 02-2C9900	August 2009	Figure A-2

Photo 1 –Trinity River Bridge (Bridge 05-0028)

Photo 2 – Bridge 05-0028 deck joint (non-suspect)

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PHONE 916.852.9118 – FAX 916.852.9132

PHOTOGRAPHS 1, & 2		
Highway 3 Bridges Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 3 – Bridge 05-0028 barrier rail shims

Photo 4 – Bridge 05-0028 barrier rail shims

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PHONE 916.852.9118 – FAX 916.852.9132

PHOTOGRAPHS 3 & 4		
Highway 3 Bridges Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 5 – Bridge 05-0028 abutment

Photo 6– Bridge 05-0028 support pier

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PHONE 916.852.9118 – FAX 916.852.9132

PHOTOGRAPHS 5 & 6		
Highway 3 Bridges Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 7 – Bridge 05-0028 drainpipe (non-suspect)

Photo 8 – Bridge 05-0028 support piers (view looking north)

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PHONE 916.852.9118 – FAX 916.852.9132

PHOTOGRAPHS 7 & 8		
Highway 3 Bridges Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 9 – Minnehaha Creek Bridge (Bridge 05-0048)

Photo 10 –Bridge 05-0048 expansion joint material

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PHONE 916.852.9118 – FAX 916.852.9132

PHOTOGRAPHS 9 & 10		
Highway 3 Bridges Trinity County, California		
S9300-06-78	Task Order No.78	August 2009

Photo 11 –Bridge 05-0048 expansion joint material

Photo 12 –Bridge 05-0048 abutment

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

APPENDIX A

EMSL Analytical, Inc
2235 Polvorosa Ave , Suite 230, San Leandro, CA 94577
Phone: (510) 895-3675 Fax: (510) 895-3680 Email: milpitaslab@emsl.com

Attn: **Josh Goodwin**
Geocon Consultants
3160 Gold Valley Drive
Suite 800
Rancho Cordova, CA 95742

Fax: (916) 852-9132 Phone: (916) 852-9118
Project: **S9300-06-78**

Customer ID: GECN80
Customer PO: S9300-06-78
Received: 06/29/09 10:00 AM
EMSL Order: 090905074

EMSL Proj: S9300-06-**
Analysis Date: 7/2/2009

Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbestos				Asbestos	
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**%**	**Type**
05-0028-1A Barrier Rail Shims *090905074-0001*	Barrier Rail	White Fibrous Homogeneous			20%	Non-fibrous (other)	**80%**	**Chrysotile**
05-0028-1B Barrier Rail Shims *090905074-0002*	Barrier Rail	White Fibrous Homogeneous			20%	Non-fibrous (other)	**80%**	**Chrysotile**
05-0048-1A Expansion Joint Material *090905074-0003*	Expansion Joint	Black Fibrous Homogeneous	80%	Cellulose	20%	Non-fibrous (other)	**None Detected**	
05-0048-1B Expansion Joint Material *090905074-0004*	Expansion Joint	Black Fibrous Homogeneous	80%	Cellulose	20%	Non-fibrous (other)	**None Detected**	

Analyst(s)

Adam C. Fink (4)

Baojia Ke, Laboratory Manager
or other approved signatory

THIS IS THE LAST PAGE OF THE REPORT.

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	***Bill To:***	Geocon Consultants
Address1:	3160 Gold Valley Drive, Suite 800	*Address1:*	3160 Gold Valley Drive, Suite 800
Address2:		*Address2:*	
City, State:	Rancho Cordova, CA	*City, State:*	Rancho Cordova, CA
Zip/Post Code:	95742	*Zip/Post Code:*	95742
Country:	USA	*Country:*	USA
Contact Name:	Josh Goodwin	***Attn:***	Josh Goodwin
Phone:	916-852-9118	*Phone:*	916-852-9118
Fax:	916-852-9132	*Fax:*	916-852-9132
Email:	goodwin@geoconinc.com	*Email:*	goodwin@geoconinc.com
EMSL Rep:	Daniel Kocher	***P.O. Number:***	
Project Name/Number:	S9300-06-78		

MATRIX			TURNAROUND			
☐ **Air**	☐ **Soil**	☐ **Micro-Vac**	☐ **3 Hours**	☐ **6 Hours**		☐ **24 Hours (1 day)**
☒ **Bulk**	☐ **Drinking Water**		☐ **48 Hours (2 days)**	☐ **72 Hours (3 days)**	☐ **96 Hours (4 days)**	☒ **120 Hours (5 days)**
☐ **Wipe**	☐ **Wastewater**		☐ **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.

PCM - Air
- ☐ NIOSH 7400(A) Issue 2: August 1994
- ☐ OSHA w/TWA
- ☐ Other:

PLM - Bulk
- ☒ EPA 600/R-93/116
- ☐ EPA Point Count
- ☐ NY Stratified Point Count
- ☐ PLM NOB (Gravimetric) NYS 198.1
- ☐ NIOSH 9002:
- ☐ EMSL Standard Addition:

SEM Air or Bulk
- ☐ Qualitative
- ☐ Quantitative

TEM Air
- ☐ AHERA 40 CFR, Part 763 Subpart E
- ☐ NIOSH 7402
- ☐ EPA Level II

TEM BULK
- ☐ Drop Mount (Qualitative)
- ☐ Chatfield SOP - 1988-02
- ☐ TEM NOB (Gravimetric) NYS 198.4
- ☐ EMSL Standard Addition:

PLM Soil
- ☐ EPA Protocol Qualitative
- ☐ EPA Protocol Quantitative
- ☐ EMSL MSD 9000 Method fibers/gram

TEM WATER
- ☐ EPA 100.1
- ☐ EPA 100.2
- ☐ NYS 198.2

TEM Microvac/Wipe
- ☐ ASTM D 5755-95 (quantative method)
- ☐ Wipe Qualitative

XRD
- ☐ Asbestos
- ☐ Silica NIOSH 7500

OTHER
- ☐

M. Edwards
6/24/09 9:00AM f/e

090905074

Chain of Custody

Asbestos Lab Services

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

Please print all information legibly.

Client Sample # (s) 05-0028-1A - 05-0048-1B **Total Samples #:** 4

Relinquished: Josh Goodwin **Date:** 6/26/09 **Time:** 1430

Received: M. Edwards **Date:** 6/29/09 **Time:** 10:00 AM ~~DRS~~

Relinquished: _____ **Date:** _____ **Time:** _____

Received: _____ **Date:** _____ **Time:** _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
05-0028-1A	barrier rail Shims	
05-0028-1B	" " "	
05-0048-1A	expansion joint material	
05-0048-1B	" " "	

Nationwide Permit Information

I. Project Location and Contact Information

District No: 2 Project Title: Trinity River Bridge Scour Rehabilitation Project

County: Trinity Route: 3 Post Mile: 68.5 Project EA: 02-2C990

Project Manager: Steve Rogers Phone No.: (530) 225-2455

Project Coordinator: Cabe Cornelius Phone No.: 530-225-3514 Project Biologist: Michelle Clark Phone No.: 530-225-3153

Quad Name: Carville Waterway/Watershed: Trinity River/Upper Trinity River Watershed

II. Project Description: Please attach a complete project description.

III. Name of Lead Federal Agency California Department of Transportation

IV. Endangered Species Act Section 7 Consultation Not applicable.

List all federally-listed species potentially occurring within the project area.

1) Trinity buckwheat (*Eriogonum alpinum)* CA Endangered No habitat present 2) bald eagle (*Haliaeetus leucocephalus)* – Delisted/Endangered no species present during biological surveys 3) Pacific fisher {*Martes pennanti (pacifica)*} Candidate – no habitat present. Based on the outcome of the studies, Section 7 Consultation was not required.

Has Section 7 Consultation concluded with USFWS? Yes _____ No _____ Date_____ - Not Applicable

Has Section 7 Consultation concluded with NMFS? Yes _____ No _____ Date_____ - Not Applicable

Lead Federal agency (i.e. agency responsible for Section 7 Consultation with USFWS or NMFS) Not applicable no species present requiring Section 7 consultation

Determination (List species under the appropriate category below) – Not applicable

No effect _____

Not likely to adversely affect _____

May affect _____

Appended to a programmatic _____

V. Essential Fish Habitat Consultation (EFH) No EFH – this segment of the Trinity River is above the Lewiston Dam

Select affected EFH Fishery Management Plan: _____ Pacific Ground Fish _____ Coastal Pelagic _____ Pacific Salmon

Lead Federal agency EFH (i.e. agency responsible for section 7 consultation)_____

Has EFH Consultation concluded with NMFS? Yes _____ No _____ Date_____

VI. Permit Being Requested (check one that applies)

_____ Reporting Nationwide Permit X Non-Reporting Nationwide Permit

14 Indicate which NWP(s) would appropriately authorize the proposed project.

VII. Corps' Authority Information

Section 10 (Attach Justification and Maps): Yes ____ No____

Section 404 (Attach Justification and Maps): Yes ____ No____

Has a preliminary jurisdictional determination report been verified by the Corps? Yes ____ No X Date_____

Trinity River Bridge Project Description/Scope of Work

Purpose and Need

The Trinity River Bridge (number 05-0028) located on State Route 3, at post mile 68.5, is scour critical at the piers due in part to the hydraulic skew of the river flow. Currently, the channel runs parallel to the bridge in a meandering path, and then makes an abrupt turn as it crosses under the bridge at Pier 2 (span 1). Channel degradation, aggradation, and migration are worsening the scour potential by progressively lowering and raising the profile of the riverbed. In 1974, migration, degradation and local scour caused Pier 2 to settle over two feet. This settlement also caused damage to Abutment 1. In 1975, the superstructure was jacked back up to grade and the Pier 2 footing was rebuilt at a lower elevation. The Abutment 1 wing walls were also removed and replaced. In 2000, Caltrans Office of Structures Maintenance and Investigations identified this structure as scour critical, based on potential scour below the bottom of the existing spread footings at Piers 2, 3 and 4.

Description of Project/Scope of Work

The California Department of Transportation (Caltrans), District 2, does not direct specific ways that the contractor will perform the work to complete the project, however there are typical ways a contractor would undertake a project and this discussion outlines the most likely way the project would be constructed. It is anticipated that the following activities will most likely be undertaken (scope of work) to retrofit the bridge:

- Import clean gravel to construct access roads on the southwest side of the structure, and at the northeast side of the structure. The temporary roads are needed for equipment to work on piers 2, 3, and 4. During this phase the clean material will be placed down the embankment at the levee to create a gradual decline (approximately a 10% grade) for ingress and egress to the work area. Typical equipment used to create the access roads would most likely be dump trucks, water trucks, loaders, rollers, excavators, compactors, and graders/backhoes.
- Import clean gravel to construct temporary gravel work pads around each pier, and to place in the river, as necessary, to construct a temporary stream crossings to access piers 2, 3, and 4 (piers being retrofitted). To construct the gravel work pads, gravel likely will be placed out into the channel until the work pad has been built up. If sheet piles are needed to support the gravel pad, then the sheet piling will be driven around the wetted perimeter of the gravel work pad.
- Temporary trestlework platforms will most likely be constructed in one, or both, of two ways: 1) with use of temporary stream crossings by placing culverts in the stream and covering them with gravel to enable construction equipment to access each pier needing retrofit. And/or 2) by constructing a temporary work platform and/or trestle by driving piles into the stream and constructing a platform above the piles.

- Minor streambed grading, under the structure, may be necessary to allow head room (vertical clearance) for equipment access. Typical equipment used to construct temporary work pads would most likely be dump trucks, loaders, pile drivers, excavators, backhoes, and water trucks.
- Falsework will be used to support the new bent cap at each pier during construction.
- Each new pier will consist of a bent cap supported by two, 6-foot diameter columns. Columns will be supported on a 6-foot diameter cast-in-drilled-hole (CIDH) pile. It is estimated each CIDH pile will be 100 feet deep and will produce 650 cubic yards of excavated material that will become property of the contractor. Upon completion of the piers, portions of the three existing pier walls, footings, and the seal courses will be removed to a depth of three feet below the streambed. The contractor will dispose of this material at an appropriate facility. Removal of the existing piers will lessen the permanent impacts to the Trinity River and result in a no net increase of permanent impacts. Typical equipment used to construct the outrigger bents would most likely be drills, pile drivers, oscillators, cranes, concrete pumps, excavators, loaders, dump trucks, water trucks, graders and dozers.
- At project completion, the staging area will be re-contoured and re-vegetated. The imported (clean washed) gravel that created the temporary access roads will be dispersed within the streambed and the temporary stream-crossing culvert and piles for the temporary work pads will be removed and taken from the project site.

VIII. Minimal Impact Criteria

Explain whether or not the proposed project would result in minimum impact to the aquatic environment (attach additional information if necessary):

Avoidance and Minimization Efforts: Initially, it was proposed to build a construction access road on the west side of the bridge by constructing it from the paved county road on the west side of the bridge. The construction access road would have crossed the overflow area of the Trinity River. Equipment would have accessed the streambed in a low area of the bank and riverbed. However, initial biological field studies identified potential wetlands in that area, and so the temporary access roads and environmental study limits were modified to avoid a wetland area. The current proposal to gain access to the west side of the bridge involves constructing a temporary road over the levee and down into the channel from the southwest quadrant of the bridge (see Environmental Study Limits mapping). The new pier configuration will result in a smaller footprint, no net increase of permanent impacts, and provide less flow resistance. This provides potential for high flows to reestablish the active channel away from the banks. Benefits resulting from reestablishing the active flow channel away from the bank includes less lateral erosion, eventual riparian vegetation expansion, and reduced permanent features within the ordinary high water of the Trinity River.

The new piers are also being designed to accommodate a future "superstructure" replacement; when a future project is funded, it is anticipated that the piers would accommodate the new structure, and therefore future permanent and temporary impacts to the Trinity River would be minimal at these pier locations.

To avoid potential impacts to nesting migratory birds, a work window for this construction project will be placed restricting vegetation removal to only occur from September 1 through February 15 of each year. In addition, if work on the structure will physically impact swallow nests, exclusion methods will be necessary to deter swallows from nesting within the work area. Exclusion methods shall be in place no later than March 1 of each year. If swallows return to the area where nests were removed after March 1 and attempt to rebuild them, the unoccupied nests may be removed as needed. Nest exclusion methods will need to be employed for the duration of the project construction. To minimize groundwater exposure to fresh concrete, work will be conducted during the low flow season at the time when the river flow is confined to a narrow active channel.

Three out of six columns will be located entirely outside the wetted channel during construction. Using a clear water diversion will minimize exposure at the remaining three columns.

IX. Permit Compliance Information (Nationwide General Conditions and the San Francisco District's Regional Conditions)

Explain how the project complies with each of the following. Attach additional sheets if necessary.
For more information go to: http://www.usace.army.mil/cw/cecwo/reg/nwp/nwp_2007_final.pdf

1. Navigation The proposed project will not have any adverse effect on navigation.
2. Aquatic Life Movements The proposed project will not substantially disrupt the life cycle or movements of any species indigenous to bodies of water in the project area or species that migrate through waters in the project area. A water diversion will be used to divert water from each specific pile as work is being conducted. These diversions will not impound any waters of the United States, and any culverts placed in streams will not impede low flows.
3. Spawning Areas There are no designated important spawning areas within the construction limits. The proposed work will not have adverse effects on any downstream spawning areas with adherence to the regulatory permits.

