

EXHIBIT

B

Declaration of Kason Grady

**Prosecution Team Case-in-Chief
Confusion Hill Bypass Project**

California Regional Water Quality Control Board
North Coast Region

Administrative Civil Liability Complaint No. R1-2009-0095

for

Violations of Clean Water Act, Section 401, Water Quality Certification
and State Water Resources Control Board
Order No. 99-06-DWQ Storm Water Permit

In the Matter of
California Department of Transportation
Confusion Hill Bypass Project
WDID No. 1B05153WNME

Mendocino County

The Assistant Executive Officer of the California Regional Water Quality Control Board, North Coast Region (hereinafter the Regional Water Board), under his lawfully delegated authority, hereby gives notice and alleges that:

1. The California Department of Transportation (hereinafter "Caltrans" or the "Discharger") contracted with MCM Construction, Inc. to construct the Confusion Hill Bypass Project (the "Project"), located on Highway 101 in Mendocino County, approximately 18.5 miles south of Garberville and 8 miles north of Leggett (Post Mile 98.9 / R 100.8).¹ Highway 101 currently crosses an active landslide in the area known as Confusion Hill. The purpose of the Project is to provide a reliable transportation route around the landslide area by permanently relocating the highway from the east side of the South Fork Eel River (the "River") to the west side. Relocating the highway required construction of two new bridges and a new section of highway between the new bridges.
2. In 2001, the cost of construction and vehicle delays due to road closures on the existing highway from the landslide were estimated to be nearly \$4 million. In 2002 and 2003, Caltrans' construction costs exceeded \$9 million, and vehicle delay costs were estimated to be near \$2 million. In 2003, Caltrans received approval for \$65 million of emergency relief funds for the Project, and another \$7 million for the landslide response that had been ongoing since 2002.
3. On July 15, 1999, the State Water Resources Control Board ("SWRCB") adopted a National Pollutant Discharge Elimination System ("NPDES") Permit for Storm Water Discharges from the State of California, Department of Transportation

¹ Since Caltrans is the named permittee for this Project and legally responsible to the Regional Water Board for all violations associated therewith, the allegations of violations set forth in this complaint do not distinguish the acts of Caltrans from those of its contractor.

(Caltrans) Properties, Facilities and Activities, Order No. 99-06-DWQ (the "Storm Water Permit").

4. Municipal separate storm sewer systems ("MS4s") serving a population of 100,000 or more are required to have storm water permits. The United States Environmental Protection Agency considers MS4s to include road systems owned by states which are in an area with a population greater than 100,000. California's road system, roadway rights-of-way, roadside drainage conveyance systems, and storm water outfall structures are all considered an interconnected storm sewer system, and therefore subject to the MS4 permitting program. At the Discharger's request, the SWRCB adopted a single NPDES permit for storm water discharges from all its properties, facilities, and activities that provides coverage for both the MS4 requirements and the statewide Construction General Permit requirements. Thus, the Storm Water Permit covers all municipal storm water and construction activities engaged in by the Discharger that require permit coverage. The Storm Water Permit conditionally authorizes storm water and nonstorm water discharges from Caltrans' properties, facilities, and activities, and prohibits discharges of pollutants and material other than storm water that are not authorized by the Storm Water Permit. The Project is subject to the Storm Water Permit.
5. The National Oceanographic and Atmospheric Administration's National Marine Fisheries Service ("NMFS") imposed terms and conditions on the Discharger's Storm Water Permit in order for its activities to be exempt from section 7(o)(2) of the Endangered Species Act. NMFS term and condition (d) of its Reasonable and Prudent Measure 2 requires a biologist ("Biological Monitor") to monitor in-channel activities, and to monitor the performance of sediment control or detention devices.
6. Clean Water Act, section 401 requires Caltrans to apply for and obtain a Water Quality Certification for the Project (the "Certification"). On December 15, 2005, Caltrans submitted an application for certification, but it was determined to be incomplete by the Regional Water Board, which required submittal of additional information and fees. The correspondence between Regional Water Board staff and Caltrans employees from December 15, 2005, to February 16, 2006, is included as part of Caltrans' application for the Certification (the "Application"). On February 16, 2006 (as amended on April 18, 2006), the Regional Water Board executive officer ("Executive Officer") issued the Certification and approved the Discharger's Application for the Project. The Application is incorporated by reference into, and an integral part of the Certification. The Certification, in turn, requires that Caltrans comply with the Application.
7. This Complaint alleges 154 violations of conditions contained in the Certification and 141 days of violation of General Discharge Prohibitions, Receiving Water

Limitations and General Requirements contained in the Discharger's Storm Water Permit. Many of the discharge violations of the Certification may also be violations of the Stormwater Permit, however staff decided that in those instances, the Certification conditions sufficiently cover the discharges and the demonstration of duplicative permit violations is unnecessary. The alleged violations occurred between August 17, 2006, and June 1, 2007. The violations are detailed chronologically in Attachment A, and associated photographs, where available, are provided in Attachment B.

8. On September 8, 2006, the Discharger notified the Regional Water Board via email of unauthorized construction dewatering discharges and of a discharge from equipment crossing the River. The construction dewatering was discharged to an unlined and unauthorized sedimentation basin on the gravel bar ("Isolated Pool B") and occurred on August 29 and 30, 2006. The Discharger's notification referenced a plume of turbidity caused by hydrostatic head pressure from 8 hours of continuous construction dewatering into Isolated Pool B that mobilized sediment transport through the gravel bar into the active River channel. The Discharger's Application specified that all sedimentation basins would be located a minimum of 100 feet from the live stream channel. The Regional Board came to learn that Caltrans used Isolated Pool B, which was located only about 70 feet from the River, for construction dewatering throughout the 2006 construction season. Not only was Caltrans' use of the sedimentation basin unauthorized because of its close proximity to the active stream channel, but also Best Management Practices ("BMPs") were not in place prior to the discharge on August 29, 2006. Moreover, BMPs should have been modified to control the turbid discharge anticipated by Caltrans that occurred on August 30, 2006.
9. Regional Water Board staff worked closely with Caltrans before authorizing the Application to clarify that the Certification bars any concrete wastes or associated wastewater from being discharged to unlined basins. Nevertheless, on October 2, 2006, the Discharger notified the Regional Water Board that concrete contact water had been discharged to Isolated Pool B on September 29, 2006, in violation of the Certification.
10. On October 6, 2006, Regional Water Board staff inspected the north bridge portion of the Project. During the inspection, staff observed the following violations: (1) unauthorized use of a sedimentation basin on the gravel bar (Isolated Pool B); (2) a backhoe on the gravel bar with an excessive fluid leak and improper containment; (3) cut rebar lying on the gravel bar without containment; (4) steel slag and debris lying on the gravel bar; (5) steel being cut on the gravel bar without adequate containment; and (6) welding slag falling directly into the River and onto the gravel bar.

Also on October 6, 2006, Caltrans notified the Regional Water Board in writing, via facsimile, about unpermitted dewatering discharges that occurred on August 29 and August 30, 2006, a turbid discharge to the River that occurred on September 1, 2006, and a turbid discharge to the River from equipment crossing the River that occurred on September 6, 2006. The notifications are commonly referred to as "Attachment Ks" because this is the document name given by Caltrans to discharge notifications required under Section K of the Storm Water Permit.

After the October 6, 2006 inspection, the Discharger continued to violate conditions in the Certification and the Storm Water Permit. On October 7, 2006, and November 13 and 14, 2006, the Discharger continued to discharge construction dewatering to the gravel bar. The Discharger continued to weld and cut steel without adequate containment until June 2007, and continued to operate and stage leaky equipment without adequate containment through November, 2006.

11. On October 30, 2006, the Executive Officer issued a Notice of Violation to the Discharger for the violations on August 29, August 30, and September 29, 2006, and for violations observed by Regional Water Board staff on October 6, 2006 ("NOV1"). NOV1 requested that the Discharger implement adequate on-site BMPs immediately and submit a report by November 15, 2006, addressing all of the latter areas of noncompliance and detailing the Discharger's actions to implement adequate BMPs. The required report was submitted on November 17, 2006.
12. On November 2, 2006, the California Department of Fish and Game provided Regional Water Board staff with 3 photographs (Appendix B: 061002-01, 061007-01, 061007-02) taken at the Project site by the Biological Monitor. The photographs depict discharges to the River that had not yet been reported to the Regional Water Board by Caltrans.
13. On November 27, 2006, the Executive Officer issued a second Notice of Violation ("NOV2") for the violations described in paragraph 12 in conjunction with a Water Code section 13267(b) order requiring the submittal of technical reports (the "13267 Order"). NOV2 addressed the following violations: (1) unauthorized discharges of turbid water to the River; (2) placement of a silt fence in the River; and (3) a backhoe crossing the River causing a turbidity plume. The 13267 Order required Caltrans to submit a report by December 13, 2006, including all of the weekly biological reports, all reports of discharges to surface water prepared by the Discharger or its contractors, all reports of noncompliance pursuant to the Storm Water Permit (Attachment Ks), any written recommendations for protection of water quality made by the Discharger or its contractors, and any reports or photographs of violations, including the details

surrounding the events and the associated potential impacts to beneficial uses. On December 14, 2006, the Discharger submitted the technical reports and information required by the 13267 Order in a binder (the "Binder"). Entries from the Binder are cited in Attachment A as evidence of some of the violations alleged in this Complaint.

14. The following sections of the Storm Water Permit are alleged to have been violated by the Discharger in this complaint:

A. GENERAL DISCHARGE PROHIBITIONS

1. Any discharge from Caltrans rights-of-way or Caltrans properties, facilities, and activities within those rights-of-way that is not composed entirely of "storm water" to waters of the United States is prohibited unless authorized pursuant to Section B of this NPDES Permit. For some discharges, Caltrans may also need to obtain Water Quality Certification under CWA [Clean Water Act Section 401] S2 [sic]. The discharge of runoff from Caltrans owned rights-of-way or Caltrans properties, facilities, and activities to waters of the United States which have not been reduced to the MEP [maximum extent practicable] is prohibited. The discharge of runoff from construction sites containing pollutants which have not been reduced using BAT [best available technology] for toxic pollutants and BCT [best conventional technology] for conventional pollutants to waters of the United States is prohibited.
2. The discharge of pollutants or dredged or fill material to waters of the United States, except as authorized by an NPDES Permit or a dredged or fill material permit (subject to the exemption described in California Water Code (CWC) section 13376), is prohibited.
3. The discharge of waste to waters of the State in a manner causing or threatening to cause a condition of pollution or nuisance defined in CWC section 13050, is prohibited.
4. The dumping, deposition, or discharge of waste by Caltrans directly into waters of the State or adjacent to such waters in any manner that may allow its being transported into the waters is prohibited unless authorized by the RWQCB.
6. The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity, or discoloration in waters of the State or which unreasonably affect or threaten to affect beneficial uses of such waters, is prohibited.

7. Wastes or wastewater from road sweeping vehicles or from other maintenance or construction activities shall not be discharged to any surface waters or to any storm drain leading to surface water bodies.

B. NONSTORM WATER DISCHARGE PROHIBITIONS

1. Caltrans shall effectively prohibit nonstorm water discharges into its storm water conveyance system unless such discharges are either:
 - a. Authorized by a separate NPDES permit; or
 - b. Authorized in accordance with Nonstorm Water Discharge Prohibition B.2 of this NPDES Permit.

C. RECEIVING WATER LIMITATIONS

C-2 Receiving Water Limitations For Construction Activities:

2. The [Stormwater Pollution Prevention Plan] SWPPP developed for the construction activity covered by this NPDES Permit shall be designed and implemented such that storm water discharges and authorized nonstorm water discharges shall not cause or contribute to an exceedance of any applicable water quality standards contained in a Statewide Water Quality Control Plan and/or the applicable RWQCB's Basin Plan.

D. RWQCB AUTHORITIES

1. Following adoption of this permit, RWQCB's shall implement the Provisions of this permit. Implementation of this permit may include, but is not limited to, reviewing SWPPPs, reviewing Maintenance Facility Pollution Prevention Plans (FPPPs), reviewing monitoring reports, conducting compliance inspections, conducting monitoring, reviewing the Annual Reports and taking enforcement actions.
2. RWQCB's may require submittal of, require changes to, specify a format for, and enforce Provisions of SWPPPs and FPPPs.

15. The following Additional Conditions contained in the Discharger's Water Quality Certification are alleged to have been violated in this complaint:²

² The Certification Condition numbers used in the complaint are as they appear in the Additional Conditions section of the Certification.

2. All conditions listed in this Water Quality Certification must be included in the Plans and Specifications prepared by the applicant for the Contractor. All conditions shall be implemented according to the submitted application and this Water Quality Certification.
7. Adequate best management practices for sediment and turbidity control shall be implemented and in place prior to, during, and after construction in order to ensure that no silt or sediment enters surface waters.
9. No debris, soil, silt, sand, bark, slash, sawdust, rubbish, cement or concrete washings, 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 permit, shall be allowed to enter into or be placed where it may be washed by rainfall into waters of the State.
10. All materials used for cleaning concrete from tools and equipment, and any wastes generated by this activity, shall be adequately contained to prevent contact with soil and surface water and shall be disposed of properly.
11. If construction dewatering is found to be necessary, the applicant will use a method of water disposal other than disposal to surface waters (such as land disposal) or the applicant shall apply for coverage under the General Construction Dewatering Permit and receive notification of coverage to discharge to surface waters.
12. Fueling, lubrication, maintenance, storage, and staging of vehicles and equipment shall be outside of waters of the United States and operation of vehicles and equipment shall not result in a discharge or a threatened discharge to waters of the United States. At no time shall the applicant use any vehicle or equipment, which leaks any substance that may impact water quality.
13. Project activities shall comply with provisions in the North Coast Region Water Quality Control Plan (Basin Plan).
19. Visual observations of the River shall be conducted whenever a project activity has the potential to mobilize sediment and increase the turbidity of the River. Field turbidity measurements shall be collected whenever a project activity causes turbidity of the River to be increased above background concentrations in order to demonstrate compliance with receiving water limitations.

Whenever turbidity in the River is increased above background as a result of project activities, turbidity measurements shall be collected upstream (within 50 feet) of the source of turbidity. The frequency of turbidity monitoring shall be a minimum of every hour during periods of increased turbidity and shall continue until turbidity measurements demonstrate compliance with receiving water limitations and turbidity levels are no longer increasing as a result of project activities. If turbidity levels are greater than 20 percent above background 100 feet downstream of the source of turbidity, all necessary steps shall be taken to install, repair, and/or modify BMPs to control the source(s) of sediment and the overall distance from the source of turbidity to the downstream extent of the increased turbidity (20 percent above background) shall be measured.

Turbidity monitoring results shall be reported to appropriate Regional Water Board staff by telephone within 1 hour of taking any turbidity measurement that shows turbidity levels are 20 percent above background 100 feet or more downstream of the source of turbidity. All recorded visual observation and all field turbidity measurements collected for the purpose of this condition shall be submitted in a report to the Regional Water Board by November 15th each year and within 45 days of project completion.

16. The following provisions of the Basin Plan apply to the Project site and are alleged to have been violated in this complaint:

ACTION PLAN FOR LOGGING, CONSTRUCTION AND ASSOCIATED ACTIVITIES

The following waste discharge prohibitions pertain to logging, construction, and associated activities in the North Coast Region.

1. The discharge of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature into any stream or watercourse in the basin in quantities deleterious to fish, wildlife, or other beneficial uses is prohibited.
3. The placing or disposal of soil, silt, bark, slash, sawdust, or other organic and earthen material from any logging, construction, or associated activity of whatever nature at locations where such material could pass into any stream or watercourse in the basin in quantities which could be deleterious to fish, wildlife, or other beneficial uses is prohibited.

3-3.00 Objectives for Inland Surface Waters, Enclosed Bays and Estuaries:

Turbidity

Turbidity shall not be increased more than 20 percent above naturally occurring background levels. Allowable zones of dilution within which higher percentages can be tolerated may be defined for specific discharges upon the issuance of discharge permits or waiver thereof.

pH

The pH shall not be depressed below 6.5 nor raised above 8.5. Changes in normal ambient pH level shall not exceed 0.2 units in waters with designated marine (MAR) or saline (SAL) beneficial uses nor 0.5 units within the range specified above in fresh waters with designated COLD or WARM beneficial uses.

17. Water Code section 13385, subdivisions (a)(4), and (a)(5) provide the bases for the Regional Water Board's imposition of administrative civil liability. Subdivision (a)(4) provides for administrative civil liability against any person who violates any waste discharge requirement or Basin Plan prohibition issued pursuant to Water Code section 13243. Subdivision (a)(5) provides for administrative civil liability against any person who violates any requirements of section 401 of the Clean Water Act, as amended. As detailed in this complaint, Caltrans violated the discharge prohibitions and requirements of the Certification and Storm Water Permit. Water Code section 13385, subdivision (c) provides that the maximum amount of administrative civil liability that may be imposed by the Regional Water Board is \$10,000 per day of violation.
18. On February 19, 2002, the SWRCB adopted Resolution No. 2002-0040 amending the Water Quality Enforcement Policy ("Enforcement Policy"). The Enforcement Policy was approved by the Office of Administrative Law and became effective on July 30, 2002.
19. 401 Water Quality Certification Violations

Due to the repetitive nature and number of alleged violations at the Confusion Hill Project site, Regional Water Board staff has grouped them below by violation type, rather than enumerating each violation separately. Appendix A details chronologically the individual violations that form the bases of staff's calculation of the number of days of violation. Violation type "H" addresses certain

discharges that did not fit neatly into any of the other major violation categories. The eight violation types are as follows:

- A. Construction dewatering
- B. Leaky equipment
- C. Slag discharges
- D. Discharges to the river
- E. Insufficient turbidity measurements
- F. Improper disposal of cement wastes
- G. Rubbish and debris discharges
- H. Individual events

The maximum potential liability for the 154 separate discharge violations of the Certification (categories A through H) is \$1.54 million.³ The individual violations are listed in Appendix A, and photos relevant to the violations are included in Appendix B. Each type of violation is discussed below in further detail:

A. Construction Dewatering Violations

Caltrans discharged turbid water directly to Isolated Pool B, an unlined dewatering basin situated directly on the gravel bar within the River bed. This use of Isolated Pool B was unauthorized, and constitutes a direct violation of Conditions 9, 12 and 17 of the Certification.

Condition 9 prohibits the discharge of, among other things, debris, soil, silt or other organic or earthen materials to waters of the State, or to places where such pollutants may be washed by rainfall into waters of the State.

Condition 12 requires dewatering discharges either to be disposed of at non-surface water locations, or to be covered under the General Construction Dewatering Permit. Isolated Pool B lies within the definition of surface waters because it is within the bankfull channel and has a direct hydrologic connection to the active River channel.

Condition 17 requires that construction activities be conducted as described in the Certification and the Application. The Application requires that, "Temporary sedimentation basins would be located a minimum of 100 feet from the live stream channel." Isolated Pool B was only about 70 feet from the live stream channel at the times of discharge.

³ The Complaint also alleges 141 days of violation of Caltrans' Storm Water Permit and SWPPP, which subject Caltrans to an additional maximum administrative civil liability of \$1.41 million. The alleged Storm Water Permit violations are discussed in paragraph 20, below.

Use of Isolated Pool B (the unlined dewatering basin) on the gravel bar is a direct violation of the Application and Certification, and substantially and directly impacted water quality. On August 29, August 30, and September 7, 2006, sediment transport occurred from subsurface flow through the gravel bar directly to the River due to hydrostatic head pressure from dewatering discharges to Isolated Pool B. The Discharger violated Conditions 9, 12 and 17 by discharging into Isolated Pool B at least 7 times as indicated in Appendix A.

After the discharge from Isolated Pool B on August 31, 2008, the Discharger began dewatering directly to the gravel bar about 15 feet from the River. Dewatering at this new location did not have the same hydrostatic pressure problems as Isolated Pool B because this location was not used for an extended period at any one time. However, discharging sediment-laden water directly to the gravel bar within 15 feet of the River is not authorized, is not a BMP, and poses potentially serious water quality impacts similar to the unauthorized discharges to Isolated Pool B. Instead of addressing the problem caused by using Isolated Pool B in an unauthorized location too close to the River, the Discharger apparently tried to save time and the costs associated with creating a proper detention basin at least 100 feet away from the River, and began discharging directly to the gravel bar a mere 15 feet from the River.

Further, according to the Engineering Diaries, on November 13, 2006, construction dewatering occurred at the top of an access road without BMPs in place so that a silty water discharge ran down to the gravel bar. This constitutes a violation of Condition 7 because of inadequate BMPs for sediment control, and of Condition 9 because silty water was allowed to reach the gravel bar. Another dewatering event occurred on March 7, 2007, when silty water was discharged to a slope immediately adjacent to a designated environmentally sensitive area in the River. The silty water discharge made its way into the backwater pool and "discolored the waters."

As summarized in Appendix A-A, Caltrans committed 39 construction dewatering violations of which Regional Water Board staff is aware. The maximum potential administrative civil liability for the 39 construction dewatering violations is \$390,000.

B. Leaky Equipment Violations

Equipment leaks are prohibited by both the Certification and the Storm Water Permit. Condition 13 of the Certification, set forth above, prohibits the use of leaky equipment that may impact water quality. The Storm Water Permit requires the use of BMPs, specifically NS-10 and NS-13, which are set forth in Appendix C. BMP NS-10 Vehicle Equipment Maintenance states, "Leaks shall be repaired immediately or the problem vehicle(s) or equipment shall be removed

from the project site." BMP NS-13 Material and Equipment Use Over Water reiterates, "Maintain equipment in accordance with BMP NS-10, 'Vehicle and Equipment Maintenance.' If a leaking line cannot be repaired, remove equipment from over the water." BMP NS-13 goes on to require, "watertight curbs or toe boards to contain spills and prevent materials, tools, and debris from leaving the barge, platform, dock, etc."

According to the Biological Monitor, during the week of July 10, 2006, "oil, grease and other fluids leaking from machinery also needed occasional inspection and repair." The Biological Monitoring Report for the week of July 17, 2006, states, "oil and hydraulic spills/drips are also a constant problem and need frequent checking for leaks. The old heavy machinery seems to require a lot of service and repairs on site." Again, in October, 2006, the Biological Monitor lamented "oil leaks continue to occur without adequate cleanup or prevention with the standard kiddy pools and diapers. Most of the heavy equipment used on this project is old and leaks constantly. Overnight, oil spots are often not prevented and typically just covered up with soil. The worst offenders are the Manitowoc crane on the false bridge, the LINK man lift on the gravel bar, and the CAT 350. This has been brought to the attention of the RE on many occasions. The plastic 'tarps' placed under the crane constantly spills its contents onto its tracks and the bridge decking..."

