LEHIGH
HEIDELBERGCEMENT Group

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CALIFORNIA REGIONAL WATER
JUN 30 2009
QUALITY CONTROL BOARD

June 29, 2009

Brian Wines
Water Resources Control Engineer
San Francisco Bay Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: Storm Water Pollution Prevention Plan and 2009 Annual Storm Water Report
Hanson Permanente Cement, Cupertino, California
WDID Number 2 43SO06267

Dear Mr. Wines:

Pursuant to the Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities – National Pollutant Discharge Elimination System, General Permit No. CAS 000001 (General Permit), we are pleased to provide you with the *Storm Water Pollution Prevention Plan (SWPPP) and 2009 Annual Storm Water Report* (Report) for the Lehigh Southwest Cement Company – Permanente Plan, located in Cupertino, California for the 20088/2009 storm season. The Report was delivered by Raul Farre of URS Corporation to the California Regional Water Quality Control Board – San Francisco Bay Region on Tuesday, June 30, 2009.

If you have any questions or need any additional information regarding the enclosed information, please contact me at scott.renfrew@lehighhanson.com or (408) 996-4262

Sincerely,

Scott Renfrew

Environmental Manager
Permanente Plant – Lehigh Southwest Cement Company

Attachment

cc: Henrik Wesseling - LSCC
Raul Farre - URS

REPORT

STORM WATER POLLUTION PREVENTION PLAN AND 2009 ANNUAL STORM WATER REPORT

Prepared for
Lehigh Southwest Cement Company
24001 Stevens Creek Boulevard
Cupertino, CA 95014

June 2009

URS
1333 Broadway, Suite 800
Oakland, California 94612

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Signed Certification Statement

I certify under penalty of law that this Storm Water Pollution Prevention Plan and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Henrik Wesseling, Plant Manager,
Lehigh Southwest Cement Company – Permanente Plant

Facility WDID Number: 2 43S006267

In recent years, the Federal and California State governments have become increasingly concerned about the damaging effects of polluted storm water discharge. Such pollution typically occurs when rain water comes into contact with exposed materials and subsequently carries pollutants into nearby surface waters such as creeks, rivers, lakes and oceans. Table 1-1 summarizes developments to storm water regulations pertinent to California.

Table 1-1
Significant Developments in Storm Water Regulations Pertinent to California

Milestones	Reference	Date
U.S. EPA promulgated final regulations that establish storm water permit requirements for discharge from construction and industrial activities.	40 Code of Federal Regulations Parts 122, 123, and 124	November 1990; updated Part 122 in 1991 and 1992
California Water Resources Control Board adopted General Industrial Activities Storm Water Permit.	State Water Resources Control Board, Water Quality Order No. 91-13 DWQ; NPDES General Permit No. CAS000001	November 1991
California Water Resources Control Board adopted General Construction Activity Storm Water Permit.	State Water Resources Control Board, Water Quality Order No. 92-08-DWQ; NPDES General Permit No. CAS00002	September 1992
California Water Resources Control Board amends General Industrial Activities Storm Water Permit.	State Water Resources Control Board, Water Quality Order No. 91-13-DWQ; NPDES General Permit No. CAS000001	October 1992
California Water Resources Control Board amends General Industrial Activities Storm Water Permit.	State Water Resources Control Board Water Quality Order No. 97-03-DWQ is issued; amended NPDES General Permit No. CAS000001	April 1997

DWQ = Department of Water Quality
NPDES = National Pollutant Discharge Elimination System
U.S. EPA = United States Environmental Protection Agency

In California, the regulations for storm water discharge are administered by the State Water Resources Control Board (SWRCB) and enforced by the nine Regional Water Quality Control Boards (RWQCB). The existing regulations require that storm water associated with industrial activity (industrial storm water) that is discharged directly into surface waters or indirectly, through municipal sewer systems, be regulated pursuant to the requirements of the California General Industrial Activities Storm Water Permit (General Industrial Storm Water Permit). Table 1-2 provides highlights of the requirements contained within the General Industrial Storm Water Permit.

Table 1-2
Highlights of Requirements in the
California General Storm Water Permit

Required Action	Highlights
Prepare and Implement a Storm Water Pollution Prevention Plan.	Outlines in detail the potential sources of storm water pollutants and best management practices (BMPs) to prevent such pollution. Certifies that all unauthorized non-storm water discharges are eliminated or that elimination plans are in place. Shall be retained on-site and made readily available for regulatory and public review. Identifies a Pollution Prevention Team to implement requirements of the SWPPP. Shall be updated to reflect the latest changes in the facilities and the pollution prevention program.
Prepare and Implement a Storm Water Monitoring Plan.	Outlines in detail the monitoring activities necessary to verify the effectiveness of the BMPs preventing pollution. Details the implementation of annual inspections, dry season observations, wet season observations, and sampling and analysis methods. Explains the rationale for selecting sampling locations. Shall be retained on-site and made readily available for regulatory and public review.
Conduct Storm Water Sampling and Analysis.	Collect storm water samples during the first 1 hour of discharge from: 1) the first qualified storm event of the wet season; and, 2) at least one other qualified event during the wet season (October through May). Analyze for pH, total suspended solids, specific conductance, and total organic carbon (or, alternatively, oil and grease). Analyze for other potential contaminants as required by the General Permit.
Conduct Non-Storm Water Discharge Visual Observations.	Inspect storm water discharge points from the industrial facilities and document any stains, sludge, odors, and other abnormal conditions suggesting both authorized and non-authorized non-storm water discharges. Conduct the observations at least once per quarter.

The General Permit was revised in April 1997, making a number of relatively minor changes to both planning and monitoring requirements. A copy of the revised April 1997 General Industrial Storm Water Permit is included in this plan as Appendix A.

The General Industrial Storm Water Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP is to be updated as storm water pollution BMPs are improved and implemented. This SWPPP revision (SWPPP14) outlines the latest pollution prevention practices at the Lehigh Southwest Cement Company (Lehigh Southwest Cement Company) Facility and updates the following:

- Description of industrial activities;
- Lehigh Southwest Cement Company's strategy for reducing and preventing storm water pollution;

- Personnel responsible for implementing the SWPPP14 program;
- Revised Storm Water Monitoring Plan;
- Creek Inspection Procedures;
- Updated Reporting Procedures;
- Baseline and Site-specific Industrial BMPs;
- Existing, new, and planned Best Management Practices (BMPs) for reducing and preventing storm water pollution; and,
- Erosion and Sediment Control Measures.

The Storm Water Monitoring Plan (SWMP) is an important component of the SWPPP and is used to verify the effectiveness of the storm water pollution prevention program. A revised SWMP for the Lehigh Southwest Cement Company facility is currently being developed based on the improvements implemented and information obtained during the past year of monitoring. The revised SWMP will focus on source areas identified during the storm water consolidation effort and the effectiveness of the BMPs implemented for the source area identified. This SWMP will include sections describing dry and wet weather inspections, storm water sampling and analysis, and annual evaluations, including logistical information and completion of necessary forms.

The SWPPP14 and SWMP are to be kept at the Lehigh Southwest Cement Company Facility, readily available for routine use by facility operators, the public, and regulators. The plans are subject to periodic reviews and updates to meet the latest needs and changes at the Lehigh Southwest Cement Company Facility.

Lehigh Southwest Cement Company operates a cement manufacturing facility just west of Cupertino, California (Figure 1). Lehigh Southwest Cement Company operations include an active quarry, conveyor systems to transport rock and raw materials to the cement plant, several crushers and mills, a pre-calcining tower, and a rotary cement kiln. The site layout is shown on Figure 2.

On August 10, 1995, Lehigh Southwest Cement Company purchased the adjacent property formerly owned by Kaiser Aluminum Chemical Corporation (KACC). This site has been abandoned since 1991 and there are no current plans for manufacturing activities at this site. On March 5, 1997, Lehigh Southwest Cement Company formally requested that the former KACC WDID Number be incorporated into Lehigh Southwest Cement Company's WDIS Number for the 1996/1997 Annual Report. On March 25, 1997, the SWRCB informed Lehigh Southwest Cement Company that this request was approved and therefore the former KACC area is now covered under this plan.

All of the Lehigh Southwest Cement Company operations are confined to the Permanente Canyon situated on a northwest-southeast axis. Lehigh Southwest Cement Company occupies a portion of the upper watershed of Permanente Creek, covering approximately 3,500 acres. Permanente Creek (the Creek) is a natural stream that rises in the higher elevations of the Coast Range and flows eastward until it reaches the floor of the Santa Clara Valley (approximately where the Creek crosses the I-280 freeway). The Site consists of six drainage areas, which are shown on Figure 3. The general flow within each drainage area, and discharge locations into the Creek are also shown on Figure 3. Impacts to the Creek by sediment loading are of prime concern to Lehigh Southwest Cement Company and are the focus of this SWPPP14.

The general strategy of the storm water pollution prevention program at Lehigh Southwest Cement Company consists of the interaction among four basic program components:

- A Pollution Prevention Team, led by Henrik Wesseling, responsible for implementing and updating the program;
- Best Management Practices (both Baseline and Site-specific) for General Industrial Activities;
- Erosion Control Measures for minimizing sediment load to the Creek; and,
- Storm Water Monitoring and Creek Inspections to evaluate the effectiveness of Industrial BMPs and Erosion Control Measures.

Table 3-1 below outlines the general strategy for preventing storm water pollution at Lehigh Southwest Cement Company in terms of goal, strategy, objectives, and actions. The goal is the desired result of the program. The strategy is a list of tactical elements necessary for achieving the goal. Each tactical element is supported by the following: 1) objectives, which are the building blocks of the goal; and, 2) actions, which are the specific tasks to be achieved.

Table 3-1
Program Strategy
Storm Water Pollution Prevention Program
Lehigh Southwest Cement Company

GOAL		
Comply with storm water regulations per the California General Industrial Activities Storm Water Permit under the Clean Water Act		
STRATEGY	**OBJECTIVES**	**ACTIONS**
Prepare SWPPP14 and SWMP.	Meet permit requirements for SWPPP14 and SWMP.	Identify potential sources of pollution to storm water.
	Establish a program for preventing storm water and non-storm water discharge pollution.	Implement existing BMPs to minimize each potential source(s) of pollution, and design new BMPs as required to improve pollution prevention plan.
	Establish discussion among the facility, regulators, and the public on storm water issues.	Design an inspection and sampling program to monitor the effectiveness of the BMPs.

Table 3-1
Program Strategy
Storm Water Pollution Prevention Program
Lehigh Southwest Cement Company

GOAL		
Comply with storm water regulations per the California General Industrial Activities Storm Water Permit under the Clean Water Act		
STRATEGY	**OBJECTIVES**	**ACTIONS**
Train Lehigh Southwest Cement Company Plant personnel on SWPPP14 program.	Ensure that personnel understand the importance of storm water prevention measures. Ensure that personnel are aware of storm pollution sources and of the means for preventing it. Establish communication channels between facility program manager and Lehigh Southwest Cement Company facility operators to address storm water pollution issues.	Conduct initial training workshop to teach specific BMPs for industrial activities. Conduct a follow-up investigation to ascertain proper use of BMPs and to address questions. Develop a reporting procedure and develop a line of communication in case of an unforeseen release.
Monitor potential pollution to storm water.	Confirm the effectiveness of erosion control measures and BMPs. Ensure that the SWPPP14 addressed all storm water and non-storm water pollution sources. Obtain information necessary to modify the SWPPP14 or SWMP.	Conduct dry season inspections per SWPPP14. Conduct wet season inspections and quarterly non-storm water discharge visual observations per SWPPP14 . Conduct sampling and analyses per SWMP.
Evaluate and update storm and water pollution prevention program based on the overall effectiveness of the program.	Identify needs to update SWPPP14 and SWMP for the next calendar year.	Evaluate the results of inspections and sampling to determine if erosion control measures and BMPs are adequately addressed by the SWPPP14 and SWMP. Modify program as appropriate to increase its effectiveness.
Report to SFRWQCB.	Comply with reporting requirements.	Submit Annual Report to SFRWQCB by July 1 of each year. Utilize the California Annual Report Form and attached sampling results, field forms, and explanation test.

SWPPP14 = Storm Water Pollution Prevention Plan Revised June 2008
SWMP = Storm Water Monitoring Plan
BMPs = Best Management Practices
SFRWQCB = San Francisco Bay Regional Water Quality Control Board

3.1 POLLUTION PREVENTION TEAM

Planning and organization are critical to the success of the Storm Water Pollution Prevention Plan. The Lehigh Southwest Cement Company Pollution Prevention Team (the Team) is led by Henrik Wesseling, Plant Manager, and has been designated for assuring the implementation of the SWPPP14 at the facility. Mr. Wesseling will ensure the proper implementation of BMPs, sediment and erosion control measures, monitoring schedules, and inspection programs. The Environmental Manager, Scott Renfrew, is the Storm Water Inspection Coordinator responsible for the Creek inspection program. His duties include making sure that the Creek inspections are performed daily, creek inspection forms are completed properly, assuring that accurate records are maintained and reporting potential problems to the Team Leader. All employees at the cement plant are part of the Team, and are responsible for immediately reporting to the Team Leader or the Coordinator any potential problems they may observe. Table 3-2 lists the role of the Pollution Team Leader and describes his interaction with the site representatives.

Table 3-2
Responsibilities of Pollution Prevention Team Leader
Lehigh Southwest Cement Company

	Responsibilities
1.	Read and understand the entire SWPPP14 and SWMP. Ensure that facility representatives receive the appropriate sections for their area and understand their responsibilities.
2.	Keep facility representatives informed of pollution prevention and monitoring requirements.
3.	Conduct periodic erosion control measures and BMP inspections to ensure that they are being implemented correctly and to identify additional erosion control measures and/or BMPs as necessary.
4.	Coordinate the daily dry-season and wet season inspections annually to monitor the presence of non-storm water discharges.
5.	Oversee preparation of the Annual Report and ensure its submittal by July 1 of each year.
6.	Maintain and update SWPPP14 and SWMP, as required.
7.	Serve as interface with outside parties (e.g., the public and regulatory agencies) on storm water issues.
8.	Coordinate sampling team efforts and ensure that they collect samples at least twice during the wet season in accordance with the SWMP.

Notes: Henrik Wesseling is the Lehigh Southwest Cement Company Pollution Prevention Team Leader.

3.2 MONITORING PROGRAM

3.2.1 Storm Water Monitoring

The purpose of the SWMP at the Lehigh Southwest Cement Company facility is to evaluate the amount of sediment contained in storm water runoff entering Permanente Creek due to quarry and facility operations. Storm water monitoring at the Lehigh Southwest Cement Company

facility is required by the Clean Water Act, and is overseen by the San Francisco Bay Regional Water Quality Control Board (RWQCB), and has been on-going at the facility since January 1996.

In the past, Lehigh Southwest Cement Company was required to sample 22 on-site locations for Total Suspended Solids (TSS), oil and grease, chemical oxygen demand (COD), pH, both solid and dissolved phase copper, flow rate, and specific conductance. Sampling is required to occur during two significant and representative storm events within the wet season. Due to site-specific conditions and improvements to site operations, Lehigh Southwest Cement Company sampled at 33 on-site locations for TSS, oil and grease, COD, and pH in recent years. These sampling locations are shown in Figure 4. The Storm Water Monitoring Plan is currently being reviewed to determine if sampling location changes are advisable. There were no samples collected during the 2008/2009 storm season because there were no eligible storm events. The results of previous samples were used to evaluate the long-term effectiveness of past BMPs and the effectiveness of the new BMPs to be implemented this year. The current sample location identification numbers along with identification numbers of previous years can be found in Appendix D, Table 1.

3.2.2 Non-Storm Water Discharge Monitoring

Two sources of non-storm water discharge are authorized under the General Permit (Special Conditions) at Lehigh Southwest Cement Company. These sources include: 1) dust suppression water spray applied to Lower Quarry Road, Rock Plant Road, and the lower entrance/exit road to the Rock Plant, and 2) wash-down water spray applied to the upper exit road at the Rock Plant. Water spray is applied on Lower Quarry Road, Rock Plant Road and the lower entrance/exit road to the Rock Plant using a water truck, and at the Rock Plant using a permanently installed sprinkler system. Dust suppression water spray is applied to the above referenced site haul roads once daily in the morning, and wash-down water spray is applied at the Rock Plant once daily in the afternoon. The authorized non-storm water discharges are restricted in volume due to their limited application rates, and thus, do not contain significant quantities of suspended solids.

Authorized non-storm water discharges are routed to existing off-stream retention Ponds 9 and 17 (i.e., structural BMPs). Effluent from Ponds 9 and 17 flows directly into Permanente Creek. It was demonstrated in June 2004 that there was no adverse impact to water quality in Permanente Creek as a result of the two authorized non-storm water discharges. Analyses of TSS of water samples collected in Permanente Creek immediately up-stream of Pond 9 and down-stream of Pond 17 reported no difference in concentration within the laboratory reporting limits of 10 mg/L and below. Ponds 9 and 17 were shown to be effective BMPs in removing TSS from non-storm water discharges.

To document the existence of authorized non-storm water discharges and the inspections for unauthorized non-storm water discharges, Lehigh Southwest Cement Company has implemented a non-storm water discharge visual monitoring program in accordance with the General Permit, Section B.3. (Non-Storm Water Discharge Visual Observations) since July 1, 2004. The following elements were incorporated into the monitoring program and details of the non-storm water discharge monitoring program are presented in Appendix B of this report.

- Observations: Visually observe all drainage areas for the presence of unauthorized non-storm water discharges, and visually observe authorized non-storm water discharges and their sources.

- Schedule: Visual observations shall occur quarterly, during daylight hours, on days with no storm water discharges, and during scheduled facility operating hours. For the purpose of non-storm water discharge visual monitoring, quarterly observations shall be conducted during the following periods: January through March, April through June, July through September, and October through December. Lehigh Southwest Cement Company shall conduct quarterly visual observations within 6 to 18 weeks of one another.
- Documentation: Visual observations shall document the presence of any discoloration, stains, odors, floating materials, etc. as well as the source of any discharge. Records will be maintained of the visual observation dates, locations observed, observations, and the response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges.
- Reporting: Visual observations have been reported annually in the SWPPP and Annual Report since the 2004/2005 season.

3.3 CREEK AND POND INSPECTION PROCEDURES

As part of the pollution prevention program implemented at the Lehigh Southwest Cement Company facility, visual inspections of Permanente Creek are performed at six locations: the Quarry pit groundwater dewatering discharge point, Pond 13, the area adjacent to the Rock Plant, the area adjacent to Dinky Shed Basin, the creek below screen tower #4, and Pond 22. The inspector records the date, time, name of the inspector, and a description of the visual observations on one of four "Daily Creek Inspection Forms". The inspection forms cover inspection of locations along Permanente Creek for key visual observations of water quality parameters, under both wet and dry season conditions as well as inspections of key sediment control ponds. The forms are completed by designated staff from the Yard, Quarry, Rock Plant, and Control Room for designated segments along the creek. Copies of the Blank forms are included in Appendix C.

The following describes the location and recording procedure at each location:

1. Quarry in-line flow meter and Pond 13 discharge: The Quarry staff conducts inspections at the Quarry in-line flow meter and pit groundwater dewatering discharge, and at the discharge location from Pond 13. The quarry supervisor or a designated staff member performs the inspection on a daily basis and records the values on the "Daily Creek Inspection Form: Quarry Staff". When the quarry is discharging groundwater to the Creek above Pond 13, the discharge is controlled by the in-line turbidity meter that automatically shuts off the discharge at 30 NTUs.
2. Dinky Shed Basin: Periodic visual observations are made of the area adjacent to the Dinky Shed Basin by the yard staff supervisor, the rock plant supervisor, or a designated staff member and recorded on the "Daily Creek Inspection Form: Rock Plant Staff".
3. Area Adjacent to Rock Plant Road: Periodic visual observations by the rock plant supervisor or designated staff member are made at Rock Plant Road where the creek full culvert discharges. The visual observations are recorded on the "Daily Creek Inspection Form: Rock Plant Staff".

4. Creek Below Screen Tower #4: Periodic visual observations are made of the creek below screen tower #4 by the rock plant supervisor or designated staff member and recorded on the "Daily Creek Inspection Form: Rock Plant Staff".
5. Pond 22 Discharge: The Pond 22 inspection point is where Pond 22 discharges to Permanente Creek. Daily visual observations of Pond 22 discharge are completed by the control room supervisor or a designated staff member and recorded on the "Daily Creek Inspection Form: Control Room Staff".

As part of the improvements made by Lehigh Southwest Cement Company under the storm water management plan in 1999, a new inspection procedure and the forms that are listed above were developed to standardize visual observations by Lehigh personnel. The goal of the reference comparison technique was to standardize visual observations between personnel collecting samples and to more accurately describe the creek condition.

To standardize the visual observation being recorded by Lehigh Southwest Cement Company personnel, a set of sediment reference samples was prepared in 1999. Each reference sample set consisted of five sample bottles containing creek water with varying total suspended solids. Each sample jar was assigned a designated number between 1 and 5 that corresponds to a specific description (i.e. clear, almost clear, cloudy, very cloudy). Due to continuous breaking of jars, a palette was created using clear pictures of the five sample bottles. Copies of these palettes were distributed to the inspection staff. When water samples are collected, each inspector compares the sample to the reference sample set shown on the palette and records the sample number that best describes the sample collected. The standardized inspection forms and a copy of the palette are provided in Appendix C. The completed inspection forms for the 2008/2009 season can be found in the Annual Report contained in Appendix D.

3.4 REPORTING PROCEDURE

Another important aspect of an effective pollution prevention plan is to ensure that there is a clear reporting procedure in place in case of an unforeseen upset or release to the Creek. As described in the Table 3-2 above, the Plant Manager (the Team Leader) is responsible for implementation of the SWPPP, which includes reporting non-storm water discharges to the Creek. The Team Leader is assisted by the Storm Water Inspection Coordinator. If a potential problem is observed during a daily inspection or during the course of normal business hours, staff is directed to report that problem immediately to the Storm Water Inspection Coordinator, who is responsible for investigating the reported problem. If the Coordinator determines that a discharge has occurred, he/she or the Team Leader (depending on availability) will notify the Regional Board by telephone. Written notification will be submitted to the Regional Board within five working days from the time of the incident.

3.5 EROSION CONTROL MEASURES AND BEST MANAGEMENT PRACTICES

In order to reduce sediment loading into Permanente Creek, numerous erosion controls and Best Management Practices (BMPs) have been developed and implemented at the Lehigh Southwest Cement Company facility. In general, Lehigh Southwest Cement Company has taken an active role in limiting erosion at the facility; this includes 17 settlement ponds at the site that are currently in use (Table 5-1). Eight settlement ponds (Ponds 1, 3, 5, 7, 8, 10, 12, and 15) have

been abandoned and one pond (Pond 2) was never built. These changes have been made due to changes in the Quarry reconfiguration. Pond 1, for example, has been closed due to the overburden stockpile development towards the southeast. The settlement ponds are used to collect sediment prior to reaching Permanente Creek. Although the site is undergoing constant change, replacements and alternatives are being implemented to justify the changes such that storm water management at Lehigh Southwest Cement Company is continuously in effect. In addition to the settlement Ponds, Lehigh Southwest Cement Company has also implemented both Baseline Best Management Practices (BMPs), and Site-Specific BMPs (Section 4.0). A list of proposed, implemented, and ongoing BMPs are listed in Tables 5-2 through 5-4. Figures 5 and 6 show the locations where each BMP is implemented. Appendix I lists the BMPs implemented prior to 2008/2009.

4.1 MATERIALS INVENTORY AND POTENTIAL POLLUTANT SOURCES

A materials inventory for the facility was conducted to identify the location(s) of materials that potentially may have been or are exposed to rain water. Table 4-1, Materials Inventory Summary, contains a list of the significant materials associated with industrial activities that are handled, stored, or used in a manner that may be potentially exposed to storm water and thus could add significant amounts of pollutants to storm water runoff. Table 4-1 includes the following information:

- Name of the material
- Storage, receiving, shipping and handling locations
- Quantity of material stored
- Type of management
- Risk of contact with storm water

Table 4-1 will be updated whenever new materials are handled, treated, stored, or disposed of and when existing listed materials are no longer used at the facility.

Hazardous materials which are used or stored at the facility include motor oil (new and used), diesel fuel, and lubrication oil. All of these materials except the Quarry diesel fuel tank, which is stored in a double walled tank in secondary containment, and the Warehouse standby generator diesel fuel tank, are stored with a cover and therefore have a very low to low likelihood of storm water contact. Table 4-1 summarizes the risks of material contact with storm water run-off.

Non-hazardous waste generated by the facility includes dirty paper towels, packaging materials, and normal refuse which may be associated with daily operations. Trash generated from the facility is placed trash bins, and storm water contact is limited because the bins have covers.

Methods and locations of on-site storage and the associated existing materials management practices employed to minimize the contact of these materials with storm water are presented in the following subsections. Best management practices for these areas are discussed in Section 5.0.

4.1.1 Outdoor Material Storage Areas

The facility has five above-ground storage tanks (ASTs) (Warehouse Standby, Quarry, Finish Mill Flats, Auxiliary Kiln Drive, and the Garage) located outside of structures that contain diesel fuel.. The Warehouse Standby tank has a 500-gallon capacity and a concrete berm. The Quarry tank is double walled with a concrete berm, and has a 12,000 gallon capacity. The Finish Mill Flats has a 1,000 gallon capacity is covered and has a concert berm. The Auxiliary Kiln Drive tank has a 1,000 gallon capacity and has a concrete berm. The Garage diesel fuel tank is an AST equipped with a concrete berm. All of the loading/unloading areas associated with these tanks, except the Auxiliary Kiln Drive tank, are equipped with a reclamation system and temporary containment equipment or are within the concrete berms associated with the containment structure. This minimizes any contact with storm water run-off during loading/unloading of the tanks. The facility also has two USTs that contain unleaded and diesel fuel. These tanks are equipped with leak detection systems.

Table 4-1
Materials Inventory Summary
Lehigh Southwest Cement Company, Cupertino, California

Material Name	Location / Storage Type	Storage Type	Volume	Material Management Practice	Loading/Unloading Management Practice	Storm Water Contact Risk Factor
Warehouse Standby Generator Diesel Fuel Tank	Warehouse (Drawing 2)	AST	500 gal	Concrete berm	Reclamation system and temporary secondary containment equipment	Low-during fueling and loading/unloading
Finish Mills Flats Standby Generator Diesel Fuel Tank	Finish Tank (Drawing 3)	AST	1,000 gal	Concrete berm and covered	Reclamation system and temporary secondary containment equipment	Very low- during loading/unloading
Upper Oil Shed Waste Oil	Upper Oil Shed (Drawing 5)	AST	(4) 250 gal tanks	Concrete berm	Reclamation system and temporary secondary containment equipment	Low-during loading/unloading
Upper Oil Shed Lubricant Oil	Upper Oil Shed (Drawing 5)	55 gal	Several drums	Concrete berm	Reclamation system and temporary secondary containment equipment	Low-during loading/unloading
Oil Tank Farm 15W-40 Oil (Tank F)	Garage Oil Tank Farm (Drawing 6)	AST	4,000 gal	Concrete berm and covered	Truck Loading/Unloading Area within concrete berm	Very low – during loading/unloading
Oil Tank Farm Motor Oil (Tank E)	Garage Oil Tank Farm (Drawing 6)	AST	4,000 gal	Concrete berm and covered	Truck Loading/Unloading Area within concrete berm	Very low – during loading/unloading
Oil Tank Farm Waste Oil Tank D	Garage Oil Tank Farm (Drawing 6)	AST	1,000 gal	Concrete berm and covered	Truck Loading/Unloading Area within concrete berm	Very low – during loading/unloading
Oil Tank Farm Waste Oil (Tank C)	Garage Oil Tank Farm (Drawing 6)	AST	1,000 gal	Concrete berm and covered	Truck Loading/Unloading Area within concrete berm	Very low – during loading/unloading
Quarry Diesel Fuel Tank	Quarry (Drawing 7)	AST	12,000 gal	Double-walled tank and concrete berm	Truck Loading/Unloading Area within concrete berm	Low-during fueling and loading/unloading

Table 4-1
Materials Inventory Summary
Lehigh Southwest Cement Company, Cupertino, California

Material Name	Location / Storage Type	Storage Type	Volume	Material Management Practice	Loading/Unloading Management Practice	Storm Water Contact Risk Factor
Auxiliary Kiln Drive Diesel tank	Auxiliary Kiln Drive (Drawing 8)	AST	1,000 gal	Concrete berm	none	Medium-during fueling and loading/unloading
Material Name	**Location / Storage Type**	**Storage Type**	**Volume**	**Material Management Practice**	**Loading/Unloading Management Practice**	**Storm Water Contact Risk Factor**
Waste oil, oil water tank	Auxiliary Kiln Drive (Drawing 8)	AST	(2) 500 gal	Double Walled Tanks	none	Medium-during loading/unloading
Oil House No. 2 Storage	Oil House No. 2 Storage Facility (Drawing 9)	55 gal	Various drums	Concrete berm and covered	Covered area	Very low – during loading/unloading
Oil House No. 1 Storage	Finish Mills Flats (Drawing 10)	55 gal	Various drums	Concrete berm and covered	Covered area	Very low – during loading/unloading
Lube and Waste Oil	Garage Oil Containment Areas 1,2,and 3 (Drawing 11)	AST	Area 1: (2) 500 gal portable tanks Area 2: 300 gal tank Area 3: various drums	Concrete berms around Areas 1, 2, and 3 and secondary containment pads within. All covered in garage.	Covered area	Very low – during loading/unloading
Garage Diesel Fuel Tank	Garage (Drawing 12)	AST	500 gal	Concrete berm	Truck Loading/Unloading Area within concrete berm	Low-during fueling and loading/unloading
Garage Waste Oil	Garage (Drawing 12)	AST	300 gal	Concrete berm	Truck Loading/Unloading Area within concrete berm	Low-during fueling and loading/unloading

Table 4-1
Materials Inventory Summary
Lehigh Southwest Cement Company, Cupertino, California

Material Name	Location / Storage Type	Storage Type	Volume	Material Management Practice	Loading/Unloading Management Practice	Storm Water Contact Risk Factor
Portable Generator Diesel Fuel Tank	Drawing 13	AST	550 gal	Secondary tank	Reclamation system and temporary secondary containment equipment	Low- during fueling and loading/unloading
Portable Motor Oil	Garage (Drawing 11)	55 gal	(4) 55 gal	Double walled containers	NA	Very low-during loading/unloading
Diesel/Unleaded fuel	Engineering Area	UST	(2) 10,000 gal	Secondary containment and leak detection system	Covered area	Low- during fueling and loading/unloading

4.1.2 Indoor Material Storage Areas

Materials stored inside at the facility are included in Table 4-1. These materials include new and used oil that is stored in the Garage, Oil Tank Farm, Oil House II, and the Upper Waste Oil Storage Area. Additional materials stored inside include towels, rags, batteries, lubricant, and hydraulic oil. These areas are not exposed to storm water and do not present a risk as a potential source of storm water pollution.

4.1.3 Loading and Unloading Areas

All of the loading/unloading areas, except the Auxiliary Kiln Drive area, are equipped with a reclamation system and temporary containment equipment or are within the concrete berms associated with the containment structure. This minimizes any contact with storm water run-off during loading/unloading.