4. Migratory Bird Breeding Areas : None of the waters of the United States in the project area serve as breeding grounds for migratory birds. However, various species of migratory birds would be expected to nest in the project area. There is evidence of swallows nesting under the existing bridge; all swallows and their nests are protected. February 15 to September 1 is considered to be nesting season for swallows therefore nest exclusion methods will need to be employed for the duration of the project construction.
5. Shellfish Beds There are no shellfish beds within the construction limits
6. Suitable Material No trash, debris, car bodies, asphalt, or other unsuitable material will be placed in waters of the United States, and all fill material will be free from toxic pollutants in toxic amounts.
7. Water Supply Intakes There is no public water supply intake in or near the project area
8. Adverse Effects from Impoundments: The proposed project will not cause any impoundment of water.
9. Management of Water Flows The project has been designed to withstand expected high flows and will not impede the passage of Trinity River with the new bridge structure. Hydrologic capacity will increase over existing conditions.
10. Fills within 100-Year Floodplains The existing 3 pier walls will be replaced by three new outrigger bents. Each outrigger bent will be supported by two 6-foot diameter columns. The new pier configuration will not create any net increase to the volume of man-made objects within the floodplain. However, the new outrigger bents will have much better flow characteristics compared to the existing, highly skewed pier walls. Once bridge construction is finished, the river should flow smoother, and have less scour potential as it passes underneath the bridge.
11. Does the activity comply with applicable FEMA-approved state or local floodplain management requirements? Yes X No _____
12. Equipment The proposed project will not require use of heavy equipment in wetlands or mudflats.
13. Soil Erosion and Sediment Controls Prior to the start of construction, the contractor will be required to submit, for Caltrans's approval, a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must meet the standards and objectives for avoidance and minimization of adverse impacts to water quality set forth in Section 7-1.01G of Caltrans's Standard Specifications and will describe the Best Management Practices (BMPs) that the contractor intends to use to prevent erosion and sedimentation during and after construction. Work within Waters of the US will be accomplished utilizing temporary gravel pads and stream to reduce potential for sediment into the river.
14. Removal of Temporary Fills Temporary fills will be needed to construct the temporary stream crossings and clear water diversions. The stream crossings would be constructed using culverts and clean washed gravel (1.5-5 inch diameter). The clear water diversions would be constructed by placing gravel in the channel next to the piers to form a work pad. Sheet piling would likely be used to contain the gravel. Another type of clear water diversion that may be used is a temporary trestle built in the live stream. The trestle would likely be constructed by driving temporary piles and decking over the pile supports. There may be the need to move the stream within the existing river channel the in order to divert the river away from the work areas. When the temporary stream crossings are no longer of use the culverts, temporary piles, and sheet piles will be removed. The clean washed gravel will be dispersed within the stream channel within the project limits.
15. Proper Maintenance Caltrans is aware of this condition.
16. Wild and Scenic Rivers
    Does the activity occur in a component of a National Wild and Scenic River System? Yes _____ No X
    Does the activity occur in a river officially designated by Congress as a study river? Yes _____ No X
17. Tribal Rights The proposed project will not affect any tribal rights
18. Endangered Species See section IV above. Caltrans, acting as the federal lead agency under NEPA delegation, has determined that the proposed project will have no effect on any federally threatened or endangered species or species proposed for federal listing under the Endangered Species Act (ESA), nor will it affect the critical habitat of any such species. This determination was based on the species list letter for the USGS 7.5 minute topo quad(s) in which the proposed project is located, the scope of the proposed work, and the lack of suitable habitat in the project vicinity as determined by field review(s) conducted throughout 2008. Please see Natural Environment Study, Table 1 pg 7, for species list and habitat determinations within the project limits.
19. Historic Properties (attach documentation of determination) The proposed project will not affect any properties listed, or eligible for listing, in the National Register of Historic Places.
    Is it possible that the activity may affect properties listed, or eligible for listing in the National Register of Historic Places? Yes _____ No X
    Lead Federal agency (i.e. agency responsible for Section 106 Compliance) Caltrans District 2

20. Designated Critical Waters (select those that apply): None

_____ N0AA-designated marine sanctuaries, _____ National Estuarine Research Reserves,

_____ State natural heritage sites, _____ Corps designated critical resource,

_____ Outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance.

Note: NWP 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49 and 50: **NWP authorization prohibited**

NWP 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38: **PCN required**

21. Mitigation There are no wetlands located within the project limits that would require compensatory mitigation; construction disturbed areas will be reseeded and revegetated as part of the erosion control plan. The type of piers that are replacing the existing footings will have less overall permanent impact that existing conditions; thus being a net improvement on the permanent impact.

Has the activity been designed and constructed to avoid and minimize adverse effects to Waters of the U.S.? Yes __X__ No _____

Has mitigation been proposed? If yes, please attach detailed mitigation and monitoring plan. Yes _____ No _X_

Does mitigation meet required minimum 1:1 ratio? Yes _____ No _____

If streams are affected by the project, are vegetated buffers with native plant species near streams maintained and / or restored?

Yes __X__ No _____

22. Water Quality

RWQCB 401 Certification Yes _X_ Pending: sent January 2010 No _____

Point of Contact at RWQCB ____Jeremiah Puget_____

Date 401 Certification issued ____Pending_____

23. Coastal Zone Management Not applicable - not in the Coastal Zone Management Area

Consistency Determination Yes____ No ____ Pending (provide date of application) _____

Point of Contact at Costal Commission _____

Date of Consistency Determination issued _____

24. Regional and Case-by-Case Conditions (The following section summarizes the S.F. District's Regional Conditions)

Does the proposed project occur in Diked Baylands? Yes _____ No X_____**If Yes, a PCN is required**

Does the propose project occur within the Santa Rosa Plain? Yes _____ No X_____**If Yes, a PCN is required**

Is the project proposed to occur within Eelgrass beds? Yes _____ No X_____**If Yes, a PCN is required**

Is the project proposed to occur within EFH? Yes _____ No _X__**If Yes, a PCN is required with additional information**

Will mitigation occur before or concurrently with project construction? Yes ___ No _____ no mitigation is being proposed

Are you requesting a waiver of the 300 linear foot threshold? Yes _____ No X__**If Yes, a PCN is required with additional information**

Specific NWP Regional Conditions

NWP 3: Excavation equipment shall work from an upland site; bank stabilization must incorporate structures or modification beneficial to fish and wildlife; and justification for work within special aquatic site is required (please attach).

NWP 11: Are any temporary structures proposed in wetlands or vegetated shallow water areas? Yes _____ No ____ **If Yes, a PCN is required**

NWP 12: Excess material removed from the trench shall be disposed of at an upland site; and authorization of substation facilities by this NWP is prohibited.

NWP 13: PCN required for stabilization of more than 300 linear feet; excavation of a toe trench is allowed as long as excess material is disposed of at an upland location; additional fill which extends beyond the original shoreline may not exceed one cubic yard per running foot; bank stabilization must incorporate structures or modification beneficial to fish and wildlife; and PCN should address up and downstream effects of stabilization.

NWP 14: PCN required for projects proposed to fill greater than 300 linear feet of channel; authorization prohibited for taxiways or runways; modifications must incorporate structures or modification beneficial to fish and wildlife; PCN should address up and downstream effects of fill.

NWP 23: PCN Required. Please refer to regional conditions for additional information on PCN requirements.

NWP 33: Access roads shall be designed to be the minimum width necessary; the road shall be properly stabilized; fill shall be placed to minimize encroachment of equipment within Waters of the U.S.; vegetative disturbance shall be minimized; borrow shall be taken from upland source; and stream channelization authorization by this NWP is prohibited.

NWP 35: PCN Required. Please refer to regional conditions for additional information on PCN requirements.

NWP 40: Work shall not impede flows during high volume events.

NWP 41: Mitigation may be required; PCN required if fill material will be re-deposited, re-graded, discharged, or if channel lining is installed; and PCN shall include an explanation of the project's benefit to water quality.

NWP 42: 404(b)(1) guidelines must be met if buildings are proposed in Waters of the U.S.

NWP 44: Revoked in Humbolt and Del Norte Counties.

25. Use of Multiple Nationwide Permits Yes _____ No X____

If yes, list NWP and acreage impact _____

26. Transfer of Nationwide Permit Verifications Caltrans intends to retain ownership of the property on which the proposed project will be built; therefore, this General Condition is not applicable.

27. Compliance Certification After construction of the proposed project, Caltrans will submit a signed compliance certification to USACE.

28. Notification This document, together with the cover letter to USACE, and all other attached documents, constitutes the pre-construction notification package for the proposed project.

NWPs 3, 7, 8, 12, 13, 14, 17, 18, 21, 22, 23, 27, 29, 31, 33, 34, 36, 37, 38, 29, 40, 41, 42, 43, 44, 45, 47, 48, 49, and 50; **PCN Required**

(for thresholds go to: http://www.usace.army.mil/cw/cecwo/reg/nwp/nwp_2007_final.pdf)

PCN Contents (please attach)

X Name, address, and telephone number of the applicant; X Location of proposed project;

NA Delineation of special aquatic sites and other Waters of the U.S.; N/A Detailed mitigation and monitoring plan;

X Federally-listed species information; X Historic properties information

X A project description including purpose, direct and indirect effects, additional Corps' authorizations for the project;

29. Is the activity a single and complete project? Yes X No _____

X. Multiple Nationwide Permit Requested

If multiple Nationwide Permits are requested, list No. and Title, and explain how each activity complies with the NWP terms. (Attach additional sheets if necessary):

1. _____
2. _____
3. _____

XII. Project Impact Information [Area Affected (acres) and (cubic yards)]

Wetlands (permanent): None Wetlands (temporary): None

Waters of the US (permanent): No net change of permanent impacts Waters of the US (temporary): 17,000 sq ft or .39 acres

Linear extent of impact within Corps' jurisdiction: 240 linear feet

_____

XIII. Project Mitigation Information

Special Conditions (List conditions specified by specialist Division personnel): _____

Best Management Practices (attach additional information if necessary): _____

Site Restoration Plan (attach additional information if necessary): _____

_____

Proposed Mitigation (attach additional information if necessary): _____

_____

Attachments

Site location map

Delineation of jurisdictional boundaries (on aerial photo or contour map) prepared in accordance with November 2007 Memo titled, "*San Francisco District's Information Requested for Verification of Corps' Jurisdiction*".

Completed routine delineation data forms

Reduced project plans showing all proposed impacts to aquatic resources

Mitigation information

Copy of applicable nationwide permit(s) and general conditions

FOR CALTRANS USE ONLY:

IX. Signatures

Based on the information provided above, I hereby certify that this project qualifies for a nationwide permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and/or Section 10 of the U.S. Rivers and Harbors Act (33 U.S.C. 406).

Prepared by: _____ Date: 1-20-2010

Peer Review: _____ Date: 1-20-2010

Supervisory Concurrence: _____ Date: 1/26/10

cc: U.S. Army Corps of Engineers Liaison
Environmental Planning Branch Nationwide Permit File
District Office Engineer
District Project Manager
Resident Engineer Pending File

Nationwide Permit Information

I. Project Location and Contact Information

District No: 2 Project Title: Minnehaha Creek Bridge Replacement Project

County: Trinity Route: 3 Post Mile: 70.7 Project EA: 02-2C990

Project Manager: Steve Rogers Phone No.: (530) 225-2455

Project Coordinator: Cabe Cornelius Phone No.: 530-225-3514 Project Biologist: Michelle Clark Phone No.: 530-225-3153

Quad Name: Carville Waterway/Watershed: Minnehaha Creek/Upper Trinity River Watershed

II. Project Description: Please attach a complete project description.

III. Name of Lead Federal Agency California Department of Transportation

IV. Endangered Species Act Section 7 Consultation N/A

List all federally-listed species potentially occurring within the project area.

1) Trinity buckwheat (*Eriogonum alpinum)* CA Endangered No habitat present 2) bald eagle (*Haliaeetus leucocephalus)* – Delisted/Endangered no species present during biological surveys 3) Pacific fisher {*Martes pennanti (pacifica)}* Candidate – no habitat present. Based on the outcome of the studies, Section 7 Consultation was not required.

Has Section 7 Consultation concluded with USFWS? Yes _____ No _____ Date_____ - Not Applicable

Has Section 7 Consultation concluded with NMFS? Yes _____ No _____ Date_____ - Not Applicable

Lead Federal agency (i.e. agency responsible for Section 7 Consultation with USFWS or NMFS) Not applicable no species present requiring Section 7 consultation

Determination (List species under the appropriate category below) – Not applicable

No effect _____

Not likely to adversely affect _____

May affect _____

Appended to a programmatic _____

V. Essential Fish Habitat Consultation (EFH) No EFH – this segment of the Trinity River is above the Lewiston Dam

Select affected EFH Fishery Management Plan: _____ Pacific Ground Fish _____ Coastal Pelagic _____ Pacific Salmon

Lead Federal agency EFH (i.e. agency responsible for section 7 consultation)_____

Has EFH Consultation concluded with NMFS? Yes _____ No _____ Date_____

VI. Permit Being Requested (check one that applies)

_____ Reporting Nationwide Permit X Non-Reporting Nationwide Permit

14 Indicate which NWP(s) would appropriately authorize the proposed project.

VII. Corps' Authority Information

Section 10 (Attach Justification and Maps): Yes ____ No____

Section 404 (Attach Justification and Maps): Yes ____ No____

Has a preliminary jurisdictional determination report been verified by the Corps? Yes ____ No X Date_____

Minnehaha Creek Project Description

Purpose and Need

The project site is located on State Route 3 at post mile 70.7, approximately 2.8 miles north of Coffee Creek Road. The 26.9-foot long single span bridge over Minnehaha Creek, a tributary to the Trinity River, was built in 1968. The purpose and need of the project is to replace a scour critical bridge (No. 05-0048). Previous bridge inspection reports indicate that as the water cascades down the steep slope of the creek, the channel impinges on the downstream abutments. As a result the southern abutment footing (Abutment 1) has become exposed (scour). In addition to the bridge scour, concerns have been noted that during periods of high water flows, the water occasionally escapes the channel on the west side of the bridge (upstream side) and flows south, eroding the roadway embankment. The project will reduce existing stream velocities during high water flows.

This project does not include features that would increase traffic capacity or the Average Daily Traffic (ADT) levels that are currently occurring. SR 3 is a rural highway and has relatively low ADT levels.

Description of Project

This project proposes to replace the existing scour critical bridge with a new single-span, pre-stressed, concrete-slab bridge. A two-stage construction method will be used. The west side of the roadway will be widened by four feet to conform to the new bridge width. Widening conform will start 100 feet before the bridge and end 100 feet past the bridge. The California Department of Transportation (Caltrans) does not direct specific ways that the contractor will perform the work to complete the project, however there are typical ways a contractor would likely undertake a project. This discussion provides the most likely way the project would be constructed.

It is anticipated that the following activities will most likely be undertaken (scope of work) to replace the bridge:

Traffic control will include a one-lane closure through the duration of the project. Shoring will occur first, then half the bridge will be demolished and rebuilt in place and then alternate side demolition and construction will occur.

Bridge removal and reconstruction

- Pile driving or Cast In Drilled Hole (CIDH) piles
- Structure excavation and backfill for abutment foundations
- Temporary false work
- Removal of the existing structure (one half removed and rebuilt; followed by the second half removed and rebuilt).
- Construction of cast-in-place, pre-stressed, concrete-slab

- Placement of RSP in front of Abutment 1 and along south bank for long-term bank stabilization
- Clearing and grubbing to remove trees and vegetation for the temporary access roads
- Temporary access roads
- Removal of portions of the existing abutments (Abutments 1 and 2)

Typical equipment used during the removal and reconstruction of the bridge would most likely be dozers, excavators, rippers, rollers, graders, water tanks/trucks, dump trucks, pile drivers, cranes, shoring, and concrete pumps.

Roadway widening to conform the roadway to the new bridge width

- Disposal and or borrow
- Install improvements for roadside drainage and or reconstruct existing drainage features to perpetuate existing flows.
- Possible pavement grinding to conform the new bridge construction to the existing road and paving.
- Tree and vegetation replanting.
- Metal beam guardrail replacement.

Typical equipment used during the roadway cut and fill activities would most likely include grinder, paving machines, rollers, trenchers, backhoes, augers, dump trucks, graders, and hydro seeders.

Required work incidental to facilitating construction includes the following activities:

- Utility relocation
- Staging and equipment storage areas
- Construction of temporary access roads
- Temporary stream crossings
- Clear water diversion and/or de-watering

Typical equipment used to perform the incidental items would most likely be trenchers, scrapers, graders, backhoes, dump trucks, compactors, and loaders.

A continuous, six month, in channel work window is needed to complete the bridge construction. The bridge replacement will occur in two stages. First, traffic will be shifted to one side of the existing bridge while the first half of the new bridge is constructed. Then traffic will be shifted onto the newly constructed side while the other half of the new bridge is constructed. During construction only one lane will be opened to traffic controlled by temporary signals.

VIII. Minimal Impact Criteria

Explain whether or not the proposed project would result in minimum impact to the aquatic environment (attach additional information if necessary):

Initially, the bridge replacement project was being proposed at four feet higher than existing bridge elevation; this would have created a toe of slope on the eastern side of the bridge that would have encroached well into the Trinity River OHWM; original proposals identified slope protection (RSP) placement to keep the Trinity River from eroding the new fill and to protect the new structure. In addition, the slope along the northwestern side of the bridge would have been cut back and the trees and vegetation would be removed during construction.