According to the Engineering Diaries, leaks from equipment occurred nearly every day. However, in at least some instances the spills and leaks were addressed and cleaned up immediately.⁴ Staff is not recommending the imposition of any administrative civil liability for these instances where a spill occurred, but was cleaned up and addressed immediately because the Discharger's response mitigated the effects of the spill. Nonetheless, the frequency of leaks and spills helps illustrate the scale of the problem at the Project site and sheds light on the significant potential impacts to water quality that cumulative leaks could have had.

A trestle was located directly over the River to provide access for construction equipment to cross from Highway 101 to the west side of the River. The trestle also allowed large cranes and other equipment to remain over the River for long periods of time while constructing the north bridge. From the time it was constructed and first put to use, the trestle deck had large gaps between the timbers and holes where debris and oil leaks could spill directly to the River below. On October 24, 2006, as a first management effort, Caltrans attempted to

⁴ Such instances include a hydraulic oil spill on July 11, 2006, a leak from a Backhoe on the Bear Pen access road on July 17, 2006, another leak from a rental Backhoe on July 18, 2006, a ten gallon hydraulic fluid spill on July 26, 2006, a leak from a crane on July 27, 2006, a leak from the same crane again on August 4, 2006, a spill from another piece of equipment on August 11, 2006, and oil leaks on October 9, 2006.

seal the cracks in the trestle deck with a foam insulator and toe boards. The foam separated when large equipment drove across the trestle and flexed the deck. Caltrans' failed effort to seal the trestle deck does not represent a BMP because there are other more practicable solutions that would still have been cost effective. Moreover, Appendix B includes photographs from October 30, and November 1, 2006, that show the trestle with recent oil stains and the deck still with large holes and gaps.

Caltrans used plastic sheeting under the equipment to contain oil leaks. However, the Biological Monitor documented that using plastic sheeting to contain oil leaks on this Project was fraught with problems, including collection of rainwater, tears in the plastic and spills from the plastic. On January 8, 2007, the Discharger placed filter fabric across the entire trestle deck as a final management effort to attempt to resolve the lack of containment. Except in the most egregious situations, where staff has been made aware of more than one leaky equipment violation on a single day, it has treated the multiple leaks as a single violation.

As summarized in Appendix A-B, Caltrans committed 28 leaky equipment violations of which Regional Water Board staff is aware. The maximum potential administrative civil liability for 28 violations of Conditions 9 and 13 associated with the use of equipment where leaks and resulting potential water quality impacts occurred is \$280,000.

C. Slag Discharge Violations

Welding and steel cutting are distinct activities with similar types of discharges, and relatively similar BMPs. According to a letter from Caltrans dated June 18, 2008, "Prior to June 2007, appropriate work location and the use of primary containment metal buckets was the BMP," to control welding slag discharges. In the same letter, Caltrans states that the BMP was amended to include "...welding and torch positioning, and work location such that sparks and slag are contained upon a surface that allows for clean-up. When an upland layout yard is not feasible, metal buckets (primary containment) and fiberglass blankets (secondary containment) are placed below the work location. The welding slag BMP was formally enacted in early to mid June 2007."

The welding slag and steel cutting discharge violations detailed in Appendix A warrant an escalating degree of liability as time went by, because the Discharger should have adjusted its BMPs as soon as it recognized a discharge was occurring. Steel cutting discharge violations in particular carry a high degree of culpability since they were the result of the contractor not using any containment. These violations are considered egregious due to the complete disregard of BMPs and of the Certification.

For these slag and steel cutting discharges, like rubbish discharges, when there is evidence of multiple discharges on a single day, staff has aggregated the violations into one discharge event. This approach was considered appropriate due to both the relative impacts of these types of discharges and the cause of these discharges being general Project management practices.

As set forth in Appendix A-C, the Discharger committed 15 welding slag and steel cutting violations of which Regional Water Board staff is aware. The maximum potential administrative civil liability for the 15 violations of Condition 9 of the Certification associated with the discharge of welding slag and steel cutting is \$150,000.

D. Turbid Discharge to the River Violations

Turbid discharges to the River detailed on Exhibit A include: (1) disturbance of in stream gravels; (2) a broken pipe spanning the river that conveyed sediment laden water; (3) drilling debris without containment; (4) concrete discharges from the placement of footings; and (5) side-casting of loose soil. During the second documented heavy vehicle crossing, the equipment was not cleaned prior to crossing the River, and sediment discharge created a 400-foot plume that lasted for 30 minutes.

As summarized in Appendix A-D, the Discharger committed 20 turbidity discharge violations of which Regional Board Staff is aware. The maximum potential administrative civil liability for 2 violations of Condition 7, 15 violations of Condition 9, and 3 violations of Condition 17 due to turbid discharges to the River is \$200,000.

E. Insufficient Turbidity Measurement Violations

The Certification is clear about the Discharger's obligations to monitor turbidity. The Certification's turbidity monitoring requirements were developed to determine compliance with receiving water limitations contained in the Basin Plan. Even though the Biological Monitors took some turbidity measurements, the measurements taken did not satisfy the requirements of the Certification. The 2006 Water Quality Data Table provided in the Final Biological Monitoring Report contains an endnote that demonstrates inaccurate readings were taken for turbidity for every event before September 28, 2006. Moreover, the same endnote applies equally to readings taken after September 28, 2006, because it appears that the turbidity meter needed maintenance and perhaps calibration (no calibration records were provided with the data). Without proper and documented maintenance and calibration, it is impossible to determine the accuracy of the data gathered by the turbidity meter. Also, the table does not

clearly indicate that measurements were taken within fifty feet upstream and within one hundred feet downstream of each turbidity discharge event. Nor does the data clearly indicate that monitoring continued every hour until measurements demonstrated compliance with receiving water limitations, or until turbidity levels were no longer increasing. Finally, turbidity monitoring results were not reported to Regional Water Board staff until ordered by the Executive Officer pursuant to Water Code Section 13267. The failure to report alone is sufficient noncompliance with the Condition to support a violation for each discharge event. Because the data collected is so unreliable, it has not been used for the purpose of determining compliance with Condition 19 of the Certification. In such instances where the data collected show an increase in turbidity, the data can only be used to corroborate other evidence of a turbidity discharge.

As summarized in Attachment A-E, the Discharger committed 22 turbidity measurement violations of which Regional Water Board staff is aware. The maximum potential administrative civil liability for 22 violations of Condition 19 of the Certification due to insufficient turbidity measurements is \$220,000.

F. Improper Disposal of Cement Waste Violations

Condition 10 of the Certification states, "All materials used for cleaning concrete from tools and equipment, and any wastes generated by this activity, shall be adequately contained to prevent contact with soil and surface water and shall be disposed of properly." The Application for the Certification described the practices for disposal of cement wastes as, "All concrete waste and wash water will be contained." Regional Water Board staff worked closely with the Discharger during the permitting process and even delayed issuance of the Certification to ensure agreement that no concrete wastes or associated wastewater would be discharged to unlined basins. Nevertheless, Attachment A details 7 violations of Condition 9, 2 violations of Condition 10, and 7 violations of Condition 16 of the Certification due to the improper disposal of cement wastes.

As summarized in Attachment A-F, the Discharger committed 16 improper disposal of cement waste violations of which Regional Water Board staff is aware. The maximum potential administrative civil liability for 16 violations of these Conditions is \$160,000.

G. Rubbish, Debris, Trash and Sediment Discharge to the River Violations.

Rubbish in the River affects the downstream beneficial uses by creating visual impacts, but it can also pose threats to wildlife and human health. Depending on the type of rubbish, it could create a barrier, foster bacteria, or introduce chemicals into the River. These violations are included in this complaint because

of their impacts on beneficial uses, and to further demonstrate the general sloppiness of construction practices and non-adherence to standards required by the Certification. As Attachment A details, in some cases, rusty I-beams were used over the River without any containment and large flakes of rust fell into the River as sediment. For these rubbish discharges, like slag discharges, when there is evidence of multiple discharges per day, the violations have been aggregated into one discharge event. This approach was considered appropriate due to both the relative impacts of these types of discharges and the cause of these discharges being general Project management practices.

As summarized in Attachment A-G, the Discharger committed 9 violations of the prohibition on discharge of rubbish, debris and trash to the River of which Regional Water Board staff is aware. The maximum potential administrative civil liability for the 9 violations of Condition 9 of the Certification due to discharges of rubbish and organic debris to the River is \$90,000.

H. Individual Event Violations

Condition 13 of the Certification states, "Fueling, lubrication, maintenance...of vehicles and equipment shall be outside of waters of the United States and operation of vehicles and equipment shall not result in a discharge or a threatened discharge to waters of the United States." The Vehicle and Equipment Fueling BMP, NS-9, requires among other factors that fueling shall occur in designated and approved level-grade areas with berms and/or dikes to prevent run-on, runoff, and to contain spills. These areas are required to be at least 50 feet from drainage facilities watercourses (see Appendix C). Violations of the Stormwater Permit and Certification should yield a substantial liability for fueling equipment on the gravel bar. The maximum potential administrative civil liability for the violation of Condition 13 of the Certification detailed on Attachment A for refueling on the gravel bar of the River on August 22, 2006, is \$10,000.

In August, 2006, as detailed on Attachment A, a hydraulic fluid spill occurred on the gravel bar which was cleaned up immediately. The maximum potential administrative civil liability for this discharge is \$10,000.

As detailed on Attachment A, on November 3, 2006, the Discharger pushed soil over the edge of the bank to within the bankfull width. This action transported soil to a location where it could be washed by rainfall into waters of the State and, therefore violated Certification Condition 9. The maximum potential administrative civil liability for this discharge is \$10,000.

The sand blasting discharge detailed on Attachment A that occurred in May, 2007, was preventable, and was the result of disregarding the BMPs, the Certification and management directives. The sand discharged to the gravel bar

was not susceptible to cleanup due to its physical nature. This sand will be transported downstream as bottom deposits during high flows and will contribute to the cumulative impacts on the beneficial uses of the River. The portion of discharged sand that landed on the slope above the gravel bar was susceptible to cleanup, but was still not cleaned up as of the Regional Water Board inspection on October 25, 2007. The maximum potential administrative civil liability for this discharge is \$20,000.

The maximum potential administrative civil liability for these individual event violations, which is summarized on Attachment A-H, is \$50,000.

To sum, the maximum potential administrative civil liability for the aforementioned 154 violations of the Certification is \$1.54 million.

20. Storm Water Permit Violations

From August, 2006 through January 8, 2007, Caltrans violated its Storm Water Permit a total of 141 days. For 141 days, the Discharger violated its Storm Water Pollution Prevention Plan (SWPPP) BMPs by both failing to adopt and implement sufficient refueling BMPs and by failing to implement sufficient containment on the trestle deck. According to an inspection by the Discharger's personnel on August 22, 2006,

“Fueling is occurring in the TCE near the RE’s office without the use of ANY BMP’s. (Emphasis original) Ladd personnel were fueling the tracked hoe and claimed they had no training or knowledge of required fueling practices and have been fueling their equipment for weeks in such a manner.”

Equipment was being fueled outside of an approved fueling area and without any BMPs and had been performed in such a manner for weeks. Copies of the relevant BMPs are included in Appendix C. Since no and/or inadequate BMPs were in place during refueling “for weeks,” staff conservatively estimates the maximum potential administrative civil liability for refueling activity to be \$100,000 based on 2 weeks (10 working days) of violation.

On August 22, 2006, as detailed in Finding 19.H above and in Appendix A, the Discharger violated the Storm Water Permit by not implementing BMP NS-9 (See Appendix C) when fueling multiple pieces of equipment on the gravel bar. The maximum potential administrative civil liability for fueling on the gravel bar in violation of the Storm Water Permit is \$10,000.

On September 20, 2006, one of the Discharger's inspectors “observed [a] manlift and generator on [the] temp[orary] trestle/working pad by [the] river bed without drip protection at [the] north bridge work area. Drip pans shall be placed under all

vehicles and equipment placed on docks, barges, or other structures over water bodies as per bmp manual NS-13.”

The trestle deck was inadequately contained for the entire 2006 construction season. The first attempt at creating a watertight trestle occurred on October 24, 2006. However, photographs (061030-02,-05, -08, -09, -10, -11, -12, 061101-09) provide evidence that the trestle deck was inadequately contained after this date and that the effort to seal the deck with foam on October 24, 2006, was not an effective BMP. The final BMP was not implemented until January 8, 2007, when the Discharger placed filter fabric over the entire trestle. Since the trestle deck was inadequately contained for the entire season, 130 days of violation are assessed from September 1, 2006, to January 8, 2007, with a maximum potential administrative civil liability for insufficient trestle deck containment of \$1,300,000.

The maximum potential administrative civil liability for Storm Water Permit violations is \$1,410,000, which includes 11 days of equipment fueling BMP violations, and 130 days of insufficient trestle deck containment BMP violations.

21. In determining the amount of any administrative civil liability, the Regional Water Board is required to take into account the nature, circumstances, extent, and gravity of the violation, whether the discharge is susceptible to cleanup or abatement, the degree of toxicity of the discharge, and with respect to the violator, the ability to pay, the effect on its ability to continue business, any voluntary cleanup efforts undertaken, any prior history of violations, the degree of culpability, economic benefit or savings, if any, resulting from the violation, and other matters that justice may require. At a minimum, Water Code section 13385, subdivision (e) requires that liability be assessed at a level that recovers the economic benefits, if any, derived from the acts that constitute the violations. The following considerations apply generally to all of the specific categories of violations and corresponding recommended administrative civil liabilities discussed specifically in paragraph 22, below:

- a. **Nature, Circumstances, Extent and Gravity of the Violations:**

- The United States Environmental Protection Agency established a total maximum daily load (“TMDL”) for the South Fork Eel River in 1999 for sediment and temperature. The TMDL confirms the adverse effects to the beneficial uses of the South Fork Eel River from sediment, and that discharges of sediment have a deleterious effect on the River.

- The South Fork Eel River is within the habitat range of coho salmon (*Oncorhynchus kisutch*), Chinook salmon (*Oncorhynchus tshawytscha*) and steelhead (*Oncorhynchus mykiss*), each listed under the federal Endangered Species Act or the California Endangered Species Act. Populations of

salmonids in California have declined substantially in the last century. Elevated sediment loads are known to adversely affect salmonids. Sediment delivery to watercourses is known to have substantially increased in this watershed as a result of human activities. Beneficial uses related to aquatic life, including salmonids, are the most sensitive to sediment discharges. Accordingly, staff considers the nature, circumstances, extent and gravity of all the violations relating to sediment discharges, turbidity and the failure to measure turbidity to be very serious.

- b. **Susceptibility to Cleanup or Abatement and Voluntary Cleanup Efforts Undertaken:** Most discharges to the river were not susceptible to cleanup and, therefore, this factor is not applicable to reductions in administrative liability for such discharges. Caltrans has not submitted sufficient information to show that any of the alleged discharges were cleaned up or abated in a timely manner. Where staff considers this factor relevant to a reduction in the proposed penalty amount, it is discussed specifically in paragraph 22, below.
- c. **Violator's Ability to Pay:** Staff understands that the Confusion Hill Bypass Project cost between \$70 million and \$77 million to construct. The maximum potential civil liability is small in comparison to the cost of the Project. Staff has no information to indicate that the proposed administrative liability would jeopardize Caltrans' ability to remain in business, or that it would be unable to pay the proposed administrative civil liability.
- d. **Prior History of Violations:**

Confusion Hill Bypass Project Violations

The violations identified in the November 27, 2006, NOV came to staff's attention through reports and photographs provided by the California Department of Fish and Game ("CDFG"). Caltrans had not reported the violations to the Regional Water Board.

Other Relevant North Coast Region Violations

On November 1, 2005, the Regional Water Board issued a Cleanup and Abatement Order to Caltrans for the Dry Creek Bridge replacement project. Caltrans violated the Water Quality Certification issued for the project by allowing equipment staging, material stockpiles and refuse disposal within waters of the State without a permit. Staff discovered the violations of the Water Quality Certification from a citizen complaint. Caltrans had not reported the violations.

On December 28, 2005, the Regional Water Board issued an Administrative Civil Liability Complaint to Caltrans for violations of the Van Duzen River Bridge replacement project Water Quality Certification. The violations included turbid discharges to the Van Duzen River, inadequate BMPs to protect water quality, leaks and spills of petroleum products within waters of the State, the unauthorized discharge of fill materials to waters of the State, failure to comply with the authorized work schedule required to protect wildlife and endangered species, and failure to report these violations as required by the Water Quality Certification. Caltrans paid an administrative civil liability of \$101,000.

On April 7, 2006, the Regional Water Board issued a California Water Code section 13267 Order to Caltrans to require the submittal of information related to the disposal of landslide material into the South Fork Eel River at Confusion Hill. Caltrans failed to apply for a permit for these activities or to notify the Regional Water Board of the discharges until staff discovered the sidecasting activities. The Regional Water Board received a complaint from a downstream water supply system that water quality monitoring revealed anomalous turbidity readings in the South Fork Eel River that may have been related to the sidecasting activities.

On May 30, 2007, the Regional Water Board issued Caltrans a Notice of Violation for the Hardscrabble Creek Bridge Replacement project after learning that Caltrans had removed several times more trees from the project site than had been specified in its Water Quality Certification. Although in a subsequent site inspection, Regional Water Board staff did not observe any apparent adverse impacts to water quality resulting from the unauthorized tree removal, the tree removal constituted a major deviation from the Water Quality Certification and required prior authorization by the Regional Water Board Executive Officer.

On March 6, 2008, the Regional Water Board adopted Administrative Civil Liability Order No. R1-2008-0008 in the matter of Caltrans Confusion Hill project. The order assessed a total civil liability of \$20,000 for one day of discharge of 170 gallons of a sediment slurry to the River and four days of failure to submit a written report of the discharge.

On September 30, 2008, the Regional Water Board Assistant Executive Officer issued Administrative Civil Liability Complaint Number R1-2008-0054, assessing a total penalty of \$60,000 for four violations of the Hardscrabble Creek Bridge Replacement project Water Quality Certification and Storm Water Permit including two 1,000 gallon discharges, failure to follow the project description and failure to use adequate BMPs. After issuance of the complaint, Caltrans supplied information that reduced the maximum potential

penalty to \$40,000. Caltrans and Staff are currently in settlement negotiations for the Hardscrabble Creek complaint.

- e. **Degree of Culpability:** Staff worked closely with Caltrans on the Confusion Hill Bypass Project, attempting to ensure compliance with the Water Quality Certification and the Storm Water Permit by clarifying requirements in the Application and Certification. Staff has spent considerable time providing assistance to Caltrans on the Project by amending the Water Quality Certification at Caltrans' request, performing inspections, and providing guidance for compliance by email and telephone. Staff also issued two written NOVs and a California Water Code Section 13267 Order to address previous violations associated with the Project.

The Discharger easily could have avoided many of the violations included in this Order had it simply used adequate BMPs and timely reported the violations. Caltrans was warned in the two NOVs that many of the BMPs utilized at Confusion Hill were inadequate and had resulted in violations of the Water Quality Certification and Storm Water Permit, but it failed to take corrective measures.

- f. **Economic Benefit:** Staff assumes that Caltrans and/or its contractor received substantial economic benefit by failing to implement adequate BMPs, but believes that the proposed \$1.5 million administrative civil liability will capture the benefit gained.
- g. **Other Matters that Justice May Require:** Staff has expended and continues to expend considerable time attempting to bring the Confusion Hill Bypass Project into compliance with the Water Quality Certification and Storm Water Permit and address violations. Staff costs for this enforcement action are estimated to be \$70,182. Staff respectfully requests that the Regional Water Board award it these costs of enforcement in addition to the proposed administrative civil liability.

22. Administrative Civil Liability Recommendation

The prior history of violations for the Project includes one event that is not included in this complaint. That discharge event occurred on May 4, 2007, and has already been the subject of an enforcement action. On March 6, 2008, the Regional Water Board adopted Administrative Civil Liability Order No. R1-2008-0008, assessing a \$20,000 total administrative civil liability; \$10,000 for a single event pipeline discharge of turbid water onto the gravel bar, and \$10,000 for failure to report on time. The significant number of violations detailed in Appendices A and B and described in paragraphs 19 and 20 comprise a long and continuous history of violations at the Project site.

A. Recommended Liability for (39) Construction Dewatering Violations.

The nature, circumstances, extent and gravity of the construction dewatering violations described above and summarized on Attachment A-A warrants a substantial penalty. Those construction dewatering discharge violations to Isolated Pool B should never have occurred since the requirement to dewater to basins at least 100 feet from the River is clear and unambiguous. The nature and extent of the discharge violations directly to the gravel bar within 15 feet of the River are similarly egregious. The silty water discharge that made its way to the backwater pool, discoloring the water, is also clearly forbidden by the Certification. In each of these cases, the culpability of the Discharger is also very high since the permit requirements are clear, yet were repeatedly violated. It appears that, rather than replace Isolated Pool B with a pool located the requisite 100 feet away from the River, the Discharger intentionally made the expedient economic decision to save time and money and discharge directly to the gravel bar a mere 15 feet from the River channel. All of the construction dewatering violations actually resulted in discharges of wastes to waters of the State. All the construction dewatering violations appear to have provided significant economic benefit for the Discharger in terms of time saved. Staff does not believe any of the remaining statutory factors weigh in favor of a reduction in the proposed administrative civil liability. Because of the very serious nature, circumstances, extent and gravity of these violations, because of actual impacts to waters of the state from these violations and because of the high degree of culpability associated with these violations, staff recommends the maximum administrative civil liability of \$390,000 be imposed.

B. Recommended Liability for (28) Leaky Equipment Violations.

The nature, circumstances, extent and gravity of the leaky equipment violations was pervasive at the Project site. The Biological Monitor reports that oil and hydraulic spills and drips were "a constant problem" at the Project site. Applicable BMPs are clear and unambiguous, and require that leaky equipment be repaired or removed from the Project site, yet the Discharger continued to use the same offending equipment throughout the course of the Project. Accordingly, the Discharger's culpability also warrants a high civil liability here as it clearly chose to utilize dilapidated, leaky equipment, rather than remove it from the site and replace it. Likely, the Discharger gained a substantial economic advantage from not replacing its leaky equipment, particularly the Manitowoc crane, the LINK man lift and the CAT 350. The constant leaking was brought to the Resident Engineer's attention by the Biological Monitor on many occasions, but the equipment was never replaced. Because proper BMPs were not installed on the trestle deck until very late in the Project, it is likely that many of the leaky equipment dischargers reached waters of the State. It appears from the record

that the Discharger made at least occasional efforts to clean up leaky equipment discharges when they occurred. Although leaks were a constant problem, these efforts do warrant a reduction in the recommended administrative civil liability from the statutory maximum. Staff does not believe any of the remaining statutory factors weigh in favor of a reduction in the proposed administrative civil liability. Because leaky equipment violations were pervasive, because the Discharger could have prevented them, but chose not to replace leaky equipment, and because discharges of hydraulic fluid and fuels likely reached waters of the State in spite of efforts to address and clean up spills immediately, staff recommends an administrative civil liability for the 28 leaky equipment violations of \$150,000.