4.2 SPILLS AND LEAKS

Spill information and actions are discussed in the Spill Prevention, Control and Countermeasure (SPCC) Plan. In the event future spills or leaks should occur, the List of Significant Spills and Leaks will be update in the SPCC plan.

4.3 DUST AND PARTICULATE GENERATING ACTIVITIES

The facility's dust generating and control activities are discussed in the SWPPP Table 4-2 and Appendix H. As reflected therein, the facility has extensive measures to control dust emissions from its quarrying activities; those same BMPs control particulates from the cement plant operations that may be generated at the facility.

To control dust and particulate emissions the facility utilizes dust collection control equipment. The largest of these, which controls emissions for the preheater / precalciner rotary kiln, utilizes a baghouse comprised of two 16-unit kiln mill dust collectors.

Particulate and source emissions are locally, state and federally regulated by permit issuances and enforcement activities. The Permanente Plant has local and federal operating permits issued by the Bay Area Air Quality Management District (BAAQMD), enforceable by Federal EPA oversight. Additionally, the California Air Resources Board (CARB) mandates requirements for air toxic emission which the plant meet. The plant is in compliance with all local, state and federal air emission requirements.

4.4 NON-STORM WATER DISCHARGES

Non-storm water discharges are not authorized under the California NPDES General Industrial Storm Water Permit with few exceptions. Examples of unauthorized non-storm water discharges are contact and non-contact cooling water, boiler blow down, rinse water, vehicle wash water, etc. Exceptions of authorized non-storm water discharges include:

- Uncontaminated storm water that has been temporarily stored or contained on-site,
- Fire hydrant and fire system flushing,

- Potable water sources including water related to the operation, maintenance, or testing of potable water systems,
- Drinking fountain water,
- Uncontaminated atmospheric condensates including refrigeration,
- Air conditioning and compressor condensate,
- Uncontaminated irrigation drainage,
- Landscape watering,
- Limestone quarry pit dewatering
- Uncontaminated springs,
- Uncontaminated groundwater,
- Uncontaminated foundation or footing drainage, and
- Seawater infiltration.

The above non-storm water discharges are authorized by the General Permit if:

- The non-storm water discharges are in compliance with Regional Water Quality Control Board requirements.
- The non-storm water discharges are in compliance with local agency ordinances and/or requirements.
- BMPs are specifically included in the SWPPP & MP to 1) prevent or reduce pollutants in non-storm water discharges, and 2) minimize the flow or volume of non-storm water discharges.
- The monitoring program includes quarterly visual observations of each non-storm water discharge and its source to ensure that BMPs are being implemented and are effective.
- The non-storm water discharges are reported and described annually as part of the annual report.

Examples of unauthorized non-storm water discharges are rinse and wash water (whether detergents are used or not), contact and non-contact cooling water, boiler blow-down, etc.

There is no indication of any sanitary cross-connection drainage to storm water conveyances in the existing facility prints and as-built plans. The resources cited above indicate no reason to believe that there is any unauthorized non-storm water discharge to surface water. Authorized non-storm water discharges are described in the Annual Report.

4.5 CLEANING AND RINSING AREAS

The vehicle wash down area is a closed water system that does not enter any storm water drains. The water from this operation flows to a sump pump and is then used in the kiln cooling process.

4.6 SOIL EROSION AREAS

See SWPPP Section 6.

4.7 ASSESSMENT SUMMARY

This is a supplement to the assessment of potential pollutant sources associated with the materials and process described above. In Table 4-1 we have given each material a storm water contact risk factor to stress the importance of maintaining good housekeeping procedures in these areas. Risk factors for storm water pollution may be categorized as high, medium, and low. A low designation represents areas where the pollutant can only come into contact with storm water in the event of an accidental spill or leak. Potential sources of contamination through contact with storm water runoff are designated as medium. Frequent or constant waste streams of pollutants are characterized as high risk.

As reflected in Table 4-1, potential pollutant risks identified at this facility are limited to the loading and unloading operations associated with the oil and diesel tanks at the Auxiliary Kiln Drive location. The pollutant risk associated with the loading and unloading area exists because this area is uncovered and it does not have any additional loading and unloading containment structures.

Aerial depositions of emissions from the facility are another potential pollutant source. The majority of the deposition will end up on pervious areas throughout the facility. Fortunately, the facility has implemented several sediment and erosion BMPs to minimize sediment loading into nearby waterways.

5.1 WHAT ARE BEST MANAGEMENT PRACTICES

Best Management Practices (BMPs) are measures to prevent or mitigate storm water pollution. They include a broad range of solutions to storm water problems, from structural solutions (e.g., diversion berms) to non-structural solutions (e.g., regular inspections). The Clean Water Act requires facilities like Lehigh Southwest Cement Company to identify areas and activities that may cause storm water pollution, and to identify and implement erosion control measures and BMPs to control pollution from those areas.

To provide additional detail and guidance on the implementation of BMPs, Appendices G and H provide excerpts from the document, California Storm Water Best Management Practice Handbooks, March 1993, prepared for the SWRCB Storm Water Quality Task Force. Appendices G and H are from the Industrial and Construction Handbooks, respectively, of this referenced guidance document. These appendices also provide guidance on the implementation of the site-specific erosion control measures specified in Section 6.0 of this SWPPP14.

BMPs can be any combination of practices or structures that might reduce pollution. Baseline BMPs are typically procedural modifications or training requirements that are applicable to most areas and activities at Lehigh Southwest Cement Company. Site-specific BMPs, on the other hand, usually relate to the particular activities carried out within a given industrial area. However, the two types of BMPs can overlap in some instances.

A detailed description of Baseline and Site-specific BMPs is presented in this section. The Pollution Prevention Coordinator at Lehigh Southwest Cement Company will reference these BMPs and coordinate with other facility personnel to communicate the necessary steps toward minimizing sediment loading into Permanente Creek.

5.2 BASELINE BMPS

Table 5-1 presents a list of baseline BMPs and corrective actions for implementing each BMP.

Table 5-1
Baseline Best Management Practices (BMPs)
Lehigh Southwest Cement Company

Baseline BMP	Corrective Action
Good Housekeeping	When storm water contacts disturbed earthen materials, silt, and other uncovered materials, it can wash away residues and materials that pollute receiving waters. To control this type of storm water contamination, outdoor areas at Lehigh Southwest Cement Company will be kept neat and clean. Whenever possible, personnel will attempt to prevent littering and promptly remove any waste materials so that they do not contact storm water. "Good housekeeping" includes other types of practices as well. Sensitive materials, like petroleum, oils, and lubricants (POLs), cleaning agents, and fuels commonly used for ground equipment, will be clearly labeled for use and disposal. Indoor areas will remain uncluttered so that work does not take place outdoors, and so that leaks and spills can be quickly detected and controlled.

Table 5-1
Baseline Best Management Practices (BMPs)
Lehigh Southwest Cement Company

Baseline BMP	Corrective Action
Covering of Trash Dumpsters	Exposed trash in open bins can bring pollutants into contact with storm water. All trash dumpsters at Lehigh Southwest Cement Company that could contribute to creek discharge should be covered.
Preventive Maintenance	Materials and equipment that are in disrepair are more likely to become storm water hazards than those that operate smoothly. Promptly repair equipment that regularly leaks oil, fuel, or other contaminants. Roads, parking lots and landscaping will not be allowed to degrade to the point where they erode and contaminate Permanente Creek. Storm sewer drains should not accept the discharge of waste or contaminated water. Most importantly, these types of activities will be undertaken before problems arise, so that storm water pollution is minimized.
Spill Prevention and Response	Lehigh Southwest Cement Company handles few hazardous materials on-site, however, the facility is proactive in addressing facility spills. Since outdoor spills are a major source of storm water pollution, all care is taken to prevent such an occurrence, and equipment is in place to mitigate such a spill, if it occurs. Spill equipment is readily available and personnel will receive training in its use. Berms and containment features will be in place around all sensitive material storage areas, so that spills can be easily detected and controlled.
Storm Water Management Practices	In some areas within Lehigh Southwest Cement Company, measures to divert runoff or collect runoff will reduce storm water pollution. These include removing loose dirt from areas adjacent to Permanente Creek, stabilization of slopes and maintenance of sediment basins. Grassed swales or vegetated drainage strips that remove sediments and pollutants from runoff are also examples of storm water management practices. A comprehensive set of measures is presented in Section 5.0.
Erosion Control and Sediment Control	Wind and water erosion can dislodge soil particles and increase the turbidity of receiving waters. To prevent their releases, some roads are paved if they receive significant use or if they show signs of significant erosion. As an intermediate measure, gravel and road base material is used to enhance drainage and reduce erosion. Erosion also takes place when runoff flows uncontrolled over unpaved areas. Rainfall events can create channels in areas where native vegetation has been removed and can rapidly remove topsoil. To the extent possible, off-road vehicle usage will be minimized. In addition, erosion controls such as landscaping, hydroseeding, and sedimentation ponds will be routinely maintained. Section 5.0 presents a comprehensive set of current and proposed erosion control measures for Lehigh Southwest Cement Company.
Training	This baseline BMP is an integral part of the overall storm water pollution prevention program. Personnel will be thoroughly trained in pollution prevention measures pertaining to their day-to-day activities. Training will be tailored to specific industrial areas conducted at Lehigh Southwest Cement Company; ground maintenance personnel will receive specialized training in landscaping strategies for erosion control, for example. Facility personnel will receive feedback on their efforts through periodic inspections and reviews.

Table 5-1
Baseline Best Management Practices (BMPs)
Lehigh Southwest Cement Company

Baseline BMP	Corrective Action
Inspections	As part of the storm water monitoring program, the Pollution Prevention Coordinator will conduct inspections of industrial activities and storm water discharge points. The inspections will verify that erosion control measures and BMPs are being implemented correctly in each area. Additionally, the Coordinator and designee will check for signs of storm water pollution (sediments in creek, signs of erosion, oil sheen on runoff or standing water) and will identify ways to correct these problems.

5.3 SITE-SPECIFIC BMPS

Most industrial activities throughout Lehigh Southwest Cement Company involve the movement and/or crushing of large quantities of earthen materials. These activities have the potential for contributing sediments into Permanente Creek. Therefore, significant erosion and sediment control measures have been implemented and additional BMPs are proposed. These measures are the focus of Section 6.0 of this SWPPP14. However, some areas within Lehigh Southwest Cement Company perform industrial activities that require specific storm water pollution prevention measures. These specific types of industrial activities within Lehigh Southwest Cement Company include the following:

- Truck and equipment washing;
- Facility-wide dust control;
- Collection of rain water; and,
- Truck and support equipment storage.

For these industrial areas, Site-specific BMPs have been developed and designed to address the specific industrial activities that occur at each site. It is important to note that Site-specific BMPs and Baseline BMPs complement each other; both must be used effectively to prevent storm water pollution.

The Site-specific BMPs and associated industrial facilities are presented in Table 5-2. Appendices G and H present a more detailed description of each Site-specific BMP and suggested remedies for the reduction of storm water pollution.

Table 5-2
Industrial Activities and Associated BMPs
Lehigh Southwest Cement Company

Site Location	Industrial Activity	BMPs Implemented	Detailed BMP Description (Appendix)
Plant Area	Truck and Equipment Washing	• Wash trucks and equipment at designated wash rack • Recycle wash water • Do not permit wash water to enter storm drain or runoff onto ground surface • Installed additional sediment ponds to contain storm water during heavy storm events	Appendix G
Quarry/Plant Area	Facility-wide Dust Control	• When feasible, pave, vegetate, and stabilize access roads • Stabilize unpaved haul roads • Install cross drains and culverts to catch and divert water off road into multiple settlement ponds to minimize overland flow and therefore sediment load • Wet suppression stabilization of exposed soil, while limiting dust control water runoff	Appendix H
Quarry Area	Collected Rain Water	• Rain water collected in quarry and settling ponds • Install additional settlement ponds to capture rain water in upper quarry area • Rain water recycled through facility's water recirculation system • Rain water used for dust control	Appendix E and H
Quarry/Plant Area	Truck and Support Equipment Storage	• Repair equipment or replace parts to prevent leaks • Place drip pans under leaking equipment to collect the leaking fluids • Routinely dispose of fluids accumulated on drip pans • Routine inspections of vehicles	Appendix G

Although storm water runoff is part of a natural hydrologic process, human activities, including the disturbance of land from excavation and industrial activities, can alter natural drainage patterns and increase sediment loading in storm water. Excavation activities can impact drainage patterns by the disturbance of soil or by removing natural vegetation that helps alleviate erosion of the ground surface.

In order to protect storm water quality throughout Lehigh Southwest Cement Company, a comprehensive erosion and sediment control program has been implemented. The erosion and sediment control program objectives include the following:

- Characterization of storm water flow, drainage patterns, and discharge points to the Creek within the facility;
- Identification of erosion and other potential sediment sources;
- Current measures to minimize erosion and sediment potential;
- Annual review of erosion and sediment control measures to minimize erosion and sediment loading of Permanente Creek; and,
- Continual Improvement Program to reduce sediment loading based on data collected during each rain season.

A focused effort was made in 1999 to increase the understanding of drainage flow patterns and discharge locations within the facility. A comprehensive storm water discharge consolidation study was performed as requested by the RWQCB staff. The goal of this exercise was to critically review the current storm water sampling data and build upon the information collected during the "Water Balance Study" performed in 1997.

The focus of the 1999 comprehensive water discharge consolidation study effort was to understand where storm water is entering the creek, consolidate discharge locations, and determine which discharge points were contributing the highest sediment load to the Creek. The information collected during the storm water discharge consolidation study was then used to identify and prioritize sediment sources and to modify the existing SWMP to more accurately assess the source contribution from the sources identified. Based on the 1998/1999 evaluation, three of the previous discharge points were eliminated and the storm water monitoring plan was modified to more accurately quantify the sediment load entering the Creek via the discharge locations.

A Refined Water Balance Study was prepared in December 2000 to provide a detailed evaluation of the water sources and usage at the Lehigh Southwest Cement Company facility. This refined study included recommendations for decreasing water supply costs by managing and reusing onsite storm water runoff. A copy of the Refined Water Balance Study and the 1997 Water Balance Study is provided in Appendix E.

During the 2008/2009 season, storm water sampling data were collected and reviewed. The most recent storm water sampling data are contained in the 2008/2009 Storm Water Annual Report in Appendix D. The Report provides a summary of sample results, monitoring program effectiveness and discussion of sediment control measures.

Figure 3 shows the main drainage areas, flow patterns within drainage area, settlement ponds, and discharge locations into the Permanente Creek within the Lehigh Southwest Cement Company property boundary.

A site-wide source identification evaluation was performed in 1998/1999 to identify potential sediment sources and improve and prioritize BMPs for the source areas contributing the greatest sediment load to the Creek. Six major sources were identified during this evaluation and are briefly discussed in Section 5.1 below. The focus of the BMPs in 2008/2009 was to implement BMPs for source areas and continue to improve BMPs to control sediment and erosion from areas around the facility. Proposed BMPs for 2009/2010 will continue this work. Implemented and proposed BMPs are discussed in Section 5.1.

6.1 POTENTIAL SOURCES OF EROSION WITHIN LEHIGH SOUTHWEST CEMENT COMPANY

During the first few years of the SWPPP program, two facility-wide potential sources of erosion and sediment loading to storm water systems within Lehigh Southwest Cement Company were identified: facility-wide surface erosion, and overflow from sediment ponds during storm events. In 1996/1997, an evaluation of facility-wide surface erosion revealed that erosion occurs at several locations. These included the areas along the Upper, Middle, and Lower Quarry Roads that serve as the main arteries for travel throughout the facility. During storm events, surface erosion along the Quarry Road eventually drains into Permanente Creek. A second potential source of erosion included the uncovered material piles located along the roadway between Rock Plant 1 and Rock Plant 3. During a storm event, these material piles had the potential for loading Permanente Creek with sediments. A third potential source of sediment loading included the naturally sloped and contoured areas of the facility that allow storm water runoff to flow directly into Permanente Creek. An annual hydroseeding program was implemented to minimize surface erosion from un-vegetated slopes and has been very effective in many areas of the facility. Lehigh Southwest Cement Company had implemented a program to address facility-wide erosion potential as presented in Section 6.2.

The second potential source of erosion and sediment loading identified during the initial Site evaluation included overflow from the Lehigh Southwest Cement Company sediment ponds during severe storm events. Efforts were made to improve the retention efficiency of sediment control ponds in place to control sediment loading to Permanente Creek. Table 6-1 presents the current list of sediment control ponds at Lehigh Southwest Cement Company.

Table 6-1
Sediment Control Ponds
Lehigh Southwest Cement Company

Sediment Pond	Drainage Area/Location
Pond 4A*	Area C: Southern portion of site, near the former rock crusher adjacent to Sample Road to Creek
Pond 4B*	Area C: Southern portion of site, East of Pond 4A
Pond 4C	Area C: Southern portion of site, East of Pond 4B
Pond 5	Area A: Located in the Quarry
Basin E (formerly Pond 6)	Area A: Adjacent to Primary Crusher
Pond 9	Area D: North of Screen Tower 4
Pond 11	Area B: Main Plant Area, north of equipment storage area referred to as "The Lake".
Pond 13 (In Creek)	Area D: Central portion of site, south of Pond 13A and Pond 13B
Pond 13A	Area D: Central portion of site, north of Pond 13
Pond 13B	Area D: Central portion of site, north of Pond 13
Pond 14	Area F: Northeast corner of Lehigh Southwest Cement Company property
Dinky Shed Basin (Formerly Pond 16)	Area E: North of Pond 17
Pond 17	Area E: Southeastern portion of facility, northeast of Screen Tower 4
Pond 18	Area F: East of former Kaiser Aluminum facility and Truck Wash Area
Pond 19	Area F: East of former Kaiser Aluminum facility and Truck Wash Area
Pond 20	Area F: East of former Kaiser Aluminum facility and Truck Wash Area
Pond 21	Area F: East of former Kaiser Aluminum facility and Truck Wash Area
Pond 22 (In Creek)	Area F: Northeast corner of Lehigh Southwest Cement Company property, south of Pond 14

*Pond 4A and Pond 4B were designated as Pond 4 and Pond 4A, respectively, in 2000/2001

All but two of the sediment control ponds are located outside of Permanente Creek. The sediment control pond locations are schematically presented on Figure 3. Overflow from sediment control ponds during heavy storm events can have an adverse impact on Permanente Creek since the sediment control efficiency of the ponds generally drops due to the increase in flow and sediment load. Many improvements have been made to the sediment control ponds to improve the sediment removal efficiency.

Several changes have been made to the drainage configuration due to changes in the Quarry reconfiguration. However, although the site is undergoing constant change, replacements and alternatives are being implemented to justify the changes such that storm water management at Lehigh Southwest Cement Company is continuously in effect. Ponds 4B and 4C no longer receive runoff from the Former Overburden Haul Road because of the mine development that necessitated the removal of the culverts to these two ponds. Storm water from the Former Overburden Haul Road is now diverted into the Quarry Pit, which acts as a retention pond, and the discharge is pumped via the Quarry Pit Dewatering Line to Pond 4A. Ponds 4B and 4C now only receive sheet flow.

During the 1998/1999 winter season, a focused effort was made to identify and prioritize the sediment sources within the facility. Potential sources of sediment were identified within the six drainage areas. Of those potential sources, six had been identified as having the highest priority: 1) the run-off from the Upper and Lower Quarry Roads; 2) the ore feeder to the primary crusher; 3) the primary crusher; 4) the former overburden stockpile area; 5) Screen Tower No. 4 and the adjacent area including the stockpiles adjacent to Screen Tower No. 4; and, 6) the embankment adjacent to Screen Tower No. 4. These priorities were still current and valid through the 2008/2009 season.

The six high priority sources have been addressed; the other sources will be further evaluated and ranked. The highest priority items will be selected, and control measures identified for each. Implementation of these projects is contingent upon approval of funding by Lehigh's Board of Directors. This process will continue until all source areas identified are adequately addressed. The current and proposed interim erosion and sediment control measures and BMPs are discussed in Sections 6.2 through 6.4 below.

6.2 CURRENT EROSION AND SEDIMENT CONTROL MEASURES

Lehigh Southwest Cement Company annually evaluates and implements erosion and sediment control measures. The program evaluates the performance of existing measures annually against the sampling results from the Storm Water Annual Report. Generally, the erosion control measures have been effective in lowering sediment loading into Permanente Creek. The BMPs that were implemented in 2008/2009 are listed in Table 6-2. Best Management Practices implemented prior to the 2007/2008 season are summarized in Appendix I.

Table 6-2
Best Management Practices
Completed BMPs 2008/2009
Lehigh Southwest Cement Company

Area	BMP No.	Completed BMPs 2008/2009	Discussion and Benefits
Former Overburden Stockpile(s)	1	Re-vegetation activities on the Former Overburden Stockpile were undertaken during this period.	Monitor effectiveness of re-vegetation in decreasing erosion runoff from Former Overburden Stockpile Area.
Active Overburden Stockpile(s)	2	Maintain consideration of the storm water BMPs while developing the Active Overburden Stockpile.	Storm water BMPs continuously in effect throughout the development of the Active Overburden Stockpile.

Furthermore, Appendices G, H, and J present a comprehensive set of erosion and sediment control Best Management Practices, which are referenced by Lehigh Southwest Cement Company personnel as part of the erosion and sediment control program. These appendices provide additional detail to the measures discussed in this section.

6.3 PROPOSED EROSION AND SEDIMENT CONTROLS

As previously discussed, Lehigh Southwest Cement Company annually evaluates facility-wide operations and identifies sources that have a potential for loading sediments into existing waterways. In addition, Lehigh Southwest Cement Company performs an assessment of erosion control measures for the previous year and evaluates them for effectiveness. For areas requiring further sediment reduction, a series of BMPs have been developed to be implemented during the next season. The proposed BMPs for 2009/2010 are shown on Figure 5 and listed in Table 6-3.

Table 6-3
Best Management Practices
Proposed BMPs 2009/2010
Lehigh Southwest Cement Company

Area	BMP No.	Proposed BMPs 2009/2010	Discussion and Benefits
Former Overburden Stockpile	1	Additional re-vegetation activities on the Former Overburden Stockpile as needed.	Monitor effectiveness of re-vegetation in decreasing erosion runoff from Former Overburden Stockpile Area.
Active Overburden Stockpile	2	Maintain consideration of the storm water BMPs while developing the Active Overburden Stockpile.	Storm water BMPs continuously in effect throughout the development of the Active Overburden Stockpile.

In addition to the BMPs listed in Tables 6-2 and Table 6-3, Lehigh performs many annual erosion control measures throughout the facility. These ongoing BMPs are shown on Figure 6 and listed in Table 6-4.

Table 6-4
Best Management Practices
Ongoing BMPs
Lehigh Southwest Cement Company

Area	BMP No.	Ongoing BMPs	Discussion and Benefits
Former Overburden Stockpile	1	Inspect and maintain drainage improvements along Quarry Road near the Former Overburden Stockpile.	Decrease runoff from Former Overburden Stockpile.
Former Overburden Stockpile	2	Conduct inspections of the west end of the Former Overburden Stockpile for surface cracks.	Increase slope stability west of Former Overburden Stockpile and reduce erosion potential. Further action pending resolution with other agencies.
Former Overburden Stockpile	3	Monitor the west end of the Former Overburden Stockpile north slope for slope stabilization and re-vegetation.	Decrease erosion runoff from Former Overburden Stockpile Area.

Table 6-4
Best Management Practices
Ongoing BMPs
Lehigh Southwest Cement Company

Area	BMP No.	Ongoing BMPs	Discussion and Benefits
Ponds 13 and 22	4	Monitor sediment load in in-stream Ponds 13 and 22, and clean out if required (prior to rainy season). Note: Due to the effectiveness of sediment control measures implemented since 1999, annual clean outs are not required.	Maintain or increase sediment removal effectiveness of ponds. Ponds 13 and 22 are effective in reducing TSS discharges to the Creek if sediment reduction is maintained. However, due to recent ongoing regulatory actions, pond clean out has not been performed.
Middle Quarry Road/ Rock Plant Road	5	Monitor and maintain the sediment catchment rock berms along Middle Quarry Road and Rock Plant during the wet season, and clean as necessary.	Decrease runoff/capture sediment from Middle Quarry Road and Rock Plant Road.
Quarry Road	6	Re-grade Quarry Road as needed to direct runoff to existing drainage basins or cross drains.	Direct runoff from Quarry Road to sediment basins and reduce sediment load by reducing overland flow travel time and distance.
Upper Quarry Road	7	Inspect Upper and Middle Quarry Road earth berms and repair breaches as required.	Decrease runoff from Upper Quarry Road into the Creek.
Facility-wide	8	Conduct post storm event inspections.	Take corrective actions in response to visible signs of erosion or runoff into the Creek.
Facility-wide	9	Monitor all hydroseeded areas to observe whether vegetation is establishing.	Monitor effectiveness of hydroseeding/re-hydroseed if necessary or evaluate other alternatives if hydroseeding is not effective.
Pond 4A and Pond 4C	10	Inspect, and clean out as necessary, the catch basins and culvert leading to Pond 4A and Pond 4C.	Increase flow and effectiveness at reducing TSS concentrations at Pond 4A and Pond 4C.
Pond 13A and Pond 13B.	11	Inspect, and clean out as necessary, the catch basins and culvert leading to Pond 13A and Pond 13B.	Increase flow and effectiveness at reducing TSS concentrations at Pond 13A and Pond 13B.

Table 6-4
Best Management Practices
Ongoing BMPs
Lehigh Southwest Cement Company

Area	BMP No.	Ongoing BMPs	Discussion and Benefits
Pond 17 and Pond 9	12	Inspect, and clean out as necessary, the open-grate culverts, catch basins and culvert leading to Pond-17 and Pond 9.	Increase flow and effectiveness of Pond 17 and Pond 9; Pond 17 and Pond 9 are effective at reducing TSS concentrations if sediment reduction is maintained. However, due to recent ongoing regulatory actions, pond clean out has not been performed.
Screen Tower No. 4	13	Maintain material stockpiles away from containment wall adjacent to the Creek embankment at Screen Tower No. 4.	Decrease runoff from material stockpiles into the creek.
In-stream Ponds (Pond 13 and 22)	14	Inspect periodically at in-stream ponds and remove algae and cattails if needed, pending permit approval.	Improve effectiveness of in-stream ponds.
Creek and Embankments	15	Inspect entire length of creek and adjacent embankment just prior to first rains; Clean all piles and loose dirt from areas adjacent to creek; Stabilize slopes where necessary.	Decrease runoff to creek by stabilizing creek embankment/ slopes and preventing erosion.
Off-stream Ponds	16	Monitor sediment load in off stream ponds and clean out as necessary.	Increase effectiveness of sediment removal.

N

0

1,000 2,000 Feet

URS

26816328

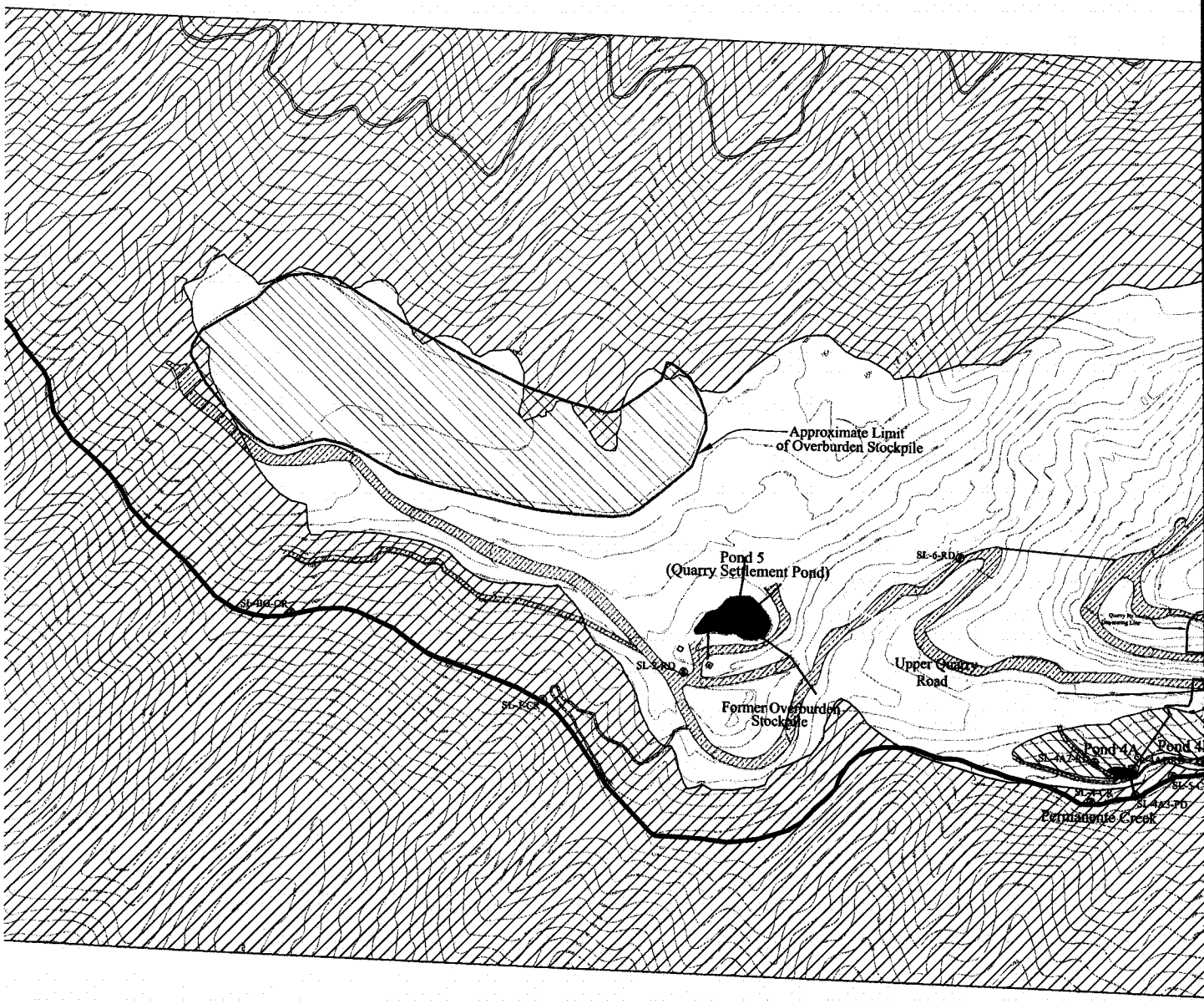
Lehigh Southwest Cement Company

SITE LOCATION MAP

FIGURE 1

JUNE 2009

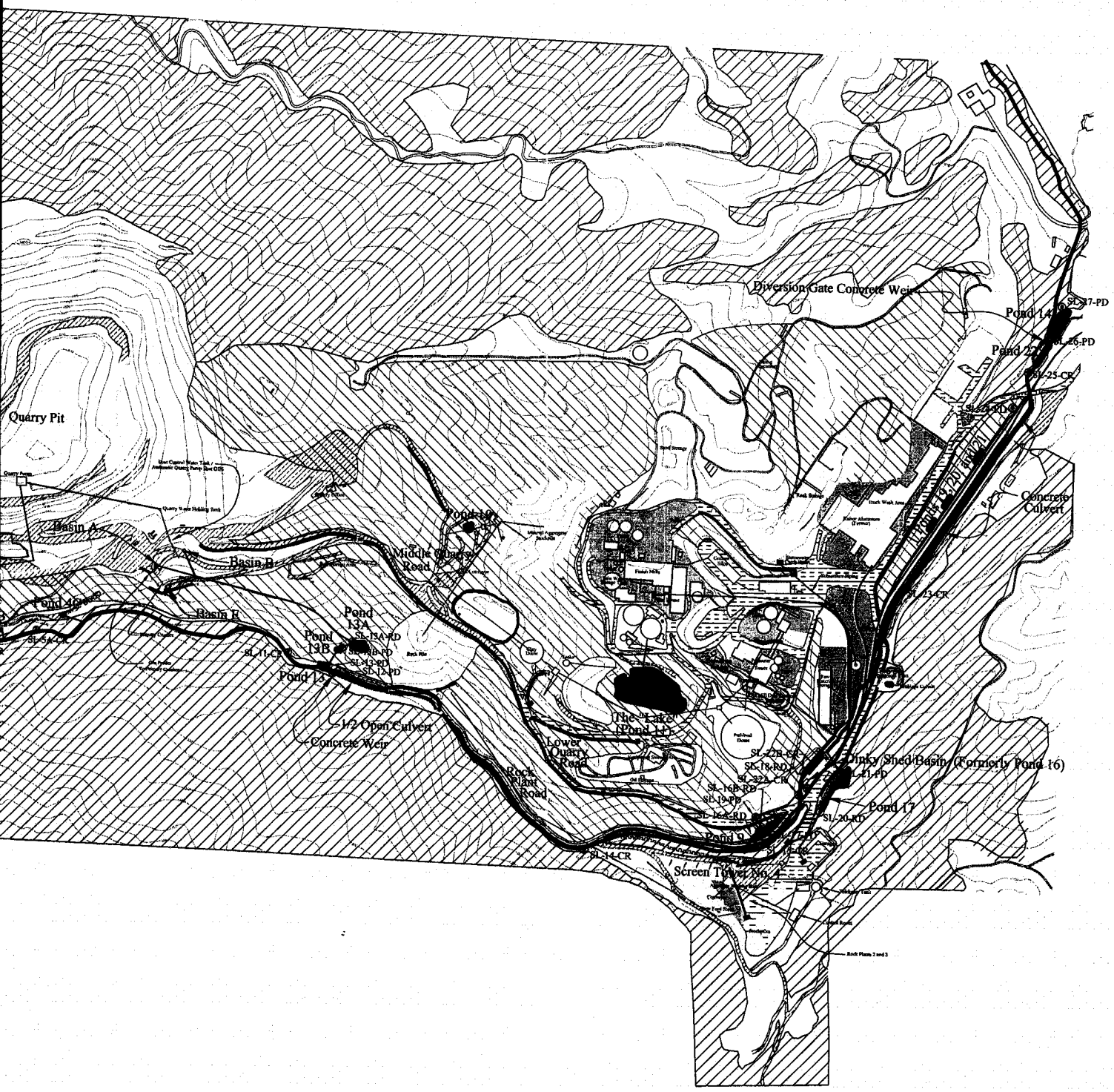
URS Corporation, Oakland, CA, douglas_wright \\s021emc2\HansonPermanenteCement\SWPPP 2007 - 2008\GIS\Hanson_Permanente_Mapped_June08.mxd - 6/17/2009 @ 11:19:08 AM



Legend

- Paved Areas
- Rock / Aggregate Storage Pile
- Unpaved Roads and Areas
- Paved Roads and Areas Used as Traffic Ways
- Topographic Contours
- Permanente Creek
- Creek in Culvert
- Settlement Ponds
- Earthen/Rock Berm
- Concrete K-Rail
- Sheet Pile Wall
- Drain Pipe (Proposed)
- Drain Pipe (Existing)
- Stormwater Sampling Location
- Woodland Vegetation
- Vegetated Land (Grassland)

mailing_jurism Jun 16, 2009 - 2:46pm
P:\Lafge Southwest Cement Co-\figures\FIGURE2.dwg



Note: Features and Locations are Approximate.