In an effort to minimize the footprint of the project, design was modified to keep the bridge at the existing elevation and widen to the west side of the structure. This reduces the amount of permanent fill on the west side of the project (along and into the OHWM of the Trinity River) from the original design. Also, the current design will lessen the amount of permanent impacts in the OHWM because we are removing Abutments 1 and 2 from the creek channel and locating them outside of the OHWM.

IX. Permit Compliance Information (Nationwide General Conditions and the San Francisco District's Regional Conditions)

Explain how the project complies with each of the following. Attach additional sheets if necessary.
For more information go to: http://www.usace.army.mil/cw/cecwo/reg/nwp/nwp_2007_final.pdf

1. Navigation The proposed project will not have any adverse effect on navigation.
2. Aquatic Life Movements The proposed project will not substantially disrupt the life cycle or movements of any species indigenous to bodies of water in the project area or species that migrate through waters in the project area. A water diversion will be used to divert water from each abutment as work is being conducted. These diversions will not impound any waters of the United States, and any culverts placed in streams will not impede low flows.
3. Spawning Areas There are no designated important spawning areas within the construction limits. The proposed work will not have adverse effects on any downstream spawning areas with adherence to the regulatory permits.
4. Migratory Bird Breeding Areas: None of the waters of the United States in the project area serve as breeding grounds for migratory birds. However, various species of migratory birds would be expected to nest in the project area. There is evidence of swallows nesting under the existing bridge; all swallows and their nests are protected. February 15 to September 1 is considered to be nesting season for swallows therefore nest exclusion methods will need to be employed for the duration of the project construction. Swallows presence was determined to be March 15, therefore the nest exclusion methods will need to be in place March 1 through September 1 each year the project is in construction.
5. Shellfish Beds There are no shellfish beds within the construction limits
6. Suitable Material No trash, debris, car bodies, asphalt, or other unsuitable material will be placed in waters of the United States, and all fill material will be free from toxic pollutants in toxic amounts.
7. Water Supply Intakes There is no public water supply intake in or near the project area
8. Adverse Effects from Impoundments: The proposed project will not cause any impoundment of water.
9. Management of Water Flows The project has been designed to withstand expected high flows and will not impede the passage of Minnehaha Creek with the new bridge structure. Hydrologic capacity will increase over existing conditions.
10. Fills within 100-Year Floodplains The existing 27 foot span structure will be replaced with a 52 foot span structure; this will increase the capacity and decrease the scour susceptibility. In addition the permanent impacts to the creek will be less due to the location of the new abutments outside of OHWM.
    Does the activity comply with applicable FEMA-approved state or local floodplain management requirements? Yes __X__ No _____
11. Equipment The proposed project will not require use of heavy equipment in wetlands or mudflats.
12. Soil Erosion and Sediment Controls Prior to the start of construction, the contractor will be required to submit, for Caltrans's approval, a Water Pollution Control Plan (WPCP). The WPCP must meet the standards and objectives for avoidance and minimization of adverse impacts to water quality set forth in Section 7-1.01G of Caltrans's Standard Specifications and will describe the Best Management Practices (BMPs) that the contractor intends to use to prevent erosion and sedimentation during and after construction. Work within Waters of the US will be accomplished utilizing temporary gravel pads and stream to reduce potential for sediment into the river.

13. Removal of Temporary Fills Temporary fills will be needed to construct the temporary stream crossings. The stream crossings will be constructed use of culverts, clean washed gravel (1.5-5 inch diameter), and clean fill. When the temporary stream crossings are not longer of use, they will be removed and the clean washed gravel will be dispersed within the stream channel.

14. Proper Maintenance Caltrans is aware of this condition.

15. Wild and Scenic Rivers
Does the activity occur in a component of a National Wild and Scenic River System? Yes _____ No _X_
Does the activity occur in a river officially designated by Congress as a study river? Yes _____ No _X_

16. Tribal Rights The proposed project will not affect any tribal rights

17. Endangered Species See section IV above. Caltrans, acting as the federal lead agency under NEPA delegation, has determined that the proposed project will have no effect on any federally threatened or endangered species or species proposed for federal listing under the Endangered Species Act (ESA), nor will it affect the critical habitat of any such species. This determination was based on the species list letter for the USGS 7.5 minute topo quad(s) in which the proposed project is located, the scope of the proposed work, and the lack of suitable habitat in the project vicinity as determined by field review(s) conducted throughout 2008. Please see Natural Environment Study, Table 1 pg 7, for species list and habitat determinations within the project limits.

18. Historic Properties (attach documentation of determination) The proposed project will not affect any properties listed, or eligible for listing, in the National Register of Historic Places.
Is it possible that the activity may affect properties listed, or eligible for listing in the National Register of Historic Places? Yes _____ No _X_
Lead Federal agency (i.e. agency responsible for Section 106 Compliance) Caltrans District 2

19. Designated Critical Waters (select those that apply): None
_____ N0AA-designated marine sanctuaries, _____ National Estuarine Research Reserves,
_____ State natural heritage sites, _____ Corps designated critical resource,
_____ Outstanding national resource waters or other waters officially designated by a state as having particular environmental or ecological significance.
Note: NWP 7, 12, 14, 16, 17, 21, 29, 31, 35, 39, 40, 42, 43, 44, 49 and 50: **NWP authorization prohibited**
NWP 3, 8, 10, 13, 15, 18, 19, 22, 23, 25, 27, 28, 30, 33, 34, 36, 37, and 38: **PCN required**

20. Mitigation There are no wetlands located within the project limits that would require compensatory mitigation; construction disturbed areas will be reseeded and revegetated as part of the erosion control plan. The existing conditions at this site may constrain flow and potentially cause both upstream and downstream channel impacts. The replacement structure design is proposing to move Abutments 1 and 2 outside of the OHWM, thus eliminating the constrained flow from manmade features in the water channel (See Cross Section View of Proposed Abutments). This design modification significantly reduces permanent and temporary impacts to the stream channel, reduces the excavation of the road approaches, reduces the footprint of the project area (as compared to other structure types), and restores the existing stream channel width at the location of the bridge structure.
Has the activity been designed and constructed to avoid and minimize adverse effects to Waters of the U.S.? Yes _X_ No _____
Has mitigation been proposed? If yes, please attach detailed mitigation and monitoring plan. Yes _____ No _X_
Does mitigation meet required minimum 1:1 ratio? Yes _____ No _____
If streams are affected by the project, are vegetated buffers with native plant species near streams maintained and / or restored?
Yes _X_ No _____

21. Water Quality
RWQCB 401 Certification Yes _X_ (Pending: January 2010) No ____
Point of Contact at RWQCB Jeremiah Puget
Date 401 Certification issued _____

22. Coastal Zone Management Not applicable
Consistency Determination Yes____ No ____ Pending (provide date of application) _____
Point of Contact at Costal Commission _____
Date of Consistency Determination issued _____

23. Regional and Case-by-Case Conditions (The following section summarizes the S.F. District's Regional Conditions)

Does the proposed project occur in Diked Baylands? Yes _____ No X **If Yes, a PCN is required**

Does the propose project occur within the Santa Rosa Plain? Yes _____ No X **If Yes, a PCN is required**

Is the project proposed to occur within Eelgrass beds? Yes _____ No X **If Yes, a PCN is required**

Is the project proposed to occur within EFH? Yes _____ No X **If Yes, a PCN is required with additional information**

Will mitigation occur before or concurrently with project construction? Yes ___ No _____ no mitigation is being proposed

Are you requesting a waiver of the 300 linear foot threshold? Yes _____ No X **If Yes, a PCN is required with additional information**

Specific NWP Regional Conditions

NWP 3: Excavation equipment shall work from an upland site; bank stabilization must incorporate structures or modification beneficial to fish and wildlife; and justification for work within special aquatic site is required (please attach).

NWP 11: Are any temporary structures proposed in wetlands or vegetated shallow water areas? Yes _____ No ____ **If Yes, a PCN is required**

NWP 12: Excess material removed from the trench shall be disposed of at an upland site; and authorization of substation facilities by this NWP is prohibited.

NWP 13: PCN required for stabilization of more than 300 linear feet; excavation of a toe trench is allowed as long as excess material is disposed of at an upland location; additional fill which extends beyond the original shoreline may not exceed one cubic yard per running foot; bank stabilization must incorporate structures or modification beneficial to fish and wildlife; and PCN should address up and downstream effects of stabilization.

NWP 14: PCN required for projects proposed to fill greater than 300 linear feet of channel; authorization prohibited for taxiways or runways; modifications must incorporate structures or modification beneficial to fish and wildlife; PCN should address up and downstream effects of fill.

NWP 23: PCN Required. Please refer to regional conditions for additional information on PCN requirements.

NWP 33: Access roads shall be designed to be the minimum width necessary; the road shall be properly stabilized; fill shall be placed to minimize encroachment of equipment within Waters of the U.S.; vegetative disturbance shall be minimized; borrow shall be taken from upland source; and stream channelization authorization by this NWP is prohibited.

NWP 35: PCN Required. Please refer to regional conditions for additional information on PCN requirements.

NWP 40: Work shall not impede flows during high volume events.

NWP 41: Mitigation may be required; PCN required if fill material will be re-deposited, re-graded, discharged, or if channel lining is installed; and PCN shall include an explanation of the project's benefit to water quality.

NWP 42: 404(b)(1) guidelines must be met if buildings are proposed in Waters of the U.S.

NWP 44: Revoked in Humbolt and Del Norte Counties.

24. Use of Multiple Nationwide Permits Yes _____ No X

If yes, list NWP and acreage impact _____

25. Transfer of Nationwide Permit Verifications Caltrans intends to retain ownership of the property on which the proposed project will be built; therefore, this General Condition is not applicable.

26. Compliance Certification After construction of the proposed project, Caltrans will submit a signed compliance certification to USACE.

27. Notification This document, together with the cover letter to USACE, and all other attached documents, constitutes the pre-construction notification package for the proposed project.

NWPs 3, 7, 8, 12, 13, 14, 17, 18, 21, 22, 23, 27, 29, 31, 33, 34, 36, 37, 38, 29, 40, 41, 42, 43, 44, 45, 47, 48, 49, and 50; **PCN Required**

(for thresholds go to: http://www.usace.army.mil/cw/cecwo/reg/nwp/nwp_2007_final.pdf)

PCN Contents (please attach) – Not applicable this is a NWP 14 Non Reporting

_____ Name, address, and telephone number of the applicant; _____ Location of proposed project;

_____ Delineation of special aquatic sites and other Waters of the U.S.; N/A Detailed mitigation and monitoring plan;

_____ Federally-listed species information; _____ Historic properties information

_____ A project description including purpose, direct and indirect effects, additional Corps' authorizations for the project;

28. Is the activity a single and complete project? Yes X No _____

X. Multiple Nationwide Permit Requested

If multiple Nationwide Permits are requested, list No. and Title, and explain how each activity complies with the NWP terms. (Attach additional sheets if necessary):

1. _____
2. _____
3. _____

XII. Project Impact Information [Area Affected (acres) and (cubic yards)]

Wetlands (permanent): None Wetlands (temporary): None

Waters of the US (permanent): Decrease of 787 sq ft or .02 acres less than existing Waters of the US (temporary): 3,330 sq ft or .08 acres

Linear extent of impact within Corps' jurisdiction: 146 linear feet

XIII. Project Mitigation Information

Special Conditions (List conditions specified by specialist Division personnel): _____

Best Management Practices (attach additional information if necessary): Construction BMPs will be used such as straw bales and waddles for erosion control.

Site Restoration Plan (attach additional information if necessary): The construction disturbed areas will be re contoured and pre-construction vegetated areas that are disturbed during construction activities will be re-vegetated and re-seeded.

Proposed Mitigation (attach additional information if necessary): None

Attachments
Site location map
Delineation of jurisdictional boundaries (on aerial photo or contour map) prepared in accordance with November 2007 Memo titled, "*San Francisco District's Information Requested for Verification of Corps' Jurisdiction*".
Completed routine delineation data forms
Reduced project plans showing all proposed impacts to aquatic resources
Mitigation information
Copy of applicable nationwide permit(s) and general conditions

FOR CALTRANS USE ONLY:

IX. Signatures

Based on the information provided above, I hereby certify that this project qualifies for a nationwide permit pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344) and/or Section 10 of the U.S. Rivers and Harbors Act (33 U.S.C. 406).

Prepared by: Cate Cornelius Date: 1-20-2010

Peer Review: Michelle Clark Date: 1-21-2010

Supervisory Concurrence: [signature] Date: 1/26/10

cc: U.S. Army Corps of Engineers Liaison
Environmental Planning Branch Nationwide Permit File
District Office Engineer
District Project Manager
Resident Engineer Pending File

Notice of Determination

TO: ☒ Office of Planning and Research

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

Street Address:
1400 Tenth Street
Sacramento, CA 95814

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

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: 2009022070

Project Title: Lake or Streambed Alteration Agreement No. 1600-2010-0035-R1, Trinity River Bridge Retrofit Project.

Project Location: State Route (SR) 3, approximately 8.5 miles north of the community of Trinity Center in Trinity County, Section 5, T37N, R7W, Mount Diablo Base and Meridian.

Project Description: The Project will retrofit the existing Trinity River Bridge on SR 3 by replacing 3 bridge piers with new outrigger bents. The footings of the existing bridge piers have been undermined by scour and subsequent channel degradation. The new bents will be supported by two 6-foot diameter cast-in-drilled-hole (CIDH) piles extending approximately 100 feet below the river bed.

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: _____ Date: 8/25/10

Curt Babcock
Acting Habitat Conservation Program Manager
Northern Region

Date Received for filing at OPR:

CALIFORNIA DEPARTMENT OF FISH AND GAME
CALIFORNIA ENVIRONMENTAL QUALITY ACT FINDINGS FOR
LAKE OR STREAMBED ALTERATION AGREEMENT No. 1600-2010-0035-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 **April 1, 2009**. 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. 1600-2010-0035-R1**with **Mr. Steve Rogers representing Caltrans**. The project is located at the State Rout 3 crossing of the Trinity River, approximately 8.5 miles north of Trinity Center in Trinity County, **Section 5, T37N, R7W, Mount Diablo 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 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: _____ Date: 9/25/10

Curt Babcock
Acting Habitat Conservation Program Manager
Northern Region

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

LAKE OR STREAMBED ALTERATION AGREEMENT
NOTIFICATION NO. 1600-2010-0035-R1
Trinity River
Tributary to Klamath River

CALIFORNIA DEPARTMENT OF TRANSPORTATION
TRINITY RIVER BRIDGE SCOUR RETROFIT

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. Steve Rogers.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified DFG on March 4, 2010, that Permittee intends to complete the project described herein.

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

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

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

PROJECT LOCATION

The Trinity River Bridge Scour Retrofit Project (hereafter, the Project) is located at Post Mile (PM) 68.5 on State Route (SR) 3, approximately 8.5 miles north of Trinity Center in Trinity County, California. The Project is located on the Carrville US Geological Survey (USGS) 7.5 minute quadrangle, Mt. Diablo Base and Meridian, latitude 41.095586, longitude -122.706773.

PROJECT DESCRIPTION

The Project will retrofit the existing Trinity River Bridge to address channel degradation (scour) that is undermining the bridge piers. Primary work includes the replacement of piers 2, 3, and 4 with new outrigger bents, each founded on two 6-foot diameter

columns extending approximately 100 feet below the river bed. Each new bridge column will be supported on a 6-foot diameter cast-in-drilled-hole (CIDH) pile.