C. Recommended Liability for (15) Slag Discharges from Welding and Steel Cutting.

The nature, circumstances, extent and gravity of slag discharges from welding and steel cutting is that they occurred frequently and were unaddressed by the Discharger even after the Regional Water Board's inspection on October 6, 2006. The BMPs implemented for slag discharges prior to June, 2007, were inadequate and do not represent MEP. The Discharger is highly culpable because of its disregard of BMPs. While slag discharges are not as toxic or harmful to waters of the State as the construction dewatering and leaky equipment discharges, staff considers slag discharges to be more egregious than rubbish and debris discharges. In some instances when welding slag was discharged to the gravel bar, the material may have been susceptible to cleanup; in other instances, the slag was discharged directly to the River and was not susceptible to cleanup. Staff does not believe any of the remaining statutory factors weigh in favor of a reduction in the proposed administrative civil liability. Accordingly, staff recommends an administrative civil liability of \$50,000 for the 15 slag discharges.

D. Recommended Liability for (20) Violations from Turbid Discharges to the River.

- a. The nature, circumstances, extent and gravity of these violations must be viewed in light of the fact that the River is on the 303(d) list of water bodies impaired for sediment, and is spawning and rearing grounds for Coho salmon, Chinook salmon and Steelhead, each listed under the federal or California Endangered Species Act. Turbid discharges to the River degrade its beneficial uses by directly contributing to a preexisting impairment and degrading spawning grounds. The turbid discharges have a high degree of toxicity with respect to the endangered species occupying the River. It appears from the record that many of these discharges could have been avoided, and therefore staff recommends a high culpability factor be applied to these violations. For example, the

January 5, 2007, drilling wastewater and stormwater discharge through the broken pipe could have been easily avoided by more careful draining and cleaning the pipeline, or by capping the pipeline before it was pulled across the South Fork Eel River, but the Discharger made neither effort. Staff does not believe any of the remaining statutory factors weigh in favor of a reduction in the proposed administrative civil liability. Staff considers these violations to have serious impacts to water quality, which warrant a high administrative civil liability. Accordingly, staff recommends an administrative civil liability for the (20) violations from Turbid Discharges to the River of \$150,000.

E. Recommended Liability for (22) Insufficient Turbidity Measurement Violations.

The nature, circumstances, extent and gravity of the insufficient turbidity measurements warrant a substantial penalty because they hinder compliance determination. Because turbidity measurement data was not appropriately gathered and because that data which was gathered is unreliable, the Regional Water Board was deprived of the opportunity to monitor and regulate the Project's impacts on water quality. The Discharger is directly responsible for taking these measurements and bears a high degree of responsibility for assuring that they are accurate and complete. Without having accurate and complete data measurements, the Regional Board staff cannot determine whether the turbidity events caused substantial detriment. Staff does not believe any of the remaining statutory factors weigh in favor of a reduction in the proposed administrative civil liability. Because of the Discharger's failure to take accurate and complete measurements, the Regional Water Board's regulatory program could not be implemented, and staff considers these violations to be very serious. Accordingly, staff recommends an administrative civil liability of \$110,000 for 22 violations from insufficient turbidity measurements.

F. Recommended Liability for (16) Improper Disposal of Cement Waste Violations.

The nature, circumstances, extent and gravity of the cement waste discharge violations indicates a high liability because it was made clear to Caltrans during the Certification and Application process that cement wastes were not to be discharged to the River. The Discharger also has a high degree of culpability due to its disregard of clearly defined practices for the disposal of cement wastes. Also, the characteristic high alkalinity of cement waste is very toxic, particularly to the endangered species known to occupy the River. Staff does not believe any of the remaining statutory factors weigh in favor of a reduction in the proposed administrative civil liability. Because of the nature of the discharge of cement wastes to a 303(d) listed water, because of the clear directive to avoid the discharge of cement wastes to the River and because of the high toxicity of

cementitious discharges, staff recommends a \$160,000 administrative civil liability for the (16) cement waste discharge violations.

G. Recommended Liability for (9) Days of Rubbish and Debris Discharge Violations.

Rubbish and debris discharges are not toxic, and do not present a substantial impairment of beneficial use, nor a significant threat to water quality. The Caltrans engineering diaries, which were submitted to the Regional Water Board by CDFG, indicate that a punch list was developed to clean up the accumulated debris on the gravel bar. Although the cleanup efforts may have mitigated some of the potential impacts, the discharges were in violation of the permits and should not have occurred in the first place. Furthermore, the accumulation of debris indicates that the cleanup efforts were not performed in a timely manner. Accordingly, staff considers them to be minor violations, and it recommends a \$10,000 administrative civil liability for the (9) days of rubbish and debris discharge violations.

H. Recommended Liability for (5) Individual Event Violations.

The equipment fueling that occurred on the gravel bar in August 2006 was in direct violation of the Certification and Storm Water Permit, was out of compliance with a standard BMP and created a potential impact to surface waters. Accordingly, staff considers the nature, circumstances, extent and gravity of this violation, as well as the Discharger's culpability and the toxicity of the discharge to warrant a high liability. Staff does not believe any of the remaining statutory factors weigh in favor of a reduction in the proposed administrative civil liability. Accordingly, staff recommends that the maximum liability of \$10,000 be imposed for the violation associated with equipment refueling on the gravel bar.

The hydraulic fluid spill on the gravel bar in August 2006 was an accident and staff assigns a low degree of culpability for it. Also, it was cleaned up immediately and therefore likely had a low impact on water quality. Accordingly, staff recommends a \$1,000 liability for the single violation associated with this event.

When soil was pushed over the bank to within the bankfull width of the River in November, 2006, it was placed in a location where it was likely to be discharged by rainfall to waters of the State. Because pushing the soil over the bank was intentional, and because this soil could have been cleaned up before being discharged to waters of the State, but was not, staff considers this violation to warrant the statutory maximum liability of \$10,000.

The sandblasting discharge in May 2007 was in direct violation of the Certification. No BMPs were in place before the discharge and it directly contributed to the preexisting sediment impairment of the River. The violation was intentional and carries a high degree of culpability. Accordingly, staff recommends at \$20,000 civil liability for the two violations arising from the May, 2007 sandblasting discharge.

A total administrative civil liability of \$41,000 is recommended for the six individual event violations.

I. Recommended Liability for (141) Days of Violation of the Storm Water Permit

This Complaint describes 141 days of violations of the Storm Water Permit and SWPPP, including 11 days of improper fueling BMPs and 130 days of insufficient containment on the trestle deck. For weeks, construction workers were refueling equipment in forbidden areas without any training or knowledge of required fueling practices. The Discharger's level of culpability for these violations is considered extremely high. It was the Discharger's sole responsibility to educate and train its workforce before undertaking Project activities, particularly refueling activities that could result in catastrophic fuel spills or discharges and a direct and substantial impact to water quality. The same analysis of the culpability factor applies to containment on the trestle BMPs, which were not addressed until January 8, 2007. Insufficient containment also represented a direct potential impact to water quality. However, because it is not clear whether these violations resulted in actual discharges to waters of the State, nor the extent to which they may have impaired those waters, staff recommends an administrative civil liability of \$450,000.

STAFF RECOMMENDS A TOTAL ADMINISTRATIVE CIVIL LIABILITY FOR THE VIOLATIONS ALLEGED IN THIS COMPLAINT OF \$1,511,000 OUT OF A STATUTORY MAXIMUM OF \$2,950,000.

Table 1 below summarizes the recommended administrative civil liability amounts for each type of violation:

Table 1: Summary of Administrative Civil Liability

Permit	Violation Type	# Violations	Maximum Potential Liability	Proposed Penalty
Certification	Construction dewatering	39	\$390,000	\$390,000
Certification	Leaky equipment	28	\$280,000	\$150,000
Certification	Slag discharges	15	\$150,000	\$50,000
Certification	D. Turbid Discharges to	20	\$200,000	\$150,000

Permit	Violation Type	# Violations	Maximum Potential Liability	Proposed Penalty
	the river			
Certification	E. Insufficient turbidity measurements	22	\$220,000	\$110,000
Certification	F. Improper disposal of cement wastes	16	\$160,000	\$160,000
Certification	G. Rubbish and debris discharges	2	\$90,000	\$10,000
Certification	H. Individual events	5	\$50,000	\$41,000
Storm Water Permit	SWPPP BMP: Containment	141	\$1,401,000	\$450,000
Total →			\$2,950,000	\$1,511,000

23. The issuance of this Complaint is an enforcement action to protect the environment and is, therefore, exempt from provisions of the California Environmental Quality Act (Public Resources Code sections 21000 et seq.) pursuant to title 14, California Code of Regulations, sections 15308 and 15321, subdivision (a)(2).

Luis G. Rivera
Assistant Executive Officer

August 13, 2009

09_0095_ACLC_CaltransConfusionHillDischarge_KVG

Appendix A
401 Water Quality Certification

Table 1:
Discharge Violations

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
H	8/17/2006	Hydraulic fluid spill on gravel bar ¹	060817-01	9	\$10,000
A	08/21/2006	Construction Dewatering: Photo of discharge to Isolated Pool B. "4. A temporary sedimentation basin has been constructed and used within 100 feet of the live stream channel." ²	060821-01	9, 12, 17	\$30,000
H	8/22/2006	Equipment Fueling on Gravel Bar: "1: Equipment is being fueled on the riverbar at the north bridge. Our permit with the Regional Water Quality Control Board explicitly states that fueling must only occur outside of waters of the United States. At the PDT James Hamm acknowledged that they were fueling a compressor, generator, man-lift and backhoe." ²		13	\$10,000
B		Leaky Equipment: "2. A discharge of oil occurred from the backhoe directly onto the riverbar. Equipment that has minor leaks must not be allowed to operate in sensitive areas such as the riverbar. This discharge should have been reported to the RE and cleaned up immediately. There were no BMP's in place to prevent the discharged oil from reaching the riverbar." ²		9, 13	\$20,000
B	8/29/2006	Leaky Equipment: Oil leak on gravel bar ²	060829-01	9, 13	\$20,000
F		Improper Disposal of Cement Wastes: "On August 29, during placing a concrete in a corrugated steel pipe within the river, the water level rose and to prevent it from overflowing into the river, the water was pumped to the dewatering basin." ²		9, 17	\$20,000
F		Improper Disposal of Cement Wastes: "After placing the concrete seal course, the contractor cleaned the hopper, tremie and shovels in a footing excavation in the river bar." ²		9, 10, 17	\$30,000
D,E		Turbid Discharge to River from isolated pool B through gravel bar; No turbidity measurements were taken "Seeping through bar. After 8 hours of pumping from coffer dams set in bar to Isolated Pool B." ¹		9, 19	\$20,000
A		Construction Dewatering to Isolated Pool B: "... 8 hours of pumping from coffer dams set in bar to Isolated Pool B." ¹		9,12,17	\$30,000
F	8/30/2006	Concrete Washout to unlined area ²	060830-01 060830-02	9, 17	\$20,000
A		Construction Dewatering to Isolated Pool B: "... 8 hours of pumping from coffer dams set in bar to Isolated Pool B." ¹		9, 12, 17	\$30,000
D,E		Turbid Discharge to River from isolated pool B through gravel bar; No turbidity measurements were taken "Seeping through bar. After 8 hours of pumping from coffer dams set in bar to Isolated Pool B" ¹		7, 9, 19	\$30,000

A	8/31/2006	Construction dewatering pumped into Isolated Pool B. "After 8 hours of pumping from coffer dams set in bar to Isolated Pool B." ¹	060831-01	9, 12, 17	\$30,000
A		Construction dewatering directly to gravel bar – "After this event the water was not pumped into the isolated pool but was pumped directly onto the gravel bar adjacent to the cofferdams. The gravel bar was at a minimum about 15 feet from the river, but the plume did not appear to go into the river." ²		9, 12, 17	\$30,000
E	9/1/2006	Insufficient Turbidity Measurements: Sediment plume lasted two minutes and persisted for approximately 5 minutes 20-30 feet downstream were caused by placement of gravel bags for placement of trestle footings. ⁷		19	\$10,000
D,E		Cement Discharge to River: "Temporary plume of fine sediments from cement seeping out bottom when seal cement poured." ^{1,2}	060901-01	9, 19	\$20,000
A	9/5/2006	Construction Dewatering: "ASR NOTE: ...I overheard Superintendent James Ham tell his employee to 'shut off the pump, you're pumping out too much water.' ...the pump was discharging to...Mr. Ham's feet on the outside of B5 cofferdam with rock saturated and no standing water. I also did not see any equipment to verify pH levels or any muratic acid to lower pH levels." ³		9, 12, 17	\$30,000
E	9/6/2006	Insufficient Turbidity Measurements: 1 st Heavy Vehicle Crossing caused a 200-foot plume for 25 minutes. No turbidity measurements were taken. ²	060906-01	19	\$10,000
D,E	9/7/2006	Turbid Discharge to River "Late this afternoon, Gene Leo was talking to Walt Dragaloski about the reports he had from biologist Brad Norman about discharges into the river at the N Br const area. One was from dewatering into a settlement basin and after about 8 hrs of pumping some turbidity was noticed emanating from the gravel bar." ³		7, 9, 19	\$30,000
A		Construction Dewatering to Isolated Pool B: "Late this afternoon, Gene Leo was talking to Walt Dragaloski about the reports he had from biologist Brad Norman about discharges into the river at the N Br const area...The other was during the seal course placement within the two CSP's for the trestle bent 3 foundations...A pump was running to lower the water level inside the CSP's, which was ineffective until the water level rose due to the placement of the concrete seal course. Pumping was halted after the conc placement started. The water was pumped to a settlement basin against the river bank." ³		9, 12, 17	\$30,000
D,E		Turbid Discharge to River: "Late this afternoon, Gene Leo was talking to Walt Dragaloski about the reports he had from biologist Brad Norman about discharges into the river at the N Br const area...The other was during the seal course placement within the two CSP's for the trestle bent 3 foundations...The conc was placed with a tremie pipe and during the first half yard of conc placement a small discharge was noticed... The discharges dissipated quickly		9, 19	\$20,000

		within about 50' (Rt CSP) to 100' (Lt CSP) as near as I could tell. Although there was some discussion of measuring the turbidity, Brad mentioned that it didn't appear to him that there was a 20% increase at 100'. ³			
F	9/8/2006	Cement Discharge: "...the water was tested for pH, treated with muriatic acid then pumped into the settlement basin. I estimate about 25 gal was pumped from the Lt CSP and perhaps 50 gal pumped from the Rt CSP based on the conc placed." ³	060908-01 060908-02	9, 17	\$20,000
D,E	9/9/2006	Turbid Discharge to River: Sediment Plume from placement of trestle footings. Improper BMPs and no turbidity measurements were taken. ² "RE Ron den Heyer came to my office with Carl Page and a photo of turbidity from drilling debris in the water around trestle foundation 4 Lt...Mitch...said that MCM was using a baffle to keep anchor rod hole cleanout debris within the 6' dia CSP...He also has told them previously that any debris on the planks over the CSP's had to be cleaned off into the CSP's." ³	060909-01 060909-02	9, 19	\$20,000
B		Leaky Equipment: Oil stained gravel on gravel bar photographed by Biological Monitor. ²	060909-03	9, 13	\$20,000
A	9/11/2006	Construction Dewatering: "Note: Mitch Shands on site intermittently some pumping of H2O out of CMP was done. This water was tested for pH per Mitch - was ~ same pH as the active channel." ³		9, 12, 17	\$30,000
F	9/13/2006	Cement Discharge: Improper disposal of cement wastes - "Workers dumped cement refuse onto edge of gravel bar." ²	060913-01	9, 17	\$20,000
C	9/15/2006	Welding Slag: "Env Issues: Span 4 is over the active channel - noticed some minor slag dropping into channel ..." ³		9	\$10,000
G	9/18/2006	Rubbish Discharge to River: Rubbish in river (wood waste and rope). ²	060918-01 060918-02	9	\$10,000
C	9/21/2006	Welding Slag Discharge to River: "When the next weekly biologic monitor report comes out on Monday it will contain information regarding a discharge of welding slag and/or wire into the South Fork Eel River during construction of the trestle. This discharge is required to be reported to the Regional Water Quality Control Board (RWQCB). There were no BMP's in place to help prevent the discharge...The contractor attempted to prevent further discharge by placing a 5-gallon bucket of water under the welding locations. The buckets were only partly effective due to windy conditions. Please inform Justin Porteous, MFC, to investigate the incident and file an Attachment K as required by the SWPPP." ²	060921-01	9	\$10,000
G	9/22/2006	Rubbish Discharge to River: Rubbish and organic debris in river (wood scraps, sawdust, and trash) ²	060922-01 060922-02 060922-03 060922-04	9	\$10,000

"Trestle Construction. The MCM Trestle Construction Operation continues to discharge sawdust, cigarette
060922-05
060922-06

		recycled I-beams, welding rods, oily rags and gloves, cut wood pieces, ...into the South Fork Eel main stem on a daily basis." ¹			
D,E		Turbid Discharge to River: 2 nd Heavy Vehicle Crossing caused a 400-foot plume visible for 30 minutes. Insufficient turbidity measurements taken – Horiba Meter not accurate. "Equipment cleaning was a pro-active measure taken for the first and third crossings, but it appeared to have not been done for the second crossing event witnessed by B. Normar... This was apparent by the much larger amount of dirt on the equipment during the second crossing compared to the other two crossings. No 'staging of the equipment' occurred immediately prior to the September 22 crossing... Note mud was still caked on after going through the clean cobble river bed." ²	060922-07 060922-08 060922-09 060922-10 060922-11 060922-12 060922-13 060922-14 060922-15	9, 19	\$20,000
B		Leaky Equipment: Photograph of dirt road with many oil stains. ¹	060926-01	9, 13	\$20,000
G	9/26/2006	Rubbish Discharge to River: Large flakes of rust and wood waste in river ¹	060926-02 060926-03 060926-04 060926-05 060926-06	9	\$10,000
G		Rubbish Discharge to River: Rust dropped into north-side main stem Eel River ¹	060927-01 060927-02 060927-03 060927-04	9	\$10,000
B	9/27/2006	Leaky Equipment: "Oil leaks above river on wooden trestle. The large trestle crane had this problem regularly." ¹ Photograph by Biological Monitor of oil stains on the trestle deck with rags and absorbent pads soaked with oil. ¹	060927-05	9, 13	\$20,000
E	9/28/2006	Insufficient Turbidity Monitoring: In stream prep-work: "Sediment plume caused by workers in the channel moving gravels off bedrock to set CMP 'footings cofferdams'" Duration: 4 hours in pulses; Length 100 Feet; Turbidity: (4,5,5,4,3) In Plume / (0,0,..., 0) Upstream) ^{1,2} The turbidity measurements were not taken as required by the Certification making difficult the determination of water quality impacts.	060928-01 060928-02 060928-03	19	\$10,000
D,E	9/29/2006	Cement Discharge: Cement in mainstem from concrete footing seal pour. "Sandbags were then placed on the outside perimeter only, no sandbags were placed on the inside of the CMP. CONTR began placing seal coarse concrete @ 1701 hrs... CONTR began by placing the seal coarse in the #3 FTG. During the placement, it was apparent that the contractor did not have a good seal around the CMP. Concrete escaped from the CMP leaving a plume in the river approx 150'-0 in length." ² Insufficient turbidity measurements.	060929-01 060929-02 060929-03	9, 19	\$20,000
D,E		Cement Discharge: Silt in mainstem from cement footing seal pour.	060929-04 060929-05 060929-06	9, 19	\$20,000

"During the placement for the #4 FTG, the CONTR's

		tremie on the hopper came off. While trying to reattach the tremie, the CONTR worked around the CMP standing on the sandbags. A plume was evident but how much was concrete or how much was alga was hard to determine." ²			
F		Cement Discharge: Improper disposal of cement wastes on gravel bar "After the tremie was reattached, the CONTR resumed placing the seal course, To prevent the water from overflowing the CMP, the water (untreated) was pumped onto the gravel bar, approx 60'-0 from the rivers edge." ²	060929-07 060929-08 060929-09	9, 17	\$20,000
F		Cement Discharge: "Once the seal coarse operation was completed, the CONTR cleaned the hopper, tremie and shovels in the glory hole for 2-7's FTG. This was also observed by SR Garry Tolen." ³		9, 10, 17	\$30,000
E	10/2/2006	Turbid Discharge to River: 3 rd Heavy Vehicle Crossing caused a plume. Turbidity measurements show an increase from 0-2.0 NTU 100 feet down stream. "At 3:24 pm, the turbidity measurement 100-feet below the crossing area maintained a reading of 2.0 NTU's on the Horiba U-10 water quality meter." ²	061002-01	19	\$10,000
A	10/3/2006	Construction Dewatering: "A little after 1100 Mitch Shands called to inform me the discharge from the dredge wasn't far from the steel plate cofferdam. I said it was supposed to be 100 ft from the river but we were allowing up against the bedrock because we couldn't get 100 ft. He said it was about 20 ft from the bedrock. He said Francisco Cordero, labor foreman, said they didn't have any more hose. I said that wasn't our problem and I'd come out to take a look." ²		9, 12, 17	\$30,000
B	10/5/2006	Leaky Equipment: "Oil and diesel stains on the gravel bar were ID for cleanup..." ³		9, 13	\$20,000
B	10/6/2006	Leaky Equipment: RWB Inspection - Backhoe in gravel bar with fluid leakage, Compressor and Crane with insufficient BMPs. "Staff observed a backhoe on the gravel bar near the north bridge that had excessive fluid leakage. Absorbent rags were stuffed into several crevices to control the leakage, however; that backhoe was not in an adequate condition for continued use near any river or gravel bar." ⁴	061006-01 061006-02 061006-03 061006-04	9, 13	\$20,000
C		Welding Slag Discharge: RWB Inspection Welding on temporary trestle and over river channel, debris falling into water. "Staff observed welding on the temporary trestle and over the river channel. Welding slag was observed to be falling directly into the water and the adjacent gravel bar." ⁶ "Molten slag was observed dripping into the river at 2:20 pm, using no bucket to catch the excess. This activity was terminated, but not before noticeable amounts of slag, small sheets of rusty metal, welding rods, and other debris had accumulated in the river channel." ³		9	\$10,000