500' 0 500' 1000'

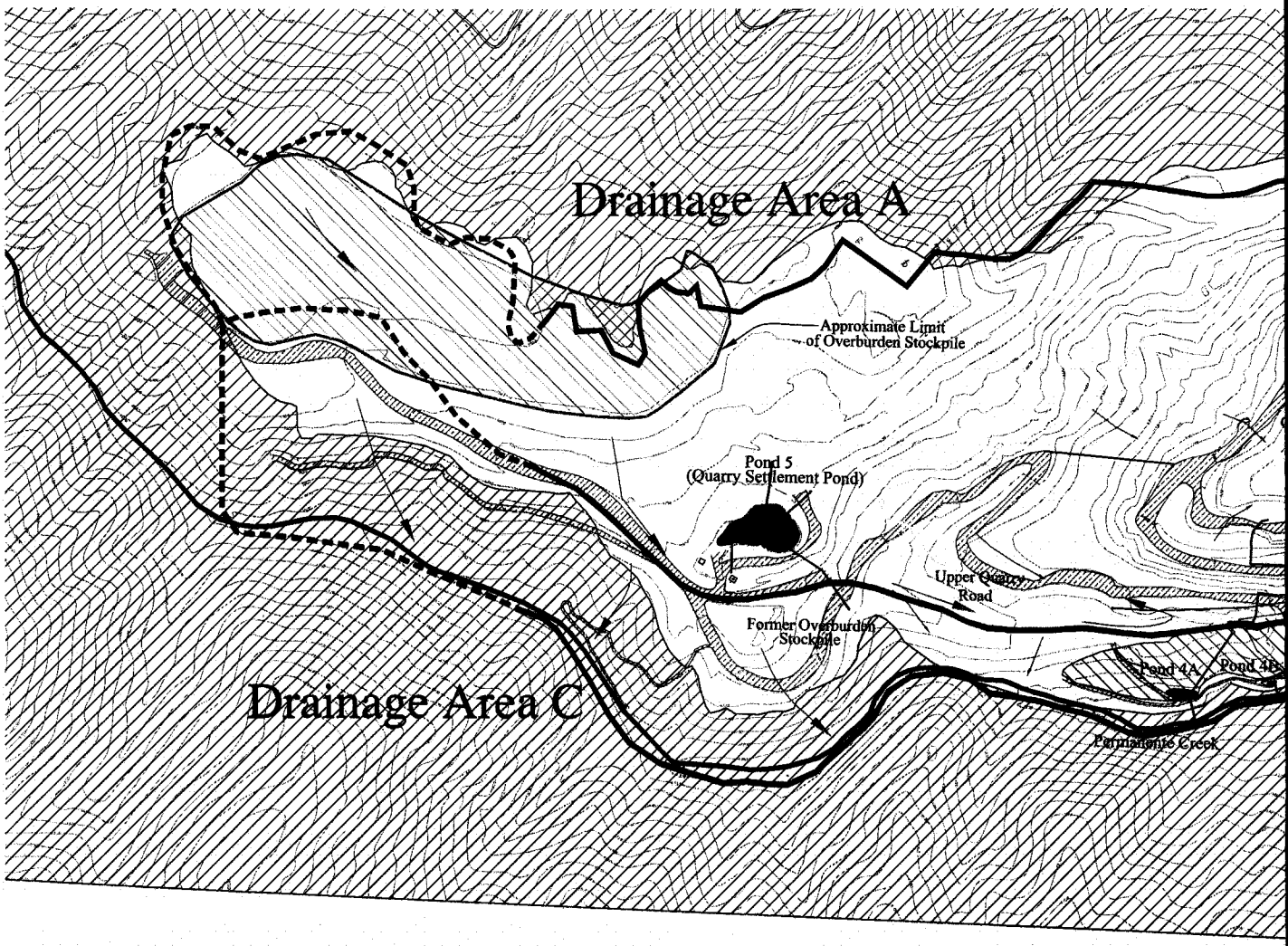
APPROXIMATE SCALE

N

URS Corporation

Lehigh Southwest Cement Company
Cupertino Quarry and Cement Plant
Site Layout Map

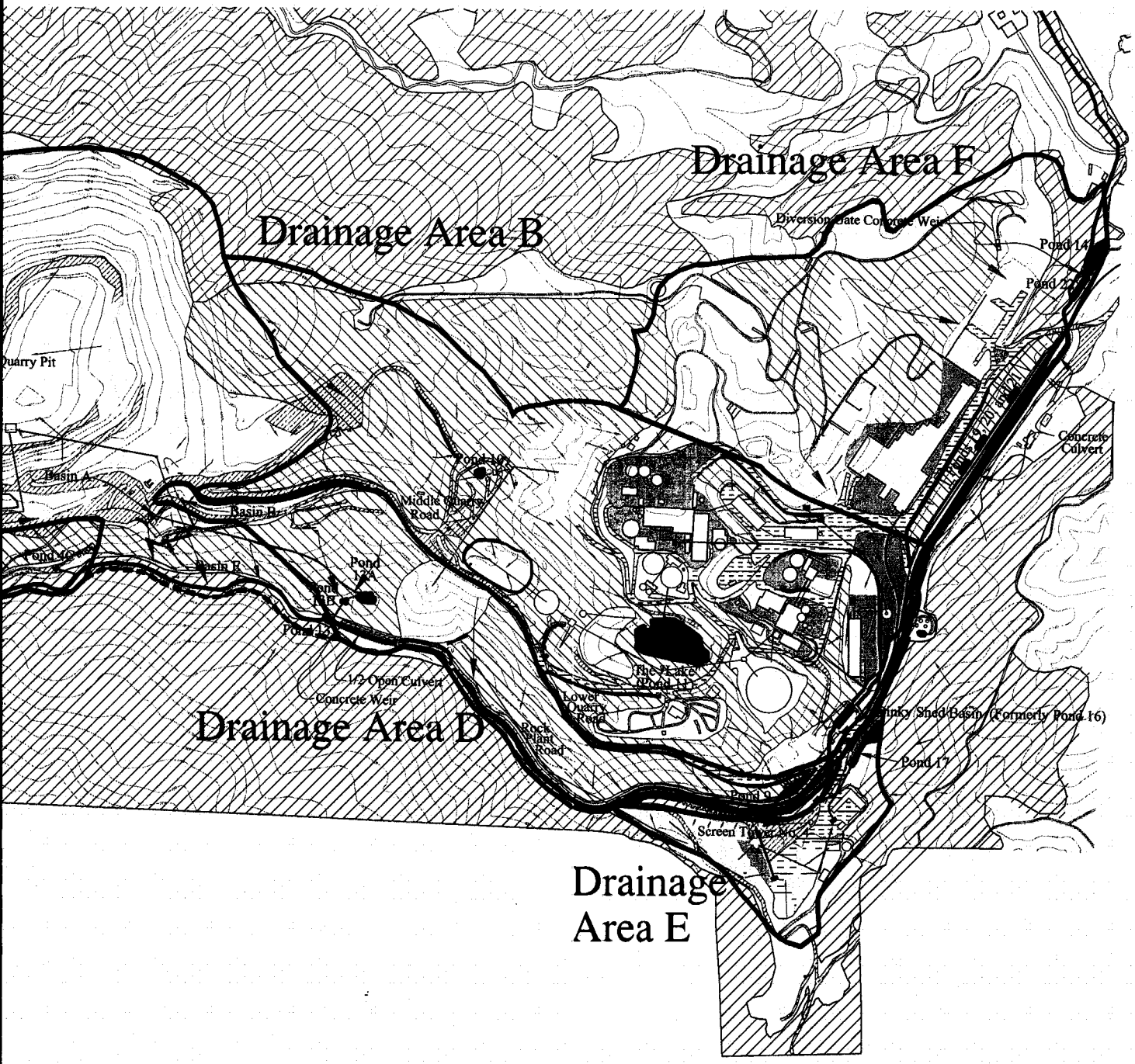
26816328	
JUNE 2009	Figure 2



Legend

- Paved Areas
- Rock / Aggregate Storage Pile
- Unpaved Roads and Areas
- Paved Roads and Areas Used as Traffic Ways
- Topographic Contours
- Permanente Creek
- Creek in Culvert
- Settlement Ponds
- Earthen/Rock Berm
- Concrete K-Rail
- Sheet Pile Wall
- Drain Pipe (Proposed)
- Drain Pipe (Existing)
- Drainage Area Boundary (USGS)
- Inferred Drainage Area Boundary (Field Observation)
- Drainage Flow Direction

mdine_barton Jun 16, 2009 - 2:50pm
P:\Lehigh Southwest Cement Co-figures\FIGURE1.dwg



Note: Features and Locations are Approximate.

Woodland Vegetation

Vegetated Land (Grassland)

500' 0 500' 1000'

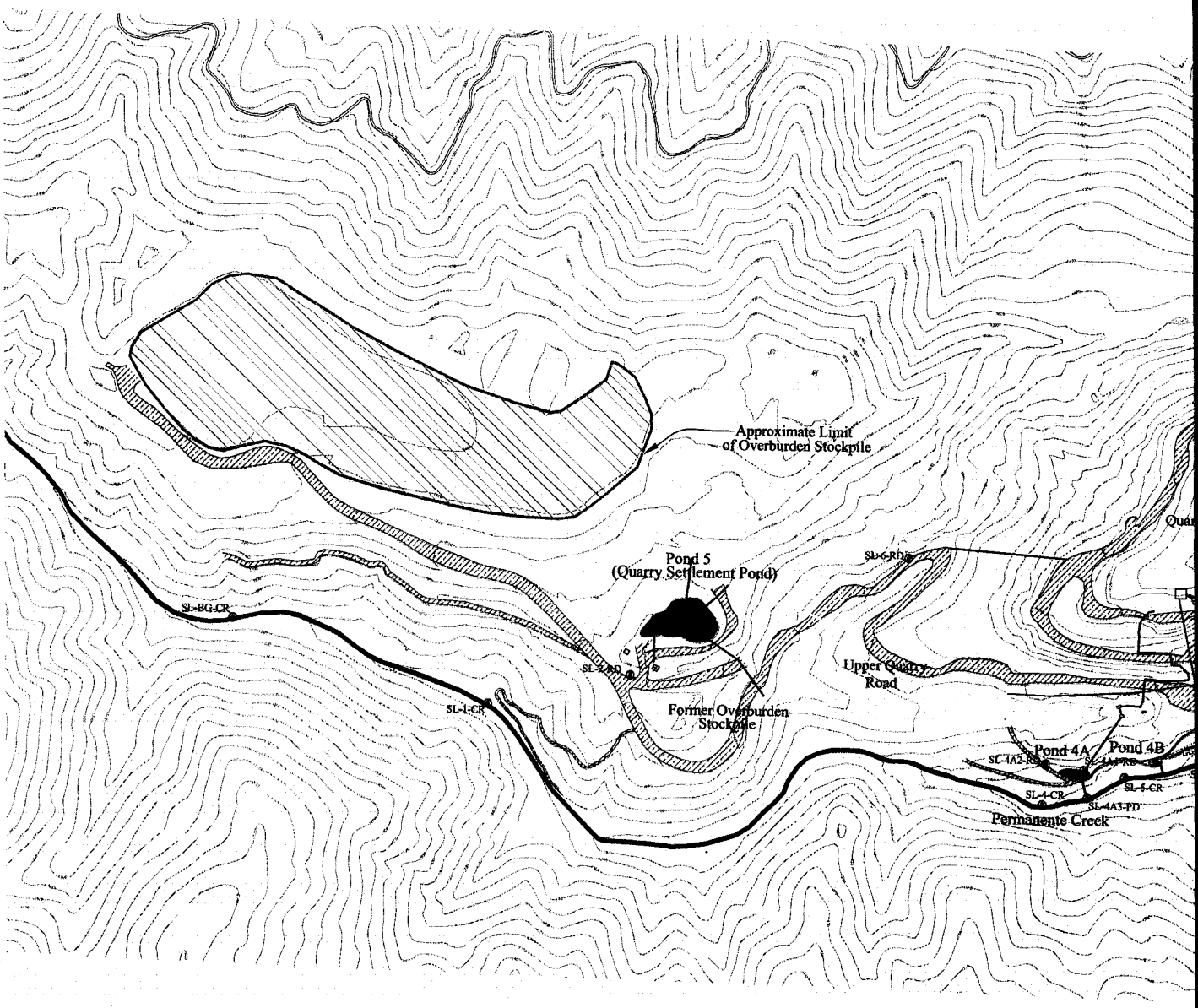
APPROXIMATE SCALE

N

URS Corporation

Lehigh Southwest Cement Company
Cupertino Quarry and Cement Plant
Stormwater Flow and Drainage Areas

26816328	
JUNE 2009	Figure 3



Legend

- Paved Areas
- Rock / Aggregate Storage Pile
- Unpaved Roads and Areas
- Paved Roads and Areas Used as Traffic Ways
- Topographic Contours
- Permanente Creek
- Creek in Culvert
- Settlement Ponds
- Earthen/Rock Berm
- Concrete K-Rail
- Sheet Pile Wall
- Drain Pipe (Proposed)
- Drain Pipe (Existing)
- Stormwater Sampling Location

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Note: Features and Locations are Approximate.

500' 0 500' 1000'

APPROXIMATE SCALE

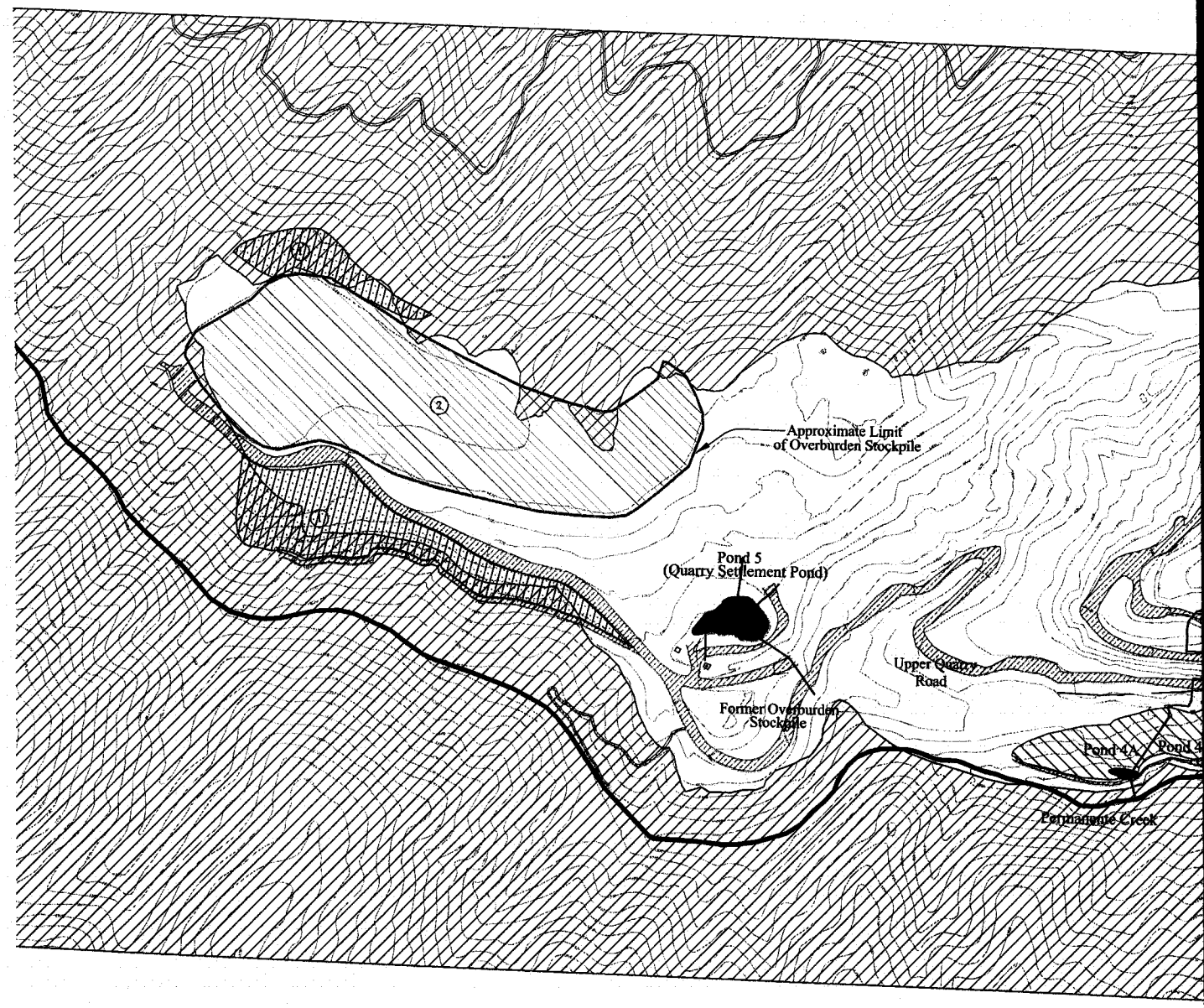
N

URS Corporation

Lehigh Southwest Cement Company
Cupertino Quarry and Cement Plant

Stormwater Sampling Locations

26816328	
JUNE 2009	Figure 4



Actions

1. Continued re-vegetation activities on the Former Overburden Stockpile.
2. Maintained consideration of the storm water BMPs while developing the Active Overburden Stockpile.

Legend

- Paved Areas
- Rock / Aggregate Storage Pile
- Unpaved Roads and Areas
- Paved Roads and Areas Used as Traffic Ways
- Topographic Contours
- Permanente Creek
- Creek in Culvert
- Settlement Ponds
- Earthen/Rock Berm
- Concrete K-Rail
- Sheet Pile Wall
- Drain Pipe (Proposed)
- Drain Pipe (Existing)
- Area of Proposed Revegetation
- Woodland Vegetation
- Vegetated Land (Grassland)

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Note: Features and Locations are Approximate.

500' 0 500' 1000'

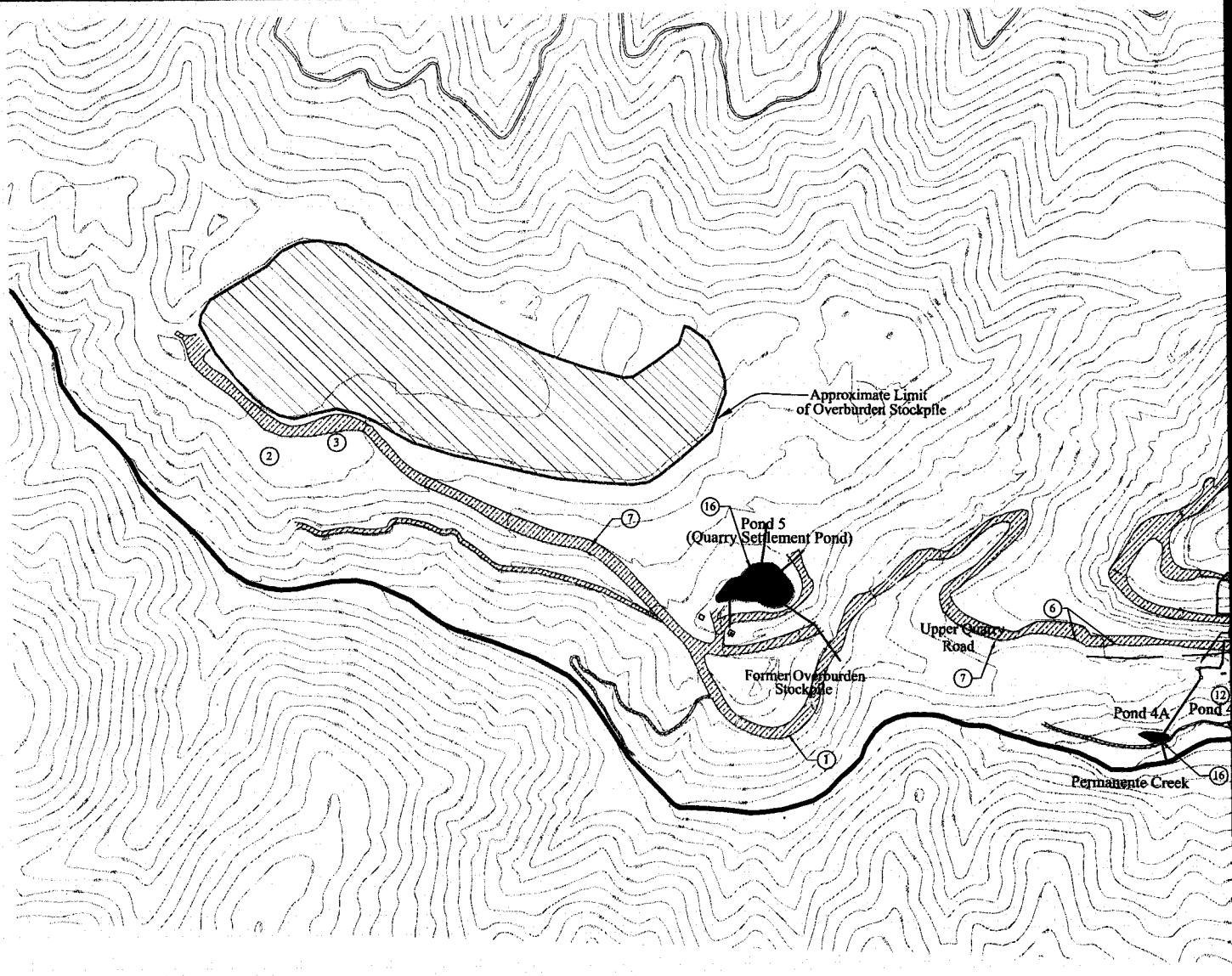
APPROXIMATE SCALE

N

URS Corporation

Lehigh Southwest Cement Company
Cupertino Quarry and Cement Plant
Proposed Best Management Practices for
2009 / 2010

26816328	
JUNE 2009	Figure 5



Ongoing Best Management Practices

1. Inspect and maintain drainage improvements along Quarry Road near the Former Overburden Stockpile.
2. Conduct inspections of the west end of the Former Overburden Stockpile for surface cracks.
3. Monitor the west end of the Former Overburden Stockpile north slope Expanded Phase 1 Revegetation Test Program.
4. Monitor sediment load in in-stream Ponds 13 and 22, and clean out if required (prior to rainy season). Note: Due to the effectiveness of sediment control measures implemented since 1999, annual clean outs are not required.
5. Monitor and maintain the sediment catchment rock berms along Middle Quarry Road and Rock Plant Road during the wet season, and clean as necessary.
6. Regrade Quarry Road as needed to direct runoff to existing drainage basins or cross drains.
7. Inspect Upper and Middle Quarry Road earth berms and repair breaches as required.
8. Conduct post storm event inspections.
9. Monitor all hydroseeded areas to observe whether vegetation is establishing.
10. Inspect, and clean as necessary, the catch basins and culv
11. Inspect, and clean as necessary, the catch basins and cul
12. Inspect, and clean as necessary, the open-grate culverts, c
13. Maintain material stockpiles away from creek bank cont
14. Inspect algae periodically at in-stream ponds and remove
15. Inspect entire length of creek and adjacent embankment j areas adjacent to creek; Stabilize slopes where necessary.
16. Monitor sediment load in off stream ponds and clean out

NOTE :

1. See 2001/2002 SWPPP for previously hydroseeded areas.

Legend

- Paved Areas
- Rock / Aggregate Storage Pile
- Unpaved Roads and Areas
- Paved Roads and Areas Used as Traffic Ways
- Topographic Contours
- Permanente Creek
- Creek in Culvert
- Settlement Ponds
- Earthen/Rock Berm
- Concrete K-Rail
- Sheet Pile Wall
- Drain Pipe (Proposed)
- Drain Pipe (Existing)

mdine_hutton Jun 16, 2009 - 2:53pm
P:\Lehigh Southwest Cement Co-figures\FIGURE6.dwg

t leading to Pond 4A.
rt leading to Pond 13A and Pond 13B.
tch basins and culvert leading to Pond-17 and Pond 9.
nment wall at Screen Tower No. 4
f needed.
st prior to first rains; Clean all piles and loose dirt from

s necessary.

Note: Features and Locations are Approximate.

500' 0 500' 1000'

APPROXIMATE SCALE

N

URS Corporation

Lehigh Southwest Cement Company
Cupertino Quarry and Cement Plant
Ongoing Best Management Practices

26816328	
JUNE 2009	Figure 6

Appendix A

State Water Resources Control Board

Terry Tamminen
Secretary for Environmental Protection

Division of Water Quality
1001 I Street • Sacramento, California 95814 • (916) 341-5538
Mailing Address: P.O. Box 1977 • Sacramento, California • 95812-1977
FAX (916) 341-5543 • Internet Address: http://www.waterboards.ca.gov/stormwtr/index.html

Arnold Schwarzenegger
Governor

To: STORM WATER DISCHARGER

SUBJECT: CHECKLIST FOR SUBMITTING A NOTICE OF INTENT

In order for the State Water Resources Control Board to expeditiously process your Notice of Intent (NOI), the following items must be submitted to either of the addresses indicated below:

1._____ NOI (please keep a copy for your files) with all applicable sections completed and original signature of the facility operator;

2._____ Check made out to the "State Water Resources Control Board" with the appropriate fee. The regular fee is **$830.00** ($700 plus 18.5% surcharge).

3. _____ Site Map of the facility (see NOI instructions). DO NOT SEND BLUEPRINTS

U.S. Postal Service Address

State Water Resources Control Board
Division of Water Quality
Attn: Storm Water Section
P.O. Box 1977
Sacramento, CA 95812-1977

Overnight Mailing Address

State Water Resources Control Board
Division Of Water Quality
Attn: Storm Water, 15th Floor
1001 I Street
Sacramento, CA 95814

NOIs are processed in the order they are received. A NOI receipt letter will be mailed to the facility operator within approximately two weeks. Incomplete NOI submittals will be returned to the facility operator within the same timeframe and will specify the reason(s) for return. If you need a receipt letter by a specific date (for example, to provide to a local agency), we advise that you submit your NOI thirty (30) days prior to the date the receipt letter is needed.

Please do not call us to verify your NOI status. A copy of your NOI receipt letter will be available on our web page within twenty-four (24) hours of processing. Go to: http://www.waterboards.ca.gov/stormwtr/databases.html to retrieve an electronic copy of your NOI receipt letter. If you have any questions regarding this matter, please contact us at (916) 341-5538.

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FOR

STATE WATER RESOURCES CONTROL BOARD (STATE WATER BOARD)
WATER QUALITY ORDER NO. 97-03-DWQ
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT NO. CAS000001 (GENERAL PERMIT)

WASTE DISCHARGE REQUIREMENTS (WDRS)
FOR
DISCHARGES OF STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITIES
EXCLUDING CONSTRUCTION ACTIVITIES

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FACT SHEET
FOR

STATE WATER RESOURCES CONTROL BOARD (STATE WATER BOARD)
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WASTE DISCHARGE REQUIREMENTS (WDRS)
FOR
DISCHARGES OF STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITIES
EXCLUDING CONSTRUCTION ACTIVITIES

BACKGROUND

In 1972, the Federal Water Pollution Control Act (also referred to as the Clean Water Act [CWA]) was amended to provide that the discharge of pollutants to waters of the United States from any point source is effectively prohibited unless the discharge is in compliance with an NPDES permit. The 1987 amendments to the CWA added Section 402(p) that establishes a framework for regulating municipal and industrial storm water discharges under the NPDES Program. On November 16, 1990, the U.S. Environmental Protection Agency (U.S. EPA) published final regulations that establish application requirements for storm water permits. The regulations require that storm water associated with industrial activity (storm water) that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit.