All work shall be in accordance with submitted plans and diagrams and any subsequent revisions approved by the DFG in writing. Specific work will include:

- Importing clean, washed gravel to construct temporary access roads on the southwest and northeast sides of the structure,
- Constructing temporary stream crossings and work pads using clean, washed gravel,
- Driving sheet piling to contain gravel work pads and stream crossings,
- Constructing temporary work platforms or trestles supported by piles driven into the streambed,
- Grading the existing streambed below the structure to provide vertical clearance for equipment access,
- Constructing temporary falsework to support the new bent cap at each pier during construction,
- Drilling and pouring six 6-foot diameter CIDH piles to support the new bridge piers, and
- Removing the existing pier walls, footings, and seal courses to a depth of three feet below the streambed, as well as re-contouring and revegetating disturbed portions of the channel upon completion of construction.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include: Shasta chaenactis (*Chaenactis suffrutescens*), a special status plant species; cliff swallows (*Hirundo pyrrhonota*), and other riparian-dependent bird species; resident rainbow trout (*Oncorhynchus mykiss*), riffle sculpin (*Cottus gulosus*), Sacramento suckers (*Catostomus occidentalis*), and other non-game fishes; northwestern pond turtle (*Actinemys marmorata marmorata*), as well as 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 nesting behavior and decreased reproductive success due to construction disturbance; loss of occupied passerine habitat and nests, including eggs and/or nestlings, as a result of vegetation removal; direct mortality of fish, amphibians, and other aquatic species during construction de-watering activities; 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.

The Project will result in temporary impacts to 361 lineal feet of riparian habitat due to placement of temporary access roads. There will be no permanent loss of riparian habitat associated with the project.

MEASURES TO PROTECT FISH AND WILDLIFE RESOURCES

1. Administrative Measures

Permittee shall meet each administrative requirement described below.

1.1 Documentation at Project Site. Permittee shall make the Agreement, any extensions and amendments to the Agreement, and all related notification materials and California Environmental Quality Act (CEQA) documents, readily available at the project site at all times and shall be presented to DFG personnel, or personnel from another state, federal, or local agency upon request.

1.2 Providing Agreement to Persons at Project Site. Permittee shall provide copies of the Agreement and any extensions and amendments to the Agreement to all persons who will be working on the project at the project site on behalf of Permittee, including but not limited to contractors, subcontractors, inspectors, and monitors.

1.3 Notification of Conflicting Provisions. Permittee shall notify DFG if Permittee determines or learns that a provision in the Agreement might conflict with a provision imposed on the project by another local, state, or federal agency. In that event, DFG shall contact Permittee to resolve any conflict.

1.4 Project Site Entry. Permittee agrees that DFG personnel may enter the project site at any time, 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 within the channel or on the stream banks shall be confined to the period commencing June 1 and ending October 15, provided the stream is at low flow. If weather conditions permit and stream flows are low, the Permittee may perform work within the stream channel or on the banks outside of the above referenced

work window, contingent on conditions at the time of construction. A written request for a work period variance must be submitted to DFG at least five (5) days prior to beginning or continuing work. Written approval from DFG must be received by the Permittee prior to the start or the continuation of work outside of the above referenced work window. Variance requests may be approved or denied by DFG based on site conditions at the time of construction.

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 Notwithstanding Condition 2.1 above, removal of the above-ground portions of existing vegetation shall occur after September 1 and before February 16 to avoid impacts to nesting birds. If vegetation must be removed during the nesting season (February 15 to August 31) nest surveys shall be conducted prior to vegetation clearing.

2.4 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

2.5 Permittee shall prevent swallows and other migratory birds from nesting on the existing bridge if construction activities on or adjacent to the structure will occur during the nesting season (February 15 – August 31). Prevention measures shall be in place prior to February 15 and be inspected on a regular basis to maintain their effectiveness.

2.6 In lieu of excluding swallows from nesting, Permittee may remove partially constructed and unoccupied nests from the work area prior to and during the nesting season. Nest materials shall be removed on a regular basis at a frequency sufficient to prevent nests from being completed and eggs from being laid. At no time shall occupied nests be destroyed as a result of Project activities.

2.7 Prior to initiating channel- vegetation- or ground-disturbing Project activities, Permittee shall clearly delineate the limits of the work area. Permittee shall restrict all Project activities to the designated work area and shall maintain all fencing, stakes and flags until the completion of Project activities.

2.8 Disturbance or removal of riparian and streamside vegetation shall not exceed the minimum necessary to complete operations. Where feasible, hand tools (chain saws, etc.) shall be used to trim woody riparian vegetation to the extent necessary to gain access to work sites. Whenever possible, root systems shall be left intact to facilitate more rapid recovery following temporary construction impacts.

2.9 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.

2.10 Permittee shall prepare and submit a northwestern pond turtle relocation plan to DFG for review and approval prior to construction. The plan shall describe pre-construction survey methods, suitable relocation areas, and measures to prevent turtles from re-entering the work area during construction.

2.11 Pre-construction surveys shall be conducted by a qualified biologist to capture and remove northwestern pond turtles from the area within 550 yards of the construction limits. Surveys shall be conducted during the months of May, June, and/or July during all years of construction. Animals captured within the survey area shall be relocated to suitable locations approved by DFG.

2.12 Existing Shasta chaenactis populations within and adjacent to the work areas shall be protected as Environmentally Sensitive Areas (ESAs) and shall be off limits to construction equipment and personnel.

2.13 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. The Permittee shall ensure that the contractor, 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.

2.14 ESA fencing shall be installed prior to the beginning of channel- ground- or vegetation-disturbing activities. 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.

2.15 Permittee shall implement the *Chaenactis suffrutescens* Stewardship Plan dated November 14, 2008. In accordance with the plan, individual Shasta chaenactis plants that cannot be avoided during construction shall be transplanted to areas outside the work limits; seed will be collected for direct sowing on-site and propagation at the US Forest Service Mount Shasta Greenhouse. If propagation is successful, container plants shall installed on-site following construction. Transplants, seeded areas and container plantings shall be monitored for a minimum of 5 years to document the effectiveness of these measures. A written report summarizing the results of this effort shall be submitted to DFG at the end of the monitoring period.

CONSTRUCTION DEWATERING AND INSTREAM STRUCTURES

2.16 All work within the channel or on the banks shall be performed when the stream is at low flow. If water is present during construction, all work shall be performed in isolation from surface or subsurface flow.

2.17 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 work area. Flows will then be diverted into a temporary culvert, pipe, or conduit and released downstream from the work area.

2.18 The clear water diversion shall be adequately sized to accommodate the full range of flows that may occur during the diversion period without overtopping into the work area.

2.19 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.

2.20 Any turbid water pumped from the work area shall be used for construction purposes (compaction, dust abatement, etc.) or properly disposed of in an upland area where it will not drain to surface waters or wetlands.

2.21 Water that has been in contact with uncured concrete shall be contained in Baker tanks or other impervious containers and shall not be discharged to ground or surface waters.

2.22 Permittee shall remove and relocate fish and other aquatic organisms from the stream channel as flows are shifted into the clear water diversion in order to minimize mortality due to stranding. One or more of the following methods shall

be used to capture and relocate aquatic species: dip net, seine, throw net, or electrofishing. Fish relocation activities shall be overseen by a qualified fisheries biologist.

2.23 Temporary culverts, structures and materials not designed to withstand high flows shall be removed from the floodplain prior to October 15.

2.24 Clean, washed gravel used for temporary access roads, stream crossings and work pads shall consist of clean, pre-washed, uncrushed natural river rock. Gravel must be washed at least once and have a cleanliness value of 85 or higher (California Test No. 227). Particle size shall be graded with 100% passing a 4-inch screen, 75-100% passing a 3-inch screen, 10-25% passing a 1-inch screen, 4-10% passing a ½-inch screen and 0-2% passing a No. 30 screen. Gravel may be stockpiled near the work area, but mixing with any earthen material is prohibited.

2.25 Clean, washed gravel used for diversion berms, temporary access roads, work pads, and stream crossings may be left in the channel following construction provided it is spread to a depth less than 6 inches and does not impede the movement of fish or other aquatic organism, or redirect stream flows. All other construction materials shall be removed from the stream channel upon completion of work.

EROSION AND SEDIMENT CONTROL

2.26 The project shall at all time feature adequate erosion and sediment control devices to prevent the degradation of water quality.

2.27 Soils exposed by project operations shall be treated to prevent sediment runoff and transport. Erosion control measures shall include the proper installation and maintenance of approved Best Management Practices (BMPs) and may include applications of seed, certified weed-free straw, compost, fiber, commercial fertilizer, stabilizing emulsion and mulch, or combinations thereof.

2.28 Erosion control measures shall be monitored and maintained during and after each storm event. Modifications, repairs, and improvements to erosion control measures shall be made following each storm event to prevent sediment from entering surface waters or wetlands.

2.29 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 channel or adjacent riparian areas. National Weather Service forecasts shall be monitored by the Permittee to determine the chance of precipitation.

2.30 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 plant parts) prior to its arrival on site and before leaving the Project area.

2.31 Following construction, all disturbed upland areas shall be stabilized and reseeded with an erosion control mix consisting of regionally appropriate, native grass and forb species.

PETROLEUM, CHEMICAL AND OTHER POLLUTANTS

2.32 All construction-related materials and equipment shall be stored in designated staging areas located outside of the floodplain unless approved in writing by DFG.

2.33 Refueling and vehicle maintenance shall be performed at least 100 feet from streams or other water bodies unless approved in writing by DFG.

2.34 No equipment or machinery shall be operated within any flowing stream.

2.35 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.

2.36 Stationary equipment such as motors, pumps, generators, and welders that contain deleterious materials, located adjacent to the stream channel shall be positioned over drip pans.

2.37 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.

2.38 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. Steve Rogers
Department of Transportation
District 2
P.O. Box 496073
Redding, California 96049-6073
Fax: (530) 225-3019
steve_rogers@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 #1600-2010-0035-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, 2013, 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

8-2-10

Steve Rogers
Project Manager

Date

FOR DEPARTMENT OF FISH AND GAME

8/25/10

Curt Babcock
Acting Habitat Conservation Program Manager

Date

Prepared by: Craig Martz
Staff Environmental Scientist

Notice of Determination

TO: ☒ Office of Planning and Research

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

Street Address:
1400 Tenth Street
Sacramento, CA 95814

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

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: 2009022069

Project Title: Lake or Streambed Alteration Agreement No. 1600-2010-0036-R1, Minnehaha Creek Bridge Replacement Project.

Project Location: State Route (SR) 3, approximately 10 miles north of the community of Trinity Center in Trinity County, SW ¼ Section 29, T38N, R7W, Mount Diablo Base and Meridian.

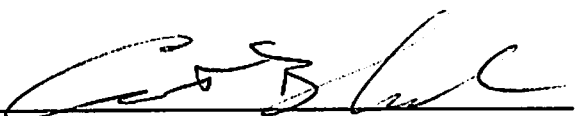
Project Description: The Project proposes to replace the existing 26.9-foot long bridge over Minnehaha Creek with a new single-span concrete-slab structure. The new bridge will be 52 feet long and 4 feet wider than the existing structure.

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:  Date: 8/23/10

Curt Babcock
Acting Habitat Conservation Program Manager
Northern Region

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 **April 1, 2009**. 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. 1600-2010-0036-R1**with **Mr. Steve Rogers representing Caltrans**. The project is located at the State Rout 3 crossing of Minnehaha Creek, approximately 10 miles north of Trinity Center in Trinity County, **SW ¼ Section 29, T38N, R7W, Mount Diablo 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 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: _____ Date: 8/23/10

Curt Babcock
Acting Habitat Conservation Program Manager
Northern Region

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

LAKE OR STREAMBED ALTERATION AGREEMENT
NOTIFICATION NO. 1600-2010-0036-R1
Minnehaha Creek
Tributary to Trinity River

CALIFORNIA DEPARTMENT OF TRANSPORTATION
MINNEHAHA CREEK BRIDGE REPLACEMENT

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. Steve Rogers.

RECITALS

WHEREAS, pursuant to Fish and Game Code (FGC) section 1602, Permittee notified DFG on March 4, 2010, that Permittee intends to complete the project described herein.

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

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

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

PROJECT LOCATION

The Minnehaha Creek Bridge Replacement Project (hereafter, the Project) is located at Post Mile (PM) 70.7 on State Route (SR) 3, approximately 10 miles north of Trinity Center in Trinity County, California. The Project is located on the Carrville US Geological Survey (USGS) 7.5 minute quadrangle, Mt. Diablo Base and Meridian, 41.124613, -122.699990.

PROJECT DESCRIPTION

The Project will replace the existing 26.9-foot long single span bridge with a new single-span concrete-slab structure on the current highway alignment. The new bridge will be 52 feet long and 4 feet wider than the existing structure. The Project includes the

removal and replacement of the existing single span structure, reconstruction and widening of the roadway approaches, relocation of existing utilities, construction of access roads and temporary stream crossings, and placement of rock slope protection (RSP) at the base of the new southern abutment. The bridge will be reconstructed in stages, with the work being completed one lane at a time. Temporary clear water diversions will be required to isolate the work areas during demolition and construction. Half of the existing bridge deck, abutments and wing walls will be removed. Then new abutments, falsework, bridge deck, railings, and metal beam guardrail will be installed. Once completed, the work will be repeated on the second half of the bridge.

No permanent fill is proposed in the channel and the span between the abutments will be increased by approximately 25 feet, providing a wider floodplain and increased channel capacity beneath the structure. Approximately 307 cubic yards of clean washed gravel (0.19 acres) will be placed in the channel for temporary crossings and work access. Temporarily disturbed areas will be restored to pre-construction condition or better. In addition, the construction access road between SR 3 and the Trinity River will be revegetated with a mixture of conifer, hardwood and riparian species. All work shall be in accordance with submitted plans and diagrams and any subsequent revisions approved by the DFG in writing.

PROJECT IMPACTS

Existing fish or wildlife resources the project could substantially adversely affect include: American dippers (*Cinclus mexicanus*), cliff swallows (*Hirundo pyrrhonota*) and other riparian-dependent bird species; resident rainbow trout (*Oncorhynchus mykiss*), riffle sculpin (*Cottus gulosus*), Sacramento suckers (*Catostomus occidentalis*), and other non-game fishes, as well as 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 nesting behavior and decreased reproductive success due to construction disturbance; loss of occupied passerine habitat and nests, including eggs and/or nestlings, as a result of vegetation removal; direct mortality of fish, amphibians, and other aquatic species during construction de-watering activities; 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.

The Project will result in temporary impacts to 188 lineal feet (0.21 acre) of stream channel due to placement of a temporary gravel pad and an additional temporary loss of 14,940 square feet (0.34 acre) of conifer-hardwood vegetation for construction of a temporary access road between SR 3 and the Trinity River. Approximately 100 lineal feet of stream bank (0.03 acre) will be permanently replaced by RSP. However, due to the longer span of the new bridge, there will be no reduction in channel capacity beneath the structure.

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 within the channel or on the stream banks shall be confined to the period commencing May 1 and ending October 15, provided the stream is at low flow. If weather conditions permit and the stream flows are low, 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 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 Notwithstanding Condition 2.1 above, removal of the above-ground portions of existing trees and shrubs shall occur after August 31 and before February 15 to avoid impacts to nesting birds. If vegetation must be removed during the nesting season (February 15 to August 31) nest surveys shall be conducted prior to vegetation clearing.

2.4 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

2.5 Permittee shall prevent swallows and other migratory birds from nesting on the existing bridge if construction activities on or adjacent to the structure will occur during the nesting season (February 15 – August 31). Prevention measures shall be in place prior to February 15 and be inspected on a regular basis to maintain their effectiveness.

2.6 In lieu of excluding swallows from nesting, Permittee may remove partially constructed and unoccupied nests from the work area prior to and during the nesting season. Nest materials shall be removed on a regular basis at a frequency sufficient to prevent nests from being completed and eggs from being laid. At no time shall occupied nests be destroyed as a result of Project activities.

2.7 Prior to initiating channel- vegetation- or ground-disturbing Project activities, Permittee shall clearly delineate the limits of the work area. Permittee shall restrict

all Project activities to the designated work area and shall maintain all fencing, stakes and flags until the completion of Project activities.

2.8 Disturbance or removal of riparian and streamside vegetation shall not exceed the minimum necessary to complete operations. Where feasible, hand tools (chain saws, etc.) shall be used to trim woody riparian vegetation to the extent necessary to gain access to work sites. Whenever possible, root systems shall be left intact to facilitate more rapid recovery following temporary construction impacts.

2.9 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.

2.10 Permittee shall implement the Mitigation and Monitoring Proposal for the Minnehaha Creek Bridge Replacement Project dated February 3, 2010.

2.11 The temporary access road between SR 3 and the Trinity River shall be revegetated with conifers, hardwoods and riparian species following completion of construction. Approximately 14,940 square feet (0.34 acre) will be replanted.