C		Steel Cutting: RWB Inspection – “Staff observed that rebar had been cut with a torch on the gravel bar without any containment. Steel slag and debris was deposited on the gravel bar within 150 feet of the high water mark, and where it may be washed into the river...Staff also observed steel being cut in the same area on the gravel bar. A small piece of plastic was placed under the saw; however, the plastic was not containing all the steel cuttings.” ⁴	061006-05	9	\$10,000
A		Construction Dewatering: “During our inspection staff observed use of a sedimentation basin on the gravel bar near the north bridge. Staff were informed that the same basin was used to dispose of water that contacted wet cement, as well as for the dewatering activities that caused the turbidity discharges described above.” ⁴	061006-01	9, 12, 17	\$30,000
A	10/7/2006	Construction dewatering disposal on gravel bar ^{1,2} “Dewatering of the footings on the gravel bar caused some concern and a mini-memo was delivered to Mr. Hamm at MCM. Silty water was not being deposited in the approved area 70-feet away from the river.” ²		9, 12, 17	\$30,000
D,E		Turbid Discharge to River: First Event – Plume noted during attempt to install last two footings for falsework trestle. No turbidity measurements taken. “After the CONTR made 3 passes the silt began to escape thru the silt fence. CONTR stopped digging and placed more filter sandbags. The plume dissipated in about ½ hr.” ² “Caltrans admits the presence of the silt fence in the river, intended to be containment for the anticipated release of turbid waters from in-stream excavation of cofferdam spoils was not the proper BMP.” ⁸	061007-01 061007-02	9, 17, 19	\$30,000
D,E		Turbid Discharge to River: Second Event – Silt from cement CMP footing seal pour. No turbidity measurements taken. “The CONTR then made a 2 nd attempt at excavating the footings. After about 6 passes, the silt again began to escape and leave a plume...Mr. Ham stated that the plastic wouldn't work, that the water is coming up thru the rock (Bottom) and using bladder bags would not give him enough room to work...” ³		9, 17, 19	\$30,000
D,E		Turbid Discharge to River: Third Event – “...Mr. Ham then stated that he was at least two thirds complete and everyone from the agencies are probably home now so he was going to go back down and complete the remaining excavation work...CONTR's SUBMITTAL IS INCOMPLETE AND HAS NOT BEEN APPROVED! CONTR IS PERFORMING WORK AT HIS OWN RISK.” ³		9, 17, 19	\$30,000
B	10/11/2006	Leaky Equipment: “Inspections of machinery identified two problems. The IR compressor leaks excessively, and diapers and plastic sheets have been employed for a long		9, 13	\$20,000

		time but the leaks increase. The second unidentified leak from the Manitowic crane grows worse. Plastic sheeting catching oil and hydraulic leaks have also spilt onto the false bridge deck on several occasions." ¹			
B	10/12/2006	Leaky Equipment: "Oil and diesel stains on the gravel bar were identified for cleanup... I discovered a large oil stain under one piece of machinery at noon, not cleaned up by 1:30, raised concerns...keeping the gravel bar clean is a constant battle to control the accumulation of debris, oil, and hydraulic fluids." ¹ Photo of an oil spill under the backhoe. ¹ Photo of an air compressor with plastic sheeting spilling its contents onto the river bar. ¹ Photo of leaking crane on trestle with plastic sheeting spilling its contents. ¹	061012-01 061012-02 061012-03	9, 13	\$20,000
E	10/14/2006	Insufficient Turbidity Measurements: Two discharges during construction of in-stream footings. "The area around the footing to be excavated was isolated from active flow with the use of a fabric material, fence posts, and sand bags. This initial attempt produced a notable plume outside the containment area, and was ceased until improvements were made. The second attempt proved ineffective due to subsurface flow through the isolation area and porosity of the fabric." No turbidity measurements were taken. ¹		19	\$20,000
D	10/16/2006	Cement Discharge: "At 17:10, when pour concrete at 1 footing by the river (bent 2-4), there were miner leak [sic]." ³		9, 19	\$20,000
E		Insufficient Turbidity Measurements: In-channel prep-work for installation of steel containment shroud. Hand work resulted in 8'x3' plume for 15 min. Insufficient turbidity measurements. ¹	061016-01	19	\$10,000
G		Rubbish Discharge to River: Rust on I-beam uncontained over river, and wood waste and trash in the river. ²	061016-02 061016-03 061016-04 061016-05 061016-06 061016-07 061016-08 061016-09 061016-10	9	\$10,000
C	10/17/2006	Steel Cutting Discharge: "Welding slag was discharged to the river and cleaned up immediately" ¹ "Found a welder attaching angles to the cofferdam template with no attempt to catch splatter/slag. I told them they were not allowed to drop material into the water and they hung a bucket under the work which caught about half of the falling material." ³	061017-01 061017-02 061017-03 061017-04 061017-05 061017-06	9	\$10,000
C	10/18/2006	Steel Cutting Discharge: Steel Cutting on gravel bar without containment ¹ "Garry came to jobsite and pointed out that the welding slag remaining on the riverbed needed to be cleaned." ³	061018-01	9	\$10,000

E		Insufficient Turbidity Measurements: Sheet piles were pounded into place, resulting in a 25'x6' plume for 20 min during cofferdam installation. Insufficient turbidity measurements. ¹	061018-02	19	\$10,000
C	10/20/2006	Welding Slag on gravel bar: Photograph ¹	061020-01	9	\$10,000
D,E		Cement Discharge to River: Concrete seal course pour resulted in a 2'X4' plume for 5 min. No turbidity measurements ¹	061020-02	9; 19	\$20,000
C	10/24/2006	Steel Cutting going into river ¹ - "I observed a worker cutting plate steel with a cutting torch on the river bed." ²	061024-01 061024-02 061024-03 061024-08	9	\$10,000
G		Rubbish Discharge to River: "Large flakes of rusty metal from I-beams and slag from continuous welding accumulated on the gravel bar. These were temporarily cleaned up, but those in the river remain." ¹		9	\$10,000
G	10/25/2006	Rubbish Discharge to River: "A punch list was developed to return the gravel bar to its natural state by the end of the month. They included removing various debris from Split-set and welding rods around railing and wood scraps, sawdust, plastic and food wrappings. Molten slag on rocks and in the sand on both sides of river needed removal as well. Large rust flakes on both banks and in the river have accumulated and require removal also." ¹	061025-01 061025-02 061025-03	9	\$10,000
C		Steel Cutting: "-0830...I went down to the gravel bar and found some 3x3 angles that had been spliced on the gravel bar and a worker cutting plate steel with the slag falling on the gravel." ³		9	\$10,000
C	10/26/2006	Welding slag discharge to gravel bar - "...Observed welder in the manlift welding longitudinal force transfer clips onto the trestle beams with much of the debris falling to the gravel bar..." ³	061026-01	9	\$10,000
C		Welding slag going into river ¹ - "Rich came with Carl, pointed out MCM cutting, welding at gravel bed. The site was later cleaned by the contractor... "...one of his [Ham's] workers was on the southerly side of the river cutting steel plates to go around FW columns in bent 2-3 with nothing under it to catch the slag. He said well I guess he'll have to clean it up. I said yes, but he shouldn't be cutting that way anyway." ³	061026-02	9	\$10,000

G		Rubbish Discharge to River: Photo of large flakes of rust from I beams uncontained and falling to gravel bar and river. ²	061026-03	9	\$10,000
B	10/27/2006	Leaky Equipment: "Oil leaks continue to occur without adequate cleanup or prevention with the standard kiddy pools and diapers. Most of the heavy equipment used on this project is old and leak constantly. Overnight oil spots are often not prevented and typically just covered up with soil. The worst offenders are the Manitowoc crane on the false bridge, the LINK man lift on the gravel bar, and the CAT 350. This has been brought to the attention of the RE on many occasions. The plastic 'tarps' placed under the crane constantly spills its contents onto its tracks and the bridge decking." ¹ Photograph of oil contained by plastic sheeting. ¹	061027-01 061027-02 061027-03	9, 13	\$20,000
C	10/28/2006	"Welding Slag continued to fall into the river without adequate mitigation." ¹		9	\$10,000
B		Leaky Equipment: Photograph of oil stained gravel on the gravel bar ¹	061028-01 061028-02	9, 13	\$20,000
B	10/30/2006	Leaky Equipment: Photographs of fresh oil stains on the trestle deck and the Manitowoc crane on the trestle deck with a plastic diaper. ¹ Photograph of oil stains along the access road in front of the Caltrans office. ¹ Photograph of an oil stain underneath piece of equipment	061030-01 061030-02 061030-03 061030-04 061030-05 061030-08 061030-09 061030-10 061030-11	9, 13	\$20,000
C		Steel Cutting: Large steel plate and cuttings in the river	061030-06 061030-07	9	\$10,000
G	10/31/2006	Rubbish Discharge to River: in river: Photograph of flakes of rust in the river. ¹	061031-01	9	\$10,000
C		Steel Cutting: Steel plates still in river from the day before.	061031-02 061031-03	9	\$10,000
B		Leaky Equipment: Photograph of an oil leak from a large piece of equipment on a dirt road. ¹	061031-04	9, 13	\$20,000
C	11/1/2006	Welding slag discharged to river without containment. ¹	061101-01 061101-02 061101-03 061101-04 061101-05 061101-06 061101-07	9	\$10,000
B	11/3/2006	Leaky Equipment: "11. The crane being used on the trestle has leaking fluids. This has been noted many times earlier. The contractor has attached a piece of plastic under the crane, but the plastic catches both oil leaks and stormwater. There is evidence on the trestle deck that oil that has leaked off of the plastic. I observed commingled oil with water on the plastic during my site visit." ³		9, 13	\$20,000
H		Sediment Discharge: "19. During construction of the work platform for the south		9	\$10,000

		bridge Pier 2, loose soil was pushed over the edge of the bank. The soil cascaded all the way to the toe of the slope, which is below the Ordinary High water elevation." ³			
A	11/13/2006	Construction Dewatering: "I spoke to Mitch Lipsky about: 1) pumping silty grey H2O directly onto rock that allows the silty H2O to go into the gravel bar...2)disposal of silty H2O with a bucket that is taken out of the shaft/pumped into bucket. Material, H2O and rock was dumped at top of access without containment-- the resulting silty H2O ran off the top of the access road and back down to the gravel bar. This can not take place! Corrective measures were not implemented until Ron Den Heyer was on site & spoke to Mitch." ³ "Spoke with Mitch Lipsky regarding water from the drilling operation draining onto the rock within the 100 yr. I stated that it was in violation of the permits." ³	061113-01	7, 9	\$20,000
A	11/14/2006	Construction Dewatering: "Spoke with Mitch's signal man in the AM and told him to let Mitch know to shut off the pump draining water to the rock below the 100 yr. In the afternoon I addressed the issue to him directly. He was told that he was in violation of the permits." ³		7, 9	\$20,000
D	~1/5/2007	Turbid Discharge to River: Approximately 170 gallons of stormwater and drilling water was discharged to Eel River and gravel bar at night through a broken pipe. ⁵		9	\$10,000
A	3/7/2007	Construction Dewatering: "1 Labor, and 2 metal fabricators dewatering Pier Pit and prepping site for work trestle. A small electric sump pump is being used to get the last of the water. Water is being released under the Oregon Oak Tree – the brownish water is making its way to the Eel river side-channel discoloring the waters." ³		7, 9	\$20,000
H	5/23/2007	Sand Blasting rebar without appropriate BMPs. "The contractor used sand to sandblast rebar...at Pier 3... without use of appropriate BMP's, without Caltrans oversight, and in disregard of the direction provided by the Resident Engineer prior to the activity. It is estimated that 6 bags of sand were used to clean the rebar and the waste was not contained and was allowed to fall directly to the gravel bar of the South Fork Eel River, below the Pier 3 falsework...the sand is well dispersed...and that it may not be feasible to remove the sand without also removing naturally placed riverbar fines." ⁶		7, 9	\$20,000
Total →					\$1,540,000

¹ CD of Biological Monitoring Reports: Received 11/20/2006

² Response to Notice of Violation (Binder) Received 12/14/2006; Final Biological Monitoring Report and associated photographic record

³ Engineering Diaries

⁴ Regional Water Board Inspection

⁵ Email notification from Walt Dragaloski on 2/21/2007

⁶ Email notification from Walt Dragaloski on 5/23/2007

⁷ Attachment K Received on 10/6/2006

⁸ Caltrans Letter Received on 3/12/2007

Appendix A_A
401 Water Quality Certification

Table 1:
Discharge Violations

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
A	08/21/2006	Construction Dewatering: Photo of discharge to Isolated Pool B. "4. A temporary sedimentation basin has been constructed and used within 100 feet of the live stream channel." ²	060821-01	9, 12, 17	\$30,000
A	8/29/2006	Construction Dewatering to Isolated Pool B: "... 8 hours of pumping from coffer dams set in bar to Isolated Pool B." ¹		9,12,17	\$30,000
A	8/30/2006	Construction Dewatering to Isolated Pool B: "... 8 hours of pumping from coffer dams set in bar to Isolated Pool B." ¹		9, 12, 17	\$30,000
A	8/31/2006	Construction dewatering pumped into Isolated Pool B. "After 8 hours of pumping from coffer dams set in bar to Isolated Pool B." ¹	060831-01	9, 12, 17	\$30,000
A		Construction dewatering directly to gravel bar – "After this event the water was not pumped into the isolated pool but was pumped directly onto the gravel bar adjacent to the cofferdams. The gravel bar was at a minimum about 15 feet from the river, but the plume did not appear to go into the river." ²		9, 12, 17	\$30,000
A	9/5/2006	Construction Dewatering: "ASR NOTE: ...I overheard Superintendent James Ham tell his employee to 'shut off the pump, you're pumping out too much water.' ...the pump was discharging to...Mr. Ham's feet on the outside of B5 cofferdam with rock saturated and no standing water. I also did not see any equipment to verify pH levels or any muratic acid to lower pH levels." ³		9, 12, 17	\$30,000
A	9/7/2006	Construction Dewatering to Isolated Pool B: "Late this afternoon, Gene Leo was talking to Walt Dragaloski about the reports he had from biologist Brad Norman about discharges into the river at the N Br const area...The other was during the seal course placement within the two CSP's for the trestle bent 3 foundations...A pump was running to lower the water level inside the CSP's, which was ineffective until the water level rose due to the placement of the concrete seal course. Pumping was halted after the conc placement started. The water was pumped to a settlement basin against the river bank." ³		9, 12, 17	\$30,000
A	9/11/2006	Construction Dewatering: "Note: Mitch Shands on site intermittently some pumping of H2O out of CMP was done. This water was tested for pH per Mitch – was ~ same pH as the active channel." ³		9, 12, 17	\$30,000
A	10/3/2006	Construction Dewatering: "A little after 1100 Mitch Shands called to inform me the		9, 12, 17	\$30,000

		discharge from the dredge wasn't far from the steel plate cofferdam. I said it was supposed to be 100 ft from the river but we were allowing up against the bedrock because we couldn't get 100 ft. He said it was about 20 ft from the bedrock. He said Francisco Cordero, labor foreman, said they didn't have any more hose. I said that wasn't our problem and I'd come out to take a look." ²			
A	10/6/2006	Construction Dewatering: "During our inspection staff observed use of a sedimentation basin on the gravel bar near the north bridge. Staff were informed that the same basin was used to dispose of water that contacted wet cement, as well as for the dewatering activities that caused the turbidity discharges described above." ⁴	061006-01	9, 12, 17	\$30,000
A	10/7/2006	Construction dewatering disposal on gravel bar ^{1,2} "Dewatering of the footings on the gravel bar caused some concern and a mini-memo was delivered to Mr. Hamm at MCM. Silty water was not being deposited in the approved area 70-feet away from the river." ²		9, 12, 17	\$30,000
A	11/13/2006	Construction Dewatering: "I spoke to Mitch Lipsky about: 1) pumping silty grey H2O directly onto rock that allows the silty H2O to go into the gravel bar...2)disposal of silty H2O with a bucket that is taken out of the shaft/pumped into bucket. Material, H2O and rock was dumped at top of access without containment-- the resulting silty H2O ran off the top of the access road and back down to the gravel bar. This can not take place! Corrective measures were not implemented until Ron Den Heyer was on site & spoke to Mitch." ³ "Spoke with Mitch Lipsky regarding water from the drilling operation draining onto the rock within the 100 yr. I stated that it was in violation of the permits." ³	061113-01	7, 9	\$20,000
A	11/14/2006	Construction Dewatering: "Spoke with Mitch's signal man in the AM and told him to let Mitch know to shut off the pump draining water to the rock below the 100 yr. In the afternoon I addressed the issue to him directly. He was told that he was in violation of the permits." ³		7, 9	\$20,000
A	3/7/2007	Construction Dewatering: "1 Labor, and 2 metal fabricators dewatering Pier Pit and prepping site for work trestle. A small electric sump pump is being used to get the last of the water. Water is being released under the Oregon Oak Tree -- the brownish water is making its way to the Eel river side-channel discoloring the waters." ³		7, 9	\$20,000
Total →					\$390,000

¹ CD of Biological Monitoring Reports: Received 11/20/2006

² Response to Notice of Violation (Binder) Received 12/14/2006; Final Biological Monitoring Report and associated photographic record

³ Engineering Diaries

⁴ Regional Water Board Inspection

⁵ Email notification from Walt Dragaloski on 2/21/2007

⁶ Email notification from Walt Dragaloski on 5/23/2007

⁷ Attachment K Received on 10/6/2006

⁸ Caltrans Letter Received on 3/12/2007

Appendix A_B
401 Water Quality Certification

Table 1:
Discharge Violations

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
B	8/22/2006	Leaky Equipment: "2. A discharge of oil occurred from the backhoe directly onto the riverbar. Equipment that has minor leaks must not be allowed to operate in sensitive areas such as the riverbar. This discharge should have been reported to the RE and cleaned up immediately. There were no BMP's in place to prevent the discharged oil from reaching the riverbar." ²		9, 13	\$20,000
B	8/29/2006	Leaky Equipment: Oil leak on gravel bar ²	060829-01	9, 13	\$20,000
B	9/9/2006	Leaky Equipment: Oil stained gravel on gravel bar photographed by Biological Monitor. ²	060909-03	9, 13	\$20,000
B	9/26/2006	Leaky Equipment: Photograph of dirt road with many oil stains. ¹	060926-01	9, 13	\$20,000
B	9/27/2006	Leaky Equipment: "Oil leaks above river on wooden trestle. The large trestle crane had this problem regularly." ¹ Photograph by Biological Monitor of oil stains on the trestle deck with rags and absorbent pads soaked with oil. ¹	060927-05	9, 13	\$20,000
B	10/5/2006	Leaky Equipment: "Oil and diesel stains on the gravel bar were ID for cleanup..." ³		9, 13	\$20,000
B	10/6/2006	Leaky Equipment: RWB Inspection - Backhoe in gravel bar with fluid leakage, Compressor and Crane with insufficient BMPs. "Staff observed a backhoe on the gravel bar near the north bridge that had excessive fluid leakage. Absorbent rags were stuffed into several crevices to control the leakage, however; that backhoe was not in an adequate condition for continued use near any river or gravel bar."	061006-01 061006-02 061006-03 061006-04	9, 13	\$20,000
B	10/11/2006	Leaky Equipment: "Inspections of machinery identified two problems. The IR compressor leaks excessively, and diapers and plastic sheets have been employed for a long time but the leaks increase. The second unidentified leak from the Manotowic crane grows worse. Plastic sheeting catching oil and hydraulic leaks have also spilt onto the false bridge deck on several occasions." ¹		9, 13	\$20,000
B	10/12/2006	Leaky Equipment: "Oil and diesel stains on the gravel bar were identified for cleanup... I discovered a large oil stain under one piece of machinery at noon, not cleaned up by 1:30, raised concerns...keeping the gravel bar clean is a constant battle to control the accumulation of debris, oil, and hydraulic fluids." ¹	061012-01 061012-02 061012-03	9, 13	\$20,000

		Photo of an oil spill under the backhoe. ¹ Photo of an air compressor with plastic sheeting spilling its contents onto the river bar. ¹ Photo of leaking crane on trestle with plastic sheeting spilling its contents. ¹			
B	10/27/2006	Leaky Equipment: "Oil leaks continue to occur without adequate cleanup or prevention with the standard kiddy pools and diapers. Most of the heavy equipment used on this project is old and leak constantly. Overnight oil spots are often not prevented and typically just covered up with soil. The worst offenders are the Manitowoc crane on the false bridge, the LINK man lift on the gravel bar, and the CAT 350. This has been brought to the attention of the RE on many occasions. The plastic 'tarps' placed under the crane constantly spills its contents onto its tracks and the bridge decking." ¹ Photograph of oil contained by plastic sheeting. ¹	061027-01 061027-02 061027-03	9, 13	\$20,000
B	10/28/2006	Leaky Equipment: Photograph of oil stained gravel on the gravel bar ¹	061028-01 061028-02	9, 13	\$20,000
B	10/30/2006	Leaky Equipment: Photographs of fresh oil stains on the trestle deck and the Manatowoc crane on the trestle deck with a plastic diaper. ¹ Photograph of oil stains along the access road in front of the Caltrans office. ¹ Photograph of an oil stain underneath piece of equipment	061030-01 061030-02 061030-03 061030-04 061030-05 061030-08 061030-09 061030-10 061030-11	9, 13	\$20,000
B	10/31/2006	Leaky Equipment: Photograph of an oil leak from a large piece of equipment on a dirt road. ¹	061031-04	9, 13	\$20,000
B	11/3/2006	Leaky Equipment: "11. The crane being used on the trestle has leaking fluids. This has been noted many times earlier. The contractor has attached a piece of plastic under the crane, but the plastic catches both oil leaks and stormwater. There is evidence on the trestle deck that oil that has leaked off of the plastic. I observed commingled oil with water on the plastic during my site visit." ³		9, 13	\$20,000
Total →					\$280,000

¹ CD of Biological Monitoring Reports: Received 11/20/2006

² Response to Notice of Violation (Binder) Received 12/14/2006; Final Biological Monitoring Report and associated photographic record