U.S. EPA developed a four-tier permit issuance strategy for storm water discharges associated with industrial activity as follows:

Tier I, Baseline Permitting--One or more general permits will be developed to initially cover the majority of storm water discharges associated with industrial activity.

Tier II, Watershed Permitting--Facilities within watersheds shown to be adversely impacted by storm water discharges associated with industrial activity will be targeted for individual or watershed-specific general permits.

Tier III, Industry-Specific Permitting--Specific industry categories will be targeted for individual or Industry-specific general permits.

Tier IV, Facility-Specific Permitting--A variety of factors will be used to target specific facilities for individual permits.

The regulations allow authorized states to issue general permits or individual permits to regulate storm water discharges.

Consistent with Tier I, Baseline Permitting, of the U.S. EPA permitting strategy, the State Water Board issued a statewide General Permit on November 19, 1991 that applied to all storm water discharges requiring a permit except construction activity. The monitoring requirements of this General Permit were amended September 17, 1992. A separate statewide general permit has been issued for construction activity.

To obtain authorization for continued and future storm water discharge under this General Permit, each facility operator must submit a Notice of Intent (NOI). This approach is consistent with the four-tier permitting strategy described in Federal regulations, i.e., Tier 1, Baseline Permitting. Tier 1, Baseline Permitting, enables the State to begin reducing pollutants in industrial storm water in the most efficient manner possible.

This General Permit generally requires facility operators to:

1. Eliminate unauthorized non-storm water discharges;
2. Develop and implement a storm water pollution prevention plan (SWPPP); and
3. Perform monitoring of storm water discharges and authorized non-storm water discharges.

TYPES OF STORM WATER DISCHARGES COVERED BY THIS GENERAL PERMIT

This General Permit is intended to cover all new or existing storm water discharges and authorized non-storm water discharges from facilities required by Federal regulations to obtain a permit including those (1) facilities previously covered by the San Francisco Bay Regional Water Quality Control Board Order No. 92-011 (as amended by Order No. 92-116), (2) facilities designated by the Regional Water Quality Control Boards (Regional Water Boards), (3) facilities whose operators seek coverage under this General Permit, (4) and facilities required by future U.S. EPA storm water regulations.

The General Permit is intended to cover all facilities described in Attachment 1, whether the facility is primary or is auxiliary to the facility operator's function. For example, although a school district's primary function is education, a facility that it operates for vehicle maintenance of school buses is a transportation facility that is covered by this General Permit.

The definition of "storm water associated with industrial activity" is provided in Attachment 4, Definition 9, of this General Permit. Facilities that discharge storm water associated with industrial activity requiring a General Permit are listed by category in 40 Code of Federal Regulations (CFR) Section 122.26(b)(14) (Federal Register, Volume 55 on

Pages 48065-66) and in Attachment 1 of this General Permit. The facilities can be publicly or privately owned. General descriptions of these categories are:

1. Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards (40 CFR Subchapter N);

2. Manufacturing facilities;

3. Mining/oil and gas facilities;

4. Hazardous waste treatment, storage, or disposal facilities;

5. Landfills, land application sites, and open dumps that receive industrial waste;

6. Recycling facilities such as metal scrap yards, battery reclaimers, salvage yards, automobile yards;

7. Steam electric generating facilities;

8. Transportation facilities that conduct any type of vehicle maintenance such as fueling, cleaning, repairing, etc.;

9. Sewage treatment plants;

10. Construction activity (covered by a separate general permit); and

11. Certain facilities (often referred to as "light industry") where industrial materials, equipment, or activities are exposed to storm water.

For the most part, these facilities are identified in the Federal regulations by a Standard Industrial Classification (SIC).

Category 1 Dischargers

The following categories of facilities currently have storm water effluent limitation guidelines for at least one of their subcategories. They are cement manufacturing (40 CFR Part 411); feedlots (40 CFR Part 412); fertilizer manufacturing (40 CFR Part 418); petroleum refining (40 CFR Part 419); phosphate manufacturing (40 CFR Part 422); steam electric power generation (40 CFR Part 423); coal mining (40 CFR Part 434); mineral mining and processing (40 CFR Part 436); ore mining and dressing (40 CFR Part 440); and asphalt emulsion (40 CFR Part 443). A facility operator whose facility falls into one of these general categories should examine the effluent guidelines to determine if the facility is categorized in one of the subcategories that have storm water effluent guidelines. If

a facility is classified as one of those subcategories, that facility is subject to the standards listed in the CFR for that category and is subject to this General Permit. This General Permit contains additional requirements (see Section B.6.) for facilities with storm water effluent limitations guidelines.

Category 5 Dischargers

Inactive or closed landfills, land application sites, and open dumps that have received industrial wastes (Category 5) may be subject to this General Permit unless the storm water discharges from the sites are already regulated by an NPDES permit issued by the appropriate Regional Water Board. Facility operators of closed landfills that are regulated by waste discharge requirements (WDRs) may be required to comply with this General Permit. In some cases, it may be appropriate for closed landfills to be covered by the State Water Board's General Permit during closure activities. The Construction Activities General Permit should cover new landfill construction. Facility operators should contact their Regional Water Board to determine the appropriate permit coverage.

Category 10 Dischargers

Facility operators of Category 10 (light industry) facilities are not subject to this General Permit if they can certify that the following minimum conditions at their facilities are met:

1. All prohibited non-storm water discharges have been eliminated or otherwise permitted.

2. All areas of past exposure have been inspected and cleaned, as appropriate.

3. All materials related to industrial activity (including waste materials) are not exposed to storm water or authorized non-storm water discharges.

4. All industrial activities and industrial equipment are not exposed to storm water or authorized non-storm water discharges.

5. There is no exposure of materials associated with industrial activity through other direct or indirect pathways such as particulates from stacks and exhaust systems.

6. There is periodic re-evaluation of the facility to ensure Conditions 1, 3, 4, and 5 are continuously met.

Currently, facility operators that can certify that the above conditions are met are not required to notify the State Water

Board or Regional Water Board. These facility operators are advised to retain such certification documentation on site.

The Ninth Circuit Court of Appeals invalidated the exemption granted by U.S. EPA for storm water discharges from facilities in Category 11 that do not have exposure and remanded the regulation to U.S. EPA for further action. The State Water Board, at this time, is not requiring storm water discharges from facilities in Category 11 that do not have exposure to be covered by this General Permit. Instead, the State Water Board will await future U.S. EPA or court action clarifying the types of storm water discharges that must be permitted. If necessary, the State Water Board will reopen the General Permit to accommodate such a clarification.

Section 1068 of the Intermodal Surface Transportation Act of 1991 exempts municipal agencies serving populations of less than 100,000 from Phase I permit requirements for most facilities they operate (uncontrolled sanitary landfills, power plants, and airports are still required to be permitted in Phase I). Phase II of the Permit Program scheduled to begin August 7, 2001 will cover the facilities that are exempt from Phase I permit requirements.

TYPES OF DISCHARGES NOT COVERED BY THIS GENERAL PERMIT

1. CONSTRUCTION ACTIVITY: Discharges from construction activity of five acres or more, including clearing, grading, and excavation. A separate general permit was adopted on August 20, 1992 for this industrial category.

2. FACILITIES WHICH HAVE NPDES PERMITS CONTAINING STORM WATER PROVISIONS: Some storm water discharges may be regulated by other individual or general NPDES permits issued by the State Water Board or the Regional Water Boards. This General Permit shall not regulate these discharges. When the individual or general NPDES permits for such discharges expire, the State Water Board or Regional Water Board may authorize coverage under this General Permit or another general NPDES permit, or may issue a new individual NPDES permit consistent with the Federal and State storm water regulations. Interested parties may petition the State Water Board or appropriate Regional Water Board to issue individual or General NPDES Permits. General Permits may be issued for a particular industrial group or watershed area.

3. FACILITIES DETERMINED INELIGIBLE BY REGIONAL WATER BOARDS: Regional Water Boards may determine that discharges from a facility or groups of facilities, otherwise eligible for coverage under this General Permit, have potential water quality impacts that may not be appropriately addressed by

this General Permit. In such cases, a Regional Water Board may require such discharges to be covered by an individual or general NPDES permit. Interested persons may petition the appropriate Regional Water Board to issue individual NPDES permits. The applicability of this General Permit to such discharges will be terminated upon adoption of an individual NPDES permit or a different general NPDES permit.

4. FACILITIES WHICH DO NOT DISCHARGE STORM WATER TO WATERS OF THE UNITED STATES: The discharges from the following facilities are not required to be permitted:

   a. FACILITIES THAT DISCHARGE STORM WATER TO MUNICIPAL SANITARY SEWER SYSTEMS: Facilities that discharge storm water to municipal sanitary sewer systems or combined sewer systems are not required by Federal regulations to be covered by an NPDES storm water permit or to submit an NOI to comply with this General Permit. (It should be noted that many municipalities have sewer use ordinances that prohibit storm drain connections to their sanitary sewers.)

   b. FACILITIES THAT DO NOT DISCHARGE STORM WATER TO SURFACE WATERS OR SEPARATE STORM SEWERS: Storm water that is captured and treated and/or disposed of with the facility's NPDES permitted process wastewater and storm water that is disposed of to evaporation ponds, percolation ponds, or combined sewer systems are not required to obtain a storm water permit. To avoid liability, the facility operator should be certain that no discharge of storm water to surface waters would occur under any circumstances.

5. MOST SILVICULTURAL ACTIVITIES: Storm water discharges from most silvicultural activities such as thinning, harvesting operations, surface drainage, or road construction and maintenance are exempt from this permit. Log sorting or log storage facilities that fall within SIC 2411 are required to be permitted.

6. MINING AND OIL AND GAS FACILITIES: Oil and gas facilities that have not released storm water resulting in a discharge of a reportable quantity (RQ) for which notification is or was required pursuant to 40 CFR Parts 110, 117, and 302 at any time after November 19, 1987 are not required to be permitted unless the industrial storm water discharge contributed to a violation of a water quality standard. Mining facilities that discharge storm water that does not come into contact with any overburden, raw materials, intermediate product, finished product, by-product, or waste product located at the facility are not required to be permitted. These facilities must be permitted if they have a new release of storm water resulting in a discharge of an RQ.

7. FACILITIES ON INDIAN LANDS: the U.S. EPA will regulate Discharges from facilities on Indian lands.

NOTIFICATION REQUIREMENTS

Storm water discharges from facilities described in the section titled "Types of Storm Water Discharges Covered by This General Permit" must be covered by an NPDES permit. An NOI must be submitted by the facility operator for each individual facility to obtain coverage. Certification of the NOI signifies that the facility operator intends to comply with the provisions of the General Permit. Facility operators who have filed NOIs for the State Water Board Order No. 91-013-DWQ (as amended by Order No. 92-12-DWQ) or San Francisco Bay Regional Water Board Order No. 92-011 (as amended by Order No. 92-116) will be sent an abbreviated NOI soon after adopting this General Permit that must be completed and returned within 45 days of receipt. Where operations have discontinued and significant materials remain on site (such as at closed landfills), the landowner may be responsible for filing an NOI and complying with this General Permit. A landowner may also file an NOI for a facility if the landowner, rather than the facility operator(s), is responsible for compliance with this General Permit.

A facility operator that does not submit an NOI for a facility must submit an application for an individual NPDES permit. U.S. EPA's regulations [40 CFR 122.21 (a)] exclude facility operators covered by a general permit from requirements to submit an individual permit application unless required by the Regional Water Board. The NOI requirements of this General Permit are intended to establish a mechanism which can be used to establish a clear accounting of the number of facility operators complying with the General Permit, their identities, the nature of operations at the facilities, and location.

All facility operators filing an NOI after the adoption of this General Permit must comply with this General Permit. Existing facility operators who have filed NOIs prior to the adoption of this General Permit shall continue to complete the requirements of the previous General Permit through June 30, 1997 including submitting annual reports to the Regional Water Boards by July 1, 1997. Group Leaders are required to submit a 1996-97 Group Evaluation Report by August 1, 1997.

DESCRIPTION OF GENERAL PERMIT CONDITIONS

Prohibitions

This General Permit authorizes storm water and authorized non-storm water discharges from facilities that are required to be covered by a storm water permit. This General Permit prohibits discharges of material other than storm water (non-storm water discharges) that are not authorized by the General Permit and discharges containing hazardous substances in storm water in excess of reportable quantities established at 40 CFR 117.3 and 40 CFR 302.4. Authorized non-storm water discharges are addressed in the Special Conditions of the General Permit.

Effluent Limitations

NPDES Permits for storm water discharges must meet all applicable provisions of Sections 301 and 402 of the CWA. These provisions require control of pollutant discharges using best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT) to prevent and reduce pollutants and any more stringent controls necessary to meet water quality standards.

U.S. EPA regulations (40 CFR Subchapter N) establish effluent limitation guidelines for storm water discharges from facilities in ten industrial categories. For these facilities, compliance with the effluent limitation guidelines constitutes compliance with BAT and BCT for the specified pollutants and must be met to comply with this General Permit.

For storm water discharges from facilities not among the ten industrial categories listed in 40 CFR Subchapter N, it is not feasible at this time to establish numeric effluent limitations. The reasons why establishment of numeric effluent limitations is not feasible are discussed in detail in State Water Board Orders No. WQ 91-03 and WQ 91-04. Therefore, this General Permit allows the facility operator to implement best management practices (BMPs) to comply with the requirements of this General Permit. This approach is consistent with the U.S. EPA's August 1, 1996 "Interim Permitting Approach for Water Quality Based Effluent Limitations in Storm Water Permits".

Receiving Water Limitations

Storm water discharges shall not cause or contribute to a violation of an applicable water quality standard. The General Permit requires facility operators to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges through the development and implementation of BMPs which constitutes compliance with BAT and BCT and, in most cases, compliance with water quality standards. If receiving water quality standards are exceeded, facility operators are required to submit a written report providing additional BMPs that will be implemented to achieve water quality standards.

Storm Water Pollution Prevention Plans (SWPPPs)

All facility operators must prepare, retain on site, and implement an SWPPP. The SWPPP has two major objectives: (1) to help identify the sources of pollution that affect the quality of industrial storm water discharges and authorized non-storm water discharges, and (2) to describe and ensure the implementation of BMPs to reduce or prevent pollutants in industrial storm water discharges and authorized non-storm water discharges.

This General Permit requires development and implementation of an SWPPP emphasizing BMPs. This approach provides the flexibility necessary to establish appropriate BMPs for different types of industrial activities and pollutant sources. As this General Permit covers vastly different types of facilities, the State Water Board recognizes that there is no single best way of developing or organizing an SWPPP. The SWPPP requirements contain the essential elements that all facility operators must consider and address in the SWPPP. This General Permit's SWPPP requirements are more detailed than the previous general permit's SWPPP requirements, and the suggested order of the SWPPP elements have been rearranged (1) to correspond more closely with other storm water permits in effect throughout the country, and (2) to generally follow a more logical path. Facility operators that have already developed and implemented SWPPPs under previous general permits are required to review the SWPPP's requirements contained in this General Permit and then review their existing SWPPP for adequacy. If the existing SWPPP adequately identifies and assesses all potential sources of pollutants and describes the appropriate BMPs necessary to reduce or prevent pollutants, the facility operator is not required to revise the existing SWPPP.

One of the major elements of the SWPPP is the elimination of unauthorized non-storm water discharges to the facility's storm drain system. Unauthorized non-storm water discharges can be generated from a wide variety of potential pollutant sources. They include waters from the rinsing or washing of vehicles, equipment, buildings, or pavement; materials that have been improperly disposed of or dumped, and spilled; or leaked materials. Unauthorized non-storm water discharges can contribute a significant pollutant load to receiving waters. Measures to control spills, leakage, and dumping can often be addressed through BMPs. Unauthorized non-storm water discharges may enter the storm drain system via conveyances such as floor drains. All conveyances should be evaluated to determine whether they convey unauthorized non-storm water discharges to the storm drain system. Unauthorized non-storm water discharges (even when commingled with storm water) shall be eliminated or covered by a separate NPDES Permit.

There are many non-storm water discharges that, under certain conditions, should not contain pollutants associated with

industrial activity (i.e., air conditioning condensate, potable water line testing, landscaping overflow, etc.). Item D, Special Conditions, provides the conditions where certain listed non-storm water discharges are authorized by this General Permit.

Monitoring Program

The General Permit requires development and implementation of a monitoring program. The objectives of the monitoring program are to (1) demonstrate compliance with the General Permit, (2) aid in the implementation of the SWPPP, and (3) measure the effectiveness of the BMPs in reducing or preventing pollutants in storm water discharges and authorized non-storm water discharges.

All facility operators (with the exception of inactive mining operations) are required to:

1. Perform visual observations of storm water discharges and authorized storm water discharges.

2. Collect and analyze samples of storm water discharges. Analysis must include pH, total suspended solids (TSS), total organic carbon (TOC), specific conductance, toxic chemicals, and other pollutants which are likely to be present in storm water discharges in significant quantities, and those parameters listed in Table D of this General Permit. The Table D parameters are those listed in the U.S. EPA Multi-Sector General Permit. Facility operators subject to Federal storm water effluent limitation guidelines in 40 CFR Subchapter N must also sample and analyze for any pollutant specified in the appropriate category of 40 CFR Subchapter N.

Facility operators are not required to collect samples or perform visual observations during adverse climatic conditions. Sample collection and visual observations are required only during scheduled facility operating hours. Visual observations are required only during daylight hours. Facility operators that are unable to collect any of the required samples or visual observations because of the above circumstances must provide documentation to the Regional Water Board in their annual report.

Facility operators may be exempt from performing sampling and analysis if they: (1) do not have areas of industrial activity exposed to storm water, (2) receive an exemption from a local agency which has jurisdiction over the storm sewer system, or (3) receive an exemption from the appropriate Regional Water Board. Facility operators must always perform sampling and analysis for any pollutant specified in storm water effluent limitation guidelines.

This General Permit contains a new procedure where facility operators, if they meet certain minimum conditions, may certify compliance with the General Permit and reduce the number of

sampling events required to be sampled for the remaining term of the General Permit. Each Regional Water Board may develop instructions, guidance, and checklists to assist facility operators to complete sampling reduction requests.

Local agencies that wish to provide sampling and analysis exemptions or reductions to facility operators within their jurisdiction shall develop a certification program that clearly indicates the certification procedures and criteria used by the local agency. At a minimum, these programs should include site inspections, a review of the facility operator's SWPPP, and a review of other records such as monitoring data, receiving water data, etc. The certification program shall be approved by the local Regional Water Board before implementation.

Alternative Monitoring

Facility operators are required to develop a facility-specific monitoring program that satisfies both the minimum monitoring program requirements and the objectives of the monitoring program. Some facility operators have indicated that cost-effective alternative monitoring programs can be developed that provide equivalent or more accurate indicators of pollutants and/or BMP performance than a monitoring program based upon the minimum monitoring program requirements. An example of such an alternative monitoring program would be one that identifies sample locations at or near pollutant sources rather than sampling an entire drainage area where the storm water discharge has been diluted with storm water from areas with little or no industrial activity.

The State Water Board does not want to preclude facility operators from developing better, and perhaps more cost-effective, monitoring programs. This General Permit allows facility operators to submit alternative monitoring programs for approval by the Regional Water Board. For individual facilities, these proposals must be facility specific and demonstrate how the alternative monitoring program will result in an equivalent or more accurate indicator of pollutants and/or BMP effectiveness. Facility operators with similar industrial activities may also propose alternative monitoring programs for approval by the Regional Water Boards. These proposals must demonstrate how the alternative monitoring program will result in an equivalent or more accurate indicator of pollutants and/or BMP effectiveness for all of the participating facilities.

Facility operators shall continue to comply with the existing monitoring program requirements until receiving approval by the Regional Water Board.

Group Monitoring

Each facility operator may either perform sampling and analysis individually or participate in a group monitoring program. A group monitoring program may be developed either by a group leader representing a group of similar facilities or by a local agency which holds a storm water permit for a municipal separate storm sewer system for industrial facilities within its jurisdiction. The group leader or local agency responsible for the group monitoring program must schedule all participating facilities to sample two storm events over the life of this General Permit. Facility operators subject to Federal effluent limitations guidelines in 40 CFR Subchapter N must individually sample and analyze for pollutants listed in the appropriate Federal regulations.

Participants within a group may be located within the jurisdiction of more than one Regional Water Board. Multi-Regional Water Board groups must receive the approval of the State Water Board Executive Director (with the concurrence of the appropriate Regional Water Boards).

Each group leader or local agency responsible for group sampling must: (1) provide guidance or training so that the monitoring is done correctly, (2) recommend appropriate BMPs to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges from group participants, (3) evaluate and report the monitoring data to the State Water Board and/or the appropriate Regional Water Board(s), and (4) conduct two on-site inspections at each facility over the five year term of this General Permit to evaluate facility compliance and recommend BMPs to achieve compliance with this General Permit. The group leader or local agency may designate, hire, or train inspectors to conduct these inspections that are or are not directly affiliated with the group leader or local agency. It is the group leader's or local agency's responsibility to select inspectors that are capable of evaluating each facility's compliance with the General Permit and can recommend appropriate BMPs. All group monitoring plans are subject to State Water Board and/or Regional Water Board(s) review. Consistent with the four-tier permitting strategy described in the Federal regulations, the Regional Water Board(s) may evaluate the data and results from group monitoring to establish future permitting decisions. As appropriate, the State Water Board and/or the Regional Water Board(s) may terminate or require substantial amendment to the group monitoring plans. The State Water Board and/or the Regional Water Board(s) may terminate a facility's participation in group monitoring or require additional monitoring activities.

Retention of Records

The facility operator is required to retain records of all monitoring information, copies of all reports required by this General Permit, and records of all data used to complete the NOI for a period of five years from the date of measurement, report, or monitoring activity. This period may be extended by the State and/or Regional Water Boards. All records are public documents and must be provided to the Regional Water Boards on request.

Watershed Management

The State and Regional Water Boards are undertaking a focussed effort in watershed management throughout the State. In reissuing this General Permit, the State Water Board recognizes both the evolving nature of watershed management and the long-term desirability of structuring monitoring programs to support the Watershed Management Initiative. Therefore, the amended monitoring and reporting provisions provide flexibility for individual facility operators or groups of facility operators to propose and participate in, subject to Regional Water Board approval, watershed monitoring programs in lieu of some or all of the monitoring requirements contained in this General Permit.

Facility Operator Compliance Responsibilities

This General Permit has been written to encourage individual facility operators to develop their own SWPPP and monitoring programs. Many facility operators, however, choose to obtain compliance assistance either by hiring a consultant on an individual basis or by participating in a group monitoring plan. Regardless of how a facility operator chooses to pursue compliance, it is the facility operator that is responsible for compliance with this General Permit.

The State Water Board recognizes that industrial activities and operating conditions at many facilities change over time. In addition, new and more effective BMPs are being developed by various facility operators and by industrial groups. The SWPPP and monitoring program requirements include various inspections, reviews, and observations all of which recognize, encourage, and mandate an iterative self-evaluation process that is necessary to consistently comply with this General Permit. In general, facility operators that develop and implement SWPPPs that comply with this General Permit should not be penalized when discovering minor violations through this iterative self-evaluation process. The General Permit provides facility operators up to 90 days to revise and implement the SWPPP to correct such violations.

STATE WATER RESOURCES CONTROL BOARD (STATE WATER BOARD)
WATER QUALITY ORDER NO. 97-03-DWQ
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
GENERAL PERMIT NO. CAS000001 (GENERAL PERMIT)

WASTE DISCHARGE REQUIREMENTS (WDRS)
FOR
DISCHARGES OF STORM WATER ASSOCIATED WITH INDUSTRIAL ACTIVITIES
EXCLUDING CONSTRUCTION ACTIVITIES

The State Water Board finds that:

1. Federal regulations for storm water discharges were issued by the U.S. Environmental Protection Agency (U.S. EPA) on November 16, 1990 (40 Code of Federal Regulations [CFR] Parts 122, 123, and 124). The regulations require operators of specific categories of facilities where discharges of storm water associated with industrial activity (storm water) occur to obtain an NPDES permit and to implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or prevent pollutants associated with industrial activity in storm water discharges and authorized non-storm discharges.

2. This General Permit shall regulate storm water discharges and authorized non-storm water discharges from specific categories of industrial facilities identified in Attachment 1, storm water discharges and authorized non-storm water discharges from facilities as designated by the Regional Water Quality Control Boards (Regional Water Boards), and storm water discharges and authorized non-storm water discharges from other facilities seeking General Permit coverage. This General Permit may also regulate storm water discharges and authorized non-storm water discharges from facilities as required by U.S. EPA regulations. This General Permit shall regulate storm water discharges and authorized non-storm water discharges previously regulated by San Francisco Bay Regional Water Board Order, No.92-11 (as amended by Order No. 92-116). This General Permit excludes storm water discharges and non-storm water discharges that are regulated by other individual or general NPDES permits, storm water discharges and non-storm water discharges from construction activities, and storm water discharges and non-storm water discharges excluded by the Regional Water Boards for coverage by this General Permit. Attachment 2 contains the addresses and telephone numbers of each Regional Water Board office.

3. To obtain coverage for storm water discharges and authorized non-storm water discharges pursuant to this General Permit, operators of facilities (facility operators) must submit a Notice of Intent (NOI), in accordance with the Attachment 3

instructions, and appropriate annual fee to the State Water Board. This includes facility operators that have participated in U.S. EPA's group application process.

4. This General Permit does not preempt or supersede the authority of local agencies to prohibit, restrict, or control storm water discharges and authorized non-storm water discharges to storm drain systems or other water-courses within their jurisdictions as allowed by State and Federal law.

5. If an individual NPDES permit is issued to a facility operator otherwise subject to this General Permit or an alternative NPDES general permit is subsequently adopted which covers storm water discharges and/or authorized non-storm water discharges regulated by this General Permit, the applicability of this General Permit to such discharges is automatically terminated on the effective date of the individual NPDES permit or the date of approval for coverage under the subsequent NPDES general permit.

6. Effluent limitations and toxic and effluent standards established in Sections 208(b), 301, 302, 303(d), 304, 306, 307, and 403 of the Federal Clean Water Act (CWA), as amended, are applicable to storm water discharges and authorized non-storm water discharges regulated by this General Permit.

7. This action to adopt an NPDES general permit is exempt from the provisions of the California Environmental Quality Act (Public Resources Code Section 21100, et seq.) in accordance with Section 13389 of the California Water Code.

8. Federal regulations (40 CFR Subchapter N) establish effluent limitations guidelines for storm water discharges from some facilities in ten industrial categories.

9. For facilities which do not have established effluent limitation guidelines for storm water discharges in 40 CFR Subchapter N, it is not feasible at this time to establish numeric effluent limitations. This is due to the large number of discharges and the complex nature of storm water discharges. This is also consistent with the U.S. EPA's August 1, 1996 "Interim Permitting Approach for Water Quality Based Effluent Limitations in Storm Water Permits."

10. Facility operators are required to comply with the terms and conditions of this General Permit. Compliance with the terms and conditions of this General Permit constitutes compliance with BAT/BCT requirements and with requirements to achieve water quality standards. This includes the development and implementation of an effective Storm Water Pollution Prevention Plan (SWPPP) to reduce or prevent pollutants associated with industrial activity in storm water discharges and authorized non-storm water discharges.

11. Best Management Practices (BMPs) to reduce or prevent pollutants associated with industrial activity in storm water discharges and authorized non-storm water discharges are appropriate where numeric effluent limitations are infeasible, and the implementation of BMPs is adequate to achieve compliance with BAT/BCT and with water quality standards.

12. The State Water Board has adopted a Watershed Management Initiative that encourages watershed management throughout the State. This General Permit recognizes the Watershed Management Initiative by supporting the development of watershed monitoring programs authorized by the Regional Water Boards.

13. Following adoption of this General Permit, the Regional Water Boards shall enforce its provisions.

14. Following public notice in accordance with State and Federal laws and regulations, the State Water Board held a public hearing on November 12, 1996 and heard and considered all comments pertaining to this General Permit. A response to all significant comments has been prepared and is available for public review.

15. This Order is an NPDES General Permit in compliance with Section 402 of the CWA and shall take effect upon adoption by the State Water Board.

16. All terms that are defined in the CWA, U.S. EPA storm water regulations and the Porter-Cologne Water Quality Control Act will have the same definition in this General Permit unless otherwise stated.

IT IS HEREBY ORDERED that all facility operators required to be regulated by this General Permit shall comply with the following:

A. DISCHARGE PROHIBITIONS:

1. Except as allowed in Special Conditions (D.1.) of this General Permit, materials other than storm water (non-storm water discharges) that discharge either directly or indirectly to waters of the United States are prohibited. Prohibited non-storm water discharges must be either eliminated or permitted by a separate NPDES permit.

2. Storm water discharges and authorized non-storm water discharges shall not cause or threaten to cause pollution, contamination, or nuisance.

B. EFFLUENT LIMITATIONS:

1. Storm water discharges from facilities subject to storm water effluent limitation guidelines in Federal regulations (40 CFR

Subchapter N) shall not exceed the specified effluent limitations.

2. Storm water discharges and authorized non-storm water discharges regulated by this General Permit shall not contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.

3. Facility operators covered by this General Permit must reduce or prevent pollutants associated with industrial activity in storm water discharges and authorized non-storm water discharges through implementation of BAT for toxic and non-conventional pollutants and BCT for conventional pollutants. Development and implementation of an SWPPP that complies with the requirements in Section A of the General Permit and that includes BMPs that achieve BAT/BCT constitutes compliance with this requirement.

C. RECEIVING WATER LIMITATIONS:

1. Storm water discharges and authorized non-storm water discharges to any surface or ground water shall not adversely impact human health or the environment.

2. Storm water discharges and authorized non-storm water discharges shall not cause or contribute to an exceedance of any applicable water quality standards contained in a Statewide Water Quality Control Plan or the applicable Regional Water Board's Basin Plan.

3. A facility operator will not be in violation of Receiving Water Limitation C.2. as long as the facility operator has implemented BMPs that achieve BAT/BCT and the following procedure is followed:

   a. The facility operator shall submit a report to the appropriate Regional Water Board that describes the BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. The report shall include an implementation schedule. The Regional Water Board may require modifications to the report.

   b. Following approval of the report described above by the Regional Water Board, the facility operator shall revise its SWPPP and monitoring program to incorporate the additional BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required.

4. A facility operator shall be in violation of this General Permit if he/she fails to do any of the following:

a. Submit the report described above within 60 days after either the facility operator or the Regional Water Board determines that discharges are causing or contributing to an exceedance of an applicable water quality standard;

b. Submit a report that is approved by the Regional Water Board; or

c. Revise its SWPPP and monitoring program as required by the approved report.