2.12 In addition to on-site revegetation, approximately 29,880 square feet (0.69 acre) shall be planted with conifers at an off-site location along Ramshorn Creek.

CONSTRUCTION DEWATERING AND INSTREAM STRUCTURES

2.13 All work within the channel or on the banks shall be performed when the stream is at low 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 work area. Flows will then be diverted into a temporary culvert, pipe, or conduit and released downstream from the work area.

2.15 The clear water diversion shall be adequately sized to accommodate the full range of flows that may occur during the diversion period without overtopping into the work area.

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 used for construction purposes (compaction, dust abatement, etc.) or properly disposed of in an upland area where it will not drain to surface waters or wetlands.

2.18 Permittee shall remove and relocate fish and other aquatic organisms from the stream channel as flows are shifted into the clear water diversion in order to minimize mortality due to stranding. One or more of the following methods shall be used to capture and relocate aquatic species: dip net, seine, throw net, or electrofishing. Fish relocation activities shall be overseen by a qualified fisheries biologist.

2.19 Temporary culverts, structures and materials not designed to withstand high flows shall be removed from the floodplain prior to October 15.

2.20 Clean, washed gravel used for diversion berms, temporary access roads, work pads, and stream crossings shall consist of clean, pre-washed, uncrushed natural river rock. Gravel must be washed at least once and have a cleanliness value of 85 or higher (California Test No. 227). Particle size shall be graded with 100% passing a 4-inch screen, 75-100% passing a 3-inch screen, 10-25% passing a 1-inch screen, 4-10% passing a ½-inch screen and 0-2% passing a No. 30 screen. Gravel may be stockpiled near the work area, but mixing with any earthen material is prohibited.

2.21 Clean, washed gravel used for diversion berms, temporary access roads, work pads, and stream crossings may be left in the channel following construction provided it is spread to a depth less than 6 inches and does not impede the movement of fish or other aquatic organism, or redirect stream flows. All other construction materials shall be removed from the stream channel upon completion of work.

EROSION AND SEDIMENT CONTROL

2.22 The project shall at all time feature adequate erosion and sediment control devices to prevent the degradation of water quality.

2.23 Soils exposed by project operations shall be treated to prevent sediment runoff and transport. Erosion control measures shall include the proper installation and maintenance of approved Best Management Practices (BMPs) and may include applications of seed, certified weed-free straw, compost, fiber, commercial fertilizer, stabilizing emulsion and mulch, or combinations thereof.

2.24 Erosion control measures shall be monitored and maintained during and after each storm event. Modifications, repairs, and improvements to erosion control measures shall be made following each storm event to prevent sediment from entering surface waters or wetlands.

2.25 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 channel or adjacent riparian areas. National Weather Service forecasts shall be monitored by the Permittee to determine the chance of precipitation.

2.26 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 plant parts) prior to its arrival on site and before leaving the Project area.

2.27 Following construction, all disturbed upland areas shall be stabilized and reseeded with an erosion control mix consisting of regionally appropriate, native grass and forb species.

PETROLEUM, CHEMICAL AND OTHER POLLUTANTS

2.28 All construction-related materials and equipment shall be stored in designated staging areas located outside of the floodplain unless approved in writing by DFG.

2.29 Refueling and vehicle maintenance shall be performed at least 100 feet from streams or other water bodies 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 Stationary equipment such as motors, pumps, generators, and welders that contain deleterious materials, located adjacent to the stream channel shall be positioned over drip pans.

2.33 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.

2.34 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. Steve Rogers
Department of Transportation
District 2
P.O. Box 496073
Redding, California 96049-6073
Fax: (530) 225-3019
steve_rogers@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 #1600-2010-0036-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, 2013, 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

8-2-10

Steve Rogers
Project Manager

Date

FOR DEPARTMENT OF FISH AND GAME

8/23/10

Curt Babcock
Acting Habitat Conservation Program Manager

Date

Prepared by: Craig Martz, Staff Environmental Scientist

California Regional Water Quality Control Board
North Coast Region
Geoffrey M. Hales, Chairman

Linda S. Adams
Secretary for
Environmental Protection

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

Arnold
Schwarzenegger
Governor

September 29, 2010

In the Matter of

Water Quality Certification

for the

California Department of Transportation
Highway 3- Trinity River Bridge Scour Rehabilitation Project
WDID No. 1A10020WNTR

APPLICANT:	California Department of Transportation
RECEIVING WATER:	Trinity River
HYDROLOGIC AREA:	Trinity River Hydrologic Unit No. 106.00
COUNTY:	Trinity
FILE NAME:	CDOT - HWY 3, Trinity River Bridge Scour Rehabilitation

BY THE EXECUTIVE OFFICER:

1. On March 3, 2010, 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 3 - Trinity River Bridge Scour Rehabilitation Project. The proposed project has the potential for temporary impacts to waters of the United States (U.S.) and waters of the State associated with the Trinity River located within the Trinity River Hydrologic Unit No. 106.00, and an undefined Hydrologic Sub-Area No. 106.40. The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on July 8, 2010, and posted information describing the project on the Regional Water Board's website. No comments were received.

2. The proposed project is located on Highway 3 at post mile (PM) 68.5, in Trinity County. The purpose of the proposed project is to replace existing pier wall bents

2, 3, and 4 with new outrigger bents. Currently, the channel runs parallel to the bridge in a meandering path, and then makes an abrupt turn as it crosses under the bridge. According to Caltrans, channel degradation and migration are worsening the scour potential by progressively lowering and raising the profile of the riverbed. The proposed project will result in temporary impacts to waters of the U.S and waters of the State.

3. Caltrans has determined the temporary impacts to waters of the U.S. and State would total approximately 6,105 feet ^{2} (138 linear feet). Caltrans proposes to minimize the temporary impacts to waters of the U.S and State by implementing Best Management Practices (BMPs) to provide erosion control and pollution prevention throughout the project area during construction. In replacing the pier walls with smaller footprint outrigger bents Caltrans will be decreasing the permanent impact of the bridge. Therefore, compensatory mitigation is not required for the proposed project. Caltrans will appropriately stabilize and/or replanted disturbed soil areas with appropriate native vegetation. Caltrans has evaluated implementing post-construction storm water treatment at the site and determined that implementing them within the project area was not feasible.

4. The proposed project will be conducted from January 2011 to November 2013 with approximately 250 working days. Construction activities within the water channels will occur during low flow periods, between May 15th and October 15th of any given year, to minimize potential impacts. To minimize groundwater exposure to fresh concrete, work will be conducted during the low flow season when water is confined to a narrow channel. Four out of six piles/column bents will be outside the wetted channel during construction. Additionally, use of a clear water diversion will minimize exposure at the remaining two piers.

5. Caltrans has determined total disturbed soil area (DSA) for this location will be approximately 1.5 acres. DSA was calculated from the edge of pavement to the grading limits and it includes access roads, and excavation and embankment. This project does not include major cuts or fills, and will have relatively minor associated DSA. Most DSA will result from temporary access roads. Access road will be mostly flat except at the upland to river channel transitions. Any fill used within the stream channel will be clean washed gravel. DSA immediately adjacent to the creek channel occur behind the existing bridge abutments.

6. Caltrans has applied for authorization from the Unites States Army Corps of Engineers to perform the project under their Nationwide Permit No. 14 (Linear Transportation Projects) pursuant to Clean Water Act, section 404. Caltrans has also applied for a California Department of Fish and Game (CDFG) 1602 Streambed Alteration. On April 1, 2009, Caltrans certified an Initial Study / Mitigated Negative Declaration (State Clearing House No.2009022070) for the project in order to comply with the California Environmental Quality Act. The

Regional Water Board has considered the environmental document and any proposed changes incorporated into the project or required as a condition of approval to avoid significant effects to the environment.

7. The Trinity River watershed is listed on the Clean Water Act section 303(d) list as impaired for sediment. In 2001, the U.S. EPA established sediment Total Daily Maximum Loads (TMDLs) for the Trinity River. 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. 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."

9. 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.

10. 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.

Receiving Waters:	Trinity River Trinity River Hydrologic Unit No. 106.00, Undefined Hydrologic Sub-Area No. 106.40.
Filled or Excavated Areas:	Temporary – 0.14 acres (6,105 feet^2)
Total Linear Impacts:	Permanent - 0 Temporary – 138 linear ft
Dredge Volume :	None
Fill Volume :	Temporary - 687 cubic yards Temporary - riparian areas: 67,764 cubic yards
Latitude/Longitude:	41.1139 N/122.7056 W
Expiration:	September 29, 2010

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE REGIONAL WATER BOARD CERTIFIES THAT THE CALTRANS HIGHWAY 3 TRINITY RIVER BRIDGE SCOUR REHABILATATION PROJECT (FACILITY NO. 1A10020WNTR), 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 and mitigation being completed, in strict compliance with the applicant's project description, 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 at least 150 linear feet beyond of waters of U.S. and the State with the exception of cranes and stationary equipment which shall only be refueled using a company certified by the CDFG. Proper certification and documentation of fueling (field logs) shall be provided to the Regional Water Board upon request. The Regional Water Board shall provide concurrence with each fueling location prior to fueling equipment within waters of 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 or its contractors allow use of 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. Spill kits are required at each fueling location and at each location that work will be conducted with streams. If the event of an unauthorized release of fuel (spill or leak) to waters of the State, Caltrans shall immediately stop work and conduct the following measures:

    a) Notify the appropriate agencies including the Regional Water Board, CDFG, and the Office of Emergency Services (OES) at 1(800)-852-7550;
    b) Utilized the appropriate spill kits for containment and clean up of the release;
    c) Collect samples within the release, 50 feet downstream, and downstream to the full extent of the release; and
    d) Analyze samples for total petroleum hydrocarbons as diesel (TPH-D), total petroleum hydrocarbons as gasoline (TPH-G), and benzene, toluene, ethlybenzene, total xylenes (BTEX).

20. Caltrans shall establish and clearly define stream setbacks that limit construction activities and prohibit ground disturbing activities within 50 linear feet of streams during the rainy season (October 15th to May 15th). If an exception from this requirement is needed for a specific location, Caltrans shall request approval from the Regional Water Board at least 5 working days in advance. At no time shall in-stream activities be conducted outside the work window of May 15th to October 15th. Exceptions may be granted by Regional Water Board staff on a case by case review, only if the streams are dry or have minimal flow, and CDFG and NMFS have concurred.

21. If work is allowed within the stream channel or on the banks outside of the above referenced work window, Caltrans shall monitor the seventy-two (72) hour forecast from the National Weather Service. When forecast indicates a probability of precipitation of 50 percent or greater within the 72-hour period, or at the onset of any precipitation, ground disturbing activities shall cease and erosion and sediment 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. Caltrans bears full liability should the BMPs employed fail to prevent any discharge to waters of the State that exceeds applicable water quality standards or is beyond the certified area of impact. All earthwork and ground disturbing activities halted due to precipitation may resume when precipitation ceases and a 50 percent or less chance of precipitation is forecast throughout the duration of the subsequent 72-hour weather forecast.

22. 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.

23. Any potentially hazardous waste(s) (solids, liquids, or slurries) derived or encountered in this project shall undergo the appropriate characterization to demonstrate compliance will 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.

24. 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.

25. 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.

26. 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.

27. 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.

28. 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.

29. 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	>200 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.

30. Monthly Monitoring Reports: shall be submitted to the Executive Officer of the Regional Water Board. The monthly monitoring reports shall include at a minimum a summary of discharges, a summary of corrective actions taken (if necessary), photographs, all field sampling measurements and/or results, project status (i.e. upcoming construction schedule and disturbed soil area updates), water quality monitor reports and field logs, and all field monitoring equipment calibration logs. Monthly monitoring reports are due to the Regional Water Board by the 15th of each month once work on the project has been initiated.

31. 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.

32. 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.

33. 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.

34. 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.

35. The authorization of this certification for any dredge and fill activities expires on September 29, 2015. 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.

36. 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.

for Catherine Kuhlman
Executive Officer

100929_JJP_CDOT_Hwy3_TrinityRiverBridge_401cert

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

Original sent to: Mr. Thomas Balkow, California Department of Transportation, P.O. 496073, Redding, CA 96049-6073

Copies sent to: Mr. Steve Rodgers, California Department of Transportation, P.O. 496073, Redding, CA 96049-6073
Mr. Cabe Cornelius, California Department of Transportation, P.O. 496073, Redding, CA 96049-6073

Electronic Copy to: U.S. Army Corps of Engineers, District Engineer, 601 Startare Dr., Box 14, Eureka, CA 95501
Ms. Jane Hicks, U.S. Army Corps., Regulatory Functions, 1455 Market Street, San Francisco, CA 94103-1398

California Regional Water Quality Control Board
North Coast Region
Geoffrey M. Hales, Chairman

Linda S. Adams
Secretary for
Environmental Protection

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

Arnold
Schwarzenegger
Governor

September 29, 2010

In the Matter of

Water Quality Certification

for the

California Department of Transportation
Highway 3- Minnehaha Creek Bridge Replacement Project
WDID No. 1A10021WNTR

APPLICANT:	California Department of Transportation
RECEIVING WATER:	Minnehaha Creek
HYDROLOGIC AREA:	Trinity River Hydrologic Unit No. 106.00
COUNTY:	Trinity
FILE NAME:	CDOT - HWY 3, Minnehaha Creek Bridge Replacement

BY THE EXECUTIVE OFFICER:

1. On March 3, 2010 the North Coast Regional Water Quality Control Board (Regional Water Board) received an application and $640 fee from the California Department of Transportation (Caltrans), requesting Federal Clean Water Act (CWA), section 401, Water Quality Certification for activities related to the proposed Highway 3 - Minnehaha Creek Bridge Replacement Project (project). Additional project information was received on April 30, 2010, May 20, 2010, and August 31, 2010. The proposed project will cause disturbances to waters of the United States (U.S.) and waters of the State associated with Minnehaha Creek a tributary to the Trinity River located within the Trinity River Hydrologic Unit (HU) No.106.00 (Upper Trinity River Hydrologic Sub-Area 106.40). The Regional Water Board provided public notice of the application pursuant to title 23, California Code of Regulations, section 3858 on September 1, 2010, and posted information describing the project on the Regional Water Board's website. No comments were received.

2. The proposed project is located on Highway 3 at post mile (PM) 70.7, in Trinity County. The purpose of the project is to replace the existing bridge over Minnehaha Creek which was constructed in 1968 and is degrading due to scour. The bridge abutments have been deemed scour critical and Caltrans has determined that bridge replacement is necessary. Caltrans proposes replacing the current bridge with a new structure that would consist of a cast-in-place single-span concrete slab bridge. The newly proposed bridge abutments will be placed above ordinary high water, while the old degraded abutments will be removed from the creek. Therefore, the newly proposed bridge will be less confining, ultimately providing the creek with more capacity at this location and reduce erosion as compared to the existing facility.

3. The proposed project will result in temporary and permanent impacts to waters of the U.S and waters of the State. The scope of work proposed would require the installation of a water diversion and may require dewatering activities. Bridge construction will also include vegetation clearing, excavation, utility relocation, steel and concrete work and the construction of temporary falsework, temporary stream crossings, and a construction trestle. The project also includes riparian revegetation activities and the demolition of the existing bridge.

4. Caltrans has determined that impacts to waters of the U.S. would total 0.19 acres (8,301 ft^2) of temporary impact and 0.02 acres (940 ft^2) of permanent impacts to the streambed. Also, access to the creek would require removal of riparian vegetation along the streambanks of Minnehaha Creek and the Trinity River, resulting in an additional 0.34 acres (14,940 ft^2) of temporary and 0.01 acres (435 ft^2) of permanent impacts to waters of the State. Caltrans will utilize Best Management Practices (BMPs) to provide erosion control and pollution prevention throughout the project area during construction and demolition. In addition, all graded areas within the project affected by the construction activities will be appropriately stabilized and/or replanted with appropriate native vegetation. In addition, construction and post construction BMPs will be implemented to ensure erosion is minimized and controlled.

5. Caltrans proposes to mitigate the project impacts by funding a United State Forest Service (USFS) restoration project at nearby Ramshorn Creek and conducting on-site revegetation. The on-site revegetation will consist of planting trees along 547 linear feet of streambank (15,375 ft^2) adjacent to the Trinity River and Minnehaha Creek. The off-site restoration at Ramshorn Creek will consist of planting 1,094 linear feet (30,752 ft^2) trees adjacent to the streambank to mitigate the projects impacts to riparian vegetation.