³ Engineering Diaries

⁴ Regional Water Board Inspection

⁵ Email notification from Walt Dragaloski on 2/21/2007

⁶ Email notification from Walt Dragaloski on 5/23/2007

⁷ Attachment K Received on 10/6/2006

⁸ Caltrans Letter Received on 3/12/2007

Appendix A_C
401 Water Quality Certification

Table 1:
Discharge Violations

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
C	9/15/2006	Welding Slag: "Env Issues: Span 4 is over the active channel - noticed some minor slag dropping into channel ..."3		9	\$10,000
C	9/21/2006	Welding Slag Discharge to River: "When the next weekly biologic monitor report comes out on Monday it will contain information regarding a discharge of welding slag and/or wire into the South Fork Eel River during construction of the trestle. This discharge is required to be reported to the Regional Water Quality Control Board (RWQCB). There were no BMP's in place to help prevent the discharge...The contractor attempted to prevent further discharge by placing a 5-gallon bucket of water under the welding locations. The buckets were only partly effective due to windy conditions. Please inform Justin Porteous, MFC, to investigate the incident and file an Attachment K as required by the SWPPP."2	060921-01	9	\$10,000
C	10/6/2006	Welding Slag Discharge: RWB Inspection Welding on temporary trestle and over river channel, debris falling into water. "Staff observed welding on the temporary trestle and over the river channel. Welding slag was observed to be falling directly into the water and the adjacent gravel bar."6 "Molten slag was observed dripping into the river at 2:20 pm, using no bucket to catch the excess. This activity was terminated, but not before noticeable amounts of slag, small sheets of rusty metal, welding rods, and other debris had accumulated in the river channel."3		9	\$10,000
C	10/6/2006	Steel Cutting: RWB Inspection – "Staff observed that rebar had been cut with a torch on the gravel bar without any containment. Steel slag and debris was deposited on the gravel bar within 150 feet of the high water mark, and where it may be washed into the river...Staff also observed steel being cut in the same area on the gravel bar. A small piece of plastic was placed under the saw; however, the plastic was not containing all the steel cuttings."4	061006-05	9	\$10,000
C	10/17/2006	Steel Cutting Discharge: "Welding slag was discharged to the river and cleaned up immediately"1 "Found a welder attaching angles to the cofferdam template with no attempt to catch splatter/slag. I told them they were not allowed to drop material into the water and they hung a bucket under the work which caught about half of the falling material."3	061017-01 061017-02 061017-03 061017-04 061017-05 061017-06	9	\$10,000
C	10/18/2006	Steel Cutting Discharge: Steel Cutting on gravel bar without containment1 "Garry came to jobsite and pointed out that the welding	061018-01	9	\$10,000

		slag remaining on the riverbed needed to be cleaned." ³			
C	10/20/2006	Welding Slag on gravel bar: Photograph ¹	061020-01	9	\$10,000
C	10/24/2006	Steel Cutting going into river ¹ - "I observed a worker cutting plate steel with a cutting torch on the river bed." ²	061024-01 061024-02 061024-03 061024-08	9	\$10,000
C	10/25/2006	Steel Cutting: "~0830...I went down to the gravel bar and found some 3x3 angles that had been spliced on the gravel bar and a worker cutting plate steel with the slag falling on the gravel." ¹		9	\$10,000
C	10/26/2006	Welding slag discharge to gravel bar - "...Observed welder in the manlift welding longitudinal force transfer clips onto the trestle beams with much of the debris falling to the gravel bar..." ³	061026-01	9	\$10,000
C	10/26/2006	Welding slag going into river ¹ - "Rich came with Carl, pointed out MCM cutting, welding at gravel bed. The site was later cleaned by the contractor... "...one of his [Ham's] workers was on the southerly side of the river cutting steel plates to go around FW columns in bent 2-3 with nothing under it to catch the slag. He said well I guess he'll have to clean it up. I said yes, but he shouldn't be cutting that way anyway." ³	061026-02	9	\$10,000
C	10/28/2006	" Welding Slag continued to fall into the river without adequate mitigation." ¹		9	\$10,000
C	10/30/2006	Steel Cutting: Large steel plate and cuttings in the river	061030-06 061030-07	9	\$10,000
C	10/31/2006	Steel Cutting: Steel plates still in river from the day before.	061031-02 061031-03	9	\$10,000
C	11/1/2006	Welding slag discharged to river without containment. ¹	061101-01 061101-02 061101-03 061101-04 061101-05 061101-06 061101-07	9	\$10,000
Total →					\$150,000

¹ CD of Biological Monitoring Reports: Received 11/20/2006

² Response to Notice of Violation (Binder) Received 12/14/2006; Final Biological Monitoring Report and associated photographic record

³ Engineering Diaries

⁴ Regional Water Board Inspection

⁵ Email notification from Walt Dragaloski on 2/21/2007

⁶ Email notification from Walt Dragaloski on 5/23/2007

⁷ Attachment K Received on 10/6/2006

⁸ Caltrans Letter Received on 3/12/2007

Appendix A_D
401 Water Quality Certification

Table 1:
Discharge Violations

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
D	8/29/2006	Turbid Discharge to River from isolated pool B through gravel bar; No turbidity measurements were taken "Seeping through bar. After 8 hours of pumping from coffer dams set in bar to Isolated Pool B." ¹		9	\$10,000
D	8/30/2006	Turbid Discharge to River from isolated pool B through gravel bar; No turbidity measurements were taken "Seeping through bar. After 8 hours of pumping from coffer dams set in bar to Isolated Pool B" ¹		7, 9	\$20,000
D	9/1/2006	Cement Discharge to River: "Temporary plume of fine sediments from cement seeping out bottom when seal cement poured." ^{1,2}	060901-01	9	\$10,000
D	9/7/2006	Turbid Discharge to River "Late this afternoon, Gene Leo was talking to Walt Dragaloski about the reports he had from biologist Brad Norman about discharges into the river at the N Br const area. One was from dewatering into a settlement basin and after about 8 hrs of pumping some turbidity was noticed emanating from the gravel bar." ³		7, 9	\$20,000
D	9/7/2006	Turbid Discharge to River: "Late this afternoon, Gene Leo was talking to Walt Dragaloski about the reports he had from biologist Brad Norman about discharges into the river at the N Br const area...The other was during the seal course placement within the two CSP's for the trestle bent 3 foundations...The conc was placed with a tremie pipe and during the first half yard of conc placement a small discharge was noticed... The discharges dissipated quickly within about 50' (Rt CSP) to 100' (Lt CSP) as near as I could tell. Although there was some discussion of measuring the turbidity, Brad mentioned that it didn't appear to him that there was a 20% increase at 100'." ³		9	\$10,000
D	9/9/2006	Turbid Discharge to River: Sediment Plume from placement of trestle footings. Improper BMPs and no turbidity measurements were taken. ² "RE Ron den Heyer came to my office with Carl Page and a photo of turbidity from drilling debris in the water around trestle foundation 4 Lt...Mitch...said that MCM was using a baffle to keep anchor rod hole cleanout debris within the 6' dia CSP...He also has told them previously that any debris on the planks over the CSP's had to be cleaned off	060909-01 060909-02	9	\$10,000

		into the CSP's." ³			
D	9/22/2006	<p>Turbid Discharge to River: 2nd Heavy Vehicle Crossing caused a 400-foot plume visible for 30 minutes. Insufficient turbidity measurements taken – Horiba Meter not accurate. "Equipment cleaning was a pro-active measure taken for the first and third crossings, but it appeared to have not been done for the second crossing event witnessed by B. Norman... This was apparent by the much larger amount of dirt on the equipment during the second crossing compared to the other two crossings. No 'staging of the equipment' occurred immediately prior to the September 22 crossing... Note mud was still caked on after going through the clean cobble river bed."²</p>	060922-07 060922-08 060922-09 060922-10 060922-11 060922-12 060922-13 060922-14 060922-15	9	\$10,000
D	9/29/2006	<p>Cement Discharge: Cement in mainstem from concrete footing seal pour. "Sandbags were then placed on the outside perimeter only, no sandbags were placed on the inside of the CMP. CONTR began placing seal coarse concrete @ 1701 hrs... CONTR began by placing the seal coarse in the #3 FTG. During the placement, it was apparent that the contractor did not have a good seal around the CMP. Concrete escaped from the CMP leaving a plume in the river approx 150'-0 in length."² Insufficient turbidity measurements.</p>	060929-01 060929-02 060929-03	9	\$10,000
D	9/29/2006	<p>Cement Discharge: Silt in mainstem from cement footing seal pour. "During the placement for the #4 FTG, the CONTR's tremie on the hopper came off. While trying to reattach the tremie, the CONTR worked around the CMP standing on the sandbags. A plume was evident but how much was concrete or how much was alga was hard to determine."²</p>	060929-04 060929-05 060929-06	9	\$10,000
D	10/7/2006	<p>Turbid Discharge to River: First Event – Plume noted during attempt to install last two footings for falsework trestle. No turbidity measurements taken. "After the CONTR made 3 passes the silt began to escape thru the silt fence. CONTR stopped digging and placed more filter sandbags. The plume dissipated in about ½ hr."² "Caltrans admits the presence of the silt fence in the river, intended to be containment for the anticipated release of turbid waters from in-stream excavation of cofferdam spoils was not the proper BMP."⁸</p>	061007-01 061007-02	9, 17	\$20,000
D	10/7/2006	<p>Turbid Discharge to River: Second Event – Silt from cement CMP footing seal pour. No turbidity measurements taken. "The CONTR then made a 2nd attempt at excavating the footings. After about 6 passes, the silt again began to escape and leave a plume... Mr. Ham stated that the plastic wouldn't work, that the water is coming up thru the rock (Bottom) and using bladder bags would not give him enough room to work..."³</p>		9, 17	\$20,000

D	10/7/2006	Turbid Discharge to River: Third Event – “...Mr. Ham then stated that he was at least two thirds complete and everyone from the agencies are probably home now so he was going to go back down and complete the remaining excavation work...CONTR's SUBMITTAL IS INCOMPLETE AND HAS NOT BEEN APPROVED! CONTR IS PERFORMING WORK AT HIS OWN RISK.” ³		9, 17	\$20,000
D	10/16/2006	Cement Discharge: “At 17:10, when pour concrete at 1 footing by the river (bent 2-4), there were minor leak [sic].” ³		9	\$10,000
D	10/20/2006	Cement Discharge to River: Concrete seal course pour resulted in a 2'X4' plume for 5 min. No turbidity measurements ¹	061020-02	9	\$10,000
D	~1/5/2007	Turbid Discharge to River: Approximately 170 gallons of stormwater and drilling water was discharged to Eel River and gravel bar at night through a broken pipe. ¹		9	\$10,000
Total →					\$1,540,000

¹ Email notification from Walt Dragaloski on 2/21/2007

Appendix A_E
401 Water Quality Certification

Table 1:
Discharge Violations

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
E	8/29/2006	Turbid Discharge to River from isolated pool B through gravel bar; No turbidity measurements were taken "Seeping through bar. After 8 hours of pumping from coffer dams set in bar to Isolated Pool B." ¹		19	\$10,000
E	8/30/2006	Turbid Discharge to River from isolated pool B through gravel bar; No turbidity measurements were taken "Seeping through bar. After 8 hours of pumping from coffer dams set in bar to Isolated Pool B" ¹		19	\$10,000
E	9/1/2006	Insufficient Turbidity Measurements: Sediment plume lasted two minutes and persisted for approximately 5 minutes 20-30 feet downstream were caused by placement of gravel bags for placement of trestle footings. ⁷		19	\$10,000
E	9/1/2006	Cement Discharge to River: "Temporary plume of fine sediments from cement seeping out bottom when seal cement poured." ^{1,2}	060901-01	19	\$10,000
E	9/6/2006	Insufficient Turbidity Measurements: 1 st Heavy Vehicle Crossing caused a 200-foot plume for 25 minutes. No turbidity measurements were taken. ²	060906-01	19	\$10,000
E	9/7/2006	Turbid Discharge to River "Late this afternoon, Gene Leo was talking to Walt Dragaloski about the reports he had from biologist Brad Norman about discharges into the river at the N Br const area. One was from dewatering into a settlement basin and after about 8 hrs of pumping some turbidity was noticed emanating from the gravel bar." ³		19	\$10,000
E	9/7/2006	Turbid Discharge to River: "Late this afternoon, Gene Leo was talking to Walt Dragaloski about the reports he had from biologist Brad Norman about discharges into the river at the N Br const area...The other was during the seal course placement within the two CSP's for the trestle bent 3 foundations...The conc was placed with a tremie pipe and during the first half yard of conc placement a small discharge was noticed... The discharges dissipated quickly within about 50' (Rt CSP) to 100' (Lt CSP) as near as I could tell. Although there was some discussion of measuring the turbidity, Brad mentioned that it didn't appear to him that there was a 20% increase at 100'." ³		19	\$10,000

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
E	9/9/2006	<p>Turbid Discharge to River: Sediment Plume from placement of trestle footings. Improper BMPs and no turbidity measurements were taken.²</p> <p>"RE Ron den Heyer came to my office with Carl Page and a photo of turbidity from drilling debris in the water around trestle foundation 4 Lt...Mitch...said that MCM was using a baffle to keep anchor rod hole cleanout debris within the 6' dia CSP...He also has told them previously that any debris on the planks over the CSP's had to be cleaned off into the CSP's."³</p>	060909-01 060909-02	19	\$10,000
E	9/22/2006	<p>Turbid Discharge to River: 2nd Heavy Vehicle Crossing caused a 400-foot plume visible for 30 minutes. Insufficient turbidity measurements taken – Horiba Meter not accurate. "Equipment cleaning was a pro-active measure taken for the first and third crossings, but it appeared to have not been done for the second crossing event witnessed by B. Norman...This was apparent by the much larger amount of dirt on the equipment during the second crossing compared to the other two crossings. No 'staging of the equipment' occurred immediately prior to the September 22 crossing...Note mud was still caked on after going through the clean cobble river bed."²</p>	060922-07 060922-08 060922-09 060922-10 060922-11 060922-12 060922-13 060922-14 060922-15	19	\$10,000
E	9/28/2006	<p>Insufficient Turbidity Monitoring: In stream prep-work: "Sediment plume caused by workers in the channel moving gravels off bedrock to set CMP 'footings cofferdams'" Duration: 4 hours in pulses; Length 100 Feet; Turbidity: (4,5,5,4,3) In Plume / (0,0,..., 0) Upstream)^{1,2} The turbidity measurements were not taken as required by the Certification making difficult the determination of water quality impacts.</p>	060928-01 060928-02 060928-03	19	\$10,000
E	9/29/2006	<p>Cement Discharge: Cement in mainstem from concrete footing seal pour. "Sandbags were then placed on the outside perimeter only, no sandbags were placed on the inside of the CMP. CONTR began placing seal coarse concrete @ 1701 hrs... CONTR began by placing the seal coarse in the #3 FTG. During the placement, it was apparent that the contractor did not have a good seal around the CMP. Concrete escaped from the CMP leaving a plume in the river approx 150'-0 in length."² Insufficient turbidity measurements.</p>	060929-01 060929-02 060929-03	19	\$10,000
E	9/29/2006	<p>Cement Discharge: Silt in mainstem from cement footing seal pour. "During the placement for the #4 FTG, the CONTR's</p>	060929-04 060929-05 060929-06	19	\$10,000

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
		tremie on the hopper came off. While trying to reattach the tremie, the CONTR worked around the CMP standing on the sandbags. A plume was evident but how much was concrete or how much was alga was hard to determine." ²			
E	10/2/2006	Turbid Discharge to River: 3 rd Heavy Vehicle Crossing caused a plume. Turbidity measurements show an increase from 0-2.0 NTU 100 feet down stream. "At 3:24 pm, the turbidity measurement 100-feet below the crossing area maintained a reading of 2.0 NTU's on the Horiba U-10 water quality meter." ²	061002-01	19	\$10,000
E	10/7/2006	Turbid Discharge to River: First Event – Plume noted during attempt to install last two footings for falsework trestle. No turbidity measurements taken. "After the CONTR made 3 passes the silt began to escape thru the silt fence. CONTR stopped digging and placed more filter sandbags. The plume dissipated in about ½ hr." ² "Caltrans admits the presence of the silt fence in the river, intended to be containment for the anticipated release of turbid waters from in-stream excavation of cofferdam spoils was not the proper BMP." ⁸	061007-01 061007-02	19	\$10,000
E	10/7/2006	Turbid Discharge to River: Second Event – Silt from cement CMP footing seal pour. No turbidity measurements taken. "The CONTR then made a 2 nd attempt at excavating the footings. After about 6 passes, the silt again began to escape and leave a plume...Mr. Ham stated that the plastic wouldn't work, that the water is coming up thru the rock (Bottom) and using bladder bags would not give him enough room to work..." ³		19	\$10,000
E	10/7/2006	Turbid Discharge to River: Third Event – "...Mr. Ham then stated that he was at least two thirds complete and everyone from the agencies are probably home now so he was going to go back down and complete the remaining excavation work...CONTR's SUBMITTAL IS INCOMPLETE AND HAS NOT BEEN APPROVED! CONTR IS PERFORMING WORK AT HIS OWN RISK." ³		19	\$10,000
E	10/14/2006	Insufficient Turbidity Measurements: Two discharges during construction of in-stream footings. "The area around the footing to be excavated was isolated from active flow with the use of a fabric material, fence posts, and sand bags. This initial attempt produced a notable plume outside the containment area, and was ceased		19	\$20,000

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
		until improvements were made. The second attempt proved ineffective due to subsurface flow through the isolation area and porosity of the fabric." No turbidity measurements were taken. ¹			
E	10/16/2006	Insufficient Turbidity Measurements: In-channel prep-work for installation of steel containment shroud. Hand work resulted in 8'x3' plume for 15 min. Insufficient turbidity measurements. ¹	061016-01	19	\$10,000
E	10/16/2006	Cement Discharge: "At 17:10, when pour concrete at 1 footing by the river (bent 2-4), there were miner leak [sic]." ³		19	\$10,000
E	10/18/2006	Insufficient Turbidity Measurements: Sheet piles were pounded into place, resulting in a 25'x6' plume for 20 min during cofferdam installation. Insufficient turbidity measurements. ¹	061018-02	19	\$10,000
E	10/20/2006	Cement Discharge to River: Concrete seal course pour resulted in a 2'X4' plume for 5 min. No turbidity measurements ¹	061020-02	19	\$10,000
Total →					\$220,000

¹ CD of Biological Monitoring Reports: Received 11/20/2006

² Response to Notice of Violation (Binder) Received 12/14/2006; Final Biological Monitoring Report and associated photographic record

³ Engineering Diaries

⁴ Regional Water Board Inspection

⁵ Email notification from Walt Dragaloski on 2/21/2007

⁶ Email notification from Walt Dragaloski on 5/23/2007

⁷ Attachment K Received on 10/6/2006

⁸ Caltrans Letter Received on 3/12/2007

Appendix A_F
401 Water Quality Certification

Table 1:
Discharge Violations

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
F	8/29/2006	Improper Disposal of Cement Wastes: "On August 29, during placing a concrete in a corrugated steel pipe within the river, the water level rose and to prevent it from overflowing into the river, the water was pumped to the dewatering basin." ²		9, 17	\$20,000
		Improper Disposal of Cement Wastes: "After placing the concrete seal course, the contractor cleaned the hopper, tremie and shovels in a footing excavation in the river bar." ²		9, 10, 17	\$30,000
F	8/30/2006	Concrete Washout to unlined area²	060830-01 060830-02	9, 17	\$20,000
F	9/8/2006	Cement Discharge: "...the water was tested for pH, treated with muriatic acid then pumped into the settlement basin. I estimate about 25 gal was pumped from the Lt CSP and perhaps 50 gal pumped from the Rt CSP based on the conc placed." ³	060908-01 060908-02	9, 17	\$20,000
F	9/13/2006	Cement Discharge: Improper disposal of cement wastes – "Workers dumped cement refuse onto edge of gravel bar." ²	060913-01	9, 17	\$20,000
F	9/29/2006	Cement Discharge: Improper disposal of cement wastes on gravel bar "After the tremie was reattached, the CONTR resumed placing the seal course, To prevent the water from overflowing the CMP, the water (untreated) was pumped onto the gravel bar, approx 60'-0 from the rivers edge." ²	060929-07 060929-08 060929-09	9, 17	\$20,000
		Cement Discharge: "Once the seal coarse operation was completed, the CONTR cleaned the hopper, tremie and shovels in the glory hole for 2-7's FTG. This was also observed by SR Garry Tolen." ³		9, 10, 17	\$30,000
Total →					\$160,000

¹ CD of Biological Monitoring Reports: Received 11/20/2006

² Response to Notice of Violation (Binder) Received 12/14/2006; Final Biological Monitoring Report and associated photographic record

³ Engineering Diaries

⁴ Regional Water Board Inspection

⁵ Email notification from Walt Dragaloski on 2/21/2007

⁶ Email notification from Walt Dragaloski on 5/23/2007

⁷ Attachment K Received on 10/6/2006

⁸ Caltrans Letter Received on 3/12/2007

Appendix A_G
401 Water Quality Certification

Table 1:
Discharge Violations

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
G	9/18/2006	Rubbish Discharge to River: Rubbish in river (wood waste and rope). ²	060918-01 060918-02	9	\$10,000
G	9/22/2006	Rubbish Discharge to River: Rubbish and organic debris in river (wood scraps, sawdust, and trash) ² "Trestle Construction. The MCM Trestle Construction Operation continues to discharge sawdust, cigarette butts, plastic and paper packaging and empty water bottles, welding wire, loose nails, rust scale from recycled I-beams, welding rods, oily rags and gloves, cut wood pieces, ...into the South Fork Eel main stem on a daily basis." ¹	060922-01 060922-02 060922-03 060922-04 060922-05 060922-06	9	\$10,000
G	9/26/2006	Rubbish Discharge to River: Large flakes of rust and wood waste in river ¹	060926-02 060926-03 060926-04 060926-05 060926-06	9	\$10,000
G	9/27/2006	Rubbish Discharge to River: Rust dropped into north-side main stem Eel River ¹	060927-01 060927-02 060927-03 060927-04	9	\$10,000
G	10/16/2006	Rubbish Discharge to River: Rust on I-beam uncontained over river, and wood waste and trash in the river. ²	061016-02 061016-03 061016-04 061016-05 061016-06 061016-07 061016-08 061016-09 061016-10	9	\$10,000
G	10/24/2006	Rubbish Discharge to River: "Large flakes of rusty metal from I-beams and slag from continuous welding accumulated on the gravel bar. These were temporarily cleaned up, but those in the river remain." ¹		9	\$10,000
G	10/25/2006	Rubbish Discharge to River: "A punch list was developed to return the gravel bar to its natural state by the end of the month. They included removing various debris from Split-set and welding rods	061025-01 061025-02 061025-03	9	\$10,000