D. SPECIAL CONDITIONS

1. Non-Storm Water Discharges

a. The following non-storm water discharges are authorized by this General Permit provided that they satisfy the conditions specified in Paragraph b. below: fire hydrant flushing; potable water sources, including potable water related to the operation, maintenance, or testing of potable water systems; drinking fountain water; atmospheric condensates including refrigeration, air conditioning, and compressor condensate; irrigation drainage; landscape watering; springs; ground water; foundation or footing drainage; and sea water infiltration where the sea waters are discharged back into the sea water source.

b. The non-storm water discharges as provided in Paragraph a. above are authorized by this General Permit if all the following conditions are met:

i. The non-storm water discharges are in compliance with Regional Water Board requirements.

ii. The non-storm water discharges are in compliance with local agency ordinances and/or requirements.

iii. BMPs are specifically included in the SWPPP to (1) prevent or reduce the contact of non-storm water discharges with significant materials or equipment and (2) minimize, to the extent practicable, the flow or volume of non-storm water discharges.

iv. The non-storm water discharges do not contain significant quantities of pollutants.

v. The monitoring program includes quarterly visual observations of each non-storm water discharge and its sources to ensure that BMPs are being implemented and are effective.

vi. The non-storm water discharges are reported and described annually as part of the annual report.

c. The Regional Water Board or its designee may establish additional monitoring programs and reporting requirements for any non-storm water discharge authorized by this General Permit.

d. Discharges from firefighting activities are authorized by this General Permit and are not subject to the conditions of Paragraph b. above.

E. PROVISIONS

1. All facility operators seeking coverage by this General Permit must submit an NOI for each of the facilities they operate. Facility operators filing an NOI after the adoption of this General Permit shall use the NOI form and instructions (Attachment 3) attached to this General Permit. Existing facility operators who have filed an NOI pursuant to State Water Board Order No. 91-013-DWQ (as amended by Order No. 92-12-DWQ) or San Francisco Bay Regional Water Board Order No. 92-11 (as amended by Order No. 92-116) shall submit an abbreviated NOI form provided by the State Water Board. The abbreviated NOI form shall be submitted within 45 days of receipt.

2. Facility operators who have filed an NOI, pursuant to State Water Board Order No. 91-013-DWQ (as amended by Order No. 92-12-DWQ) or San Francisco Bay Regional Water Board Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing SWPPP and shall implement any necessary revisions to their SWPPP in accordance with Section A of this General Permit in a timely manner, but in no case later than August 1, 1997. Facility operators beginning industrial activities after adoption of this General Permit must develop and implement an SWPPP in accordance with Section A of this General Permit when the industrial activities begin.

3. Facility operators who have filed an NOI, pursuant to State Water Board Order No. 91-013-DWQ (as amended by Order No. 92-12-DWQ) or San Francisco Bay Regional Water Board Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing Monitoring Program and shall implement any necessary revisions to their Monitoring Program in accordance with Section B of the General Permit in a timely manner, but in no case later than August 1, 1997. Facility operators beginning industrial activities after adoption of this General Permit must develop and implement a Monitoring Program in

accordance with Section B of this General Permit when industrial activities begin.

4. Facility operators of feedlots as defined in 40 CFR Part 412 that are in full compliance with Section 2560 to Section 2565, Title 23, California Code of Regulations (Chapter 15) will be in compliance with all effluent limitations and prohibitions contained in this General Permit. Facility operators of feedlots that comply with Chapter 15, however, must perform monitoring in compliance with the requirements of Section B.4.d. and B.14. of this General Permit. Facility operators of feedlots must also comply with any Regional Water Board WDRs or NPDES general permit regulating their storm water discharges.

5. All facility operators must comply with lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding storm water discharges and non-storm water discharges entering storm drain systems or other watercourses under their jurisdiction, including applicable requirements in municipal storm water management programs developed to comply with NPDES permits issued by the Regional Water Boards to local agencies.

6. All facility operators must comply with the standard provisions and reporting requirements for each facility covered by this General Permit contained in Section C, Standard Provisions.

7. Facility operators that operate facilities with co-located industrial activities (facilities that have industrial activities that meet more than one of the descriptions in Attachment 1) that are contiguous to one another are authorized to file a single NOI to comply with the General Permit. Storm water discharges and authorized non-storm water discharges from the co-located industrial activities are authorized if the SWPPP and Monitoring Program addresses each co-located industrial activity.

8. Upon reissuance of a successor NPDES general permit by the State Water Board, the facility operators subject to this reissued General Permit may be required to file an NOI.

9. Facility operators may request to terminate their coverage under this General Permit by filing a Notice of Termination (NOT) with the Regional Water Board. The NOT shall provide all documentation requested by the Regional Water Board. The facility operator will be notified when the NOT has been approved. Should the NOT be denied, facility operators are responsible for continued compliance with the requirements of this General Permit.

10. Facility operators who have filed an NOI, pursuant to State Water Board Order No. 91-013-DWQ (as amended by Order No. 92-12) or San Francisco Bay Regional Water Board Order No. 92-11 (as amended by Order No. 92-116) shall:

    a. Complete the 1996-97 activities required by those general permits. These include, but are not limited to, conducting any remaining visual observations, sample collection, annual site inspection, annual report submittal, and (for group monitoring leaders) Group Evaluation Reports; and

    b. Comply with the requirements of this General Permit no later than August 1, 1997.

11. If the Regional Water Board determines that a discharge may be causing or contributing to an exceedance of any applicable water quality standards contained in a Statewide Water Quality Control Plan or the applicable Regional Water Board's Basin Plan, the Regional Water Board may order the facility operator to comply with the requirements described in Receiving Water Limitation C.3. The facility operator shall comply with the requirements within the time schedule established by the Regional Water Board.

12. If the facility operator determines that its storm water discharges or authorized non-storm water discharges are causing or contributing to an exceedance of any applicable water quality standards, the facility operator shall comply with the requirements described in Receiving Water Limitation C.3.

13. State Water Board Order No. 91-013-DWQ (as amended by Order No. 92-12-DWQ) and San Francisco Bay Regional Water Board Order No. 91-011 (as amended by Order No. 92-116) are hereby rescinded.

F. REGIONAL WATER BOARD AUTHORITIES

1. Following adoption of this General Permit, Regional Water Boards shall:

    a. Implement the provisions of this General Permit, including, but not limited to, reviewing SWPPPs, reviewing annual reports, conducting compliance inspections, and taking enforcement actions.

    b. Issue other NPDES general permits or individual NPDES storm water permits as they deem appropriate to individual facility operators, facility operators of specific categories of industrial activities, or facility operators in a watershed or geographic area. Upon issuance of such NPDES permits by a Regional Water Board, the affected facility operator shall no longer

be regulated by this General Permit. Any new NPDES permit issued by the Regional Water Board may contain different requirements than the requirements of this General Permit.

2. Regional Water Boards may provide guidance to facility operators on the SWPPP and the Monitoring Program and reporting implementation.

3. Regional Water Boards may require facility operators to conduct additional SWPPP and Monitoring Program and reporting activities necessary to achieve compliance with this General Permit.

4. Regional Water Boards may approve requests from facility operators whose facilities include co-located industrial activities that are not contiguous within the facilities (e.g., some military bases) to comply with this General Permit under a single NOI. Storm water discharges and authorized non-storm water discharges from the co-located industrial activities and from other sources within the facility that may generate significant quantities of pollutants are authorized provided the SWPPP and Monitoring Program addresses each co-located industrial activity and other sources that may generate significant quantities of pollutants.

CERTIFICATION

The undersigned, Administrative Assistant to the State Water Board, does hereby certify that the foregoing is a full, true, and correct copy of an order duly and regularly adopted at a meeting of the State Water Resources Control Board held on April 17, 1997.

AYE: John P. Caffrey
John W. Brown
James M. Stubchaer
Marc Del Piero
Mary Jane Forster

NO: None

ABSENT: None

ABSTAIN: None

Maureen Marché

SECTION A: STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. *Implementation Schedule*

A storm water pollution prevention plan (SWPPP) shall be developed and implemented for each facility covered by this General Permit in accordance with the following schedule.

a. Facility operators beginning industrial activities before October 1, 1992 shall develop and implement the SWPPP no later than October 1, 1992. Facility operators beginning industrial activities after October 1, 1992 shall develop and implement the SWPPP when industrial activities begin.

b. Existing facility operators that submitted a Notice of Intent (NOI), pursuant to State Water Resources Control Board (State Water Board) Order No. 91-013-DWQ (as amended by Order No. 92-12) or San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing SWPPP and shall implement any necessary revisions to their SWPPP in a timely manner, but in no case later than August 1, 1997.

2. *Objectives*

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, over-head coverage.) To achieve these objectives, facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A.

The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

3. *Planning and Organization*

a. *Pollution Prevention Team*

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in Section B of this General Permit. The SWPPP shall clearly identify the General Permit related responsibilities, duties, and activities of each team member. For small facilities, storm water pollution prevention teams may consist of one individual where appropriate.

b. *Review Other Requirements and Existing Facility Plans*

The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General Permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this General Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

4. *Site Map*

The SWPPP shall include a site map. The site map shall be provided on an 8-½ x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.

TABLE A

FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL STORM WATER POLLUTION PREVENTION PLANS

PLANNING AND ORGANIZATION

*Form Pollution Prevention Team
*Review other plans

↓

ASSESSMENT PHASE

*Develop a site map
*Identify potential pollutant sources
*Inventory of materials and chemicals
*List significant spills and leaks
*Identify non-storm water discharges
*Assess pollutant Risks

↓

BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE

*Non-structural BMPs
*Structural BMPs
*Select activity and site-specific BMPs

↓

IMPLEMENTATION PHASE

*Train employees
*Implement BMPs
*Conduct recordkeeping and reporting

↓

EVALUATION / MONITORING

*Conduct annual site evaluation
*Review monitoring information
*Evaluate BMPs
*Review and revise SWPPP

The following information shall be included on the site map:

a. The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, and ponds) and municipal storm drain inlets

where the facility's storm water discharges and authorized non-storm water discharges may be received.

b. The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

c. An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.

d. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in Section A.6.a.iv. below have occurred.

e. Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas, cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

5. *List of Significant Materials*

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

6. *Description of Potential Pollutant Sources*

a. The SWPPP shall include a narrative description of the facility's industrial activities, as identified in Section A.4.e above, associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:

i. Industrial Processes

Describe each industrial process, the type, characteristics, and quantity of significant materials used in or resulting from the process, and a description of the manufacturing, cleaning, rinsing, recycling, disposal, or other activities related to the process. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

ii. Material Handling and Storage Areas

Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

iii. Dust and Particulate Generating Activities

Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.

iv. Significant Spills and Leaks

Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges since April 17, 1994. Include toxic chemicals (listed in 40 CFR, Part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (U.S. EPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 Code of Federal Regulations [CFR], Parts 110, 117, and 302).

The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water

discharges, and the preventative measures taken to ensure spill or leaks do not reoccur. Such list shall be updated as appropriate during the term of this General Permit.

v. Non-Storm Water Discharges

Facility operators shall investigate the facility to identify all non-storm water discharges and their sources. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

All non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

Non-storm water discharges that contain significant quantities of pollutants or that do not meet the conditions provided in Special Conditions D. are prohibited by this General Permit (Examples of prohibited non-storm water discharges are contact and non-contact cooling water, boiler blowdown, rinse water, wash water, etc.). Non-storm water discharges that meet the conditions provided in Special Condition D. are authorized by this General Permit. The SWPPP must include BMPs to prevent or reduce contact of non-storm water discharges with significant materials or equipment.

vi. Soil Erosion

Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

b. The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and potential pollutants. This information should be summarized similar to Table B. The last column of Table B, "Control Practices", should be completed in accordance with Section A.8. below.

7. *Assessment of Potential Pollutant Sources*

a. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in A.6. above to determine:

i. Which areas of the facility are likely sources of

pollutants in storm water discharges and authorized non-storm water discharges, and

ii. Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. Facility operators shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.

b. Facility operators shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

Facility operators are required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in Section 8 below.

8. *Storm Water Best Management Practices*

The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (Sections A.6. and 7. above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

TABLE B
EXAMPLE
ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES
SUMMARY

Area	Activity	Pollutant Source	Pollutant	Best Management Practices
Vehicle & Equipment Fueling	Fueling	Spills and leaks during delivery	fuel oil	- Use spill and overflow protection - Minimize run-on of storm water into the fueling area - Cover fueling area - Use dry cleanup methods rather than hosing down area - Implement proper spill prevention control program - Implement adequate preventative maintenance program to preventive tank and line leaks - Inspect fueling areas regularly to detect problems before they occur - Train employees on proper fueling, cleanup, and spill response techniques.
		Spills caused by topping off fuel tanks	fuel oil	
		Hosing or washing down fuel area	fuel oil	
		Leaking storage tanks	fuel oil	
		Rainfall running off fueling area, and rainfall running onto and off fueling area	fuel oil	

The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similar to Table B.

Facility operators shall consider the following BMPs for implementation at the facility:

a. Non-Structural BMPs

Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. Facility operators should consider all possible non-structural BMPs options before considering additional structural BMPs (see Section A.8.b. below). Below is a list of non-structural BMPs that should be considered:

i. Good Housekeeping

Good housekeeping generally consist of practical procedures to maintain a clean and orderly facility.

ii. Preventive Maintenance

Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.

iii. Spill Response

This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.

iv. Material Handling and Storage

This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.

v. Employee Training

This includes training of personnel who are responsible for (1) implementing activities identified in the SWPPP, (2) conducting inspections, sampling, and visual observations, and (3) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.

vi. Waste Handling/Recycling

This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

vii. Recordkeeping and Internal Reporting

This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.

viii. Erosion Control and Site Stabilization

This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.

ix. Inspections

This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.

x. Quality Assurance

This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

b. Structural BMPs

Where non-structural BMPs as identified in Section A.8.a. above are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that should be considered:

i. Overhead Coverage

This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

ii. Retention Ponds

This includes basins, ponds, surface impoundments, bermed areas, etc. that do not allow storm water to discharge from the facility.

iii. Control Devices

This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

iv. Secondary Containment Structures

This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

v. Treatment

This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc. that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

9. <u>Annual Comprehensive Site Compliance Evaluation</u>

The facility operator shall conduct one comprehensive site compliance evaluation (evaluation) in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

a. A review of all visual observation records, inspection records, and sampling and analysis results.

b. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.

c. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.

d. An evaluation report that includes, (i) identification of personnel performing the evaluation, (ii) the date(s) of the evaluation, (iii) necessary SWPPP revisions, (iv) schedule, as required in Section A.10.e, for implementing SWPPP revisions, (v) any incidents of non-compliance and the corrective actions taken, and (vi) a certification that the facility operator is in compliance with this General Permit. If the above certification cannot be provided, explain in the evaluation report why the facility operator is not in compliance with this General Permit. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Standard Provisions 9. and 10. of Section C. of this General Permit.

10. *SWPPP General Requirements*

a. The SWPPP shall be retained on site and made available upon request of a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.

b. The Regional Water Board and/or local agency may notify the facility operator when the SWPPP does not meet one or more of the minimum requirements of this Section. As requested by the Regional Water Board and/or local agency, the facility operator shall submit an SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the facility operator shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.

c. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (i) may significantly increase the quantities of pollutants in storm water discharge, (ii) cause a new area of industrial activity at the facility to be exposed to storm water, or (iii) begin an industrial activity which would introduce a new pollutant source at the facility.

d. Other than as provided in Provisions B.11, B.12, and E.2 of the General Permit, the SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a facility operator determines that the SWPPP is in violation of any requirement(s) of this General Permit.

e. When any part of the SWPPP is infeasible to implement by the deadlines specified in Provision E.2 or Sections A.1, A.9, A.10.c, and A.10.d of this General Permit due to proposed significant structural changes, the facility operator shall submit a report to the Regional Water Board prior to the applicable deadline that (i) describes the portion of the SWPPP that is infeasible to implement by the deadline, (ii) provides justification for a time extension, (iii) provides a schedule for completing and implementing that portion of the SWPPP, and (iv) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. Facility operators shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.

f. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.

SECTION B. MONITORING PROGRAM AND REPORTING REQUIREMENTS

1. *Implementation Schedule*

Each facility operator shall develop a written monitoring program for each facility covered by this General Permit in accordance with the following schedule:

a. Facility operators beginning industrial activities before October 1, 1992 shall develop and implement a monitoring program no later than October 1, 1992. Facility operators beginning operations after October 1, 1992 shall develop and implement a monitoring program when the industrial activities begin.

b. Facility operators that submitted a Notice Of Intent (NOI) pursuant to State Water Resources Control Board (State Water Board) Order No. 91-013-DWQ (as amended by Order No. 92-12) or San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing monitoring program and implement any necessary revisions to their monitoring program in a timely manner, but in no case later than August 1, 1997. These facility operators may use the monitoring results conducted in accordance with those expired general permits to satisfy the pollutant/parameter reduction requirements in Section B.5.c., Sampling and Analysis Exemptions and Reduction certifications in Section B.12., and Group Monitoring Sampling credits in B.15.k. For facilities beginning industrial activities after the adoption of this General Permit, the monitoring program shall be developed and implemented when the facility begins the industrial activities.

2. *Objectives*

The objectives of the monitoring program are to:

a. Ensure that storm water discharges are in compliance with the Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations specified in this General Permit.

b. Ensure practices at the facility to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges are evaluated and revised to meet changing conditions.

c. Aid in the implementation and revision of the SWPPP required by Section A of this General Permit.

d. Measure the effectiveness of best management practices (BMPs) to prevent or reduce pollutants in storm water

discharges and authorized non-storm water discharges. Much of the information necessary to develop the monitoring program, such as discharge locations, drainage areas, pollutant sources, etc., should be found in the Storm Water Pollution Prevention Plan (SWPPP). The facility's monitoring program shall be a written, site-specific document that shall be revised whenever appropriate and be readily available for review by employees or Regional Water Board inspectors.

3. *Non-storm Water Discharge Visual Observations*

a. Facility operators shall visually observe all drainage areas within their facilities for the presence of unauthorized non-storm water discharges;

b. Facility operators shall visually observe the facility's authorized non-storm water discharges and their sources;

c. The visual observations required above shall occur quarterly, during daylight hours, on days with no storm water discharges, and during scheduled facility operating hours[1]. Quarterly visual observations shall be conducted in each of the following periods: January-March, April-June, July-September, and October-December. Facility operators shall conduct quarterly visual observations within 6-18 weeks of each other.

d. Visual observations shall document the presence of any discolorations, stains, odors, floating materials, etc., as well as the source of any discharge. Records shall be maintained of the visual observation dates, locations observed, observations, and response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges. The SWPPP shall be revised, as necessary, and implemented in accordance with Section A of this General Permit.

4. *Storm Water Discharge Visual Observations*

a. With the exception of those facilities described in Section B.4.d. below, facility operators shall visually

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[1] "Scheduled facility operating hours" are the time periods when the facility is staffed to conduct any function related to industrial activity, but excluding time periods where only routine maintenance, emergency response, security, and/or janitorial services are performed.

observe storm water discharges from one storm event per month during the wet season (October 1-May 30). These visual observations shall occur during the first hour of discharge and at all discharge locations. Visual observations of stored or contained storm water shall occur at the time of release.

b. Visual observations are only required of storm water discharges that occur during daylight hours that are preceded by at least three (3) working days[2] without storm water discharges and that occur during scheduled facility operating hours.

c. Visual observations shall document the presence of any floating and suspended material, oil and grease, discolorations, turbidity, odor, and source of any pollutants. Records shall be maintained of observation dates, locations observed, observations, and response taken to reduce or prevent pollutants in storm water discharges. The SWPPP shall be revised, as necessary, and implemented in accordance with Section A of this General Permit.

d. Feedlots (subject to Federal effluent limitations guidelines in 40 Code of Federal Regulations [CFR] Part 412) that are in compliance with Sections 2560 to 2565, Article 6, Chapter 15, Title 23, California Code of Regulations, and facility operators with storm water containment facilities shall conduct monthly inspections of their containment areas to detect leaks and ensure maintenance of adequate freeboard. Records shall be maintained of the inspection dates, observations, and any response taken to eliminate leaks and to maintain adequate freeboard.

5. *Sampling and Analysis*

a. Facility operators shall collect storm water samples during the first hour of discharge from (1) the first storm event of the wet season, and (2) at least one other storm event in the wet season. All storm water discharge locations shall be sampled. Sampling of stored or contained storm water shall occur at the time the stored or contained storm water is released. Facility operators that do not collect samples from the first storm event of the wet season are still required to collect samples from two other storm events of the wet season and shall explain in the Annual Report why the first storm event was not sampled.

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[2] Three (3) working days may be separated by non-working days such as weekends and holidays provided that no storm water discharges occur during the three (3) working days and the non-working days.

b. Sample collection is only required of storm water discharges that occur during scheduled facility operating hours and that are preceded by at least (3) three working days without storm water discharge.

c. The samples shall be analyzed for:

i. Total suspended solids (TSS) pH, specific conductance, and total organic carbon (TOC). Oil and grease (O&G) may be substituted for TOC; and

ii. Toxic chemicals and other pollutants that are likely to be present in storm water discharges in significant quantities. If these pollutants are not detected in significant quantities after two consecutive sampling events, the facility operator may eliminate the pollutant from future sample analysis until the pollutant is likely to be present again; and

iii. Other analytical parameters as listed in Table D (located at the end of this Section). These parameters are dependent on the facility's standard industrial classification (SIC) code. Facility operators are not required to analyze a parameter listed in Table D when the parameter is not already required to be analyzed pursuant to Section B.5.c.i. and ii. or B.6 of this General Permit, and either of the two following conditions are met: (1) the parameter has not been detected in significant quantities from the last two consecutive sampling events, or (2) the parameter is not likely to be present in storm water discharges and authorized non-storm water discharges in significant quantities based upon the facility operator's evaluation of the facilities industrial activities, potential pollutant sources, and SWPPP. Facility operators that do not analyze for the applicable Table D parameters shall certify in the Annual Report that the above conditions have been satisfied.

iv. Other parameters as required by the Regional Water Board.

6. *Facilities Subject to Federal Storm Water Effluent Limitation Guidelines*

Facility operators with facilities subject to Federal storm water effluent limitation guidelines, in addition to the requirements in Section B.5. above, must complete the following:

a. Collect and analyze two samples for any pollutant specified in the appropriate category of 40 CFR Subchapter N. The sampling and analysis exemptions and reductions described in Section B.12. of this General Permit do not apply to these pollutants.

b. Estimate or calculate the volume of storm water discharges from each drainage area;

c. Estimate or calculate the mass of each regulated pollutant as defined in the appropriate category of 40 CFR Subchapter N; and

d. Identify the individual(s) performing the estimates or calculations in accordance with Subsections b. and c. above.

7. *Sample Storm Water Discharge Locations*

a. Facility operators shall visually observe and collect samples of storm water discharges from all drainage areas that represent the quality and quantity of the facility's storm water discharges from the storm event.

b. If the facility's storm water discharges are commingled with run-on from surrounding areas, the facility operator should identify other visual observation and sample collection locations that have not been commingled by run-on and that represent the quality and quantity of the facility's storm water discharges from the storm event.

c. If visual observation and sample collection locations are difficult to observe or sample (e.g., sheet flow, submerged outfalls), facility operators shall identify and collect samples from other locations that represent the quality and quantity of the facility's storm water discharges from the storm event.

d. Facility operators that determine that the industrial activities and BMPs within two or more drainage areas are substantially identical may either (i) collect samples from a reduced number of substantially identical

drainage areas, or (ii) collect samples from each substantially identical drainage area and analyze a combined sample from each substantially identical drainage area. Facility operators must document such a determination in the annual report.

8. *Visual Observation and Sample Collection Exceptions*

Facility operators are required to be prepared to collect samples and conduct visual observations at the beginning of the wet season (October 1) and throughout the wet season

until the minimum requirements of Sections B.4. and B.5. are completed with the following exceptions:

a. A facility operator is not required to collect a sample and conduct visual observations in accordance with Section B.4 and Section B.5 due to dangerous weather conditions, such as flooding, electrical storm, etc., when storm water discharges begin after scheduled facility operating hours or when storm water discharges are not preceded by three working days without discharge. Visual observations are only required during daylight hours. Facility operators that do not collect the required samples or visual observations during a wet season due to these exceptions shall include an explanation in the Annual Report why the sampling or visual observations could not be conducted.

b. A facility operator may conduct visual observations and sample collection more than one hour after discharge begins if the facility operator determines that the objectives of this Section will be better satisfied. The facility operator shall include an explanation in the Annual Report why the visual observations and sample collection should be conducted after the first hour of discharge.

9. *Alternative Monitoring Procedures*

Facility operators may propose an alternative monitoring program that meets Section B.2 monitoring program objectives for approval by the Regional Water Board. Facility operators shall continue to comply with the monitoring requirements of this Section and may not implement an alternative monitoring plan until the alternative monitoring plan is approved by the Regional Water Board. Alternative monitoring plans are subject to modification by the Regional Water Boards.

10. *Monitoring Methods*

a. Facility operators shall explain how the facility's monitoring program will satisfy the monitoring program objectives of Section B.2. This shall include:

i. Rationale and description of the visual observation methods, location, and frequency.

ii. Rationale and description of the sampling methods, location, and frequency; and

iii. Identification of the analytical methods and corresponding method detection limits used to detect pollutants in storm water discharges. This shall include justification that the method detection limits are adequate to satisfy the objectives of the monitoring program.

b. All sampling and sample preservation shall be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including a facility operator's own field instruments for measuring pH and Electro Conductivity) shall be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. All laboratory analyses must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this General Permit or by the Regional Water Board. All metals shall be reported as total metals. With the exception of analysis conducted by facility operators, all laboratory analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. Facility operators may conduct their own sample analyses if the facility operator has sufficient capability (qualified employees, laboratory equipment, etc.) to adequately perform the test procedures.

11. *Inactive Mining Operations*
Inactive mining operations are defined in Attachment 1 of this General Permit. Where comprehensive site compliance evaluations, non-storm water discharge visual observations, storm water discharge visual observations, and storm water sampling are impracticable, facility operators of inactive mining operations may instead obtain certification once every three years by a Registered Professional Engineer that an SWPPP has been prepared for the facility and is being implemented in accordance with the requirements of this General Permit. By means of these certifications, the Registered Professional Engineer having examined the facility and being familiar with the provisions of this General Permit shall attest that the SWPPP has been prepared in accordance with good engineering practices. Facility operators of mining operations who cannot obtain a certification because of noncompliance must notify the appropriate Regional Water Board and, upon request, the local agency which receives the storm water discharge.

12. *Sampling and Analysis* Exemptions and Reductions

A facility operator who qualifies for sampling and analysis exemptions, as described below in Section B.12.a.i., or who qualifies for reduced sampling and analysis, as described below in Section B.12.b., must submit the appropriate certifications and required documentation to the Regional Water Boards prior to the wet season (October 1) and recertify as part of the Annual Report submittal. A facility operator that qualifies for either the Regional Water Board or local agency certification programs, as described below in Section B.12.a.ii. and iii., shall submit certification and documentation in accordance with the requirements of those programs. Facility operators who provide certifications in accordance with this Section are still required to comply with all other monitoring program and reporting requirements. Facility operators shall prepare and submit their certifications using forms and instructions provided by the State Water Board, Regional Water Board, or local agency or shall submit their information on a form that contains equivalent information. Facility operators whose facility no longer meets the certification conditions must notify the Regional Water Boards (and local agency) within 30 days and immediately comply with the Section B.5. sampling and analysis requirements. Should a Regional Water Board (or local agency) determine that a certification does not meet the conditions set forth below, facility operators must immediately comply with the Section B.5. sampling and analysis requirements.

a. Sampling and Analysis Exemptions

A facility operator is not required to collect and analyze samples in accordance with Section B.5. if the facility operator meets all of the conditions of one of the following certification programs:

i. No Exposure Certification (NEC)

This exemption is designed primarily for those facilities where all industrial activities are conducted inside buildings and where all materials stored and handled are not exposed to storm water. To qualify for this exemption, facility operators must certify that their facilities meet all of the following conditions:

(1) All prohibited non-storm water discharges have been eliminated or otherwise permitted.

(2) All authorized non-storm water discharges have been identified and addressed in the SWPPP.

(3) All areas of past exposure have been inspected and cleaned, as appropriate.

(4) All significant materials related to industrial activity (including waste materials) are not exposed to storm water or authorized non-storm water discharges.

(5) All industrial activities and industrial equipment are not exposed to storm water or authorized non-storm water discharges.

(6) There is no exposure of storm water to significant materials associated with industrial activity through other direct or indirect pathways such as from industrial activities that generate dust and particulates.

(7) There is periodic re-evaluation of the facility to ensure conditions (1), (2), (4), (5), and (6) above are continuously met. At a minimum, re-evaluation shall be conducted once a year.

ii. Regional Water Board Certification Programs

The Regional Water Board may grant an exemption to the Section B.5. Sampling and Analysis Requirements if it determines a facility operator has met the conditions set forth in a Regional Water Board certification program. Regional Water Board certification programs may include conditions to (1) exempt facility operators whose facilities infrequently discharge storm water to waters of the United States, and (2) exempt facility operators

that demonstrate compliance with the terms and conditions of this General Permit.

iii. Local Agency Certifications

A local agency may develop a local agency certification program. Such programs must be approved by the Regional Water Board. An approved local agency program may either grant an exemption

from the Section B.5. Sampling and Analysis Requirements or reduce the frequency of sampling if it determines that a facility operator has demonstrated compliance with the terms and conditions of this General Permit.

b. Sampling and Analysis Reduction

i. A facility operator may reduce the number of sampling events required to be sampled for the remaining term of this General Permit if the facility operator provides certification that the following conditions have been met:

(1) The facility operator has collected and analyzed samples from a minimum of six storm events from all required drainage areas;

(2) All prohibited non-storm water discharges have been eliminated or otherwise permitted;

(3) The facility operator demonstrates compliance with the terms and conditions of the General Permit for the previous two years (i.e., completed Annual Reports, performed visual observations, implemented appropriate BMPs, etc.);

(4) The facility operator demonstrates that the facility's storm water discharges and authorized non-storm water discharges do not contain significant quantities of pollutants; and

(5) Conditions (2), (3), and (4) above are expected to remain in effect for a minimum of one year after filing the certification.

ii. Unless otherwise instructed by the Regional Water Board, facility operators shall collect and analyze samples from two additional storm events (or one additional storm event when certification filed for the wet season beginning October 1, 2001) during the remaining term of this General Permit in accordance with Table C below. Facility operators shall collect samples of the first

storm event of the wet season. Facility operators that do not collect samples from the first storm event of the wet season shall collect samples from another storm event during the same wet season. Facility operators that do not collect a sample in a required wet season shall collect the sample from another storm event in the next wet season. Facility operators shall explain in the Annual Report why the first storm event of a wet season was not sampled or a sample was not taken from any storm event in accordance with the Table C schedule.