6. Caltrans has applied for authorization from the Unites States Army Corps of Engineers to perform the project under their Nationwide Permits No. 14 (linear transportation projects) pursuant to Clean Water Act, section 404. Caltrans has also applied for a California Department of Fish and Game Streambed Alteration.

On February 11, 2009, Caltrans certified a Focused Initial Study / Mitigated Negative Declaration (State Clearing House No.2009022069) for the project in order to comply with the California Environmental Quality Act. The Regional Water Board has considered the environmental document and any proposed changes incorporated into the project or required as a condition of approval to avoid significant effects to the environment.

7. The majority of proposed project activity is scheduled to begin in January of 2011 through December 2013. The entire project is expected to take approximately 250 working days to complete; however, the proposed in-channel work will only be conducted between May 15th and October 15th, when flows are low.

8. The Trinity River watershed is listed on the Clean Water Act section 303(d) list as impaired for sediment and temperature. In 2001, the U.S. EPA established sediment Total Daily Maximum Loads (TMDLs) for the Trinity River. 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.

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.

Receiving Waters:	Minnehaha Creek Trinity River Hydrologic Unit No. 106.00, Undefined Hydrologic Sub-Area No. 106.40.
Filled or Excavated Areas:	Permanent – streams: 0.02 acres (940 feet^2) Permanent - riparian areas: 0.01 acres (435 feet^2) Temporary – streams: 0.19 acres (8,301 feet^2) Temporary - riparian areas: 0.34 acres (14,940 feet^2)
Total Linear Impacts:	Permanent – streams: 87 linear feet Permanent - riparian areas: 28 linear feet Temporary - streams: 122 linear feet Temporary - riparian areas: 519 linear feet
Dredge Volume :	None
Fill Volume :	Permanent - streams: 181 cubic yards Permanent - riparian areas: 84 cubic yards Temporary - streams: 307 cubic yards
Latitude/Longitude:	41.1267 N/122.7011 W
Expiration:	September 29, 2010

ACCORDINGLY, BASED ON ITS INDEPENDENT REVIEW OF THE RECORD, THE REGIONAL WATER BOARD CERTIFIES THAT THE CALTRANS HIGHWAY 3 MINNEHAHA CREEK BRIDGE REPLACEMENT PROJECT (FACILITY NO. 1A10021WNTR), 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 and mitigation being completed, in strict compliance with the applicant's project description, 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.

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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 at least 150 linear feet beyond of waters of U.S. and the State with the exception of cranes and stationary equipment which shall only be refueled using a company certified by the CDFG. Proper certification and documentation of fueling (field logs) shall be provided to the Regional Water Board upon request. The

Regional Water Board shall provide concurrence with each fueling location prior to fueling equipment within waters of 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 or its contractors allow use of 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. Spill kits are required at each fueling location and at each location that work will be conducted with streams. If the event of an unauthorized release of fuel (spill or leak) to waters of the State, Caltrans shall immediately stop work and conduct the following measures:

    a) Notify the appropriate agencies including the Regional Water Board, CDFG, and the Office of Emergency Services (OES) at 1(800) 852-7550;
    b) Utilized the appropriate spill kits for containment and clean up of the release;
    c) Collect samples within the release, 50 feet downstream, and downstream to the full extent of the release; and
    d) Analyze samples for total petroleum hydrocarbons as diesel (TPH-D), total petroleum hydrocarbons as gasoline (TPH-G), and benzene, toluene, ethlybenzene, total xylenes (BTEX).

20. Caltrans shall establish and clearly define stream setbacks that limit construction activities and prohibit ground disturbing activities within 50 linear feet of streams during the rainy season (October 15th to May 15th). If an exception from this requirement is needed for a specific location, Caltrans shall request approval from the Regional Water Board at least 5 working days in advance. At no time shall in-stream activities be conducted outside the work window of May 15th to October 15th. Exceptions may be granted by Regional Water Board staff on a case by case review, only if the streams are dry or have minimal flow, and CDFG and NMFS have concurred.

21. If work is allowed within the stream channel or on the banks outside of the above referenced work window, Caltrans shall monitor the seventy-two (72) hour forecast from the National Weather Service. When forecast indicates a probability of precipitation of 50 percent or greater within the 72-hour period, or at the onset of any precipitation, ground disturbing activities shall cease and erosion and sediment 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. Caltrans bears full liability should the BMPs employed fail to prevent any discharge to waters of the State that exceeds applicable water quality standards or is beyond the certified area of impact. All earthwork and ground disturbing activities halted due to precipitation may resume when precipitation ceases and a 50 percent or less chance of precipitation is forecast throughout the duration of the subsequent 72-hour weather forecast.

22. 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.

23. Any potentially hazardous waste(s) (solids, liquids, or slurries) derived or encountered in this project shall undergo the appropriate characterization to demonstrate compliance will 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.

24. 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.

25. 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.

26. 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.

27. 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.

28. 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.

29. 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	>200 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.

30. Monthly Monitoring Reports: shall be submitted to the Executive Officer of the Regional Water Board. The monthly monitoring reports shall include at a minimum a summary of discharges, a summary of corrective actions taken (if necessary), photographs, all field sampling measurements and/or results, project status (i.e. upcoming construction schedule and disturbed soil area updates), water quality monitor reports and field logs, and all field monitoring equipment calibration logs.

Monthly monitoring reports are due to the Regional Water Board by the 15th of each month once work on the project has been initiated.

31. 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.

32. Caltrans proposes to mitigate the project impacts by funding a United State Forest Service (USFS) restoration project at nearby Ramshorn Creek and conducting on-site revegetation. The on-site revegetation will consist of planting trees along 547 linear feet of streambank (15,375 ft^2) adjacent to the Trinity River and Minnehaha Creek. The off-site restoration at Ramshorn Creek will consist of planting 1,094 linear feet (30,752 ft^2) trees adjacent to the streambank to mitigate the projects impacts to riparian vegetation. Caltrans shall implement the proposed mitigation in accordance with the Caltrans prepared, *Mitigation and Monitoring Proposal for the Minnehaha Creek Bridge Replacement Project at Ramshorn Creek*, dated August 30, 2010.

33. 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.

34. 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.

35. 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.

36. The authorization of this certification for any dredge and fill activities expires on September 29, 2015. 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.

37. 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.

for Catherine Kuhlman
Executive Officer

100929_JJP_CDOT_Hwy3_MinnehahaCreekBridge_401cert

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

Original sent to: Mr. Thomas Balkow, California Department of Transportation, P.O. 496073, Redding, CA 96049-6073

Copies sent to: Mr. Steve Rodgers, California Department of Transportation, P.O. 496073, Redding, CA 96049-6073
Mr. Cabe Cornelius, California Department of Transportation, P.O. 496073, Redding, CA 96049-6073

Electronic
Copy to:

U.S. Army Corps of Engineers, District Engineer, 601 Startare Dr., Box 14, Eureka, CA 95501
Ms. Jane Hicks, U.S. Army Corps., Regulatory Functions, 1455 Market Street, San Francisco, CA 94103-1398

State of California
DEPARTMENT OF TRANSPORTATION

Business, Transportation and Housing Agency

Memorandum

Flex your power!
Be energy efficient!

To: Robert Burnett, Design Senior
North Region Design R3 (MS #73)

Date: August 26, 2010

File: 02-Tri-3, PM 68.5
EA 2C9902
Parcel 13676-1

From: DEPARTMENT OF TRANSPORTATION
LISA HARVEY, Senior Right of Way Agent
Project Delivery, Redding (MS#35)

Subject: Special Use Permit

Project Limits: In Trinity County At Trinity River Bridge No. 5-28 and at Minnehaha Creek Bridge No. 5-48.

Attached is a copy of the Special Use Permit Signed by:

Tina Lynsky, District Ranger
Weaverville Ranger District
P.O. Box 1190
Weaverville, CA 96093

This Special Use Permit was obtained by Tauni Melvin.

Attachment

C: R.E. File

Authorization ID: **WVL207** Contact ID: **CAL-TRANS – SR3** Expiration Date: **06/30/2013** Use Code: **521**	FS-2700-4 (10/09) OMB No. 0596-0082

U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

SPECIAL USE PERMIT

Authority: ORGANIC ADMINISTRATION ACT June 4, 1897
(Ref.: FSH 2709.11, section 41.53)

California Department of Transportation, Right-of-Way Field Office - MS35, 4300 Caterpillar Road, Redding, CA 96003 (hereinafter "the holder") is authorized to use and occupy National Forest System lands in the Shasta-Trinity National Forest on the Trinity River Management Unit within the Weaverville Ranger District, subject to the terms and conditions of this special use permit (the permit).

This permit covers approximately 1.7 acres in the Northwest ¼ of Section 5, in Township 37 North, Range 7 West, Mt. Diablo Meridian, ("the permit area"), as shown on the maps attached as Exhibit B. This permit is issued for the purpose of:

Utilizing a staging area and access road adjacent to State Route 3 in the vicinity of post mile 68.5 for the purpose of storing equipment and building supplies needed for the Trinity River Bridge Project (Bridge No. 05-0028). This permit also authorizes a 12 foot wide by 100 foot long temporary road to access the bridge piers from the east side of the Trinity River Bridge. **Prior to construction, Cal-Trans will submit the contractor's Operating Plan for the permit area.** Exhibits A and B are made a part of this permit.

TERMS AND CONDITIONS

I. GENERAL TERMS

A. AUTHORITY. This permit is issued pursuant to the authorities enumerated at Title 36 CFR Part 251, Subpart B, as amended, and is subject to their provisions.

B. AUTHORIZED OFFICER. The authorized officer is the Forest Supervisor or a subordinate officer with delegated authority.

C. TERM. This permit shall expire at midnight on **June 30, 2013** from the date of issuance.

D. RENEWAL. This permit is not renewable. Prior to expiration of this permit, the holder may apply for a new permit that would renew the use and occupancy authorized by this permit. Applications for a new permit must be submitted at least 6 months prior to expiration of this permit. Renewal of the use and occupancy authorized by this permit shall be at the sole discretion of the authorized officer. At a minimum, before renewing the use and occupancy authorized by this permit, the authorized officer shall require that (1) the use and occupancy to be authorized by the new permit is consistent with the standards and guidelines in the applicable land management plan; (2) the type of use and occupancy to be authorized by the new permit is the same as the type of use and occupancy authorized by this permit; and (3) the holder is in compliance with all the terms of this permit. The authorized officer may prescribe new terms and conditions when a new permit is issued.

E. AMENDMENT. This permit may be amended in whole or in part by the Forest Service when, at the discretion of the authorized officer, such action is deemed necessary or desirable to incorporate new terms that may be required by law, regulation, directive, the applicable forest land and resource management plan, or projects and activities implementing a land management plan pursuant to 36 CFR Part 215.

F. COMPLIANCE WITH LAWS, REGULATIONS, AND OTHER LEGAL REQUIREMENTS. In exercising the rights and privileges granted by this permit, the holder shall comply with all present and future federal laws and regulations and all present and future state, county, and municipal laws, regulations, and other legal requirements that apply to the permit area, to the extent they do not conflict with federal law, regulation, or policy. The Forest Service assumes no responsibility for enforcing laws, regulations, and other legal requirements that fall under the jurisdiction of other governmental entities.

G. NON-EXCLUSIVE USE. The use or occupancy authorized by this permit is not exclusive. The Forest Service reserves the right of access to the permit area, including a continuing right of physical entry to the permit area for inspection,

monitoring, or any other purpose consistent with any right or obligation of the United States under any law or regulation. The Forest Service reserves the right to allow others to use the permit area in any way that is not inconsistent with the holder's rights and privileges under this permit, after consultation with all parties involved. Except for any restrictions that the holder and the authorized officer agree are necessary to protect the installation and operation of authorized temporary improvements, the lands and waters covered by this permit shall remain open to the public for all lawful purposes.

H. ASSIGNABILITY. This permit is not assignable or transferable.

II. IMPROVEMENTS

A. LIMITATIONS ON USE. Nothing in this permit gives or implies permission to build or maintain any structure or facility or to conduct any activity, unless specifically authorized by this permit. Any use not specifically authorized by this permit must be proposed in accordance with 36 CFR 251.54. Approval of such a proposal through issuance of a new permit or permit amendment is at the sole discretion of the authorized officer.

B. PLANS. All plans for development, layout, construction, reconstruction, or alteration of improvements in the permit area, as well as revisions to those plans must be prepared by a professional engineer, architect, landscape architect, or other qualified professional based on federal employment standards acceptable to the authorized officer. These plans and plan revisions must have written approval from the authorized officer before they are implemented. The authorized officer may require the holder to furnish as-built plans, maps, or surveys upon completion of the work.

C. CONSTRUCTION. Any construction authorized by this permit shall commence by September 1, 2010 and shall be completed by June 30, 2013.

III. OPERATIONS.

A. PERIOD OF USE. Use or occupancy of the permit area shall be exercised at least 180 days each year.

B. CONDITION OF OPERATIONS. The holder shall maintain the authorized improvements and permit area to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the authorized officer and consistent with other provisions of this permit. Standards are subject to periodic change by the authorized officer when deemed necessary to meet statutory, regulatory, or policy requirements or to protect national forest resources. The holder shall comply with inspection requirements deemed appropriate by the authorized officer.

C. INSPECTION BY THE FOREST SERVICE. The Forest Service shall monitor the holder's operations and reserves the right to inspect the permit area and transmission facilities at any time for compliance with the terms of this permit. The holder's obligations under this permit are not contingent upon any duty of the Forest Service to inspect the permit area or transmission facilities. A failure by the Forest Service or other governmental officials to inspect is not a justification for noncompliance with any of the terms and conditions of this permit.

IV. RIGHTS AND LIABILITIES

A. LEGAL EFFECT OF THE PERMIT. This permit, which is revocable and terminable, is not a contract or a lease, but rather a federal license. The benefits and requirements conferred by this authorization are reviewable solely under the procedures set forth in 36 CFR Part 251, Subpart C, and 5 U.S.C. 704. This permit does not constitute a contract for purposes of the Contract Disputes Act, 41 U.S.C. 601. The permit is not real property, does not convey any interest in real property, and may not be used as collateral for a loan.

B. VALID OUTSTANDING RIGHTS. This permit is subject to all valid outstanding rights. Valid outstanding rights include those derived under mining and mineral leasing laws of the United States. The United States is not liable to the holder for the exercise of any such right.

C. ABSENCE OF THIRD-PARTY BENEFICIARY RIGHTS. The parties to this permit do not intend to confer any rights on any third party as a beneficiary under this permit.

D. SERVICES NOT PROVIDED. This permit does not provide for the furnishing of road or trail maintenance, water, fire protection, search and rescue, or any other such service by a government agency, utility, association, or individual.

E. RISK OF LOSS. The holder assumes all risk of loss associated with use or occupancy of the permit area, including but not limited to theft, vandalism, fire and any fire-fighting activities (including prescribed burns), avalanches, rising waters, winds, falling limbs or trees, and other forces of nature. If authorized temporary improvements in the permit area are

destroyed or substantially damaged, the authorized officer shall conduct an analysis to determine whether the improvements can be safely occupied in the future and whether rebuilding should be allowed. If rebuilding is not allowed, the permit shall terminate.

F. DAMAGE TO UNITED STATES PROPERTY. The holder has an affirmative duty to protect from damage the land, property, and other interests of the United States. Damage includes but is not limited to fire suppression costs, damage to government-owned improvements covered by this permit, and all costs and damages associated with or resulting from the release or threatened release of a hazardous material occurring during or as a result of activities of the holder or the holder's heirs, assigns, agents, employees, contractors, or lessees on, or related to, the lands, property, and other interests covered by this permit. For purposes of clause IV.F and section V, "hazardous material" shall mean (a) any hazardous substance under section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9601(14); (b) any pollutant or contaminant under section 101(33) of CERCLA, 42 U.S.C. § 9601(33); (c) any petroleum product or its derivative, including fuel oil, and waste oils; and (d) any hazardous substance, extremely hazardous substance, toxic substance, hazardous waste, ignitable, reactive or corrosive materials, pollutant, contaminant, element, compound, mixture, solution or substance that may pose a present or potential hazard to human health or the environment under any applicable environmental laws.