	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
		around railing and wood scraps, sawdust, plastic and food wrappings. Molten slag on rocks and in the sand on both sides of river needed removal as well. Large rust flakes on both banks and in the river have accumulated and require removal also." ¹			
G	10/26/2006	Rubbish Discharge to River: Photo of large flakes of rust from I beams uncontained and falling to gravel bar and river. ²	061026-03	9	\$10,000
G	10/31/2006	Rubbish Discharge to River: in river: Photograph of flakes of rust in the river. ¹	061031-01	9	\$10,000
Total →					\$90,000

¹ CD of Biological Monitoring Reports: Received 11/20/2006

² Response to Notice of Violation (Binder) Received 12/14/2006; Final Biological Monitoring Report and associated photographic record

³ Engineering Diaries

⁴ Regional Water Board Inspection

⁵ Email notification from Walt Dragaloski on 2/21/2007

⁶ Email notification from Walt Dragaloski on 5/23/2007

⁷ Attachment K Received on 10/6/2006

⁸ Caltrans Letter Received on 3/12/2007

Appendix A_H
401 Water Quality Certification

Table 1:
Discharge Violations

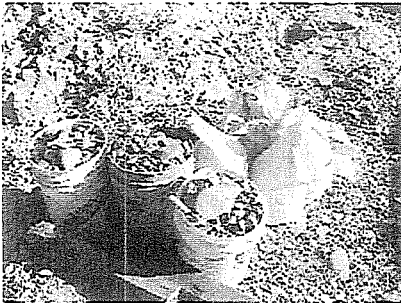
	Date	Description	Appendix D: Photo #	Additional Condition Violation #	Maximum Potential Civil Liability
H	8/17/2006	Hydraulic fluid spill on gravel bar¹	060817-01	9	\$10,000
H	8/22/2006	Equipment Fueling on Gravel Bar: "1. Equipment is being fueled on the riverbar at the north bridge. Our permit with the Regional Water Quality Control Board explicitly states that fueling must only occur outside of waters of the United States. At the PDT James Hamm acknowledged that they were fueling a compressor, generator, man-lift and backhoe." ²		13	\$10,000
H	11/3/2006	Sediment Discharge: "19. During construction of the work platform for the south bridge Pier 2, loose soil was pushed over the edge of the bank. The soil cascaded all the way to the toe of the slope, which is below the Ordinary High water elevation." ³		9	\$10,000
H	5/23/2007	Sand Blasting rebar without appropriate BMPs. "The contractor used sand to sandblast rebar...at Pier 3... without use of appropriate BMP's, without Caltrans oversight, and in disregard of the direction provided by the Resident Engineer prior to the activity. It is estimated that 6 bags of sand were used to clean the rebar and the waste was not contained and was allowed to fall directly to the gravel bar of the South Fork Eel River, below the Pier 3 falsework...the sand is well dispersed...and that it may not be feasible to remove the sand without also removing naturally placed riverbar fines." ²		7, 9	\$20,000
Total →					\$1,540,000

¹ CD of Biological Monitoring Reports: Received 11/20/2006

² Email notification from Walt Dragaloski on 5/23/2007

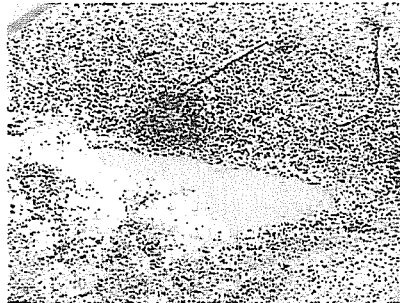
³ Engineering Diaries

Appendix C



07:37:13

060817-01 14-18 August 2006 CONFUSION HILL Nor...



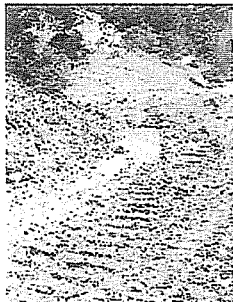
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060821-01 DSC01802.jpg



10:20:37

060829-01 28 August to 1 Sept 2006 CONFUSION HIL...



09:47:21

060830-01 28 August to 1 Sept 2006 CONFUSION HIL...060830-02 28 August to 1 Sept 2006 CONFUSION HIL...



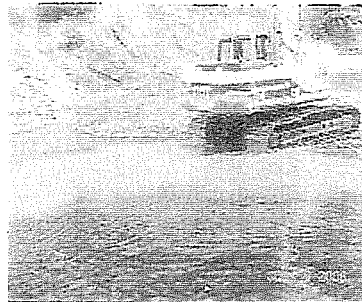
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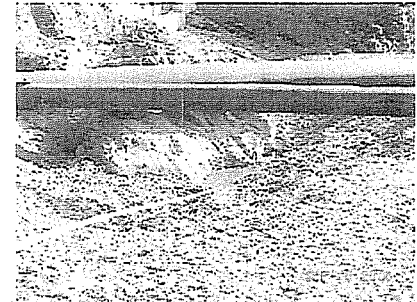
060831-01 Final BMR Figure 20.jpg



060901-01 Final BMR Figure 22.jpg

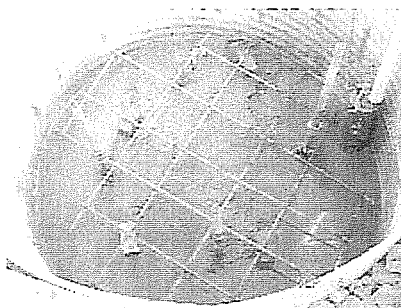


060906-01 Final BMR Figure 38.jpg



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060908-01 4-8 Sept 2006 Confusion Hill Norman Bio M...



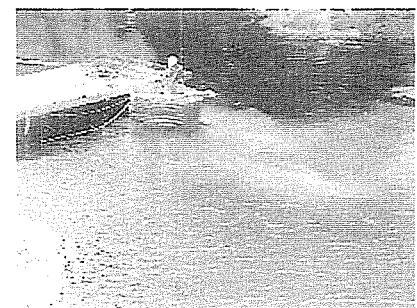
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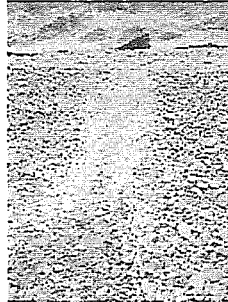
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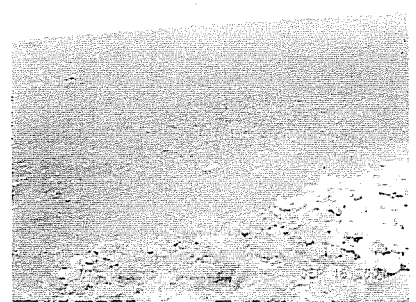
Appendix C



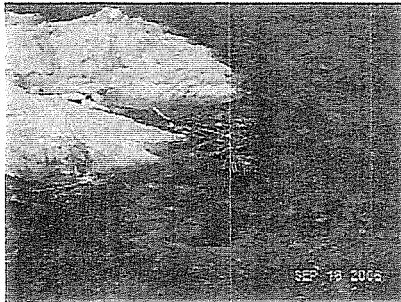
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06:09:29
060913-01 Norman's Confusion Hill 18 to 22 Sept 2006...060918-01 Norman's Confusion Hill 18 to 22 Sept 2006...



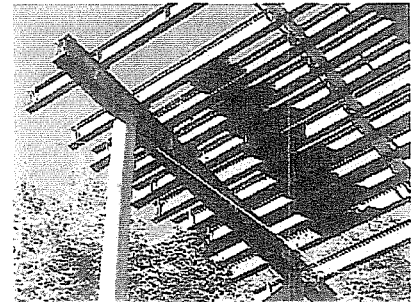
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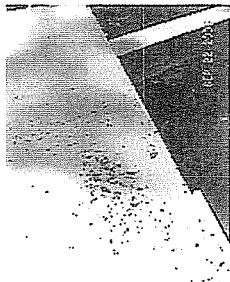


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09:39:55

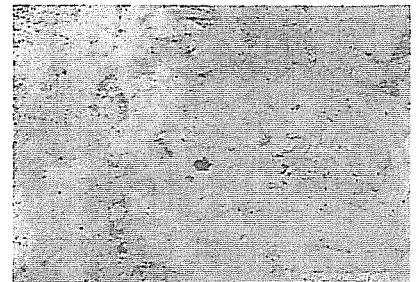
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10:28:35

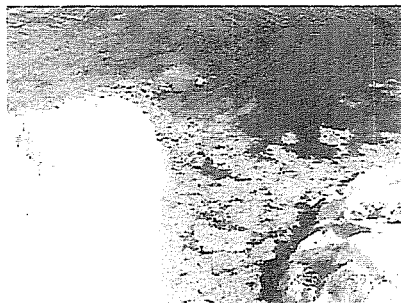


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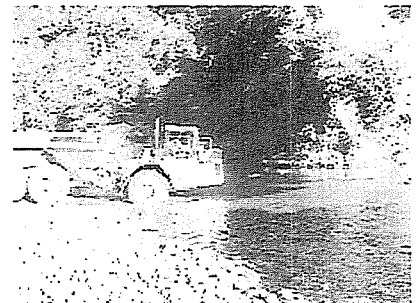
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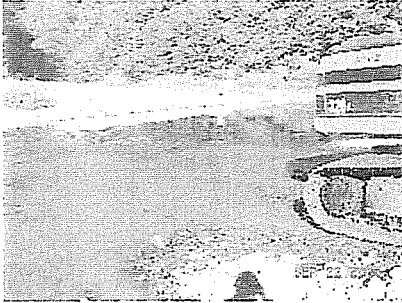
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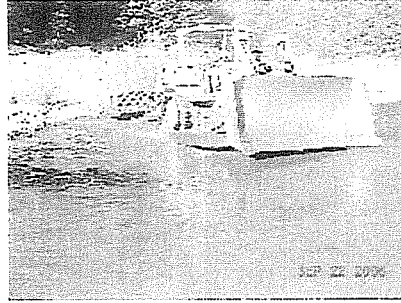
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Appendix C



08:07:46

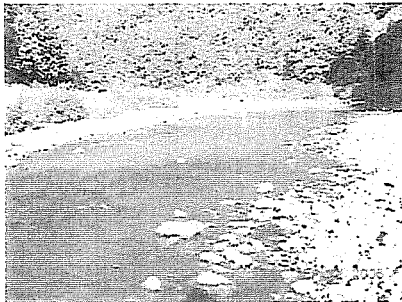


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08:08:09

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08:08:38

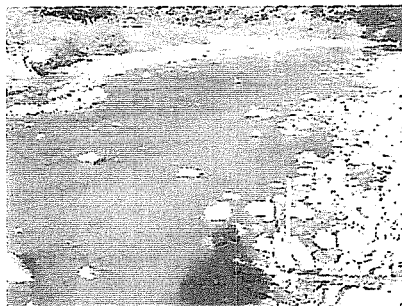


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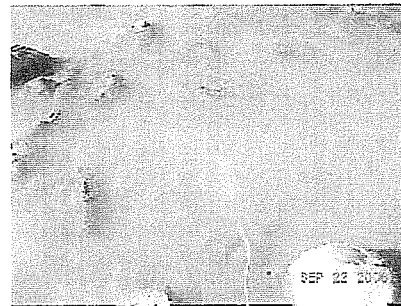


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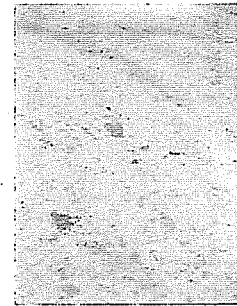
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08:13:53

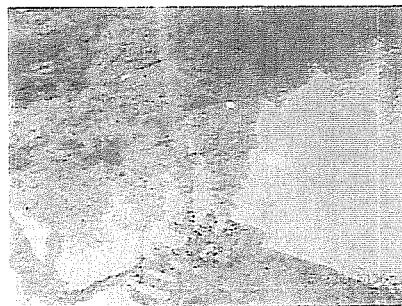


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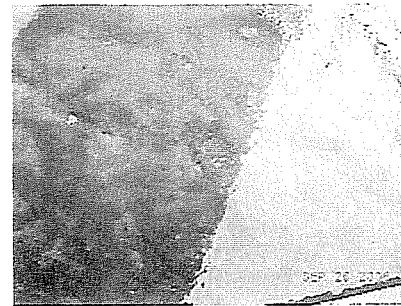


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08:48:46



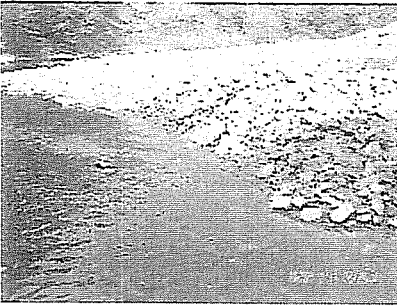
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08:54:49

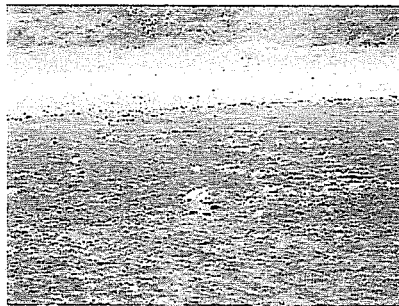
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Appendix C

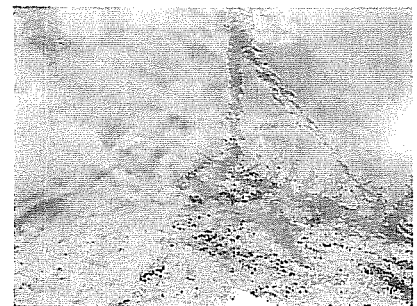


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09:01:24

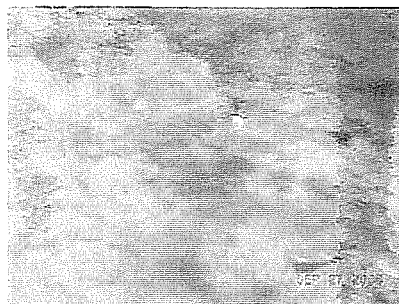


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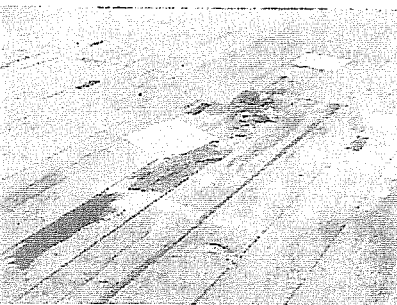
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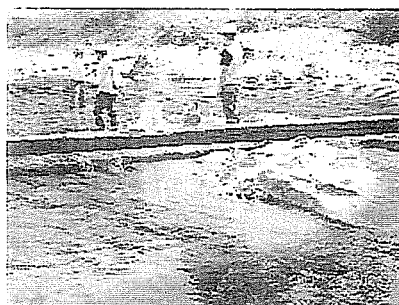
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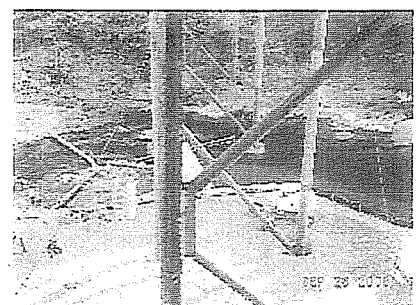


060927-05 Final BMR Figure 42.jpg

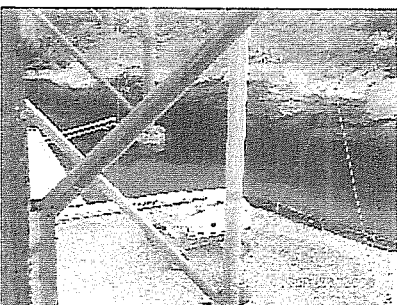


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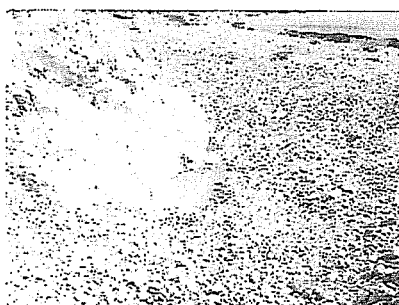


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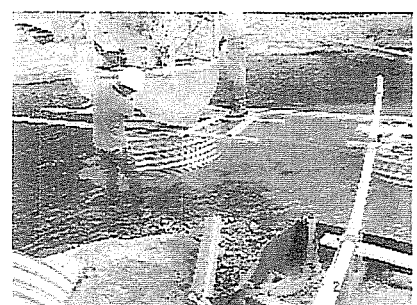


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060928-03 NORMAN 26 to 30 Sept 2006 Confusion Hil...060928-04 NORMAN 26 to 30 Sept 2006 Confusion Hil...060929-01 NORMAN 26 to 30 Sept 2006 Confusion Hil...

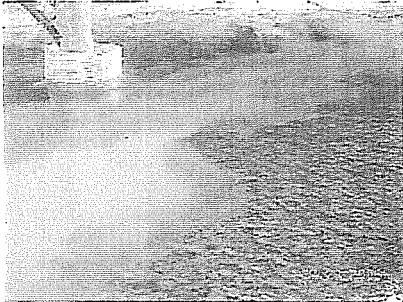


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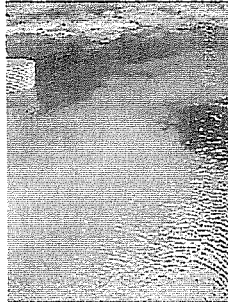
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Appendix C

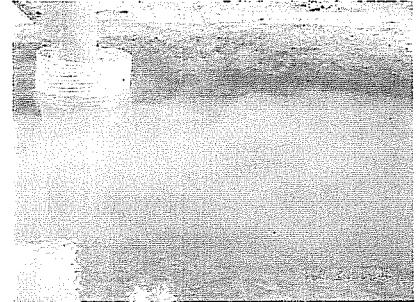


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16:11:48



17:15:46



17:20:16

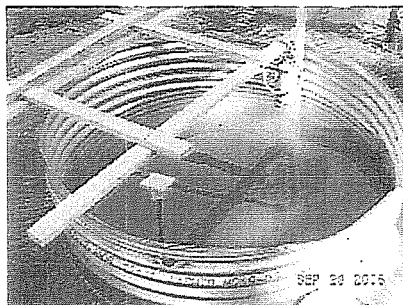
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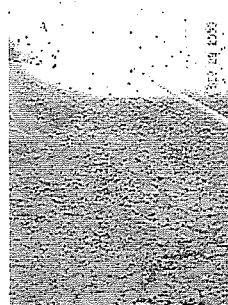


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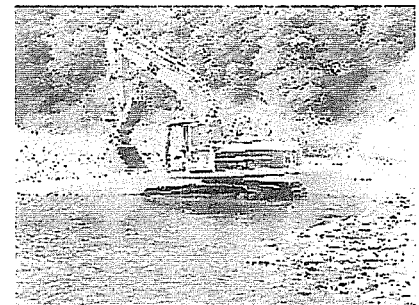


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060929-08 NORMAN 26 to 30 Sept 2006 Confusion Hil...060929-09 NORMAN 26 to 30 Sept 2006 Confusion Hil...



13:58:00



14:41:12

061002-01 Figure 1_100206_cdotphoto.JPG



14:01:09

061006-01 059 100606_northbridge.jpg



14:04:33

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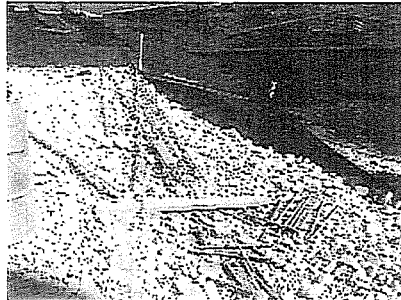
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Appendix C



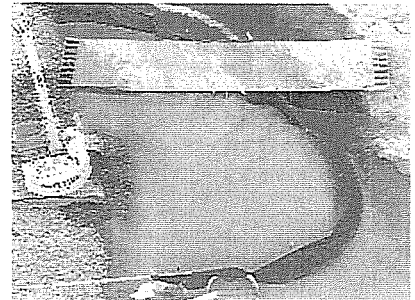
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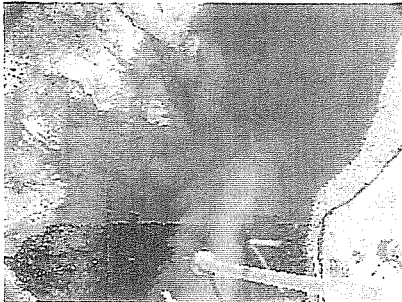
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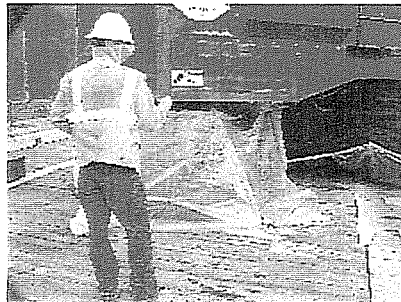
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061007-01 064 Figure_4[1][1].JPG



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061007-02 065 Figure_5[1][1].JPG



07:12:40

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061012-03 068 Oil_Change.JPG

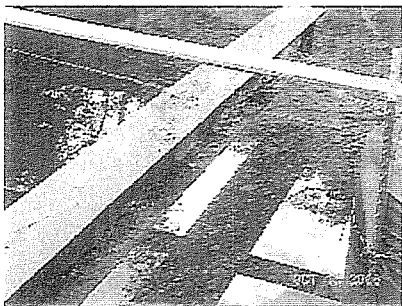


061016-01 069 Final BMR Figure 31.jpg



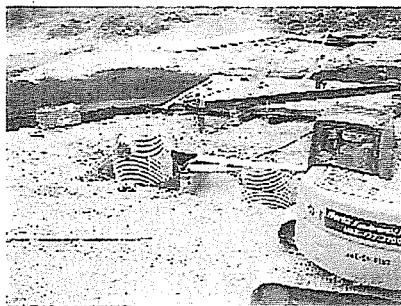
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061016-03 071 NORMAN OCT 2006 CONFUSION HIL...



14:15:39

061016-04 072 NORMAN OCT 2006 CONFUSION HIL...