Table C
REDUCED MONITORING SAMPLING SCHEDULE

Facility Operator Filing Sampling Reduction Certification By	Samples Shall be Collected and Analyzed in These Wet Seasons	
	Sample 1	Sample 2
Oct. 1, 1997	Oct. 1, 1997-May 31, 1998	Oct. 1, 1999-May 31, 2000
Oct. 1, 1998	Oct. 1, 1998-May 31, 1999	Oct. 1, 2000-May 31, 2001
Oct. 1, 1999	Oct. 1, 1999-May 31, 2000	Oct. 1, 2001-May 31, 2002
Oct. 1, 2000	Oct. 1, 2000-May 31, 2001	Oct. 1, 2001-May 31, 2002
Oct. 1, 2001	Oct. 1, 2001-May 31, 2002	-

13. *Records*

Records of all storm water monitoring information and copies of all reports (including the Annual Reports) required by this General Permit shall be retained for a period of at least five years. These records shall include:

a. The date, place, and time of site inspections, sampling, visual observations, and/or measurements;

b. The individual(s) who performed the site inspections, sampling, visual observations, and or measurements;

c. Flow measurements or estimates (if required by Section B.6);

d. The date and approximate time of analyses;

e. The individual(s) who performed the analyses;

f. Analytical results, method detection limits, and the analytical techniques or methods used;

g. Quality assurance/quality control records and results;

h. Non-storm water discharge inspections and visual observations and storm water discharge visual observation records (see Sections B.3. and 4.);

i. Visual observation and sample collection exception records (see Section B.5.a, 7.d, 8, and 12.b.ii.);

j. All calibration and maintenance records of on-site instruments used;

k. All Sampling and Analysis Exemption and Reduction certifications and supporting documentation (see Section B.12);

l. The records of any corrective actions and follow-up activities that resulted from the visual observations.

14. *Annual Report*

All facility operators shall submit an Annual Report by July 1 of each year to the Executive Officer of the Regional Water Board responsible for the area in which the facility is located and to the local agency (if requested).

The report shall include a summary of visual observations and sampling results, an evaluation of the visual observation and sampling and analysis results, laboratory reports, the Annual Comprehensive Site Compliance Evaluation Report required in Section A.9., an explanation of why a facility did not implement any activities required by the General Permit (if not already included in the Evaluation Report), and records specified in Section B.13.i. The method detection limit of each analytical parameter shall be included. Analytical results that are less than the method detection limit shall be reported as "less than the method detection limit." The Annual Report shall be signed and certified in accordance with Standard Provisions 9. and 10. of Section C of this General Permit. Facility operators shall prepare and submit their Annual Reports using the annual report forms provided by the State Water Board or Regional Water Board or shall submit their information on a form that contains equivalent information.

15. *Group Monitoring*

Facility operators may participate in group monitoring as described below. A facility operator that participates in group monitoring shall develop and implement a written site-specific SWPPP and monitoring program in accordance with the General Permit and must satisfy any group monitoring requirements. Group monitoring shall be subject to the following requirements:

a. A group monitoring plan (GMP) shall be developed and implemented by a group leader representing a group of

similar facility operators regulated by this General Permit or by a local agency which holds an NPDES permit (local agency permittee) for a municipal separate storm sewer system. GMPs with participants that discharge storm water within the boundaries of a single Regional Water Board shall be approved by that Regional Water Board. GMPs with participants that discharge storm water within the boundaries of multiple Regional Water Boards shall be approved by the State Water Board. The State Water Board and/or Regional Water Board(s) may disapprove a facility's participation in a GMP or require a GMP participant to conduct additional monitoring activities.

b. Each GMP participant shall collect and analyze samples from at least two storm events in accordance with Section B.5. over the five-year period of this General Permit. The two storm event minimum applies to new and existing members. The group leader or local agency permittee shall schedule sampling to meet the following conditions: (i) to evenly distribute the sample collection over the five-year term of this General Permit, and (ii) to collect samples from the two storm events at each participant's facility in different and non-consecutive wet seasons. New participants who join in Years 4 and 5 of this General Permit are not subject to Condition (ii) above. Group leaders shall explain in the annual Group Evaluation Report why any scheduled samples were not collected and reschedule the sampling so that all required samples are collected during the term of this General Permit.

c. The group leader or local agency permittee must have the appropriate resources to develop and implement the GMP. The group leader or local agency permittee must also have the authority to terminate any participant who is not complying with this General Permit and the GMP.

d. The group leader or local agency permittee is responsible for:

   i. Developing, implementing, and revising the GMP;

   ii. Developing and submitting an annual Group Evaluation Report to the State Water Board and/or Regional Water Board by August 1 of each year that includes:

      (1) An evaluation and summary of all group monitoring data,

      (2) An evaluation of the overall performance of the GMP participants in complying with this General Permit and the GMP,

(3) Recommended baseline and site-specific BMPs that should be considered by each participant based upon Items (1) and (2) above, and

(4) A copy of each evaluation report and recommended BMPs as required in Section B.15.d.v. below.

iii. Recommending appropriate BMPs to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges;

iv. Assisting each participant in completing their Annual Comprehensive Site Compliance Evaluation and Annual Report;

v. Conducting a minimum of two on-site inspections of each participant's facility (it is recommended that these inspections be scheduled during the Annual Comprehensive Site Compliance Evaluation) during the term of this General Permit to evaluate the participant's compliance with this General Permit and the GMP, and to recommend any additional BMPs necessary to achieve compliance with this General Permit. Participants that join in Years 4 and 5 shall be scheduled for one evaluation. A copy of the evaluation and recommended BMPs shall be provided to the participants;

vi. Submitting a GMP (or revisions, as necessary), to the appropriate Regional Water Board(s) and State Water Board no later than September 1, 1997 (or August 1 in subsequent years). Once approved, a group leader or local agency permittee shall submit a letter of intent by August 1 of each year to continue the approved GMP. The letter of intent must include a roster of participants, participant's Waste Discharge Identification number (WDID#), updated sampling schedules, and any other revisions to the GMP;

vii. Revising the GMP as instructed by the Regional Water Board or the State Water Board; and

viii. Providing the State Water Board and/or Regional Water Board with quarterly updates of any new or deleted participants and corresponding changes in the sampling and inspection schedule.

e. The GMP shall:

i. Identify the participants of the GMP by name, location, and WDID number;

ii. Include a narrative description summarizing the industrial activities of participants of the GMP and explain why the participants, as a whole, have sufficiently similar industrial activities and BMPs to be covered by a group monitoring plan;

iii. Include a list of typical potential pollutant sources associated with the group participant's facilities and recommended baseline BMPs to prevent or reduce pollutants associated with industrial activity in the storm water discharges and authorized non-storm water discharges;

iv. Provide a five-year sampling and inspection schedule in accordance with Subsections b. and d.v. above.

v. Identify the pollutants associated with industrial activity that shall be analyzed at each participant's facility in accordance with Section B.5. The selection of these pollutants shall be based upon an assessment of each facility's potential pollutant sources and likelihood that pollutants associated with industrial activity will be present in storm water discharges and authorized non-storm water discharges in significant quantities.

f. Sampling and analysis shall be conducted in accordance with the applicable requirements of this Section.

g. Unless otherwise instructed by the Regional Water Board or the State Water Board Executive Director, the GMPs shall be implemented at the beginning of the wet season (October 1).

h. All participants in an approved GMP that have not been selected to sample in a particular wet season are required to comply with all other monitoring program and reporting requirements of this Section including the submittal of an Annual Report by July 1 of each year to the appropriate Regional Water Board.

i. GMP participants subject to Federal storm water effluent limitation guidelines must perform the monitoring described in Section B.6. and submit the results of the monitoring to the appropriate Regional Water Board within the facility operator's Annual Report.

j. GMPs and Group Evaluation Reports should be prepared in accordance with State Water Board (or Regional Water Board) guidance.

k. GMP participants may receive Sampling and Analysis Reduction sampling credit in accordance with the following conditions:

i. Current or prior participants (group participants) of approved GMPs, who have not collected and analyzed samples from six storm events as required in Section B.7.b.i.(1), may substitute credit earned through participation in a GMP for up to four of the six required storm events. Credits for GMP participation shall be calculated as follows:

(1) Credit may only be earned in years of participation where the GMP participant was not scheduled to sample and the GMP was approved.

(2) One credit will be earned for each year of valid GMP participation.

(3) One additional credit may be earned for each year the overall GMP sample collection performance is greater than 75 percent.

ii. GMP participants substituting credit as calculated above shall provide proof of GMP participation and certification that all the conditions in Section B.12.b.i. have been met. GMP participants substituting credit in accordance with Section B.15.k.i.(3) shall also provide GMP sample collection performance documentation.

iii. GMP participants that qualify for Sampling and Analysis Reduction and have already sampled a storm event after October 1, 1997 shall only be required to sample one additional storm event during the remainder of this General Permit in accordance with the "Sample 2" schedule (or "Sample 1" schedule when certification filed for the wet season beginning October 1, 2001) in Table C of this Section.

n. Group leaders shall furnish, within 60 days of receiving a request from the State Water Board or Regional Water Board, any GMP information and documentation necessary to verify the Section B.15.k. sampling credits. Group leaders may also provide this information and documentation to the group participants.

16. *Watershed Monitoring Option*

Regional Water Boards may approve proposals to substitute watershed monitoring for some or all of the requirements of this Section if the Regional Water Board finds that the watershed monitoring will provide substantially similar monitoring information in evaluating facility operator compliance with the requirements of this General Permit.

TABLE D
ADDITIONAL ANALYTICAL PARAMETERS

Subsector	SIC	Activity Represented	Parameters
SECTOR A. TIMBER PRODUCTS			
A1	2421	General Sawmills and Planing Mills	**COD;TSS;Zn**
A2	2491	Wood Preserving	**As;Cu**
A3	2411	Log Storage and Handling	**TSS**
A4	2426	Hardwood Dimension and Flooring Mills	**COD;TSS**
A4	2429	Special Product Sawmills, Not Elsewhere Classified	**COD;TSS**
A4	243X	Millwork, Veneer, Plywood, and Structural Wood	**COD;TSS**
A4	(except 2434--Wood Kitchen Cabinet Manufacturers)		
A4	244X	Wood Containers	**COD;TSS**
A4	245X	Wood Buildings and Mobile Homes	**COD;TSS**
A4	2493	Reconstituted Wood Products	**COD;TSS**
A4	2499	Wood Products, Not Elsewhere Classified	
SECTOR B. PAPER AND ALLIED PRODUCTS MANUFACTURING			
B1	261X	Pulp Mills	
B2	262X	Paper Mills	
B3	263X	Paperboard Mills	**COD**
B4	265X	Paperboard Containers and Boxes	
B5	267X	Converted Paper and Paperboard Products, Except Containers and Boxes	
SECTOR C. CHEMICAL AND ALLIED PRODUCTS MANUFACTURING			
C1	281X	Industrial Inorganic Chemicals	**Al;Fe;N+N**
C2	282X	Plastics Materials and Synthetic Resins, Synthetic Rubber, Cellulosic, and Other Manmade Fibers Except Glass	**Zn**
C3	283X	Drugs	
C4	284X	Soaps, Detergents, and Cleaning Preparations; Perfumes, Cosmetics, and Other Toilet Preparations	**N+N;Zn**
C5	285X	Paints, Varnishes, Lacquers, Enamels, and Allied Products	
C6	286X	Industrial Organic Chemicals	
C7	287X	Nitrogenous and Phosphatic Basic Fertilizers, Mixed Fertilizer, Pesticides, and Other Agricultural Chemicals	**Fe;N+N;Pb;Zn;P**
C8	289X	Miscellaneous Chemical Products	
	3952	Inks and Paints, Including China Painting Enamels, India Ink, (limited to list) Drawing Ink, Platinum Paints for Burnt Wood or Leather Work, Paints for China Painting, Artist's Paints, and Artist's Watercolors	
SECTOR D. ASPHALT PAVING/ROOFING MATERIALS MANUFACTURERS AND LUBRICANT MANUFACTURERS			
D1	295X	Asphalt Paving and Roofing Materials	**TSS**
D2	2992	Lubricating Oils and Greases	

Parameter Names

Al - Aluminum	Cd - Cadmium	Cu - Copper	Mg - Magnesium	BOD - Biochemical Oxygen Demand
As - Arsenic	CN - Cyanide	Fe - Iron	Ag - Silver	N + N - Nitrate & Nitrite Nitrogen
NH_3- Ammonia	Hg - Mercury	P - Phosphorus	Se - Selenium	Pb - Lead
Zn - Zinc	TSS -Total Suspended Solids	COD - Chemical Oxygen Demand		

Subsector	SIC	Activity Represented	Parameters

SECTOR E. GLASS, CLAY, CEMENT, CONCRETE, AND GYPSUM PRODUCT MANUFACTURING

E1	3211	Flat Glass	
E1	322X	Glass and Glassware, Pressed or Blown	
E1	323X	Glass Products Made of Purchased Glass	
E2	3241	Hydraulic Cement	
E3	325X	Structural Clay Products	**Al**
E3	326X	Pottery and Related Products	**Al**
E3	3297	Non-Clay Refractories	**Al**
E4	327X	Concrete, Gypsum, and Plaster Products (Except Lime) (except 3274).	**TSS;Fe**
E4	3295	Minerals and Earths, Ground, or Otherwise Treated	**TSS;Fe**

SECTOR F. PRIMARY METALS

F1	331X	Steel Works, Blast Furnaces, Rolling & Finishing Mill	**Al;Zn**
F2	332X	Iron and Steel Foundries	**Al;TSS;Cu;Fe;Zn**
F3	333X	Primary Smelting and Refining of Nonferrous Metals	
F4	334X	Secondary Smelting and Refining of Nonferrous Metals	
F5	335X	Rolling, Drawing, and Extruding of Nonferrous Metals	**Cu;Zn**
F6	336X	Nonferrous Foundries (Castings)	**Cu;Zn**
F7	339X	Miscellaneous Primary Metal Products	

SECTOR G. METAL MINING (ORE MINING AND DRESSING) EXCEPT INACTIVE METAL MINING ACTIVITIES ON FEDERAL LANDS WHERE AN OPERATOR CANNOT BE IDENTIFIED

G1	101X	Iron Ores	
G2	102X	Copper Ores	**TSS;COD;N+**
G3	103X	Lead and Zinc Ores	
G4	104X	Gold and Silver Ores	
G5	106X	Ferroalloy Ores, Except Vanadium	
G6	108X	Metal Mining Services	
G7	109X	Miscellaneous Metal Ores	

SECTOR H. COAL MINES AND COAL MINING-RELATED FACILITIES

NA	12XX	Coal Mines and Coal Mining-Related Facilities	**TSS;Al;Fe**

SECTOR I. COAL MINES AND COAL MINING-RELATED FACILITIES

I1	131X	Crude Petroleum and Natural Gas	
I2	132X	Natural Gas Liquids	
I3	138X	Oil and Gas Field Services	

SECTOR J. MINERAL MINING AND DRESSING EXCEPT INACTIVE MINERAL MINING ACTIVITIES OCCURRING ON FEDERAL LANDS WHERE AN OPERATOR CANNOT BE IDENTIFIED

J1	141X	Dimension Stone	**TSS**
J1	142X	Crushed and Broken Stone, Including Rip Rap	**TSS**
J1	148X	Nonmetallic Minerals, Except Fuels	**TSS**
J2	144X	Sand and Gravel	**TSS;N+N**
J3	145X	Clay, Ceramic, and Refractory Materials	
J4	147X	Chemical and Fertilizer Mineral Mining	
J4	149X	Miscellaneous Nonmetallic Minerals, Except Fuels	

Subsector	SIC	Activity Represented	Parameters
SECTOR K. HAZARDOUS WASTE TREATMENT STORAGE OR DISPOSAL FACILITIES			
NA	4953	Hazardous Waste Treatment Storage or Disposal	**NH_3;Mg;COD;As Cd;CN;Pb Hg;Se;Ag**
SECTOR L. LANDFILLS AND LAND APPLICATION SITES			
NA	4953	Landfills and Land Application Sites That Receive or Have Received Industrial Wastes, Except Inactive Landfills or Land Applications Sites Occurring on Federal Lands Where an Operator Cannot be Identified	**TSS;Fe**
SECTOR M. AUTOMOBILE SALVAGE YARDS			
NA	5015	Facilities Engaged in Dismantling or Wrecking Used Motor Vehicles for Parts Recycling or Resale and for Scrap	**TSS;Fe;Pb;Al**
SECTOR N. SCRAP RECYCLING FACILITIES			
NA	5093	Processing, Reclaiming, and Wholesale Distribution of Scrap and Waste Materials	**TSS;Fe;Pb Al;Cu;Zn;COD**
SECTOR O. STEAM ELECTRIC GENERATING FACILITIES			
NA	4911	Steam Electric Power Generating Facilities	**Fe**
SECTOR P. LAND TRANSPORTATION FACILITIES THAT HAVE VEHICLE AND EQUIPMENT MAINTENANCE SHOPS AND/OR EQUIPMENT CLEANING OPERATIONS			
P1	40XX	Railroad Transportation	
P2	41XX	Local and Highway Passenger Transportation	
P3	42XX	Motor Freight Transportation and Warehousing	
P4	43XX	United States Postal Service	
P5	5171	Petroleum Bulk Stations and Terminals	
SECTOR Q. WATER TRANSPORTATION FACILITIES THAT HAVE VEHICLE (VESSEL) & EQUIPMENT MAINTENANCE SHOPS AND/OR EQUIPMENT CLEANING OPERATIONS			
NA	44XX	Water Transportation	**Al;Fe;Pb;Zn**
SECTOR R. SHIP AND BOAT BUILDING OR REPAIRING YARDS			
NA	373X	Ship and Boat Building or Repairing Yards	
SECTOR S. AIR TRANSPORTATION FACILITIES			
NA	45XX	Air Transportation Facilities That Have Vehicle Maintenance Ships, Material Handing Facilities, Equipment Cleaning Operations, or Airport and/or Aircraft Deicing/Anti-icing Operations	**BOD;COD;NH_3;pH**

Subsector	SIC	Activity Represented	Parameters
SECTOR T. TREATMENT WORKS			
NA	4952	Treatment Works Treating Domestic Sewage or Any Other Sewage Sludge or Wastewater Treatment Device or System Used in the Storage, treatment, recycling, or Reclamation of Municipal or Domestic Sewage with a Design Flow of 1.0 MGD or More or Required to Have an Approved Pretreatment Program	
SECTOR U. FOOD AND KINDRED PRODUCTS			
U1	201X	Meat Products	
U2	202X	Dairy Products	
U3	203X	Canned, Frozen and Preserved Fruits, Vegetables and Food Specialties	
U4	204X	Grain Mill Products	**TSS**
U5	205X	Bakery Products	
U6	206X	Sugar and Confectionery Products	
U7	207X	Fats and Oils	**BOD;COD;TSS;N+N**
U8	208X	Beverages	
U9	209X	Miscellaneous Food Preparations and Kindred Products	
NA	21XX	Tobacco Products	
SECTOR V. TEXTILE MILLS, APPAREL, AND OTHER FABRIC PRODUCT MANUFACTURING			
V1	22XX	Textile Mill Products	
V2	23XX	Apparel and Other Finished Products Made From Fabrics and Similar Materials	
SECTOR W. FURNITURE AND FIXTURES			
NA	25XX	Furniture and Fixtures	
NA	2434	Wood Kitchen Cabinets	
SECTOR X. PRINTING AND PUBLISHING			
NA	2732	Book Printing	
NA	2752	Commercial Printing, Lithographic	
NA	2754	Commercial Printing, Gravure	
NA	2759	Commercial Printing, Nor Elsewhere Classified	
NA	2796	Platemaking and Related Services	
SECTOR Y. RUBBER, MISCELLANEOUS PLASTIC PRODUCTS, AND MISC. MANUFACTURING INDUSTRIES			
Y1	301X	Tires and Inner Tubes	**Zn**
Y1	302X	Rubber and Plastics Footwear	**Zn**
Y1	305X	Gaskets, Packing, and Sealing Devices and Rubber and Plastics Hose and Belting	**Zn**
Y1	306X	Fabricated Rubber Products, Not Elsewhere Classified	**Zn**
Y2	308X	Miscellaneous Plastics Products	

Subsector	SIC	Activity Represented	Parameters
Y2	393X	Musical Instruments	
Y2	394X	Dolls, Toys, Games, and Sporting and Athletic Goods	
Y2	395X	Pens, Pencils, and Other Artists' Materials	
Y2	396X	Costume Jewelry, Costume Novelties, Buttons, and Miscellaneous Notions, Except Precious Metal	
Y2	399X	Miscellaneous Manufacturing Industries	
SECTOR Z. LEATHER TANNING AND FINISHING			
NA	311X	Leather Tanning and Finishing	
NA	NA	Facilities that Make Fertilizer Solely From Leather Scraps and Leather Dust	
SECTOR AA. FABRICATED METAL PRODUCTS			
AA1	3429	Hardware, Not Elsewhere Classified	**Zn;N+N;Fe;Al**
AA1	3441	Fabricated Structural Metal	**Zn;N+N;Fe;Al**
AA1	3442	Metal Doors, Sash, Frames, Molding, and Trim	**Zn;N+N;Fe;Al**
AA1	3443	Fabricated Plate Work (Boiler Shops)	**Zn;N+N;Fe;Al**
AA1	3444	Sheet Metal Work	**Zn;N+N;Fe;Al**
AA1	3451	Screw Machine Products	**Zn;N+N;Fe;Al**
AA1	3452	Bolts, Nuts, Screws, Rivets, and Washers	**Zn;N+N;Fe;Al**
AA1	3462	Iron and Steel Forgings	**Zn;N+N;Fe;Al**
AA1	3471	Electroplating, Plating, Polishing, Anodizing, and Coloring	**Zn;N+N;Fe;Al**
AA1	3494	Valves and Pipe Fittings, Not Elsewhere Classified	**Zn;N+N;Fe;Al**
AA1	3496	Miscellaneous Fabricated Wire Products	**Zn;N+N;Fe;Al**
AA1	3499	Fabricated Metal Products, Not Elsewhere Classified	**Zn;N+N;Fe;Al**
AA1	391X	Jewelry, Silverware, and Plated Ware	**Zn;N+N;Fe;Al**
AA2	3479	Coating, Engraving, and Allied Services	**Zn;N+N**
SECTOR AB. TRANSPORTATION EQUIPMENT, INDUSTRIAL OR COMMERCIAL MACHINERY			
NA	35XX	Industrial and Commercial Machinery (except 357X Computer and Office Equipment)	
NA	37XX	Transportation Equipment (except 373X Ship and Boat Building and Repairing	
SECTOR AC. ELECTRONIC, ELECTRICAL. PHOTOGRAPHIC, AND OPTICAL GOODS			
NA	36XX	Electronic and Other Electrical Equipment and Components, Except Computer Equipment	
NA	38XX	Measuring, Analyzing, and Controlling Instruments; Photographic, Medical, and Optical Goods; Watches and Clocks	
NA	357X	Computer and Office Equipment	

Section C: STANDARD PROVISIONS

1. Duty to Comply

The facility operator must comply with all of the conditions of this General Permit. Any General Permit noncompliance constitutes a violation of the Clean Water Act (CWA) and the Porter-Cologne Water Quality Control Act and is grounds for (a) enforcement action for (b) General Permit termination, revocation and reissuance, or modification or (c) denial of a General Permit renewal application.

The facility operator shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this General Permit has not yet been modified to incorporate the requirement.

2. General Permit Actions

This General Permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the facility operator for a General Permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any General Permit condition.

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the CWA for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this General Permit, this General Permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition, and the facility operator so notified.

3. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a facility operator in an enforcement action that it would have been necessary to halt or reduce the general permitted activity in order to maintain compliance with the conditions of this General Permit.

4. Duty to Mitigate

The facility operator shall take all responsible steps to minimize or prevent any discharge in violation of this General Permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. Proper Operation and Maintenance

The facility operator at all times shall properly operate and maintain any facilities and systems of treatment and control (and related appurtenances) which are installed or used by the facility operator to achieve compliance with the conditions of this General Permit and with the requirements of storm water pollution prevention plans (SWPPPs). Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. Proper operation and maintenance may require the operation of backup or auxiliary facilities or similar systems installed by a facility operator when necessary to achieve compliance with the conditions of this General Permit.

6. Property Rights

This General Permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

7. Duty to Provide Information

The facility operator shall furnish the Regional Water Quality Control Board (Regional Water Board), State Water Resources Control Board (State Water Board), U.S. Environmental Protection Agency (U.S. EPA), or local storm water management agency, within a reasonable time specified by the agencies, any requested information to determine compliance with this General Permit. The facility operator shall also furnish, upon request, copies of records required to be kept by this General Permit.

8. Inspection and Entry

The facility operator shall allow the Regional Water Board, State Water Board, U.S. EPA, and local storm water management agency, upon the presentation of credentials and other documents as may be required by law, to:

a. Enter upon the facility operator's premises where a regulated facility or activity is located or conducted or where records must be kept under the conditions of this General Permit;

b. Have access to and copy at reasonable times any records that must be kept under the conditions of this General Permit;

c. Inspect at reasonable times any facilities or equipment (including monitoring and control equipment) that are related to or may impact storm water discharge or authorized non-storm water discharge; and

d. Conduct monitoring activities at reasonable times for the purpose of ensuring General Permit compliance.

9. Signatory Requirements

a. All Notices of Intent (NOIs) submitted to the State Water Board shall be signed as follows:

(1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or (b) the manager of the facility if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency: by either a principal executive officer or ranking elected official. The principal executive officer of a Federal agency includes the chief executive officer of the agency or the senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA).

b. All reports, certifications, or other information required by the General Permit or requested by the Regional Water Board, State Water Board, U.S. EPA, or local storm water management agency shall be signed by a person described above or by a duly authorized representative. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above and retained as part of the SWPPP.

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of manager, operator, superintendent, or position of equivalent responsibility or an individual or position having overall responsibility for named position.)

(3) If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be attached to the SWPPP prior to submittal of any reports, certifications, or information signed by the authorized representative.

10. Certification

Any person signing documents under Provision 9. above shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. Reporting Requirements

a. Planned changes: The facility operator shall give advance notice to the Regional Water Board and local storm water management agency of any planned physical alteration or additions to the general permitted facility. Notice is required under this provision only when the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged.

b. Anticipated noncompliance: The facility operator will give advance notice to the Regional Water Board and local storm water management agency of any planned changes at the permitted facility which may result in noncompliance with General Permit requirements.

c. Compliance schedules: Reports of compliance or noncompliance with or any progress reports on interim and final requirements contained in any compliance schedule of this General Permit shall be submitted no later than 14 days following each scheduled date.

d. Noncompliance reporting: The facility operator shall report any noncompliance at the time monitoring reports are submitted. The written submission shall contain (1) a description of the noncompliance and its cause; (2) the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and (3) steps taken or planned to reduce and prevent recurrence of the noncompliance.

12. Oil and Hazardous Substance Liability

Nothing in this General Permit shall be construed to preclude the institution of any legal action or relieve the facility operator from any responsibilities, liabilities, or penalties to which the facility operator is or may be subject under Section 311 of the CWA.

13. Severability

The provisions of this General Permit are severable; and if any provision of this General Permit or the application of any provision of this General Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this General Permit shall not be affected thereby.

14. Reopener Clause

This General Permit may be modified, revoked, and reissued, or terminated for cause due to promulgation of amended regulations, receipt of U.S. EPA guidance concerning regulated activities, judicial decision, or in accordance with 40 CFR 122.62, 122.63, 122.64, and 124.5. This General Permit may be reopened to modify the provisions regarding authorized non-storm water discharges specified in Section D. Special Conditions.

15. Penalties for Violations of General Permit Conditions.

a. Section 309 of the CWA provides significant penalties for any person who violates a General Permit condition

implementing Sections 301, 302, 306, 307 308, 318, or 405 of the CWA, or any General Permit condition or limitation implementing any such section in a General Permit issued under Section 402. Any person who violates any General Permit condition of this General Permit is subject to a civil penalty not to exceed $25,000 per day of such violation, as well as any other appropriate sanction provided by Section 309 of the CWA.

b. The Porter-Cologne Water Quality Control Act also provides for civil and criminal penalties in some cases greater than those under the CWA.

16. Availability

A copy of this General Permit shall be maintained at the facility and be available at all times to the appropriate facility personnel and to Regional Water Board and local agency inspectors.

17. Transfers

This General Permit is not transferable from one facility operator to another facility operator nor may it be transferred from one location to another location. A new facility operator of an existing facility must submit an NOI in accordance with the requirements of this General Permit to be authorized to discharge under this General Permit.

18. Continuation of Expired General Permit

This General Permit continues in force and effect until a new general permit is issued or the State Water Board rescinds the General Permit. Facility operators authorized to discharge under the expiring general permit are required to file an NOI to be covered by the reissued General Permit.

19. Penalties for Falsification of Reports

Section 309(c)(4) of the CWA provides that any person who knowingly makes any false material statement, representation, or certification in any record or other document submitted or required to be maintained under this General Permit, including reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 or by imprisonment for not more than two years, or by both.

FACILITIES COVERED BY THIS GENERAL PERMIT

Industrial facilities include Federal, State, municipally owned, and private facilities from the following categories:

1. FACILITIES SUBJECT TO STORM WATER EFFLUENT LIMITATIONS GUIDELINES, NEW SOURCE PERFORMANCE STANDARDS, OR TOXIC POLLUTANT EFFLUENT STANDARDS (40 Code of Federal Regulations (CFR) SUBCHAPTER N). Currently, categories of facilities subject to storm water effluent limitations guidelines are Cement Manufacturing (40 CFR Part 411), Feedlots (40 CFR Part 412), Fertilizer Manufacturing (40 CFR Part 418), Petroleum Refining (40 CFR Part 419), Phosphate Manufacturing (40 CFR Part 422), Steam Electric (40 CFR Part 423), Coal Mining (40 CFR Part 434), Mineral Mining and Processing (40 CFR Part 436), Ore Mining and Dressing (40 CFR Part 440), and Asphalt Emulsion (40 CFR Part 443).

2. MANUFACTURING FACILITIES: Standard Industrial Classifications (SICs) 24 (except 2434), 26 (except 265 and 267), 28 (except 283 and 285) 29, 311, 32 (except 323), 33, 3441, and 373.

3. OIL AND GAS/MINING FACILITIES: SICs 10 through 14 including active or inactive mining operations (except for areas of coal mining operations meeting the definition of a reclamation area under 40 CFR 434.11(l) because of performance bond issued to the facility by the appropriate Surface Mining Control and Reclamation Act (SMCRA) authority has been released, or except for area of non-coal mining operations which have been released from applicable State or Federal reclamation requirements after December 17, 1990); oil and gas exploration, production, processing, or treatment operations; or transmission facilities that discharge storm water contaminated by contact with or that has come into contact with any overburden, raw material, intermediate products, finished products, by-products, or waste products located on the site of such operations. Inactive mining operations are mined sites that are not being actively mined but which have an identifiable facility operator. Inactive mining sites do not include sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined material; or sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim.

4. HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES: Includes those operating under interim status or a general permit under Subtitle C of the Federal Resource, Conservation, and Recovery Act (RCRA).

5. LANDFILLS, LAND APPLICATION SITES, AND OPEN DUMPS: Sites that receive or have received industrial waste from any of

the facilities covered by this General Permit, sites subject to regulation under Subtitle D of RCRA, and sites that have accepted wastes from construction activities (construction activities include any clearing, grading, or excavation that results in disturbance of five acres or more).