1. The holder shall avoid damaging or contaminating the environment, including but not limited to the soil, vegetation (such as trees, shrubs, and grass), surface water, and groundwater, during the holder's use or occupancy of the permit area. If the environment or any government property covered by this permit becomes damaged during the holder's use or occupancy of the permit area, the holder shall immediately repair the damage or replace the damaged items to the satisfaction of the authorized officer and at no expense to the United States.

2. The holder shall be liable for all injury, loss, or damage, including fire suppression, prevention and control of the spread of invasive species, or other costs in connection with rehabilitation or restoration of natural resources associated with the use or occupancy authorized by this permit. Compensation shall include but not be limited to the value of resources damaged or destroyed, the costs of restoration, cleanup, or other mitigation, fire suppression or other types of abatement costs, and all administrative, legal (including attorney's fees), and other costs. Such costs may be deducted from a performance bond required under clause IV.I.

3. The holder shall be liable for damage caused by use of the holder or the holder's heirs, assigns, agents, employees, contractors, or lessees to all roads and trails of the United States to the same extent as provided under clause IV.F.1, except that liability shall not include reasonable and ordinary wear and tear

G. HEALTH, SAFETY, AND ENVIRONMENTAL PROTECTION. The holder shall promptly abate as completely as possible and in compliance with all applicable laws and regulations any activity or condition arising out of or relating to the authorized use or occupancy that causes or threatens to cause a hazard to public health or the safety of the holder's employees or agents or harm to the environment (including areas of vegetation or timber, fish or other wildlife populations, their habitats, or any other natural resources). The holder shall prevent impacts to the environment and cultural resources by implementing actions identified in the operating plan to prevent establishment and spread of invasive species. The holder shall immediately notify the authorized officer of all serious accidents that occur in connection with such activities. The responsibility to protect the health and safety of all persons affected by the use or occupancy authorized by this permit is solely that of the holder. The Forest Service has no duty under the terms of this permit to inspect the permit area or operations and activities of the holder for hazardous conditions or compliance with health and safety standards.

H. INDEMNIFICATION OF THE UNITED STATES. The holder shall indemnify, defend, and hold harmless the United States for any costs, damages, claims, liabilities, and judgments arising from past, present, and future acts or omissions of the holder in connection with the use or occupancy authorized by this permit. This indemnification provision includes but is not limited to acts and omissions of the holder or the holder's heirs, assigns, agents, employees, contractors, or lessees in connection with the use or occupancy authorized by this permit which result in (1) violations of any laws and regulations which are now or which may in the future become applicable, and including but not limited to those environmental laws listed in clause V.A of this permit; (2) judgments, claims, demands, penalties, or fees assessed against the United States; (3) costs, expenses, and damages incurred by the United States; or (4) the release or threatened release of any solid waste, hazardous waste, hazardous materials, pollutant, contaminant, oil in any form, or petroleum product into the environment. The authorized officer may prescribe terms that allow the holder to replace, repair, restore, or otherwise undertake necessary curative actions to mitigate damages in addition to or as an alternative to monetary indemnification.

I. BONDING. The authorized officer may require the holder to furnish a surety bond or other security for any of the obligations imposed by the terms and conditions of this permit or any applicable law, regulation, or order.

V. RESOURCE PROTECTION

A. COMPLIANCE WITH ENVIRONMENTAL LAWS. The holder shall in connection with the use or occupancy authorized by this permit comply with all applicable federal, state, and local environmental laws and regulations, including but not limited to those established pursuant to the Resource Conservation and Recovery Act, as amended, 42 U.S.C. 6901 et seq., the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq., the Oil Pollution Act, as amended, 33 U.S.C. 2701 et seq., the Clean Air Act, as amended, 42 U.S.C. 7401 et seq., CERCLA, as amended, 42 U.S.C. 9601 et seq., the Toxic Substances Control Act, as amended, 15 U.S.C. 2601 et seq., the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, 7 U.S.C. 136 et seq., and the Safe Drinking Water Act, as amended, 42 U.S.C. 300f et seq.

B. VANDALISM. The holder shall take reasonable measures to prevent and discourage vandalism and disorderly conduct and when necessary shall contact the appropriate law enforcement officer.

C. PESTICIDE USE. Pesticides may not be used outside of buildings to control undesirable woody and herbaceous vegetation (including aquatic plants), insects, rodents, fish, and other pests and weeds without prior written approval from the authorized officer. A request for approval of planned uses of pesticides shall be submitted annually by the holder on the due date established by the authorized officer. The report shall cover a 12-month period of planned use beginning 3 months after the reporting date. Information essential for review shall be provided in the form specified. Exceptions to this schedule may be allowed, subject to emergency request and approval, only when unexpected outbreaks of pests or weeds require control measures that were not anticipated at the time an annual report was submitted. Only those materials registered by the U.S. Environmental Protection Agency for the specific purpose planned shall be considered for use on National Forest System lands. Label instructions and all applicable laws and regulations shall be strictly followed in the application of pesticides and disposal of excess materials and containers.

D. ARCHAEOLOGICAL-PALEONTOLOGICAL DISCOVERIES. The holder shall immediately notify the authorized officer of all antiquities or other objects of historic or scientific interest, including but not limited to historic or prehistoric ruins, fossils, or artifacts discovered in connection with the use and occupancy authorized by this permit. The holder shall leave these discoveries intact and in place until directed otherwise by the authorized officer. Protective and mitigative measures specified by the authorized officer shall be the responsibility of the holder.

E. NATIVE AMERICAN GRAVES PROTECTION AND REPATRIATION. In accordance with 25 U.S.C. 3002(d) and 43 CFR 10.4, if the holder inadvertently discovers human remains, funerary objects, sacred objects, or objects of cultural patrimony on National Forest System lands, the holder shall immediately cease work in the area of the discovery and shall make a reasonable effort to protect and secure the items. The holder shall immediately notify the authorized officer by telephone of the discovery and shall follow up with written confirmation of the discovery. The activity that resulted in the inadvertent discovery may not resume until 30 days after the authorized officer certifies receipt of the written confirmation, if resumption of the activity is otherwise lawful, or at any time if a binding written agreement has been executed between the Forest Service and the affiliated Indian tribes that adopts a recovery plan for the human remains and objects.

F. PROTECTION OF HABITAT OF THREATENED, ENDANGERED, AND SENSITIVE SPECIES. The location of sites within the permit area needing special measures for protection of plants or animals listed as threatened or endangered under the Endangered Species Act (ESA) of 1973, 16 U.S.C. 1531 et seq., as amended, or identified as sensitive or otherwise requiring special protection by the Regional Forester under Forest Service Manual (FSM) 2670, pursuant to consultation conducted under section 7 of the ESA, may be shown on the ground or on a separate map. The map shall be attached to this permit as an appendix. The holder shall take any protective and mitigative measures specified by the authorized officer. If protective and mitigative measures prove inadequate, if other sites within the permit area containing threatened, endangered, or sensitive species or species otherwise requiring special protection are discovered, or if new species are listed as threatened or endangered under the ESA or identified as sensitive or otherwise requiring special protection by the Regional Forester under the FSM, the authorized officer may specify additional protective and mitigative measures. Discovery of these sites by the holder or the Forest Service shall be promptly reported to the other party.

G. CONSENT TO STORE HAZARDOUS MATERIALS. The holder shall not store any hazardous materials at the site without prior written approval from the authorized officer. This approval shall not be unreasonably withheld. If the authorized officer provides approval, this permit shall include, or in the case of approval provided after this permit is issued, shall be amended to include specific terms addressing the storage of hazardous materials, including the specific type of materials to be stored, the volume, the type of storage, and a spill plan. Such terms shall be proposed by the holder and are subject to approval by the authorized officer.

H. CLEANUP AND REMEDIATION

1. The holder shall immediately notify all appropriate response authorities, including the National Response Center and the authorized officer or the authorized officer's designated representative, of any oil discharge or of the release of a

hazardous material in the permit area in an amount greater than or equal to its reportable quantity, in accordance with 33 CFR Part 153, Subpart B, and 40 CFR Part 302. For the purposes of this requirement, "oil" is as defined by section 311(a)(1) of the Clean Water Act, 33 U.S.C. 1321(a)(1). The holder shall immediately notify the authorized officer or the authorized officer's designated representative of any release or threatened release of any hazardous material in or near the permit area which may be harmful to public health or welfare or which may adversely affect natural resources on federal lands.

2. Except with respect to any federally permitted release as that term is defined under Section 101(10) of CERCLA, 42 U.S.C. 9601(10), the holder shall clean up or otherwise remediate any release, threat of release, or discharge of hazardous materials that occurs either in the permit area or in connection with the holder's activities in the permit area, regardless of whether those activities are authorized under this permit. The holder shall perform cleanup or remediation immediately upon discovery of the release, threat of release, or discharge of hazardous materials. The holder shall perform the cleanup or remediation to the satisfaction of the authorized officer and at no expense to the United States. Upon revocation or termination of this permit, the holder shall deliver the site to the Forest Service free and clear of contamination.

I. CERTIFICATION UPON REVOCATION OR TERMINATION. If the holder uses or stores hazardous materials at the site, upon revocation or termination of this permit the holder shall provide the Forest Service with a report certified by a professional or professionals acceptable to the Forest Service that the permit area is uncontaminated by the presence of hazardous materials and that there has not been a release or discharge of hazardous materials upon the permit area, into surface water at or near the permit area, or into groundwater below the permit area during the term of the permit. This certification requirement may be waived by the authorized officer when the Forest Service determines that the risks posed by the hazardous material are minimal. If a release or discharge has occurred, the professional or professionals shall document and certify that the release or discharge has been fully remediated and that the permit area is in compliance with all federal, state, and local laws and regulations.

VI. LAND USE FEE AND ACCOUNTING ISSUES

A. LAND USE FEES. The use or occupancy authorized by this permit is exempt from a land use fee or the land use fee has been waived in full pursuant to 36 CFR 251.57and Forest Service Handbook 2709.11, Chapter 30.

~~**B. MODIFICATION OF THE LAND USE FEE.** The land use fee may be revised whenever necessary to reflect the market value of the authorized use or occupancy or when the fee system used to calculate the land use fee is modified or replaced.~~

~~**C. FEE PAYMENT ISSUES.**~~

~~1. Crediting of Payments. Payments shall be credited on the date received by the deposit facility, except that if a payment is received on a non-workday, the payment shall not be credited until the next workday.~~

~~2. Disputed Fees. Fees are due and payable by the due date. Disputed fees must be paid in full. Adjustments will be made if dictated by an administrative appeal decision, a court decision, or settlement terms.~~

~~3. Late Payments~~

~~(a) Interest. Pursuant to 31 U.S.C. 3717 et seq., interest shall be charged on any fee amount not paid within 30 days from the date it became due. The rate of interest assessed shall be the higher of the Prompt Payment Act rate or the rate of the current value of funds to the Treasury (i.e., the Treasury tax and loan account rate), as prescribed and published annually or quarterly by the Secretary of the Treasury in the Federal Register and the Treasury Fiscal Requirements Manual Bulletins. Interest on the principal shall accrue from the date the fee amount is due.~~

~~(b) Administrative Costs. If the account becomes delinquent, administrative costs to cover processing and handling the delinquency shall be assessed.~~

~~(c) Penalties. A penalty of 6% per annum shall be assessed on the total amount that is more than 90 days delinquent and shall accrue from the same date on which interest charges begin to accrue.~~

~~(d) Termination for Nonpayment. This permit shall terminate without the necessity of prior notice and opportunity to comply when any permit fee payment is 90 calendar days from the due date in arrears. The holder shall remain responsible for the delinquent fees.~~

~~4. Administrative Offset and Credit Reporting. Delinquent fees and other charges associated with the permit shall be subject to all rights and remedies afforded the United States pursuant to 31 U.S.C. 3711 et seq. and common law. Delinquencies are subject to any or all of the following:~~

~~(a) Administrative offset of payments due the holder from the Forest Service.~~

~~(b) If in excess of 60 days, referral to the Department of the Treasury for appropriate collection action as provided by 31 U.S.C. 3711(g)(1).~~

~~(c) Offset by the Secretary of the Treasury of any amount due the holder, as provided by 31 U.S.C. 3720 et seq.~~

~~(d) Disclosure to consumer or commercial credit reporting agencies.~~

VII. REVOCATION, SUSPENSION, AND TERMINATION

A. REVOCATION AND SUSPENSION. The authorized officer may revoke or suspend this permit in whole or in part:

1. For noncompliance with federal, state, or local law.

2. For noncompliance with the terms of this permit.

3. For abandonment or other failure of the holder to exercise the privileges granted.

4. With the consent of the holder.

5. For specific and compelling reasons in the public interest.

Prior to revocation or suspension, other than immediate suspension under clause VI.B, the authorized officer shall give the holder written notice of the grounds for revocation or suspension. In the case of revocation or suspension based on clause VII.A.1, 2, or 3, the authorized officer shall give the holder a reasonable time, typically not to exceed 90 days, to cure any noncompliance.

B. IMMEDIATE SUSPENSION. The authorized officer may immediately suspend this permit in whole or in part when necessary to protect public health or safety or the environment. The suspension decision shall be in writing. The holder may request an on-site review with the authorized officer's supervisor of the adverse conditions prompting the suspension. The authorized officer's supervisor shall grant this request within 48 hours. Following the on-site review, the authorized officer's supervisor shall promptly affirm, modify, or cancel the suspension.

C. APPEALS AND REMEDIES. Written decisions by the authorized officer relating to administration of this permit are subject to administrative appeal pursuant to 36 CFR Part 251, Subpart C, as amended. Revocation or suspension of this permit shall not give rise to any claim for damages by the holder against the Forest Service.

D. TERMINATION. This permit shall terminate when by its terms a fixed or agreed upon condition, event, or time occurs without any action by the authorized officer. Examples include but are not limited to expiration of the permit by its terms on a specified date and termination upon change of control of the business entity. Termination of this permit shall not require notice, a decision document, or any environmental analysis or other documentation. Termination of this permit is not subject to administrative appeal and shall not give rise to any claim for damages by the holder against the Forest Service.

E. RIGHTS AND RESPONSIBILITIES UPON REVOCATION OR TERMINATION WITHOUT RENEWAL. Upon revocation or termination of this permit without renewal of the authorized use, the holder shall remove all structures and improvements, except those owned by the United States, within a reasonable period prescribed by the authorized officer and shall restore the site to the satisfaction of the authorized officer. If the holder fails to remove all structures and improvements within the prescribed period, they shall become the property of the United States and may be sold, destroyed, or otherwise disposed of without any liability to the United States. However, the holder shall remain liable for all costs associated with their removal, including costs of sale and impoundment, cleanup, and restoration of the site.

VIII. MISCELLANEOUS PROVISIONS

A. MEMBERS OF CONGRESS. No member of or delegate to Congress or resident commissioner shall benefit from this

permit either directly or indirectly, except to the extent the authorized use provides a general benefit to a corporation.

B. CURRENT ADDRESSES. The holder and the Forest Service shall keep each other informed of current mailing addresses, including those necessary for billing and payment of land use fees.

C. SUPERIOR CLAUSES. If there is a conflict between any of the preceding printed clauses and any of the following clauses, the preceding printed clauses shall control.

D. Surveys, Land Corners (D4). The holder shall protect, in place, all public land survey monuments, private property corners, and Forest boundary markers. In the event that any such land markers or monuments are destroyed in the exercise of the privileges permitted by this authorization, depending on the type of monument destroyed, the holder shall see that they are reestablished or referenced in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States,"
(2) the specifications of the county surveyor, or (3) the specifications of the Forest Service.

Further, the holder shall cause such official survey records as are affected to be amended as provided by law. Nothing in this clause shall relieve the holder's liability for the willful destruction or modification of any Government survey marker as provided at 18 U.S.C. 1858.

E. Removal and Planting of Vegetation and Other Resources (D5). The holder shall obtain prior written approval from the authorized officer before removing or altering vegetation or other resources. The holder shall obtain prior written approval from the authorized officer before planting trees, shrubs, or other vegetation within the authorized area.