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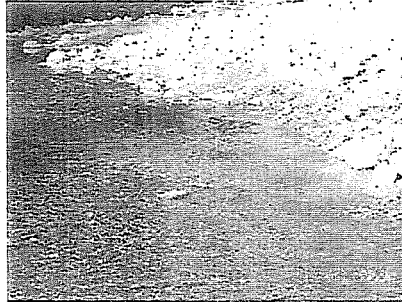
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Appendix C

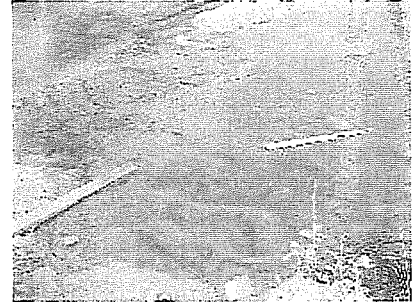


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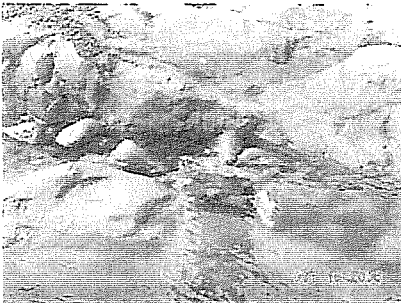
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09:00:26

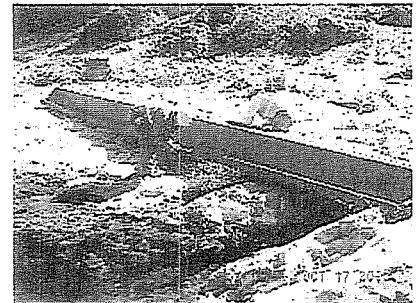


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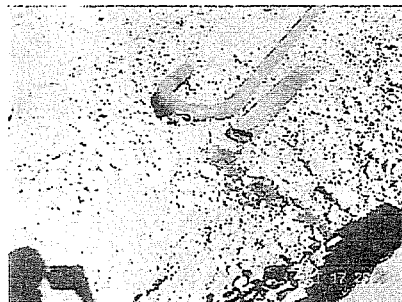


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12:34:25



12:51:50



15:11:06

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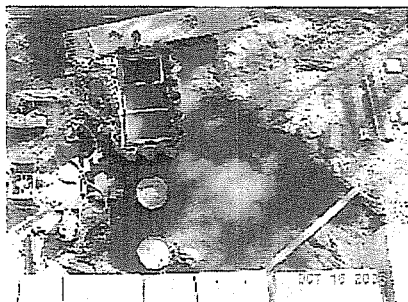


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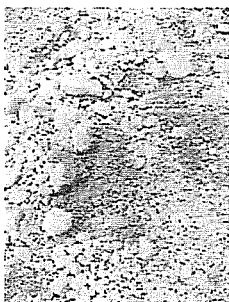
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Appendix C

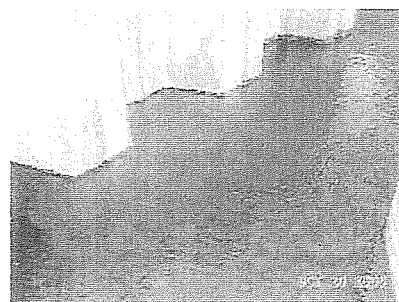


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16:00:03



08:02:34

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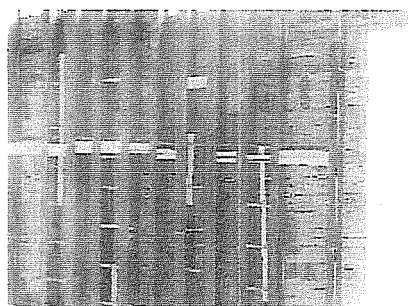
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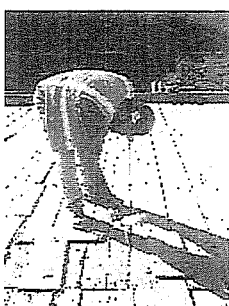
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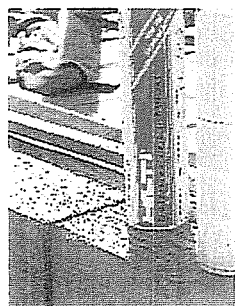
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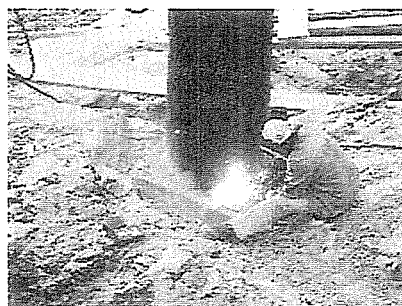
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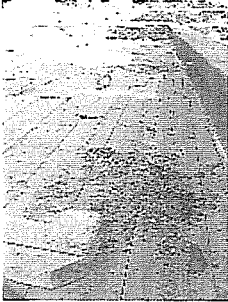
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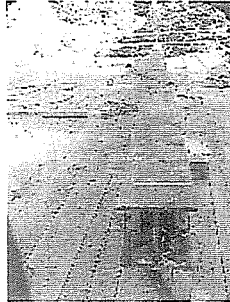
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Appendix C



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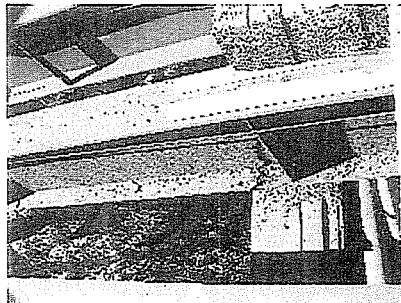
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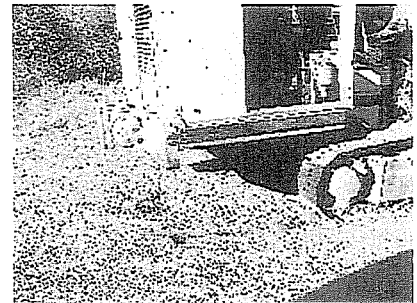
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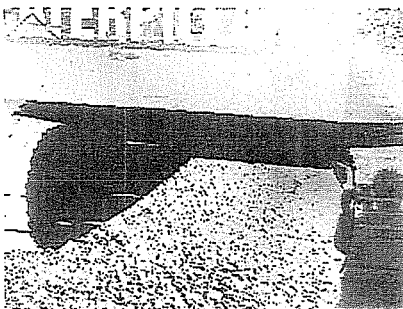
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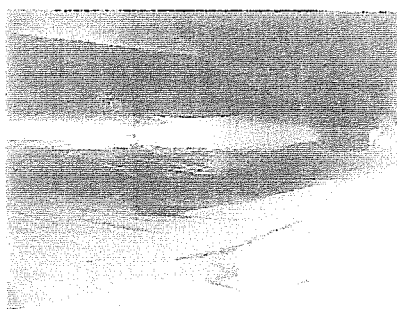
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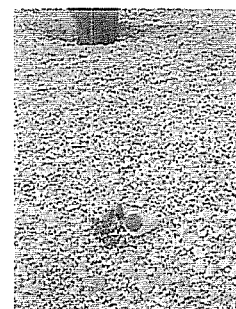
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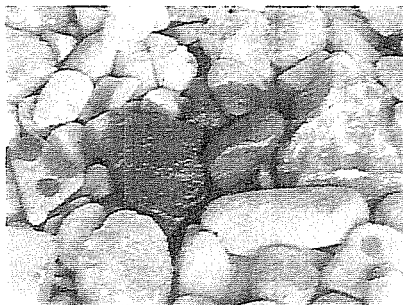
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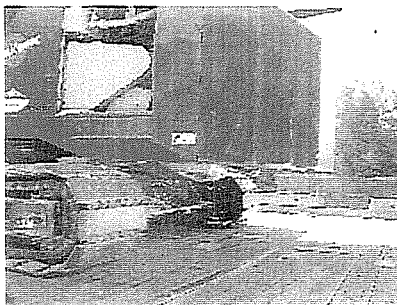
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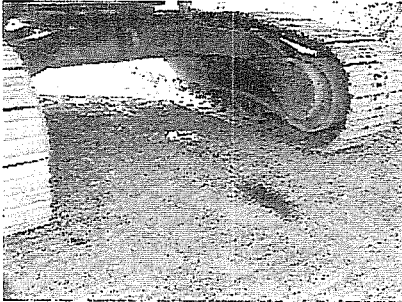


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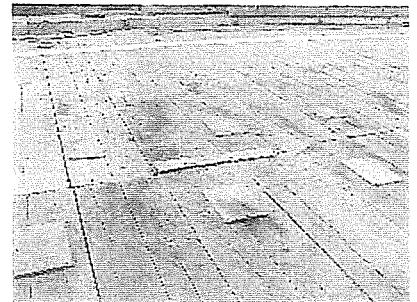
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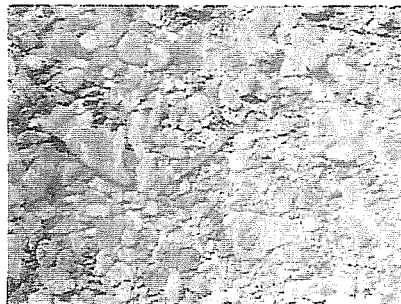
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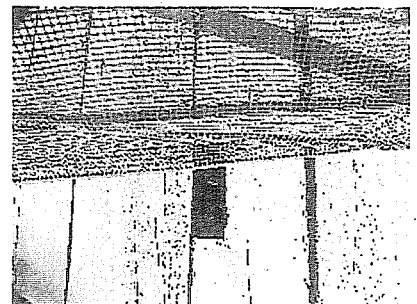
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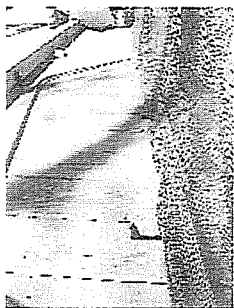
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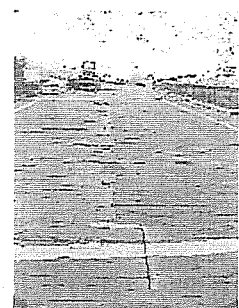
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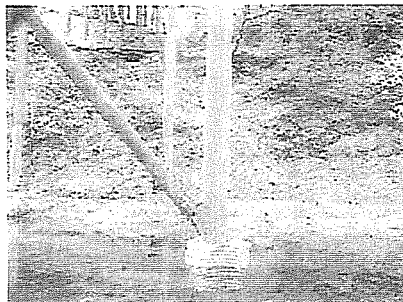


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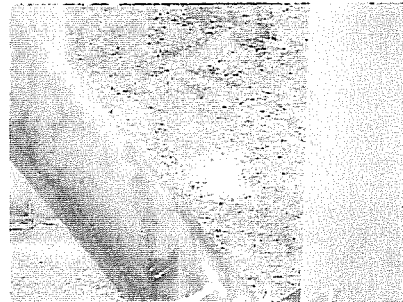
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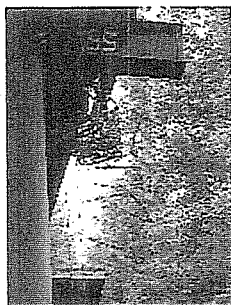
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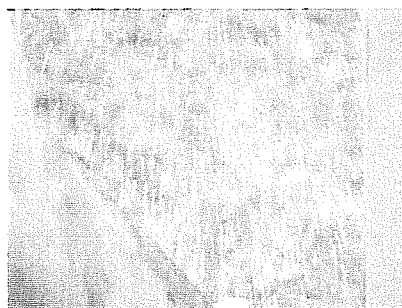
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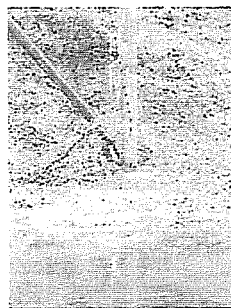
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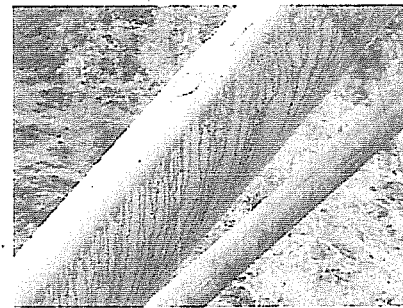
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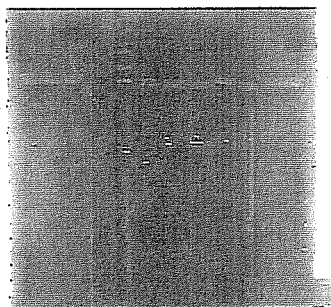
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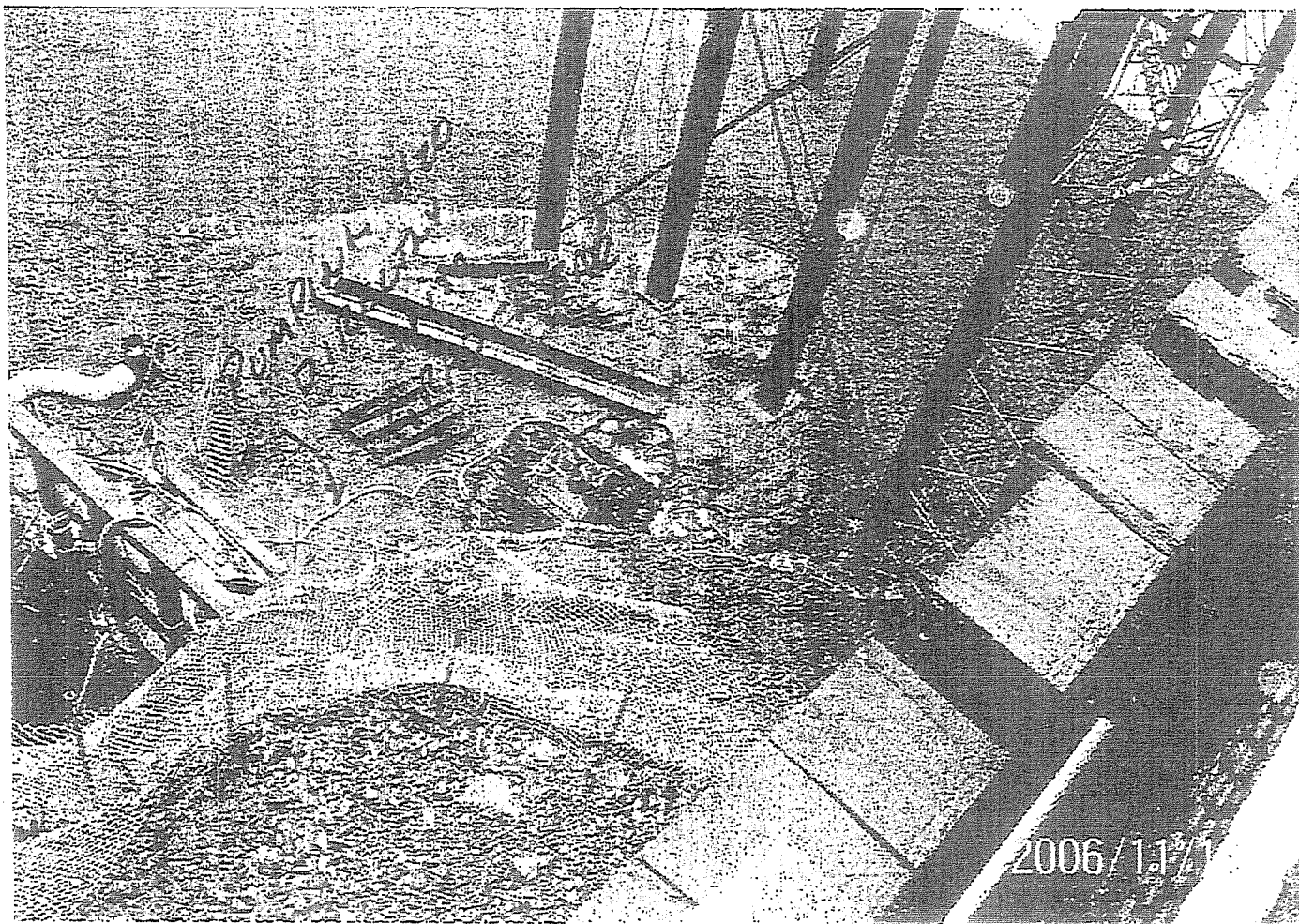
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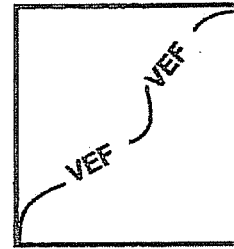
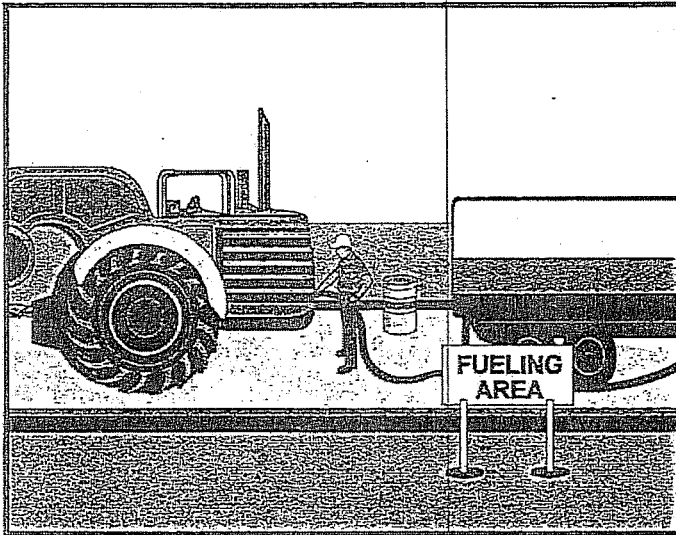
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NOV 13, 2006

Vehicle and Equipment Fueling

NS-9



Standard Symbol

BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose Vehicle and equipment fueling procedures and practices are designed to minimize or eliminate the discharge of fuel spills and leaks into storm drain systems or to watercourses.

Appropriate Applications These procedures are applied on all construction sites where vehicle and equipment fueling takes place.

Limitations

- Onsite vehicle and equipment fueling shall only be used where it's impractical to send vehicles and equipment off-site for fueling.

Standards and Specifications

- When fueling must occur onsite, the contractor shall select and designate an area to be used, subject to approval of the Resident Engineer (RE).
- Absorbent spill clean-up materials and spill kits shall be available in fueling areas and on fueling trucks and shall be disposed of properly after use.
- Drip pans or absorbent pads shall be used during vehicle and equipment fueling, unless the fueling is performed over an impermeable surface in a dedicated fueling area.
- Dedicated fueling areas shall be protected from storm water run-on and runoff, and shall be located at least 15 m (50 ft) from downstream drainage facilities and watercourses. Fueling must be performed on level-grade areas.
- Nozzles used in vehicle and equipment fueling shall be equipped with an automatic shut-off to control drips. Fueling operations shall not be left unattended.
- Protect fueling areas with berms and/or dikes to prevent run-on, runoff, and to contain spills.



Vehicle and Equipment Fueling

NS-9

- Use vapor recovery nozzles to help control drips as well as air pollution where required by Air Quality Management Districts (AQMD). Ensure the nozzle is secured upright when not in use.
- Fuel tanks shall not be "topped-off."
- Vehicles and equipment shall be inspected on each day of use for leaks. Leaks shall be repaired immediately or problem vehicles or equipment shall be removed from the project site.
- Absorbent spill clean-up materials shall be available in fueling and maintenance areas and used on small spills instead of hosing down or burying techniques. The spent absorbent material shall be removed promptly and disposed of properly.
- Federal, state, and local requirements shall be observed for any stationary above ground storage tanks. Refer to WM-1, "Material Delivery and Storage."
- Mobile fueling of construction equipment throughout the site shall be minimized. Whenever practical, equipment shall be transported to the designated fueling area.

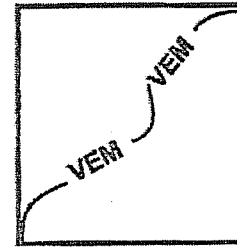
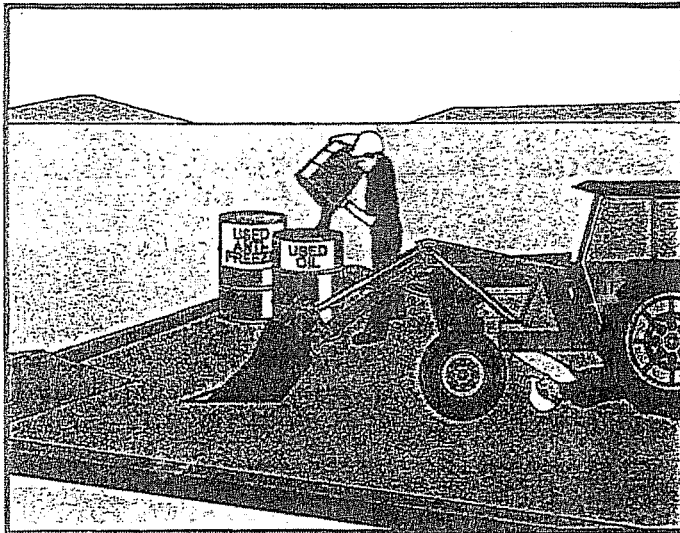
Maintenance and Inspection

- Fueling areas and storage tanks shall be inspected regularly.
- Keep an ample supply of spill cleanup material on the site.
- Immediately cleanup spills and properly dispose of contaminated soil and cleanup materials.



Vehicle and Equipment Maintenance

NS-10



Standard Symbol

BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose Procedures and practices to minimize or eliminate the discharge of pollutants to the storm drain systems or to watercourses from vehicle and equipment maintenance procedures.

Appropriate Applications These procedures are applied on all construction projects where an onsite yard area is necessary for storage and maintenance of heavy equipment and vehicles.

Limitations ■ None identified.

- Standards and Specifications**
- Drip pans or absorbent pads shall be used during vehicle and equipment maintenance work that involves fluids, unless the maintenance work is performed over an impermeable surface in a dedicated maintenance area.
 - All maintenance areas are required to have spill kits and/or use other spill protection devices.
 - Dedicated maintenance areas shall be protected from storm water run-on and runoff, and shall be located at least 15 m (50 ft) from downstream drainage facilities and watercourses.
 - Drip Pans or plastic sheeting shall be placed under all vehicles and equipment placed on docks, barges, or other structures over water bodies when the vehicle or equipment is planned to be idle for more than one hour.
 - Absorbent spill clean-up materials shall be available in maintenance areas and shall be disposed of properly after use. Substances used to coat asphalt transport trucks and asphalt-spreading equipment shall be non-toxic.
 - Use off-site maintenance facilities whenever practical.



Vehicle and Equipment Maintenance

NS-10

- For long-term projects, consider constructing roofs or using portable tents over maintenance areas.
- Properly dispose of used oils, fluids, lubricants, and spill cleanup materials.
- Do not dump fuels and lubricants onto the ground.
- Do not place used oil in a dumpster or pour into a storm drain or watercourse.
- Properly dispose or recycle used batteries.
- Do not bury used tires.
- Repair of fluid and oil leaks immediately.
- Provide spill containment dikes or secondary containment around stored oil and chemical drums.