6. RECYCLING FACILITIES: SICs 5015 and 5093. These codes include metal scrapyards, battery reclaimers, salvage yards, motor vehicle dismantlers and wreckers, and recycling facilities that are engaged in assembling, breaking up, sorting, and wholesale distribution of scrap and waste material such as bottles, wastepaper, textile wastes, oil waste, etc.

7. STEAM ELECTRIC POWER GENERATING FACILITIES: Includes any facility that generates steam for electric power through the combustion of coal, oil, wood, etc.

8. TRANSPORTATION FACILITIES: SICs 40, 41, 42 (except 4221-25), 43, 44, 45, and 5171 which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication) or other operations identified herein that are associated with industrial activity.

9. SEWAGE OR WASTEWATER TREATMENT WORKS: Facilities used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated to the disposal of sewage sludge that are located within the confines of the facility with a design flow of one million gallons per day or more or required to have an approved pretreatment program under 40 CFR Part 403. Not included are farm lands, domestic gardens, or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with Section 405 of the Clean Water Act.

10. MANUFACTURING FACILITIES WHERE INDUSTRIAL MATERIALS, EQUIPMENT, OR ACTIVITIES ARE <u>EXPOSED</u> TO STORM WATER: SICs 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 285, 30, 31 (except 311), 323, 34 (except 3441), 35, 36, 37 (except 373), 38, 39, and 4221-4225.

STORM WATER CONTACTS FOR THE STATE AND REGIONAL WATER BOARDS

See Storm Water Contacts at:
http://www.waterboards.ca.gov/stormwtr/contact.html

NOTICE OF INTENT (NOI) INSTRUCTIONS

TO COMPLY WITH STATE WATER RESOURCES CONTROL BOARD WATER QUALITY ORDER NO. 97-03-DWQ NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT NO. CAS000001

Who Must Submit

The facility operator must submit an NOI for each industrial facility that is required by U.S. Environmental Protection Agency (U.S.EPA) regulations to obtain a storm water permit. The required industrial facilities are listed in Attachment 1 of the General Permit and are also listed in 40 Code of Federal Regulations Section 122.26(b)(14).

The facility operator is typically the owner of the business or operation where the industrial activities requiring a storm water permit occur. The facility operator is responsible for all permit related activities at the facility.

Where operations have discontinued and significant materials remain on site (such as at closed landfills), the landowner may be responsible for filing an NOI and complying with this General Permit. Landowners may also file an NOI for a facility if the landowner, rather than the facility operator, is responsible for compliance with this General Permit.

How and Where to Apply

The completed NOI form, a site map, and appropriate fee must be mailed to the State Water Resources Control Board (State Water Board) at the following address:

State Water Resources Control Board
Division of Water Quality
P.O. Box 1977
Sacramento, CA 95812-1977
Attn: Storm Water Permitting Unit

Please Note: Do not send the original or copies of the NOI submittal to the Regional Water Quality Control Board (Regional Water Board). The original NOI will be forwarded to the Regional Water Board after processing.

Do not send a copy of your Storm Water Pollution Prevention Plan (SWPPP) with your NOI submittal. Your SWPPP is to be kept on site and made available for review upon request.

When to Apply

Facility operators of existing facilities must file an NOI in accordance with these instructions by March 30, 1992. Facility

operators of new facilities (those beginning operations after March 30, 1992) must file an NOI in accordance with these instructions at least 14 days prior to the beginning of operations.

Once the completed NOI, site map, and appropriate fee have been submitted to the State Water Board, your NOI will be processed and you will be issued a receipt letter with a Waste Discharge Identification (WDID) Number. Please refer to this number when you contact either the State or Regional Water Boards.

Fees

The total annual fee is $830. Checks should be made payable to: SWRCB

Change of Information

If the information provided on the NOI or site map changes, you should report the changes to the State Water Board using an NOI form. Section I of the line-by-line instructions includes information regarding changes to the NOI.

Questions

If you have any questions completing the NOI, please call the appropriate Regional Water Board (Attachment 2) or the State Water Board at (916) 341-5538.

NOI LINE-BY-LINE INSTRUCTIONS

Please type or print your responses on the NOI. Please complete the NOI form in its entirety and sign the certification.

Section I--NOI STATUS

Check box "A" if this is a new NOI registration.

Check box "B" if you are reporting changes to the NOI (e.g., new contact person, phone number, mailing address). Include the facility WDID #. Highlight all the information that has been changed.

Please note that a change of information **does not** apply to a change of facility operator or a change in the location of the facility. These changes require a Notice of Termination (NOT) and submittal of a new NOI and annual fee. Contact the State Water Board or Regional Water Boards for more information on the NOT Form and instructions.

Regardless of whether you are submitting a new or revised NOI, you must complete the NOI in its entirety and the NOI must be signed.

Section II--Facility Operator Information

Part A: The facility operator is the legal entity that is responsible for all permit related compliance activities at the facility. In most cases, the facility operator is the owner of the business or operation where the industrial activity occurs. Give the legal name and the address of the person, firm, public organization, or any other entity that is responsible for complying with the General Permit.

Part B: Check the box that indicates the type of operation.

Section III--Facility Site Information

Part A: Enter the facility's official or legal name and provide the address. Facilities that do not have a street address must provide cross-streets or parcel numbers. Do not include a P.O. Box address in Part A.

Part B: Enter the mailing address of the facility if different than Part A. This address may be a P.O. Box.

The contact person should be the plant or site manager who is familiar with the facility and responsible for overseeing compliance of the General Permit requirements.

Part C: Enter the total size of the facility in either acres or square feet. Also include the percentage of the site that is impervious (areas that water cannot soak into the ground, such as concrete, asphalt, and rooftops).

Part D: Determine the Standard Industrial Classification (SIC) code which best identifies the industrial activity that is taking place at the facility. This information can be obtained by referring to the Standard Industrial Classification Manual prepared by the Federal Office of Management and Budget which is available at public libraries. The code you determine should identify the industrial activity that requires you to submit the NOI. (For example, if the business is high school education and the activity is school bus maintenance, the code you choose would be bus maintenance, not education.) Most facilities have only one code; however, additional spaces are provided for those facilities that have more than one activity.

Part E: Identify the title of the industrial activity that requires you to submit the NOI (e.g., the title of SIC Code 2421 is Sawmills and Planing Mills, General). If you cannot identify the title, provide a description of the regulated activity(s).

Section IV--Address for Correspondence

Correspondence relative to the permit will be mailed occasionally. Check the box which indicates where you would like such correspondence delivered. If you want correspondence sent to another contact person or address different than indicated in Section II or Section III then include the information on an extra sheet of paper.

Section V--Billing Address Information

To continue coverage under the General Permit, the annual fee must be paid. Use this section to indicate where the annual fee invoices should be mailed. Enter the billing address if different than the address given in Sections II or III.

Section VI--Receiving Water Information

Provide the name of the receiving water where storm water discharge flows from your facility. A description of each option is included below.

1. Directly to waters of the United States: Storm water discharges directly from the facility to a river, creek, lake, ocean, etc. Enter the name of the receiving water (e.g., Boulder Creek).

2. Indirectly to waters of the United States: Storm water discharges over adjacent properties or right-of-ways prior to discharging to waters of the United States. Enter the name of the closest receiving water (e.g., Clear Creek).

Section VII--Implementation of Permit Requirements

Parts A and B:	Check the boxes that best describe the status of the Storm Water Pollution Prevention Plan (SWPPP) and the Monitoring Program.
Part C:	Check yes or no to questions 1 through 4. If you answer no to any question, you need to assign a person to these tasks immediately.

As a permit holder you are required to have an SWPPP and Monitoring Program in place prior to the beginning of facility operations. Failure to do so is in direct violation of the General Permit. Do not send a copy of your SWPPP with your NOI submittal.

Please refer to Sections A and B of the General Permit for additional information regarding the SWPPP and Monitoring Program.

Section VIII--Site Map

Provide a "to scale" drawing of the facility and its immediate surroundings. Include as much detail about the site as possible. At a minimum, indicate buildings, material handling and storage areas, roads, names of adjacent streets, storm water discharge points, sample collection points, and a north arrow. Whenever

possible limit the map to a standard size sheet of paper (8.5" x 11" or 11" x 17"). **Do not send blueprints** unless you are sending one page and it meets the size limits as defined above.

A location map may also be included, especially in cases where the facility is difficult to find, but are not to be submitted as a substitute for the site map. The location map can be created from local street maps and U.S. Geological Survey (USGS) quadrangle maps, etc.

A revised site map must be submitted whenever there is a significant change in the facility layout (e.g., new building, change in storage locations, boundary change, etc.).

Section IX--Certification

This section should be read by the facility operator. The certification provides assurances that the NOI and site map were completed by the facility operator in an accurate and complete fashion and with the knowledge that penalties exist for providing false information. It also requires the Responsible Party to certify that the provisions in the General Permit will be complied with.

The NOI must be signed by:

For a Corporation: a responsible corporate officer (or authorized individual).

For a Partnership or Sole Proprietorship: a general partner or the proprietor, respectively.

For a Municipality, State, or other non-Federal Public Agency: either a principal executive officer or ranking elected official.

For a Federal Agency: either the chief or senior executive officer of the agency.

State of California
State Water Resources Control Board

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF THE
GENERAL PERMIT TO DISCHARGE STORM WATER
ASSOCIATED WITH **INDUSTRIAL ACTIVITY** (WQ ORDER No. 97-03-DWQ)
(*Excluding Construction Activities*)

SECTION I. NOI STATUS (please check only one box)

A. [ ] New Permittee B. [ ] Change of Information WDID # |_|_|_|_|_|_|_|_|_|_|_|_|

SECTION II. FACILITY OPERATOR INFORMATION (See instructions)

A. NAME: Phone: ___-___-____

Mailing Address:

City: State: Zip Code: -

Contact Person:

B. OPERATOR TYPE:
(*check one*) 1.[ ] Private 2.[ ]City 3.[ ]County 4.[ ]State 5.[ ]Federal 6.[ ]Special District 7.[ ]Gov. Combo

SECTION III. FACILITY SITE INFORMATION

A. FACILITY NAME Phone: ___-___-____

Facility Location: County:

City: State: CIA Zip Code: -

B. MAILING ADDRESS:

City: State: Zip Code: -

Contact Person:

C. FACILITY INFORMATION (check one)
Total Size of Site: _____ Acres [ ] Sq. Ft. [ ]

Percent of Site Impervious (*including rooftops*) _____ %

D. SIC CODE(S) OF REGULATED ACTIVITY:

1. ____

2. ____

3. ____

E. REGULATED ACTIVITY (*describe each SIC code*):

FOR STATE USE ONLY:

SECTION IV. ADDRESS FOR CORRESPONDENCE

I_I Facility Operator Mailing Address (Section II)   I_I Facility Mailing Address (Section III, B.)   I_I Both

SECTION V. BILLING ADDRESS INFORMATION

SEND BILL TO: [ ]Facility Operator Mailing Address (Section II) [ ]Facility Mailing Address (Section III, B.) [ ]Other (*enter information below*)

Name:

Phone: I_I_I_I–I_I_I_I–I_I_I_I_I

Mailing Address:

City:

State: _I_

Zip Code: I_I_I_I_I_I–I_I_I_I_I

Contact Person:

SECTION VI. RECEIVING WATER INFORMATION

Your facility's storm water discharges flow: (*check one*) [ ] Directly OR [ ] Indirectly to waters of the United States.

Name of receiving water: ______________________________
(river, lake, stream, ocean, etc.)

SECTION VII. IMPLEMENTATION OF PERMIT REQUIREMENTS

A. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) (*check one*)
[ ] A SWPPP has been prepared for this facility and is available for review.
[ ] A SWPPP will be prepared and ready for review by (enter date): ____/____/____.

B. MONITORING PROGRAM (check one)
[ ] A Monitoring Program has been prepared for this facility and is available for review.
[ ] A Monitoring Program will be prepared and ready for review by (enter date): ____/____/____.

C. PERMIT COMPLIANCE RESPONSIBILITY
Has a person been assigned responsibility for:
1. Inspecting the facility throughout the year to identify any potential pollution problems? .... ____YES ____NO
2. Collecting storm water samples and having them analyzed? .... ____YES ____NO
3. Preparing and submitting an annual report by July 1 of each year? .... ____YES ____NO
4. Eliminating discharges other than storm water (*such as equipment or vehicle wash-water*) into the storm drain? .... ____YES ____NO

For State Use only. ______________ ______________

SECTION VIII. SITE MAP

I HAVE ENCLOSED A SITE MAP YES[ ] A new NOI submitted without a site map will be rejected.

SECTION IX. CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. In addition, I certify that the provisions of the permit, including the development and implementation of a Storm Water Pollution Prevention Plan and a Monitoring Program Plan, will be complied with."

Printed Name: ______________________________

Signature: ______________________________ Date ______________

Title: ______________________________

DEFINITIONS

1. "Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment measures, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may include any type of pollution prevention and pollution control measure necessary to achieve compliance with this General Permit.

2. Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted by Public Law 92-500 as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; 33 USC. 1251 et seq.

3. "Facility" is a collection of industrial processes discharging storm water associated with industrial activity within the property boundary or operational unit.

4. "Non-Storm Water Discharge" means any discharge to storm sewer systems that is not composed entirely of storm water.

5. "Significant Materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of Comprehensive Environmental Response, Compensation, and Liability Act (CERLCA); any chemical the facility is required to report pursuant to Section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA); fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

6. "Significant Quantities" is the volume, concentrations, or mass of a pollutant that can cause or threaten to cause pollution, contamination, or nuisance; adversely impact human health or the environment; and/or cause or contribute to a violation of any applicable water quality standards for the receiving water.

7. "Significant Spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the CWA (see 40 CFR 110.10 and 117.21) or Section 102 of CERCLA (see 40 CFR 302.4).

8. "Storm water" means storm water runoff, snow melt runoff, and storm water surface runoff and drainage. It excludes infiltration and runoff from agricultural land.

9. "Storm Water Associated with Industrial Activity" means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NPDES program. For the facilities identified in Categories 1 through 9 of Attachment 1 of this General Permit, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials; manufactured products, waste material, or by-products used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process wastewaters (as defined at 40 CFR Part 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water.

   For the facilities identified in Category 10 of Attachment 1 of this General Permit, the term only includes storm water discharges from all areas listed in the previous sentence where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products, or industrial machinery <u>are exposed to storm water</u>.

   Material handling activities include the: storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, by-product, or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are federally, State, or municipally owned or operated that meet the description of the facilities listed in this paragraph) include those facilities designated under 40 CFR 122.26(a)(1)(v).

ACRONYM LIST

BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BMPs	Best Management Practices
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Federal Superfund)
CFR	Code of Federal Regulations
CWA	Clean Water Act
General Permit	General Industrial Activities Storm Water Permit
GMP	Group Monitoring Plan
NEC	No Exposure Certification
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
O&G	Oil and Grease
RCRA	Resource, Conservation, and Recovery Act
Regional Water Board	Regional Water Quality Control Board
RQ	Reportable Quantity
SARA	Superfund Amendments and Reauthorization Act of 1986
SIC	Standard Industrial Classification
SMCRA	Surface Mining Control and Reclamation Act
SPCC	Spill Prevention Control and Countermeasures
State Water Board	State Water Resources Control Board
SWPPP	Storm Water Pollution Prevention Plan
TOC	Total Organic Carbon
TSS	Total Suspended Solids
U.S. EPA	U.S. Environmental Protection Agency
WDID	Waste Discharger Identification
WDRs	Waste Discharge Requirements

Appendix B

STORM WATER AND NON-STORM WATER DISCHARGE MONITORING PLAN

Prepared for:

Lehigh Southwest Cement Company

Prepared by:

URS Corporation
1333 Broadway, Suite 800
Oakland, California 94612

June 2009

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1.0 INTRODUCTION

This document provides a storm water monitoring plan and detailed instructions for use by Lehigh Southwest Cement Company (Lehigh). Lehigh personnel to complete the monitoring and sampling required under the Industrial Activities Storm Water Permit (State Water Resources Control Board Water Quality Order No. 97-03-DWQ; NPDES General Permit No. CAS000001) for discharge of storm water (Sections 2.0 through 6.0). The samples collected under this plan will be used to refine the subareas (and the sources) that are the largest contributors of storm water runoff and sediment to Permanente Creek. In addition, past analytical data from the Lehigh facility has refined the sampling protocol, allowing for additions and exclusions from future sampling events. In general, these changes occur when: (1) sampling data have indicated a monitoring location has met acceptable water quality objectives for total suspended solids (TSS), oil and grease, chemical oxygen demand (COD) and pH for two consecutive years, (2) no samples have been collected at a location due to lack of visible flow for two consecutive years, (3) a new proposed sample location meets the same objectives, (4) a new sediment source has been determined, or (5) access to an existing monitoring location in inclement weather is determined to be unsafe. These changes are noted within this report.

The non-storm water discharge visual monitoring program is described in Section 7.0. The monitoring plan is intended to be implemented by Lehigh personnel on a quarterly schedule as specified in the Industrial Activities Storm Water Permit for non-storm water discharges.

2.0 STORM WATER SAMPLING DESIGN

The Storm Water Monitoring Plan included monitoring at 33 locations. The rationale for the 33 sample locations are provided on Table 1. In addition to the 33 samples, three field duplicates were collected from three of the monitoring locations for each rain event for a total of 36 samples.

No modifications to the existing Storm Water Monitoring Plan were implemented during the 2008/2009 sampling program. The total number of sampling locations proposed for the 2008/2009 sampling program were 33, with an additional three duplicate samples collected from three of the sampling locations. Changes to the Storm Water Monitoring Plan are based primarily on visual observations, sample location accessibility, and safety issues identified during the sampling or the result of facility improvements that have occurred within the past year.

Table 1 outlines the proposed sampling locations for the sampling program. The table also provides a correlation between the sampling locations and a particular source area, as well as the purpose for sampling at each location.

3.0 STORM WATER SAMPLING

The General Permit for industrial storm water discharges, in general, requires that non-storm water discharges to storm water systems be eliminated, a storm water pollution prevention plan (SWPPP) be developed and implemented, and storm water systems be monitored. The purpose of this sampling plan is to address these storm water monitoring requirements. The overall objectives of the storm water monitoring are to ensure compliance with the General Permit for industrial discharges, to evaluate the pollution control practices in place, to assist in implementing the SWPPP, to evaluate sediment contribution from potential sources, and to measure the effectiveness of the best management practices.

All industrial facility operators are required to:

1. Perform visual observations of storm water discharges and authorized storm water discharges.

2. Collect and analyze samples of storm water discharges. Analysis must include pH, total suspended solids (TSS), total organic carbon (TOC), specific conductance (SC), toxic chemicals, and other pollutants that are likely to be present in storm water discharges in significant quantities, and those parameters listed in Table D of the General Permit. TOC analysis may be substituted by oil and grease.

Table D of the General Permit lists additional analytical parameters required for specific industry types. Lehigh Southwest Cement Company is categorized as Sector E 3241, Hydraulic Cement, Industry. There are no additional parameters required for this industry type.

Due to consistently low dissolved and total copper concentrations detected up to, and including, the 1998/1999 wet season, copper was removed from the Storm Water Monitoring Plan starting in 1999/2000. The 2008/2009 sampling plan also excluded copper analysis of the storm water samples. Constituents to be analyzed will be TSS, oil and grease, pH, temperature, SC, and flow. Although chemical oxygen demand (COD) is not a required analytical parameter under the General Permit, Lehigh has analyzed the storm water samples for COD in the past and will continue to do so in the future.

The General Permit requires that each industrial facility collect storm water samples during the first hour of discharge from:

1. The first storm event of the wet season, and
2. At least one other storm event in the wet season.

Sample collection is only required of storm water discharges that occur during scheduled facility operating hours and that are preceded by at least three (3) working days without storm water discharge. The General Industrial Permit states that an industrial facility may conduct visual observations and sample collection more than one hour after discharge begins if the

facility operator determines that the objectives of the storm water sampling requirements will be better satisfied. Since the constituent of concern at Lehigh Southwest Cement Company is TSS, sampling after the first hour of the discharge would be more representative of long-term (greater than one hour) storm event effects.

A storm event needs to produce significant storm water drainage at the site in order for samples to be collected. Federal guidelines define a qualified storm event as one in which rainfall is greater than 0.1 inches and occurs at least 72 hours after the previous qualified storm. The storm duration and total rainfall should be within $\pm$ 50% of the average storm rainfall for the area.

3.1 Prior to Sample Collection

Upon arrival at each sampling location, the sampler should record in a log book basic information such as station ID, sample ID, time, date, current weather conditions, the estimated flow at the sampling location, the duration of rain at time of sampling, and the duration of storm water discharge at that station, if known (see Form 1 for a sample log book). Each sample bottle should be labeled with the date, time, analysis to be performed, preservative used, if any, sampler initials, and sample ID (i.e., at one sample location, three sample bottles would be labeled with the same sample number, but with three different specified analyses).

Once the discharge at each location is determined to be significant, sample collection at each of the storm water monitoring locations will commence. Samples will be collected first from sampling locations at the upper end of the watershed to ensure that access is available to those locations.

3.2 Sample Collection

Samples will be collected in clean bottles provided by the laboratory. Sample bottles will contain the appropriate preservative when delivered by the laboratory. Table 2 provides a description of the size and type of bottles to be used for sampling. Stream samples will be collected from mid-depth of the stream. Where necessary, a bailer with a sample collection scoop will be used to assist in sample collection. Filled sample containers will be placed on ice in laboratory-supplied ice chests. Each sample will be field-measured for temperature, pH, and conductivity.

Field duplicate samples at three pre-selected sampling locations (Pond 14, Pond 21, and Pond 22 effluents) will also be collected. This means that at three locations, two bottles will be collected for oil and grease analysis, two for COD analysis, and two for total suspended solids, pH, and conductivity.

4.0 PREPARATION FOR ANALYSIS

Each sample will be analyzed by a state-certified analytical laboratory for pH, SC, TSS, oil and grease, and COD. Measurement of temperature, pH, and conductivity will also be made by the sampler using portable field equipment.

5.0 QUALITY ASSURANCE/QUALITY CONTROL

The General Permit requires the QA/QC results be collected as part of the records that must be maintained at the Lehigh facility. QA/QC measures are used to ensure that data produced are accurate, precise, at the required level of quality, and that they can be used for their intended purpose (i.e., to support the General Permit and the SWPPP). Quality assurance measures are guidelines and procedures to assure data quality during gathering, analysis, and reporting. Quality control checks, including the use of blanks, duplicates, and other samples are then used to assess the overall analytical system and evaluate performance. Laboratory and field QC samples are used to characterize and quantify data quality. Precision of data characterizes reproducibility or uncertainty of repetitive measurements and is calculated using field and laboratory duplicate samples. Accuracy is the measure of correctness or how close the reported result is to a known value, and is measured using a sample spiked with a known amount of an analyte.

The QA/QC for this storm water sampling plan consists of pre-planning the sampling procedure, primarily through the use of this sampling plan, preparing and testing field equipment, and collecting three sets of duplicate field samples during each event. The data quality resulting from these activities will be sufficient to meet the sampling objectives for determining the subareas that contain the major sediment source areas.

6.0 EQUIPMENT

Both manual and automated equipment are available for measuring flow and for sample collection. Manual equipment is less expensive and can be carried from station to station. Automated equipment is expensive and must be installed at each location, but is useful for locations that become inaccessible during storm events. Table 3 is a checklist of equipment needed for each sampling event

7.0 NON-STORM WATER DISCHARGE VISUAL MONITORING

The non-storm water discharge visual monitoring program is intended to document existing authorized non-storm water discharges and its sources, and to inspect site drainage areas for the presence of unauthorized non-storm water discharges. Authorized non-storm water discharges are found near the base of the Rock Plant on the south side of Permanente Creek. The sources of non-storm water discharge are dust suppression water and wash down water as discussed in Section 3.2.2 of the SWPPP.

7.1 Visual Observations of Non-Storm Water Discharges

Quarterly observations of authorized non-storm water discharges shall occur during the period of: January through March, April through June, July through September, October through December with all observations occurring within 6 to 18 weeks of each other. All observation shall occur during daylight hours and during scheduled facility operating hours. The locations of the visual observations for non-storm water discharge visual observations are summarized on Table 4. Visual observations of authorized non-storm water discharges will be performed on Rock Plant Road, Lower Quarry Road, and the entrance/exit to the Rock Plant. Visual observations/inspection for unauthorized non-storm water discharges will be performed within the drainage areas.

Each observation shall document the presence of discolorations, stains, floating materials, etc. and the source of the discharge. Observations and inspection records will include observation dates, locations, description of observation, and response taken (if required) to eliminate the unauthorized non-storm water discharge and reduce or prevent pollutants from contacting authorized non-storm water discharges. Visual observation will be recorded on Forms 5A and 5B (Non-Storm Water Visual Monitoring Forms).

Table 1: 2008/2009 Sampling Locations

2008/2009 Sample ID:	Sampling Location:	Potential Source Area(s):	Sample Purpose/Objective:
SL-BG-CR	Upstream creek sample.	Sediments in creek before entering Quarry area of influence	Background sample to assess water quality entering the facility.
SL-1-CR	Creek sample – downstream of background sample	Sediments in creek south of Overburden Stockpile	Previously used as background sample to assess water quality entering the facility. Now serves to assess sediments entering the stream between SL-BG-CR and SL-1-CR
SL-2-RD	Upper Quarry Road before Pond 5	Runoff from Upper Quarry Road	Evaluate the sediment load in storm water runoff from Upper Quarry Road that is diverted into Pond 5 - the Quarry Settlement Pond.
SL-3A-RD	Inlet to Pond 5 from area north of pond	Runoff from area north of Pond 5	Evaluate the effectiveness of Pond 5 to reduce sediment load from area north of Pond 5.
SL-3-PD	Effluent from Pond 5 - the Quarry Settlement Pond	Runoff from Upper Quarry Road	Evaluate the effectiveness of Pond 5 to reduce sediment load from Upper Quarry Road.
SL-4-CR	Downstream of Overburden Stockpiles before concrete footing	Former Overburden Stockpiles	Evaluate the sediment contribution from natural erosion and the Overburden stockpiles prior to entering the operation portion of the property (Creek Sample).
SL-4A1-RD	Inlet to Pond 4A (east end)	Runoff from Upper/Middle Quarry Road	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road
SL-4A2-RD	Inlet to Pond 4A (west end)	Runoff from Upper/Middle Quarry Road	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road
SL-4A3-PD	Effluent from Pond 4A	Runoff from Upper/Middle Quarry Road	Evaluate the effectiveness of Pond 4A in removing sediment from the runoff from Upper/Middle Quarry Road
Discontinued (SL-4B1)	Inlet to Pond 4B	Runoff from Upper/Middle Quarry Road	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road
Discontinued (SL-4B2-PD)	Effluent from Pond 4B (sample labeled SL-5A for 11/29/01 event)	Runoff from Upper/Middle Quarry Road	Evaluate the effectiveness of Pond 4B in removing sediment from the runoff from Upper/Middle Quarry Road
Discontinued (SL-4C1)	Inlet to Pond 4C	Runoff from Upper/Middle Quarry Road	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road
Discontinued (SL-4C2-PD)	Effluent from Pond 4C	Runoff from Upper/Middle Quarry Road	Evaluate the effectiveness of Pond 4C in removing sediment from the runoff from Upper/Middle Quarry Road
SL-5-CR	Ore Feeder and the Primary Crusher	Upstream of runoff from the Primary Crusher	Determine the TSS in Permanente Creek before the runoff from the Ore Feeder and the Primary Crusher.
SL-5A-CR	Creek Sample – downstream of Ponds 4A & 4B	Natural Erosion and Runoff from Ponds 4 & 4A	Determine the TSS in Permanente Creek before the runoff after Ponds 4 and 4A
SL-6-RD	Quarry Pit	Upper Quarry Road	Evaluate the quarry pit water, which consists of both runoff into the quarry and the infiltration of groundwater
Discontinued (SL-7)	Middle/Upper Quarry Road after Pond 5	Runoff from Upper/Middle Quarry Road after Pond 5 before the Primary Crusher	Evaluate the sediment load from Upper Quarry Road after Pond 5 but before the Primary Crusher at the inlet to the overflow pipe.
Discontinued (SL-9)	Primary Crusher	Runoff from the Primary Crusher	Evaluate the sediment load in the runoff (if any) from the Primary Crusher.
Discontinued (SL-10)	Ore Feeder and the Primary Crusher	Downstream from the Primary Crusher before Quarry Pit discharge	Evaluate the potential increase in TSS from the overland flow from the Ore Feeder and the Primary Crusher (Creek Sample).
SL-11-CR	Inlet to Pond 13	Primary Crusher	Evaluate the effectiveness of Pond 13 at removing sediment from the storm water
SL-12-PD	Outlet of Pond 13	Primary Crusher	Evaluate the effectiveness of Pond 13 at removing sediment from the storm water
SL-13-PD	Inlet to Pond 13 from Pond 13B	Primary Crusher	Evaluate the effectiveness of Pre-Settlement Pond 13B at removing sediment from storm water
SL-13A-RD	Inlet to Pond 13A at Rock Plant 1	Primary Crusher	Evaluate the effectiveness of Pre-Settlement Pond 13A at removing sediment from storm water

PD = Sample collected from pond
CR = Sample collected from creek
RD = Sample collected from road runoff