F. Revegetation of Ground Cover and Surface Restoration (D9). The holder shall be responsible for prevention and control of soil erosion and gullying on lands covered by this authorization and adjacent thereto, resulting from construction, operation, maintenance, and termination of the authorized use. The holder shall so construct permitted improvements to avoid the accumulation of excessive heads of water and to avoid encroachment on streams. The holder shall revegetate or otherwise stabilize all ground where the soil has been exposed as a result of the holder's construction, maintenance, operation, or termination of the authorized use and shall construct and maintain necessary preventive measures to supplement the vegetation.

G. Improvement Relocation (X33). This authorization is granted with the express understanding that should future location of United States Government-owned improvements or road rights-of-way require the relocation of the holder's improvements, such relocation will be done by, and at the expense of, the holder within a reasonable time as specified by the authorized officer.

This permit is accepted subject to the conditions set out above.

HOLDER: California Department of Transportation	U.S. DEPARTMENT OF AGRICULTURE Forest Service
By: Lisa Harvey Lisa Harvey Senior Right-of-way Agent	By: Tina Lynsky TINA LYNSKY District Ranger
Date: 8-16-10	Date: 08/25/2010

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond, to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. The time required to complete this information collection is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and, where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.

EXHIBIT A

OPERATION AND MAINTENANCE PLAN FOR THE STAGING AREA AND TEMPORARY ACCESS ROAD

This staging area is located adjacent to State Route 3 at Post Mile 68.5 and will be used during September 1, 2010 through June 30, 2013 during the rehabilitation of the Trinity River Bridge (Bridge No. 05-0028). A temporary road will be constructed to allow access to the east side of the bridge piers. Upon completion of the bridge project, this road will be decommissioned and rehabilitated with native seed and mulched with certified weed free straw. The staging area will be replanted with conifers.

Operations of the Staging Area and Temporary Access Road:

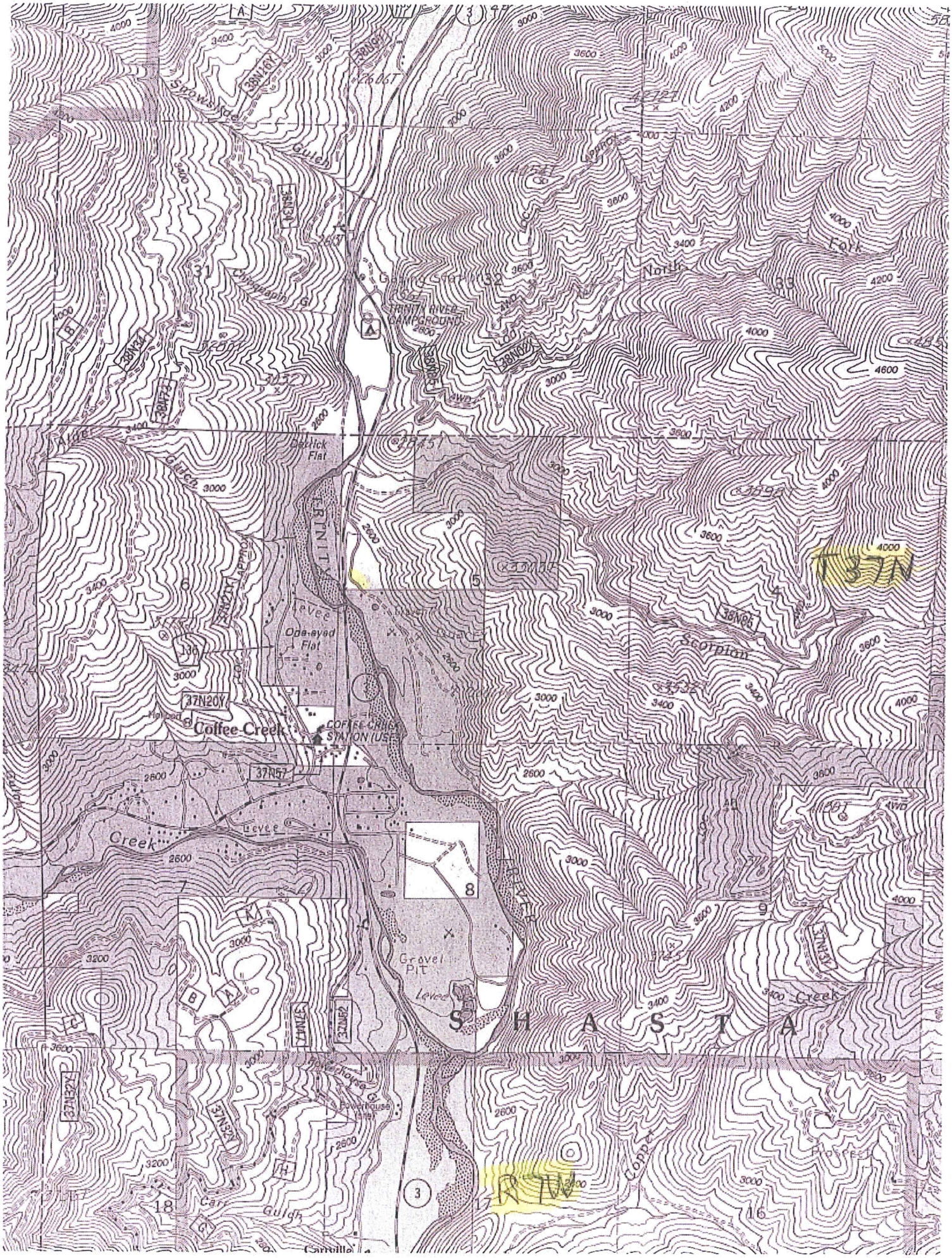
- Prior to construction, Cal-Trans is required to acquire all of the necessary regulatory permits.
- All construction equipment will be thoroughly washed before entering Trinity County, or if already residing in Trinity County, thoroughly washed before being transported to the staging area to reduce the risk of noxious weed introduction into the project area.
- The staging area will be used to store vehicles, equipment and materials for bridge work.
- Equipment will not be stored or parked overnight within 25 feet of an aquatic resource.
- Disposal of tree stumps from the staging area will not occur on National Forest System lands.
- If oil or oil products are stored in staging area, secondary containment and preventative spill measures need to be addressed in Contractor's operating plan.
    - Containers of less than 60 gallon individual capacity and portable tanks less than 660 gallon individual capacity, used to store flammable or combustible materials are required to meet specific standards such as "29 CFR 1910.106(d) Container and portable tank storage".
    - A Spill Prevention, Control and Countermeasure (SPCC) program is required if the aggregate aboveground storage of containers (if container is equal to or greater than 55 U.S. gallon capacity) exceeds 1,320 gallons and if an oil release could enter a navigable water of the United States, such as the Trinity River.
    - Mobile fuel tanks or fuel transfer tanks must meet CA DOT requirements. If parked on-site for extended use than secondary containment and preventative spill measures must be addressed in Contractor's operating plan.
- Trained personnel in spill response will be on site during all construction activities.
- Service residues, waste oil, and other materials shall be removed from National Forest System lands.
- No hazardous materials or soil spoils will be stored at this staging area.
- No wet concrete will come in contact with water resources.
- At least one port-a-potty will be on site for sanitation purposes.
- During periods of non-work, the gate at the entrance road to the staging area will remain locked to secure the site.

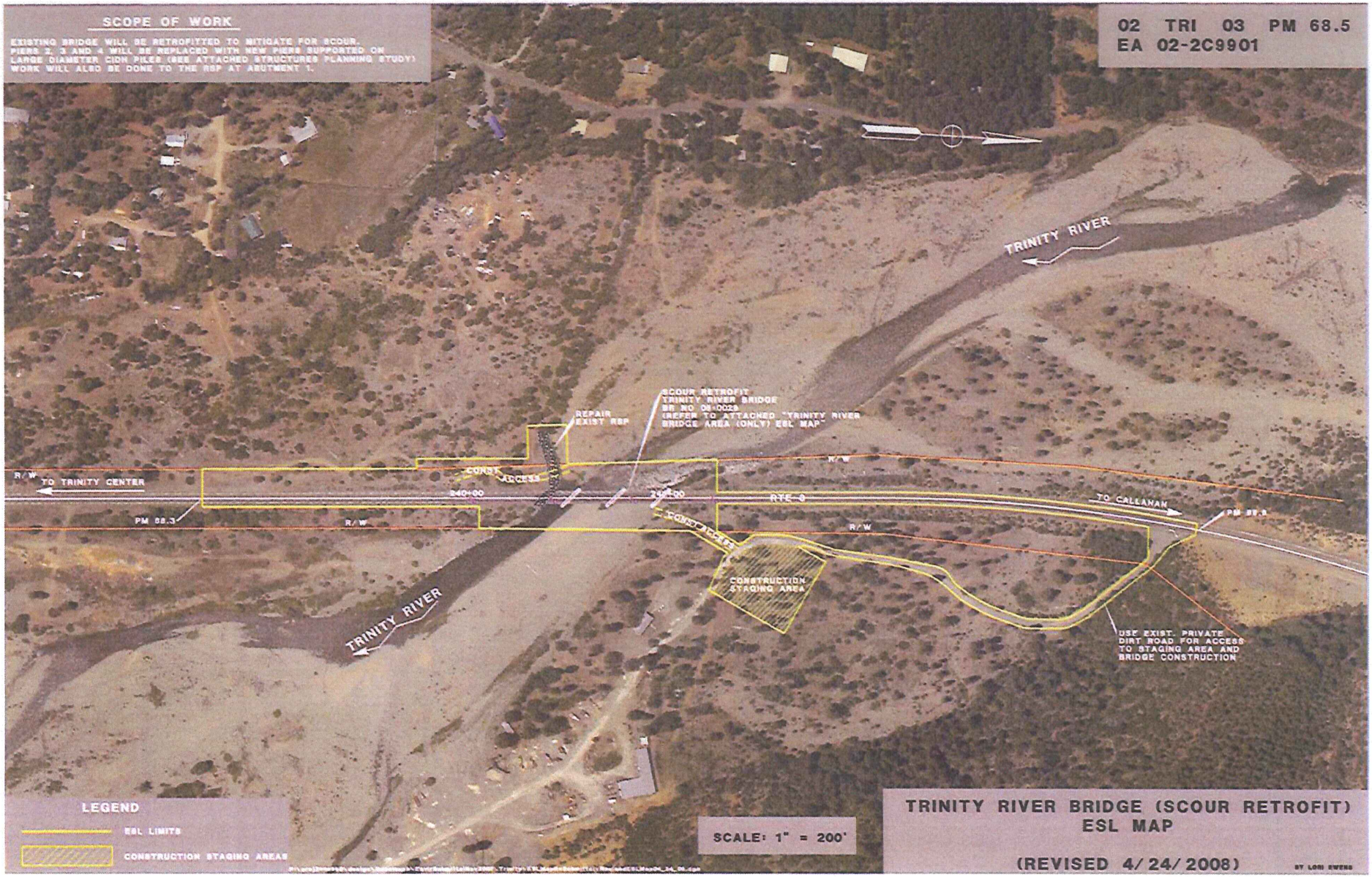
Erosion Control at the Staging Area and Temporary Access Road:

- Staging area and road access activities shall occur during the dry season or when rain and runoff are unlikely.
- Equipment will not be allowed to operate when ground conditions are such that excessive rutting or soil compaction could occur.
- The staging area and access road shall be maintained in such a manner that provides for water quality protection by minimizing rutting, side casting and blockage of drainage facilities.
- Straw bales, straw waddles, silt fencing and other similar sediment control materials shall be kept on site at all times.
- Erosion control methods will be in place during wet weather conditions and from October 15th to May 15th of each year.

Rehabilitation of the Staging Area and Temporary Access Road:

- Upon completion of the Trinity River Bridge repair the staging area and temporary access road will be rehabilitated to the authorized officer's satisfaction.
- The staging area will be replanted with conifers to a 50/50 mix of Ponderosa and Jeffery Pine.
- The temporary access road will be decommissioned and rehabilitated with Forest Service approved native seed and mulched with certified weed free straw.


T37N
Coffee Creek
COFFEE CREEK STATION (USFS)
TRINITY RIVER CAMPGROUND
Derrick Flat
One-eyed Flat
Gravel Pit
Scorpion
North Fork
Creek
Gulch
Levee
SHASTA


SCOPE OF WORK
EXISTING BRIDGE WILL BE RETROFITTED TO MITIGATE FOR SCOUR. PIERS 2, 3 AND 4 WILL BE REPLACED WITH NEW PIERS SUPPORTED ON LARGE DIAMETER CIDH PILES (SEE ATTACHED STRUCTURES PLANNING STUDY) WORK WILL ALSO BE DONE TO THE RSP AT ABUTMENT 1.
02 TRI 03 PM 68.5
EA 02-2C9901
TRINITY RIVER
SCOUR RETROFIT TRINITY RIVER BRIDGE BR NO 08-0029 (REFER TO ATTACHED "TRINITY RIVER BRIDGE AREA (ONLY) ESL MAP"
REPAIR EXIST RSP
CONST ACCESS
R/W
TO TRINITY CENTER
240+00
PM 68.3
RTE 3
TO CALLAHAN
PM 68.5
CONST ACCESS
CONSTRUCTION STAGING AREA
TRINITY RIVER
USE EXIST. PRIVATE DIRT ROAD FOR ACCESS TO STAGING AREA AND BRIDGE CONSTRUCTION
LEGEND
ESL LIMITS
CONSTRUCTION STAGING AREA
SCALE: 1" = 200'
TRINITY RIVER BRIDGE (SCOUR RETROFIT)
ESL MAP
(REVISED 4/24/2008)
BY LORI EVERS

STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
MINING AND TUNNELING UNIT
2211 Park Towne Circle, Suite 2
Sacramento, California 95825

Telephone (916) 574-2540
FAX (916) 574-2542

February 17, 2010

Department of Transportation
P.O. Box 49603
Redding, California 96049

Attention: Lori Ewens

Subject: Underground Classifications No. C096-105-10T
Trinity River Bridge Scour Retrofit

Ms. Ewens:

The information provided to this office relative to the above project has been reviewed. On the basis of this analysis, Underground Classification of "Potentially Gassy with Special Conditions" has been assigned to the tunnel identified on your submittal. Please retain the original Classification for your records and deliver a true and correct copy of the Classification to the tunnel contractor for posting at the job site.

When the contractor who will be performing the work is selected, please advise them to notify this office to schedule the mandated Prejob Conference with the Division prior to commencing any activity associated with drilling of the shafts.

Please be informed that whenever an employee enters any bore or shaft being constructed under 30 inches in diameter, the Mining and Tunneling Unit then has immediate jurisdiction over that job. Please contact the Mining and Tunneling Unit prior to entering such spaces.

If you have any questions on this subject, please contact this office at your earliest convenience.

Sincerely,

John R. Leahy
Senior Engineer

cc: Jerry Snapp
File

State of California

Department of Industrial Relations

DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
MINING AND TUNNELING UNIT

Underground Classification

C096-105-10T

DEPARTMENT OF TRANSPORTATION
(NAME OF TUNNEL OR MINE AND COMPANY NAME)

of P.O. Box 49603 Redding, California 96049
(MAILING ADDRESS)

at TRINITY RIVER BRIDGE SCOUR RETROFIT
(LOCATION)

has been classified as *** POTENTIALLY GASSY with Special Conditions***
(CLASSIFICATION)

as required by the California Labor Code Section 7955.

The Division shall be notified if sufficient quantities of flammable gas or vapors have been encountered underground. Classifications are based on the California Labor Code Part 9, Tunnel Safety Orders and Mine Safety Orders.

SPECIAL CONDITIONS

1. A Certified Gas Tester shall perform pre-entry and continuous monitoring of the underground environment to measure Oxygen and detect explosive, flammable, and toxic gasses whenever an employee is working in the underground environment.
2. Mechanical ventilation shall provide for continuous exhaust of fumes and air at any time an employee is working in the underground environment. The primary ventilation fans must be located outside of the underground environment and shall be reversible by a single switch near the fan location.
3. The Division shall be notified immediately if any **Flammable Gas** or **Petroleum Vapor** exceeds 5% of the Lower Explosive Limit.
4. All utilities that may be in conflict with the project shall be identified and physically located (potholed) prior to the start of project operations.

The six 72-inch diameter by 92 to 131 feet deep drilled shafts (CIDH piles) located on the Trinity River at Route 3, approximately 0.2 miles north of Coffee Creek, Trinity County.

This classification shall be conspicuously posted at the place of employment.

Date February 10, 2010

(SENIOR ENGINEER)

John R. Leahy

03 77089