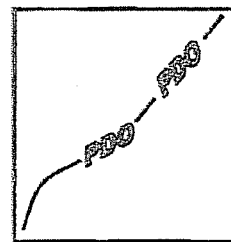
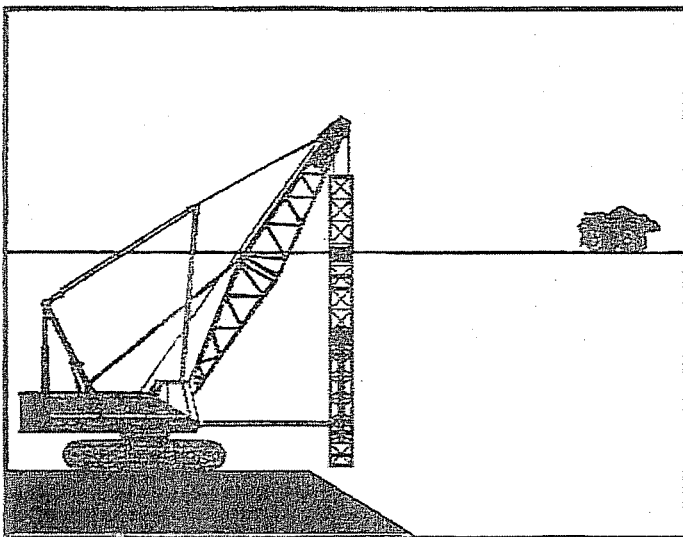
Maintenance and Inspection

- Maintain waste fluid containers in leak proof condition.
- Vehicle and equipment maintenance areas shall be inspected regularly.
- Vehicles and equipment shall be inspected on each day of use. Leaks shall be repaired immediately or the problem vehicle(s) or equipment shall be removed from the project site.
- Inspect equipment for damaged hoses and leaky gaskets routinely. Repair or replace as needed.



Pile Driving Operations

NS-11



Standard Symbol

BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose The construction and retrofit of bridges and retaining walls often include driving piles for foundation support and shoring operations. Driven piles are typically constructed of concrete, steel, or timber. Driven sheet piles are used for shoring and cofferdam construction. Proper control and use of equipment, materials, and waste products from pile driving operations will reduce the discharge of potential pollutants to the storm drain system or watercourses.

Appropriate Applications These procedures apply to construction sites near or adjacent to a watercourse or groundwater where permanent and temporary pile driving operations (impact and vibratory) take place, including operations using pile shells for construction of cast-in-steel-shell and cast-in-drilled-hole piles.

Limitations ■ None identified.

- Standards and Specifications**
- Use drip pans or absorbent pads during vehicle and equipment maintenance, cleaning, fueling, and storage. Refer to BMPs NS-9 "Vehicle and Equipment Fueling" and NS-10 "Vehicle and Equipment Maintenance."
 - Have spill kits and cleanup materials available at all locations of pile driving. Refer to BMP WM-4 "Spill Prevention and Control."
 - Keep equipment that is in use in streambeds; or on docks, barges, or other structures over water bodies, leak free.
 - Park equipment over plastic sheeting or equivalent where possible. Plastic sheeting is not a substitute for drip pans or absorbent pads. The storage or use of equipment in streambeds or other bodies of water shall comply with all applicable permits.
 - Implement other BMPs as applicable, such as NS-2 "Dewatering Operations," WM-5 "Solid Waste Management," WM-6 "Hazardous Waste Management," and WM-10 "Liquid Waste Management."

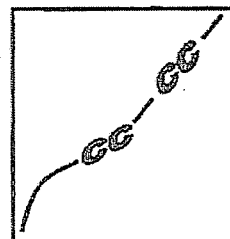
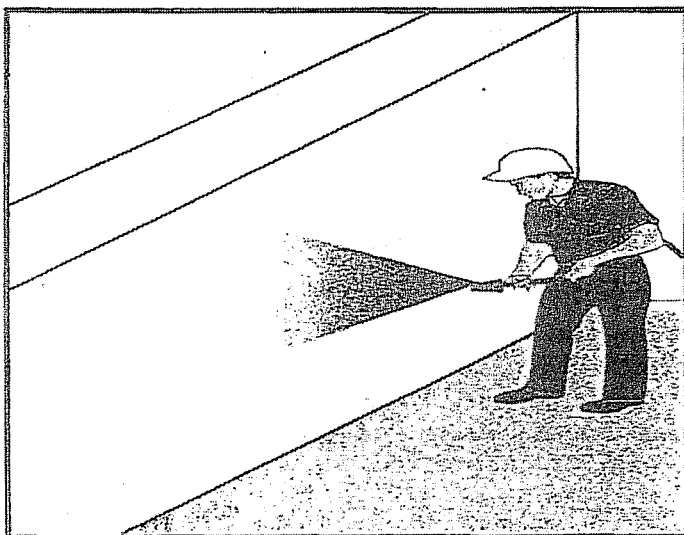


Pile Driving Operations

NS-11

- When not in use, store pile driving equipment away from concentrated flows of storm water, drainage courses, and inlets. Protect hammers and other hydraulic attachments from run-on by placing them on plywood and covering them with plastic or a comparable material prior to the onset of rain.
 - Use less hazardous products, e.g. vegetable oil instead of hydraulic fluid, when practicable.
- Maintenance and Inspection
- Inspect pile driving areas and equipment for leaks and spills on a daily basis.
 - Inspect equipment routinely and repair equipment as needed (e.g., worn or damaged hoses, fittings, gaskets).





Standard Symbol

BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose

Concrete curing is used in the construction of structures such as bridges, retaining walls, and pump houses. Concrete curing includes the use of both chemical and water methods. Proper procedures minimize pollution of runoff during concrete curing.

Appropriate Applications

All concrete elements of a structure (e.g., footings, columns, abutments, stems, soffit, deck) are subject to curing requirements.

Limitations

- None identified.

Standards and Specifications

Chemical Curing

- Avoid over-spray of curing compounds.
- Minimize the drift of chemical cure as much as possible by applying the curing compound close to the concrete surface. Apply an amount of compound that covers the surface, but does not allow any runoff of the compound.
- Use proper storage and handling techniques for concrete curing compounds. Refer to BMP WM-1, "Material Delivery and Storage."
- Protect drain inlets prior to the application of curing compounds.
- Refer to WM-4, "Spill Prevention and Control."

Water Curing for Bridge Decks, Retaining Walls, and other Structures

- Direct cure water away from inlets and watercourses to collection areas for removal as approved by the RE and in accordance with all applicable permits.

Concrete Curing

NS-12

- Collect cure water and transport or dispose of water in a non-erodible manner. See BMPs SS-9, "Earth Dikes/Drainage Swales & Lined Ditches," SS-10, "Outlet Protection/Velocity Dissipation Devices," and SS-11, "Slope Drains."
- Utilize wet blankets or a similar method that maintains moisture while minimizing the use and possible discharge of water.

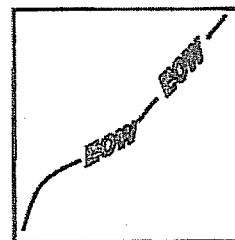
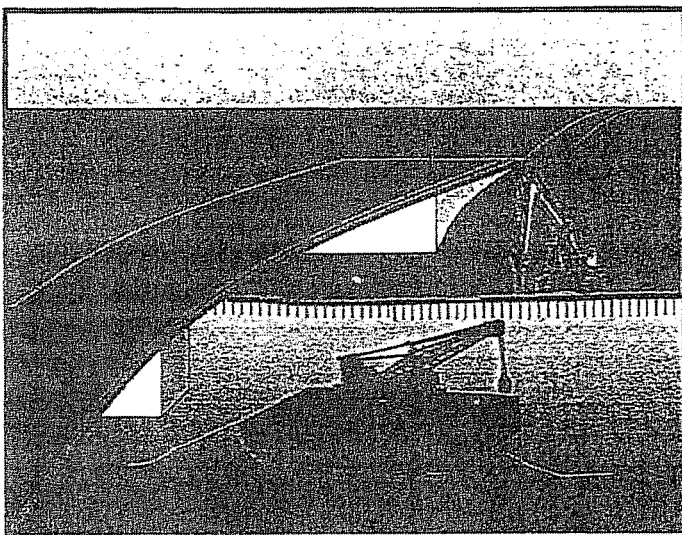
Maintenance and Inspection

- Ensure that employees and subcontractors implement appropriate measures for storage, handling, and use of curing compounds.
- Inspect any temporary diversion devices, lined channels, or swales for washouts, erosion, or debris. Replace lining and remove debris as necessary.
- Inspect cure containers and spraying equipment for leaks.



Material and Equipment Use Over Water

NS-13



Standard Symbol

BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose	Procedures for the proper use, storage, and disposal of materials and equipment on barges, boats, temporary construction pads, or similar locations that minimize or eliminate the discharge of potential pollutants to a watercourse.
Appropriate Applications	These procedures shall be implemented for construction materials and wastes (solid and liquid) and any other materials that may be detrimental if released. Applies where materials and equipment are used on barges, boats, docks, and other platforms over or adjacent to a watercourse.
Limitations	<ul style="list-style-type: none"> ■ None identified.
Standards and Specifications	<ul style="list-style-type: none"> ■ Refer to BMPs WM-1, "Material Delivery and Storage" and WM-4, "Spill Prevention and Control." ■ Use drip pans and absorbent materials for equipment and vehicles and ensure that an adequate supply of spill cleanup materials is available. ■ Drip pans shall be placed under all vehicles and equipment placed on docks, barges, or other structures over water bodies when the vehicle or equipment is expected to be idle for more than one hour. ■ Maintain equipment in accordance with BMP NS-10, "Vehicle and Equipment Maintenance." If a leaking line cannot be repaired, remove equipment from over the water. ■ Provide watertight curbs or toe boards to contain spills and prevent materials, tools, and debris from leaving the barge, platform, dock, etc. ■ Secure all materials to prevent discharges to receiving waters via wind.



Material and Equipment Use Over Water

NS-13

- Identify types of spill control measures to be employed, including the storage of such materials and equipment. Ensure that staff are trained regarding the deployment and access of control measures and that measures are being used.
- Ensure the timely and proper removal of accumulated wastes. Refer to BMPs WM-5, "Solid Waste Management" (non-hazardous) and WM-6, "Hazardous Waste Management."
- Comply with all necessary permits required for construction within or near the watercourse, such as RWQCB, U.S. Army Corps of Engineers, Department of Fish and Game and other local permitting agencies.
- Discharges to waterways shall be reported to the RE immediately upon discovery. A written discharge notification must follow within 7 days.
- Refer to BMP NS-15, "Structure Demolition/Removal Over or Adjacent to Water."

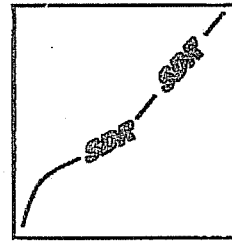
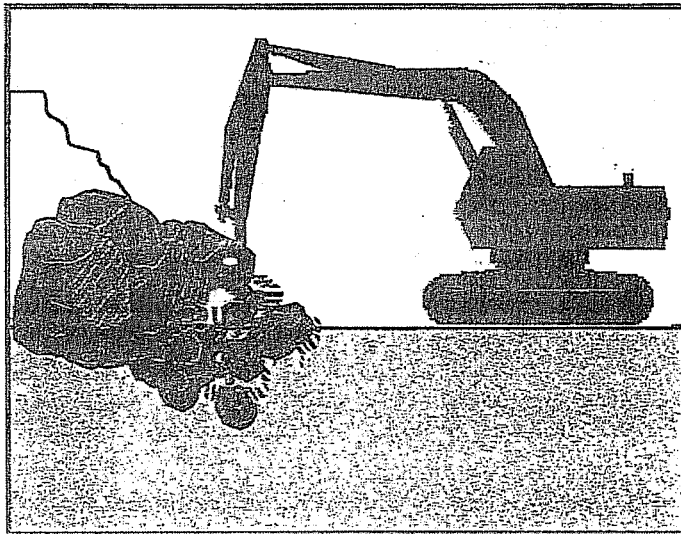
Maintenance and Inspection

- Inspect equipment for leaks and spills on a daily basis, and make necessary repairs.
- Ensure that employees and subcontractors implement appropriate measures for storage and use of materials and equipment.
- Inspect and maintain all associated BMPs and perimeter controls to ensure continuous protection of the watercourse.



Structure Demolition/Removal Over or Adjacent to Water

NS-15



Standard Symbol

BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose

Procedures to protect water bodies from debris and wastes associated with structure demolition or removal over or adjacent to watercourses.

Appropriate Applications

Full bridge demolition and removal, partial bridge removal (e.g., barrier rail, edge of deck) associated with bridge widening projects, concrete channel removal, or any other structure removal that could potentially affect water quality.

Limitations

- Specific permit requirements may be included in the contract documents.

Standards and Specifications

- Do not allow demolished material to enter waterway.
- Refer to BMP NS-5, "Clear Water Diversion" to direct water away from work areas.
- Use attachments on construction equipment such as backhoes to catch debris from small demolition operations.
- Use covers or platforms to collect debris.
- Platforms and covers are to be approved by the RE.
- Stockpile accumulated debris and waste generated during demolition away from watercourses and in accordance with BMP WM-3, "Stockpile Management."
- Ensure safe passage of wildlife, as necessary.
- Discharges to waterways shall be reported to the RE immediately upon discovery. A written discharge notification must follow within 7 days.

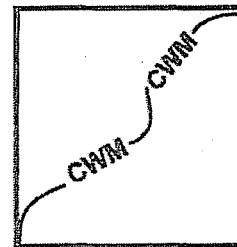
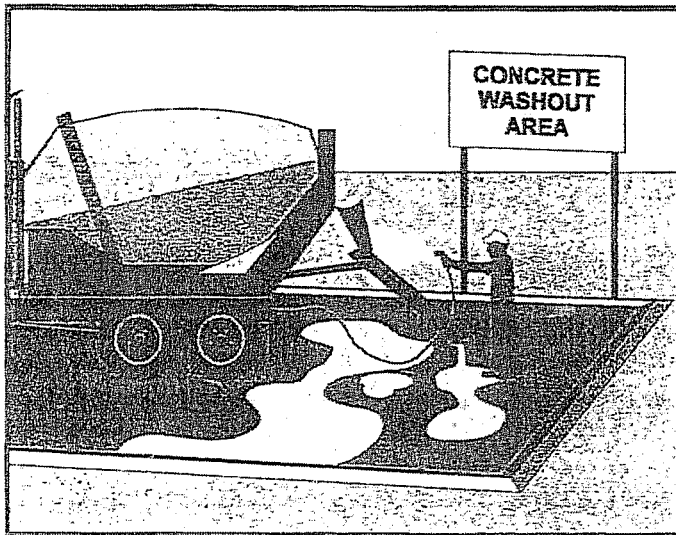


Structure Demolition/Removal Over or Adjacent to Water

NS-15

- For structures containing hazardous materials (e.g., lead paint or asbestos) refer to BMP WM-6, "Hazardous Waste Management." For demolition work involving soil excavation around lead-painted structures, refer to BMP WM-7, "Contaminated Soil Management."
- Maintenance and Inspection
 - Contractor must inspect demolition areas over or near adjacent watercourses on a daily basis.
 - Any debris-catching devices shall be emptied regularly. Collected debris shall be removed and stored away from the watercourse and protected from run-on and runoff.





Standard Symbol

BMP Objectives

- Soil Stabilization
- Sediment Control
- Tracking Control
- Wind Erosion Control
- Non-Storm Water Management
- Materials and Waste Management

Definition and Purpose These are procedures and practices that are designed to minimize or eliminate the discharge of concrete waste materials to the storm drain systems or watercourses.

- Appropriate Applications**
- Concrete waste management procedures and practices are implemented on construction projects where concrete is used as a construction material or where concrete dust and debris result from demolition activities.
 - Where slurries containing portland cement concrete (PCC) or asphalt concrete (AC) are generated, such as from sawcutting, coring, grinding, grooving, and hydro-concrete demolition.
 - Where concrete trucks and other concrete-coated equipment are washed on site, when approved by the Resident Engineer (RE). See also NS-8, "Vehicle and Equipment Cleaning."
 - Where mortar-mixing stations exist.

Limitations ■ None identified.

Standards and Specifications *Education*

- Educate employees, subcontractors, and suppliers on the concrete waste management techniques described herein.
- The Contractor's Water Pollution Control Manager (WPCM) shall oversee and enforce concrete waste management procedures.

Concrete Slurry Wastes

- PCC and AC waste shall not be allowed to enter storm drains or watercourses.

- PCC and AC waste shall be collected and properly disposed of outside the highway right-of-way in conformance with Standard Specifications Section 7-1.13 or placed in a temporary concrete washout facility as shown in the figures on Pages 5 and 6.
- Disposal of hardened PCC and AC waste shall be in conformance with Standard Specifications Section 15-3.02.
- A sign shall be installed adjacent to each temporary concrete washout facility to inform concrete equipment operators to utilize the proper facilities as shown on Page 6.
- A foreman and/or construction supervisor shall monitor onsite concrete working tasks, such as saw cutting, coring, grinding and grooving to ensure proper methods are implemented.
- Do not allow saw-cut PCC slurry to enter storm drains or watercourses. See also BMP NS-3, "Paving and Grinding Operations;" and BMP WM-10, "Liquid Waste Management." Residue from grinding operations shall be picked up by means of a vacuum attachment to the grinding machine. Saw cutting residue shall not be allowed to flow across the pavement, and shall not be left on the surface of the pavement.
- Vacuum slurry residue and dispose in a temporary facility (as described in Onsite Temporary Concrete Washout Facility, Concrete Transit Truck Washout Procedures, below) and allow slurry to dry. Dispose of dry slurry residue in accordance with BMP WM-5, "Solid Waste Management", or, for on-site disposal, in accordance with Standard Specification 15-3.02, Removal Methods.
- Collect and dispose of residue from grooving and grinding operations in accordance with Standard Specifications Section 42-1.02 and 42-2.02.

Onsite Temporary Concrete Washout Facility, Concrete Transit Truck Washout Procedures

- Temporary concrete washout facilities shall be located a minimum of 15 m (50 ft) from storm drain inlets, open drainage facilities, and watercourses, unless determined infeasible by the RE. Each facility shall be located away from construction traffic or access areas to prevent disturbance or tracking.
- A sign shall be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facilities. The sign shall be installed as shown on the plans and in conformance with the provisions in Standard Specifications Section 56-2, Roadside Signs.



- Temporary concrete washout facilities shall be constructed above grade or below grade at the option of the Contractor. Temporary concrete washout facilities shall be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations.
- Temporary washout facilities shall have a temporary pit or bermed areas of sufficient volume to completely contain all liquid and waste concrete materials generated during washout procedures.
- Perform washout of concrete mixer trucks in designated areas only.
- Wash concrete only from mixer truck chutes into approved concrete washout facility. Washout may be collected in an impermeable bag for disposal.
- Pump excess concrete in concrete pump bin back into concrete mixer truck.
- Concrete washout from concrete pumper bins can be washed into concrete pumper trucks and discharged into designated washout area or properly disposed offsite.
- Once concrete wastes are washed into the designated area and allowed to harden, the concrete shall be broken up, removed, and disposed of per BMP WM-5, "Solid Waste Management", and in conformance with the provisions in Standard Specifications Section 15-3.02, "Removal Methods."

Temporary Concrete Washout Facility Type "Above Grade"

- Temporary concrete washout facility Type "Above Grade" shall be constructed as shown on Page 5 or 6, with a recommended minimum length and minimum width of 3 m (10 ft), but with sufficient quantity and volume to contain all liquid and concrete waste generated by washout operations. The length and width of a facility may be increased, at the Contractor's expense, upon approval from the RE.
- Straw bales, wood stakes, and sandbag materials shall conform to the provisions in BMP SC-9, "Straw Bale Barrier."
- Plastic lining material shall be a minimum of 10-mil polyethylene sheeting and shall be free of holes, tears or other defects that compromise the impermeability of the material.
- Portable delineators shall conform to the provisions in Standard Specifications Section 12-3.04, "Portable Delineators.". The delineator bases shall be cemented to the pavement in the same manner as provided for cementing pavement markers to pavement in Standard Specifications Section 85-1.06, "Placement." Portable delineators shall be applied only to a clean, dry surface.



Temporary Concrete Washout Facility (Type Below Grade)

- Temporary concrete washout facility Type "Below Grade" shall be constructed as shown on page 6, with a recommended minimum length and minimum width of 3m (10 ft). The quantity and volume shall be sufficient to contain all liquid and concrete waste generated by washout operations. The length and width of a facility may be increased, at the Contractor's expense, upon approval of the RE. Lath and flagging shall be commercial type.
- Plastic lining material shall be a minimum of 10-mil polyethylene sheeting and shall be free of holes, tears or other defects that compromise the impermeability of the material.
- The soil base shall be prepared free of rocks or other debris that may cause tears or holes in the plastic lining material.

Removal of Temporary Concrete Washout Facilities

- When temporary concrete washout facilities are no longer required for the work, as determined by the RE, the hardened concrete shall be removed and disposed of in conformance with the provisions in Standard Specifications Section 15-3.02. Disposal of PCC slurries or liquid waste shall be disposed of outside the highway right-of-way in conformance with provisions of Standard Specifications Section 7-1.13. Materials used to construct temporary concrete washout facilities shall become the property of the Contractor, shall be removed from the site of the work, and shall be disposed of outside the highway right-of-way in conformance with the provisions of the Standard Specifications, Section 7-1.13.
- Holes, depressions or other ground disturbance caused by the removal of the temporary concrete washout facilities shall be backfilled and repaired in conformance with the provisions in Standard Specifications Section 15-1.02, "Preservation of Property."

Maintenance and Inspection

- The Contractor's Water Pollution Control Manager (WPCM) shall monitor on site concrete waste storage and disposal procedures at least weekly or as directed by the RE.
- The WPCM shall monitor concrete working tasks, such as saw cutting, coring, grinding and grooving daily to ensure proper methods are employed or as directed by the RE.



- Temporary concrete washout facilities shall be maintained to provide adequate holding capacity with a minimum freeboard of 100 mm (4 inches) for above grade facilities and 300 mm (12 inches) for below grade facilities. Maintaining temporary concrete washout facilities shall include removing and disposing of hardened concrete and returning the facilities to a functional condition. Hardened concrete materials shall be removed and disposed of in conformance with the provisions in Standard Specifications Section 15-3.02, "Removal Methods."
- Existing facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is 75% full.
- Temporary concrete washout facilities shall be inspected for damage (i.e. tears in PVC liner, missing sand bags, etc.). Damaged facilities shall be repaired.