Table 1: 2008/2009 Sampling Locations

2008/2009 Sample ID:	Sampling Location:	Potential Source Area(s):	Sample Purpose/Objective:
SL-13B-PD	Effluent from Pond 13A into Pond 13B	Primary Crusher	Evaluate the effectiveness of Pre-Settlement Pond 13A at removing sediment from storm water
SL-14-CR	Screen Tower Number 4 (under bridge)	Upstream of Screen Tower Number 4	Determine the TSS in the creek before Screen Tower Number 4 and the adjacent creek embankment (Creek Sample).
SL-15-CR	Creek embankment below Screen Tower 4	Downstream of Screen Tower Number 4	Determine the sediment contribution and potential increase from Screen Tower Number 4 and the creek embank runoff (Creek Sample).
SL-16A-RD	Inlet to Pond 9 (from culvert under Lower Quarry Road)	Runoff from Lower Quarry Road originating after the Primary Crusher	Evaluate the potential sediment load runoff from Lower Quarry Road originating after the Primary Crusher which is diverted into Pond 9.
SL-16B-RD	Inlet to Pond 9 (from eastern culvert from Middle Quarry Road)	Runoff from Middle Quarry Road originating after the Primary Crusher	Evaluate the potential sediment load runoff from Middle Quarry Road originating after the Primary Crusher which is diverted into Pond 9.
SL-17-PD	Effluent from Pond 9	Runoff from Lower Quarry Road originating after the Primary Crusher	Evaluate the effectiveness of Pond 9 in removing sediment from the runoff from Lower Quarry Road.
SL-18-RD	Lower Quarry Road	Runoff from Lower Quarry Road after the drop inlet to Pond 9	Evaluate the sediment load from Lower Quarry Road that is not captured by Pond 9 and the potential contribution of the sand pile flowing into Dinky Shed Basin.
SL-19-PD	Effluent from Dinky Shed Basin	Effluent from the new Dinky Shed Basin	Evaluate the effectiveness of the new treatment system at removing sediment from the runoff entering the Dinky Shed Basin from the Lower Quarry Road after Pond 9.
SL-20-RD	Inlet to Pond 17 at Rockplant 2	Screen Tower Number 4	Evaluate the effectiveness of Pond 17 at removing sediment from storm water
SL-21-PD	Outlet of Pond 17 at Rockplant 2 (from the last point near effluent pipe if no discharge)	Screen Tower Number 4	Evaluate the effectiveness of Pond 17 at removing sediment from storm water
SL-22A-CR	Downstream of Dinky Shed Basin. Upstream of hillside runoff (jar labeled P-14 for 11/19 storm, labeled P-16 for 4/17/00 storm)	Effluent from the Dinky Shed Basin	Evaluate the cleanout effectiveness of the new Dinky Shed Basin
SL-22B-CR	Downstream of Dinky Shed Basin and downstream of hillside runoff behind the shed. (jar labeled P-13 for 11/19 storm, labeled P-17 for 4/17/00 storm.)	Hillside runoff observed on 11/19/99	Evaluate the impact of hillside runoff if present
SL-23-CR	Creek Sample along Railroad tracks	KACC	Evaluate the impact of the cement plant and the former KACC property on the creek between Pond 9 and the rail road tracks
SL-24-PD	Outlet of Pond 21 along railroad tracks	KACC	Assess the quality of the creek downstream of Ponds 19, 20, and 21, as well as the impact of storm water from the former KACC property.
SL-D24-PD	Duplicate sample of Pond 21 effluent		QA/QC
SL-25-CR	Inlet to Pond 22	NA	Evaluate the efficiency of Pond 22 at reducing TSS concentrations.
SL-26-PD	Effluent of Pond 22 (sample bottle labeled SL-12 for 11/19/99 sampling event, labeled P-18 for 4/17/00 storm).	Treatment of all sources that originate either upstream or from the Hanson property	Determine the effectiveness of the in-stream ponds at reducing sediment load before leaving the Hanson property (Creek Sample).
SL-D26-PD	Duplicate sample of Pond 22 effluent		QA/QC
SL-27-PD	Effluent from Pond 14		Evaluate the effectiveness of Pond 14 at removing sediment from storm water.
SL-D27-PD	Duplicate sample of Pond 14 effluent		QA/QC

PD = Sample collected from pond
CR = Sample collected from creek
RD = Sample collected from road runoff

Table 2: Storm Water Sample Containers and Preservation

Method	Parameter	# of Samples / Event*	Container	Preservation	Holding Times
160.2	TSS	36	1-1 liter plastic	4°C	7 days
410.2	COD	36	1-250 ml plastic	H_2SO_4 to pH<2 4°C	28 days
413.2	Oil and Grease	36	1-1 liter amber glass	HCl to pH<2 4°C	28 days

* Includes Quality Control Samples

Table 3: Equipment Checklist

Manual or automated rain gauge
Log book
Watch
Velocity meter or installed flow meter
Pole with sample collection scoop (bailer)
Sample bottles
Labels
Gloves
Coolers
Ice
Chain-of-custody forms
Hard hat
Safety glasses
Safety goggles
Steel-toe boots
Rain gear
Ear Plugs

Table 4: 2008/2009 Non-Storm Water Discharge Visual Observation Locations

Observation Location	Discharge Source
AUTHORIZED NON-STORM WATER DISCHARGES	
Rock Plant Road Upstream of Pond 9	Dust Suppression Water Spray
Rock Plant Road between Pond 9 and the Dinky Shed Basin	Dust Suppression Water Spray
Lower Quarry Road above Cross Drains at Pond 9	Dust Suppression Water Spray
Lower Quarry Road below Cross Drains between Pond 9 and the Dinky Shed Basin	Dust Suppression Water Spray
Entrance/Exist Road to Rock Plant between the Rock Plant and the Cross Drains that Feed into Pond 17	Dust Suppression Water Spray
Entrance/Exist Road to Rock Plant between the Rock Plant and the Cross Drains that Feed into Pond 17 - Drain on South Side of Road	Wash-Down Water Spray
Entrance/Exist Road to Rock Plant between the Cross Drained and the Dinky Shed Basin	Dust Suppression Water Spray
UNAUTHORIZED NON-STORM WATER DISCHARGES	
Drainage Area A	Unknown
Drainage Area B	Unknown
Drainage Area C	Unknown
Drainage Area D	Unknown
Drainage Area E	Unknown
Drainage Area F	Unknown

Form 1: Sample Collection Form
Lehigh Southwest Cement Company
Cupertino, California

Location: _____ Date: _____

Initials: _____ Time: _____

Weather

Current: _____

Previous 24 Hours: _____

Observations (Clogged w/sediment, debris? Capacity exceeded? Water clarity)

Form 2: Sample Form for Storm Event Characterization
Lehigh Southwest Cement Company
Cupertino, California

Date: _____

Sampler: _____

Current Time: _____

Time Since Precipitation Began: _____

Time Since Last Storm Event: _____

Total Precipitation at Start of Sampling: _____

Total Storm Precipitation: _____

Total Duration of Storm Event: _____

Form 3: Example Field Data Sheet for Surface Water Sampling
Lehigh Southwest Cement Company
Cupertino, California

STORM WATER DISCHARGE SAMPLING FIELD DATA

Station Identification: _____ Project Name: _____

Location: _____ Project Number: _____

Date: _____ Time: _____ Photograph Roll: _____ Number: _____

Runoff or Creek Sample _____

Weather Conditions _____

Sampling Personnel (Initials) _____

_____

Field Measurements

Gage Height: _____ Substrate Level on Gage: _____ pH: _____

Water Temperature (°C): _____

SC@ Field Temperature: (microhos/cm): _____ Estimated Streamflow (cfs): _____

Comments: _____

_____

Water Quality Samples

Type of sample - (grab or composite)

Sample I.D.

	Tag Number	Date/Time	Station	Sample No.	Replicate	Filtered	Preservative	Analysis
1.								
2.								
3.								
4.								

Form 4: Example of Chain-of-Custody Form
Lehigh Southwest Cement Company
Cupertino, California

CHAIN-OF-CUSTODY RECORD

Project: _____ COC Form Number: _____

Sampler (Signature): _____

	Sample Tag	Sample No.	Date	Time	Matrix	Containers
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						
11.						
12.						
13.						
14.						
15.						
16.						
17.						
18.						
19.						
20.						

SAMPLE CUSTODY RECORDS
Every sample transfer must be signed by both parties involved.

Relinquished By	Received By	Date	Time

Form 5A: Authorized Non-Storm Water Discharge Visual Observation Report Form
Lehigh Southwest Cement Company
Cupertino, California

Date: _____

No. of Weeks Since Last Observation: _____

				Visual Observations						
Areas of Observation	**Time**	**Evidence of Discharge**	**Source of Discharge**	**Discoloration**	**Stains**	**Odors**	**Floating Materials**	**Other**	**Action(s) Taken**	**Staff Person Performing Inspection**
Rock Plant Road Location: Upstream of Pond 9			Dust Suppression Water Spray							
Rock Plant Road Location: Between Pond 9 and the Dinky Shed Basin			Dust Suppression Water Spray							
Lower Quarry Road Location: Above Cross Drains at Pond 9			Dust Suppression Water Spray							
Lower Quarry Road Location: Below Cross Drains between Pond 9 and Dinky Shed Basin			Dust Suppression Water Spray							
Entrance/Exist Road to Rock Plant Location: Between Rock Plant and Cross Drains that Feed into Pond 17			Dust Suppression Water Spray							
Entrance/Exist Road to Rock Plant Location: Between Rock Plant and Cross Drains that feed into Pond 17 (south side of road)			Wash-Down Water from Rock Plant							
Entrance/Exist Road to Rock Plant Location: Below Cross Drains to Dinky Shed Basin			Dust Suppression Water Spray							

1) Evidence of Discharge? Answer yes or no.
2) Visual Observations - Answer yes or no
3) Describe Discharge if Observed: _____

Form 5B: Unauthorized Non-Storm Water Discharge Visual Observation Report Form
Lehigh Southwest Cement Company
Cupertino, California

Date: _____

No. of Weeks Since Last Observation: _____

				Visual Observations						
Areas of Observation	**Time**	**Evidence of Discharge**	**Source of Discharge**	**Discoloration**	**Stains**	**Odors**	**Floating Materials**	**Other**	**Action(s) Taken**	**Staff Person Performing Inspection**
Drainage Area A Location of Observations:										
Drainage Area B Location of Observations:										
Drainage Area C Location of Observations:										
Drainage Area D Location of Observations:										
Drainage Area E Location of Observations:										
Drainage Area F Location of Observations:										

1) Evidence of Discharge? Answer yes or no.
2) Visual Observations - Answer yes or no
3) Describe Discharge if Observed: _____

Appendix C

Lehigh Southwest Cement Company
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To:

Date:

From:

Subject: Creek Inspections - Dry Season: (May 1, 2009 to September 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Lehigh Cement Company
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To:

Date: _____

From: _____

Subject: **Creek Inspections - Wet Season:** (October 1, 2009 to April 30, 2010)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge							
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Lehigh Cement Company
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To:

Date: _____

From: _____

Subject: Creek Inspections - Dry Season: (May 1, 2009 to September 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Lehigh Cement Company
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: **Date:**

From:

Subject: Creek Inspections - Wet Season: (October 1, 2009 to April 30, 2010)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Lehigh Southwest Cement Company
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Date:**

From:

Subject: Creek Inspections - Dry Season: (May 1, 2009 to September 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	NA		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	NA		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	NA		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Lehigh Cement Company
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To:

Date:

From:

Subject: Creek Inspections - Wet Season: (October 1, 2009 to April 30, 2010)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge							
2. Creek Below Screen Tower # 4							
3. Adjacent to Dinky Shed Pond							
1. Rock Plant Rd. at Full Culvert Discharge							
2. Creek Below Screen Tower # 4							
3. Adjacent to Dinky Shed Pond							
1. Rock Plant Rd. at Full Culvert Discharge							
2. Creek Below Screen Tower # 4							
3. Adjacent to Dinky Shed Pond							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Appendix D

APPENDIX D
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Attachment 1 Sample Results Summary
- Table D-1 2008/2009 Storm Water Sampling Plan
- Table D-2 2008/2009 Storm Water Sampling Results (NO RESULTS), Lehigh Cement Company
- Table D-3 Historic Storm Water Sampling Results for Total Suspended Solids, Lehigh Cement Company

Attachment 2 Storm Water Discharge Sampling Field Data
- Table D-4 Field Data for 2008/2009 Storm Water Sampling (No Results), Lehigh Cement Company

Attachment 3 Laboratory Analysis Results and Chains-of-Custody (No Samples)

Attachment 4 Quarry Staff: Dry and Wet Season Daily Inspection Forms

Attachment 5 Control Room Staff: Dry and Wet Season Daily Inspection Forms

Attachment 6 Rock Plant Staff: Dry and Wet Season Daily Inspection Forms

Attachment 7 Yard Staff: Dry and Wet Season Daily Inspection Forms

20 8 – 2009 Annual Report Review

SWARM Database

WDID: 243I006267

Report Received
Date Entered: 6 /30 /09 Initials: AL

Confirmation No: 142739

Data Entered
Date Entered: 8/17/09 Initials: AL

Comments: did not sample

State of California
STATE WATER RESOURCES CONTROL BOARD

CALIFORNIA REGIONAL WATER
JUN 30 2009
QUALITY CONTROL BOARD

2008-2009
ANNUAL REPORT
FOR
STORM WATER DISCHARGES ASSOCIATED
WITH INDUSTRIAL ACTIVITIES

Reporting Period July 1, 2008 through June 30, 2009

An annual report is required to be submitted to your local Regional Water Quality Control Board (Regional Board) by July 1 of each year. This document must be certified and signed, under penalty of perjury, by the appropriate official of your company. Many of the Annual Report questions require an explanation. Please provide explanations on a separate sheet as an attachment. **Retain a copy of the completed Annual Report for your records.**

Please circle or highlight any information contained in Items A, B, and C below that is new or revised so we can update our records. Please remember that a Notice of Termination and new Notice of Intent are required whenever a facility operation is relocated or changes ownership.

If you have any questions, please contact your Regional Board Industrial Storm Water Permit Contact. The names, telephone numbers and e-mail addresses of the Regional Board contacts, as well as the Regional Board office addresses can be found at http://www.waterboards.ca.gov/stormwtr/contact.html. To find your Regional Board information, match the first digit of your WDID number with the corresponding number that appears in parenthesis on the first line of each Regional Board office.

GENERAL INFORMATION:

A. Facility Information:

Facility WDID No: ***2435006267***

Facility Business Name: Lehigh Southwest Cement Company
Physical Address: 24001 Stevens Creek Blvd.
City: Cupertino
Standard Industrial Classification (SIC) Code(s): 3241

Contact Person: Scott Renfrew
e-mail: scott.renfrew@hanson.biz
CA Zip: 95014 Phone: 408 9964262

B. Facility Operator Information:

Operator Name: Lehigh Southwest Cement Company
Mailing Address: 24001 Stevens Creek Blvd.
City: Cupertino

Contact Person: Henrik Wesseling
e-mail: henrik.wesseling@hanson.biz
State: CA Zip: 95014 Phone: 408 996-4271

C. Facility Billing Information:

Operator Name: Lehigh Southwest Cement Company
Mailing Address: 24001 Stevens Creek Blvd.
City: Cupertino

Contact Person: Henrik Wesseling
e-mail: henrik.wesseling@hanson.biz
State: CA Zip: 95014 Phone: 408 996-4271

2008-2009

ANNUAL REPORT

SPECIFIC INFORMATION

MONITORING AND REPORTING PROGRAM

D. SAMPLING AND ANALYSIS EXEMPTIONS AND REDUCTIONS

1. For the reporting period, was your facility exempt from collecting and analyzing samples from **two** storm events in accordance with sections B.12 or 15 of the General Permit?

   ☐ **YES** Go to Item D.2 ☒ **NO** Go to Section E

2. Indicate the reason your facility is exempt from collecting and analyzing samples from **two** storm events. Attach a copy of the first page of the appropriate certification if you check boxes ii, iii, iv, or v.

   i. ☐ Participating in an Approved Group Monitoring Plan **Group Name:** _____

   ii. ☐ Submitted **No Exposure Certification (NEC)** Date Submitted: ___/___/___

   Re-evaluation Date: ___/___/___

   Does facility continue to satisfy NEC conditions? ☐ YES ☐ NO

   iii. ☐ Submitted **Sampling Reduction Certification (SRC)** Date Submitted: ___/___/___

   Re-evaluation Date: ___/___/___

   Does facility continue to satisfy SRC conditions? ☐ YES ☐ NO

   iv. ☐ Received Regional Board Certification Certification Date: ___/___/___

   v. ☐ Received Local Agency Certification Certification Date: ___/___/___

3. If you checked boxes i or iii above, were you scheduled to sample **one** storm event during the reporting year?

   ☐ **YES** Go to Section E ☐ **NO** Go to Section F

4. If you checked boxes ii, iv, or v, go to Section F.

E. SAMPLING AND ANALYSIS RESULTS

1. How many storm events did you sample? 0

   If less than 2, **attach explanation** (if you checked item D.2.i or iii. above, only attach explanation if you answer "0").

2. Did you collect storm water samples from the first storm of the wet season that produced a discharge during scheduled facility operating hours? (Section B.5 of the General Permit)

   ☐ **YES** ☒ **NO** **attach explanation** **(Please note that if you do not sample the first storm event, you are still required to sample 2 storm events)**

3. How many storm water discharge locations are at your facility? 9 plus overland flow

4. For each storm event sampled, did you collect and analyze a sample from each of the facility's' storm water discharge locations? ☐ YES, go to Item E.6 ☒ NO

5. Was sample collection or analysis reduced in accordance with Section B.7.d of the General Permit? ☐ YES ☒ NO, **attach explanation**

   If "YES", **attach documentation** supporting your determination that two or more drainage areas are substantially identical.

   Date facility's drainage areas were last evaluated ___/___/___

6. Were all samples collected during the first hour of discharge? ☐ YES ☒ NO, **attach explanation**

7. Was all storm water sampling preceded by three (3) working days without a storm water discharge? ☐ YES ☒ NO, **attach explanation**

8. Were there any discharges of storm water that had been temporarily stored or contained? (such as from a pond) ☐ YES ☒ NO, go to Item E.10

9. Did you collect and analyze samples of temporarily stored or contained storm water discharges from two storm events? (or one storm event if you checked item D.2.i or iii. above) ☐ YES ☐ NO, **attach explanation**

10. Section B.5. of the General Permit requires you to analyze storm water samples for pH, Total Suspended Solids (TSS), Specific Conductance (SC), Total Organic Carbon (TOC) or Oil and Grease (O&G), other pollutants likely to be present in storm water discharges in significant quantities, and analytical parameters listed in Table D of the General Permit.

    a. Does Table D contain any additional parameters related to your facility's SIC code(s)? ☐ YES ☒ NO, Go to Item E.11

    b. Did you analyze all storm water samples for the applicable parameters listed in Table D? ☐ YES ☐ NO

    c. If you did not analyze all storm water samples for the applicable Table D parameters, check one of the following reasons:

    _____ In prior sampling years, the parameter(s) have not been detected in significant quantities from two consecutive sampling events. **Attach explanation**

    _____ The parameter(s) is not likely to be present in storm water discharges and authorized non-storm water discharges in significant quantities based upon the facility operator's evaluation. **Attach explanation**

    _____ Other. **Attach explanation**

11. For each storm event sampled, attach a copy of the laboratory analytical reports and report the sampling and analysis results using **Form 1** or its equivalent. The following must be provided for each sample collected:

- Date and time of sample collection
- Name and title of sampler
- Parameters tested
- Name of analytical testing laboratory
- Discharge location identification
- Testing results
- Test methods used
- Test detection limits
- Date of testing
- Copies of the laboratory analytical results

F. QUARTERLY VISUAL OBSERVATIONS

1. **Authorized Non-Storm Water Discharges**

Section B.3.b of the General Permit requires quarterly visual observations of all authorized non-storm water discharges and their sources.

a. Do authorized non-storm water discharges occur at your facility?

☒ **YES** ☐ **NO** Go to Item F.2

b. Indicate whether you visually observed all authorized non-storm water discharges and their sources during the quarters when they were discharged. **Attach an explanation for any "NO" answers**. Indicate "N/A" for quarters without any authorized non-storm water discharges.

July-September	☒ **YES**	☐ **NO**	☐ **N/A**	October-December	☒ **YES**	☐ **NO**	☐ **N/A**
January-March	☒ **YES**	☐ **NO**	☐ **N/A**	April-June	☒ **YES**	☐ **NO**	☐ **N/A**

c. Use **Form 2** to report quarterly visual observations of authorized non-storm water discharges or provide the following information:

i. name of each authorized non-storm water discharge
ii. date and time of observation
iii. source and location of each authorized non-storm water discharge
iv. characteristics of the discharge at its source and impacted drainage area/discharge location
v. name, title, and signature of observer
vi. **any** new or revised BMPs necessary to reduce or prevent pollutants in authorized non-storm water discharges. Provide new or revised BMP implementation date.

2. **Unauthorized Non-Storm Water Discharges**

Section B.3.a of the General Permit requires quarterly visual observations of all drainage areas to detect the presence of unauthorized non-storm water discharges and their sources.

a. Indicate whether you visually observed all drainage areas to detect the presence of unauthorized non- storm water discharges and their sources. **Attach an explanation for any "NO" answers.**

July-September	☒ **YES**	☐ **NO**	October-December	☒ **YES**	☐ **NO**
January-March	☒ **YES**	☐ **NO**	April-June	☒ **YES**	☐ **NO**

b. Based upon the quarterly visual observations, were any unauthorized non-storm water discharges detected?

☐ **YES** ☒ **NO** Go to Item F.2.d

c. Have each of the unauthorized non-storm water discharges been eliminated or permitted?

☐ **YES** ☐ **NO** **Attach explanation**

d. Use **Form 3** to report quarterly unauthorized non-storm water discharge visual observations or provide the following information:

i. name of each unauthorized non-storm water discharge
ii. date and time of observation
iii. source and location of each unauthorized non-storm water discharge
iv. characteristics of the discharge at its source and impacted drainage area/discharge location
v. name, title, and signature of observer
vi. **any** corrective actions necessary to eliminate the source of each unauthorized non-storm water discharge and to clean impacted drainage areas. Provide date unauthorized non-storm water discharge(s) was eliminated or scheduled to be eliminated.

G. MONTHLY WET SEASON VISUAL OBSERVATIONS

Section B.4.a of the General Permit requires you to conduct monthly visual observations of storm water discharges at all storm water discharge locations during the wet season. These observations shall occur during the first hour of discharge or, in the case of temporarily stored or contained storm water, at the time of discharge.

1. Indicate below whether monthly visual observations of storm water discharges occurred at all discharge locations. **Attach an explanation for any "NO" answers.** Include in this explanation whether any eligible storm events occurred during scheduled facility operating hours that did not result in a storm water discharge, and provide the date, time, name and title of the person who observed that there was no storm water discharge.

	YES	NO		YES	NO
October	☒	☐	February	☒	☐
November	☒	☐	March	☒	☐
December	☒	☐	April	☒	☐
January	☒	☐	May	☒	☐

2. Report monthly wet season visual observations using **Form 4** or provide the following information:

   a. date, time, and location of observation
   b. name and title of observer
   c. characteristics of the discharge (i.e., odor, color, etc.) and source of any pollutants observed
   d. **any** new or revised BMPs necessary to reduce or prevent pollutants in storm water discharges. Provide new or revised BMP implementation date.

ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION (ACSCE)

H. ACSCE CHECKLIST

Section A.9 of the General Permit requires the facility operator to conduct one ACSCE in each reporting period (July 1-June 30). Evaluations must be conducted within 8-16 months of each other. The SWPPP and monitoring program shall be revised and implemented, as necessary, within 90 days of the evaluation. The checklist below includes the minimum steps necessary to complete a ACSCE. Indicate whether you have performed each step below. **Attach an explanation for any "NO" answers.**

1. Have you inspected all potential pollutant sources and industrial activities areas? ☒ YES ☐ NO
   The following areas should be inspected:

   - areas where spills and leaks have occurred during the last year
   - outdoor wash and rinse areas
   - process/manufacturing areas
   - loading, unloading, and transfer areas
   - waste storage/disposal areas
   - dust/particulate generating areas
   - erosion areas
   - building repair, remodeling, and construction
   - material storage areas
   - vehicle/equipment storage areas
   - truck parking and access areas
   - rooftop equipment areas
   - vehicle fueling/maintenance areas
   - non-storm water discharge generating areas

2. Have you reviewed your SWPPP to assure that its BMPs address existing potential pollutant sources and industrial activities areas? ☒ YES ☐ NO

3. Have you inspected the entire facility to verify that the SWPPP's site map is up-to-date? The following site map items should be verified: ☒ YES ☐ NO

   - facility boundaries
   - outline of all storm water drainage areas
   - areas impacted by run-on
   - storm water discharges locations
   - storm water collection and conveyance system
   - structural control measures such as catch basins, berms, containment areas, oil/water separators, etc.

4. Have you reviewed all General Permit compliance records generated since the last annual evaluation? ☒ YES ☐ NO

   The following records should be reviewed:

   - quarterly authorized non-storm water discharge visual observations
   - monthly storm water discharge visual observation
   - records of spills/leaks and associated clean-up/response activities
   - quarterly unauthorized non-storm water discharge visual observations
   - Sampling and Analysis records
   - preventative maintenance inspection and maintenance records

5. Have you reviewed the major elements of the SWPPP to assure compliance with the General Permit? ☒ YES ☐ NO

   The following SWPPP items should be reviewed:

   - pollution prevention team
   - list of significant materials
   - description of potential pollutant sources
   - assessment of potential pollutant sources
   - identification and description of the BMPs to be implemented for each potential pollutant source

6. Have you reviewed your SWPPP to assure that a) the BMPs are adequate in reducing or preventing pollutants in storm water discharges and authorized non-storm water discharges, and b) the BMPs are being implemented? ☒ YES ☐ NO

   The following BMP categories should be reviewed:

   - good housekeeping practices
   - spill response
   - employee training
   - erosion control
   - quality assurance
   - preventative maintenance
   - material handling and storage practices
   - waste handling/storage
   - structural BMPs

7. Has all material handling equipment and equipment needed to implement the SWPPP been inspected? ☒ YES ☐ NO

I. ACSCE EVALUATION REPORT

The facility operator is required to provide an evaluation report that includes:

- identification of personnel performing the evaluation
- the date(s) of the evaluation
- necessary SWPPP revisions
- schedule for implementing SWPPP revisions
- any incidents of non-compliance and the corrective actions taken

Use **Form 5** to report the results of your evaluation or develop an equivalent form.

J. ACSCE CERTIFICATION

The facility operator is required to certify compliance with the Industrial Activities Storm Water General Permit. To certify compliance, both the SWPPP and Monitoring Program must be up to date and be fully implemented.

Based upon your ACSCE, do you certify compliance with the Industrial Activities Storm Water General Permit? ☒ YES ☐ NO

If you answered "NO" **attach an explanation** to the ACSCE Evaluation Report why you are not in compliance with the Industrial Activities Storm Water General Permit.

2008-2009

ANNUAL REPORT

ATTACHMENT SUMMARY

Answer the questions below to help you determine what should be attached to this annual report. Answer NA (Not Applicable) to questions 2-4 if you are not required to provide those attachments.

1. Have you attached Forms 1,2,3,4, and 5 or their equivalent?	☒ YES (Mandatory)		
2. If you conducted sampling and analysis, have you attached the laboratory analytical reports?	☐ YES	☐ NO	☒ NA
3. If you checked box II, III, IV, or V in item D.2 of this Annual Report, have you attached the first page of the appropriate certifications?	☐ YES	☐ NO	☒ NA
4. Have you attached an explanation for each "NO" answer in items E.1, E.2, E.5-E.7, E.9, E.10.c, F.1.b, F.2.a, F.2.c, G.1, H.1-H.7, or J?	☒ YES	☐ NO	☐ NA

ANNUAL REPORT CERTIFICATION

I am duly authorized to sign reports required by the INDUSTRIAL ACTIVITIES STORM WATER GENERAL PERMIT (see Standard Provision C.9) and I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those person directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name: Scott Renfrew

Signature: _____ Date: 6/26/09

Title: Environmental Manager

DESCRIPTION OF BASIC ANALYTICAL PARAMETERS

The Industrial Activities Storm Water General Permit (General Permit) requires you to analyze storm water samples for at least four parameters. These are pH, Total Suspended Solids (TSS), Specific Conductance (SC),and Total Organic Carbon (TOC). Oil and Grease (O&G) may be substituted for TOC. In addition, you must monitor for any other pollutants which you believe to be present in your storm water discharge as a result of industrial activity and analytical parameters listed in Table D of the General Permit. There are no numeric limitations for the parameters you test for.

The four parameters which the General Permit requires to be tested are considered *indicator* parameters. In other words, regardless of what type of facility you operate, these parameters are nonspecific and general enough to usually provide some indication whether pollutants are present in your storm water discharge. The following briefly explains what each of these parameters mean:

pH is a numeric measure of the hydrogen-ion concentration. The neutral, or acceptable, range is within 6.5 to 8.5. At values less than 6.5, the water is considered acidic; above 8.5 it is considered alkaline or basic. An example of an acidic substance is vinegar, and a alkaline or basic substance is liquid antacid. Pure rainfall tends to have a pH of a little less than 7. There may be sources of materials or industrial activities which could increase or decrease the pH of your storm water discharge. If the pH levels of your storm water discharge are high or low, you should conduct a thorough evaluation of all potential pollutant sources at your site.

Total Suspended Solids (TSS) is a measure of the undissolved solids that are present in your storm water discharge. Sources of TSS include sediment from erosion of exposed land, and dirt from impervious (i.e. paved) areas. Sediment by itself can be very toxic to aquatic life because it covers feeding and breeding grounds, and can smother organisms living on the bottom of a water body. Toxic chemicals and other pollutants also adhere to sediment particles. This provides a medium by which toxic or other pollutants end up in our water ways and ultimately in human and aquatic life. TSS levels vary in runoff from undisturbed land. It has been shown that TSS levels increase significantly due to land development.

Specific Conductance (SC) is a numerical expression of the ability of the water to carry an electric current. SC can be used to assess the degree of mineralization, salinity, or estimate the total dissolved solids concentration of a water sample. Because of air pollution, most rain water has a SC a little above zero. A high SC could affect the usability of waters for drinking, irrigation, and other commercial or industrial use.

Total Organic Carbon (TOC) is a measure of the total organic matter present in water. (All organic matter contains carbon) This test is sensitive and able to detect small concentrations of organic matter. Organic matter is naturally occurring in animals, plants, and man. Organic matter may also be man made (so called synthetic organics). Synthetic organics include pesticides, fuels, solvents, and paints. Natural organic matter utilizes the oxygen in a receiving water to biodegrade. Too much organic matter could place a significant oxygen demand on the water, and possibly impact its quality. Synthetic organics either do not biodegrade or biodegrade very slowly. Synthetic organics are a source of toxic chemicals that can have adverse affects at very low concentrations. Some of these chemicals bioaccumulate in aquatic life. If your levels of TOC are high, you should evaluate all sources of natural or synthetic organics you may use at your site.

Oil and Grease (O&G) is a measure of the amount of oil and grease present in your storm water discharge. At very low concentrations, O&G can cause a sheen (that floating "rainbow") on the surface of water (1 qt. of oil can pollute 250,000 gallons of water). O&G can adversely affect aquatic life and create unsightly floating material and film on water, thus making it undrinkable. Sources of O&G include maintenance shops, vehicles, machines and roadways.

If you have any questions regarding whether or not your constituent concentrations are too high, please contact your local Regional Board office. The United States Environmental Protection Agency (USEPA) has published stormwater discharge benchmarks for a number of parameters. These benchmarks may be helpful when evaluating whether additional BMPs are appropriate. These benchmarks can be accessed at our website at http://www.waterboards.ca.gov. It is contained in the Sampling and Analysis Reduction Certification.

See Storm Water Contacts at

http://www.waterboards.ca.gov/stormwtr/contact.html

2008-2009

ANNUAL REPORT

Blank Form Provided in Annual Report	Attachment Submitted As Alternate Form	Attachment Name
FORM 1-SAMPLING & ANALYSIS RESULTS	*Attachment 1*	*Sample Results Summary*
FORM 2-QUARTERLY VISUAL OBSERVATIONS OF AUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)	*Attachments 4-7*	*Dry and Wet Season Daily Inspection Forms*
FORM 3-QUARTERLY VISUAL OBSERVATIONS OF UNAUTHORIZED NON-STORM WATER DISCHARGES (NSWDs)	*Attachments 4-7*	*Dry and Wet Season Daily Inspection Forms*
FORM 4-MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES	*Attachments 4-7*	*Dry and Wet Season Daily Inspection Forms*
FORM 5-ANNUAL COMPREHENSIVE SITE COMPLIANCE EVALUATION POTENTIAL POLLUTANT SOURCE/INDUSTRIAL ACTIVITY BMP STATUS	*2008 Storm Water Pollution Prevention Plan – Tables 5-2, 5-3, 5-4*	*2007-2008 Implemented BMPs, 2008-2009 Proposed BMPs, and Ongoing BMPs*
	Attachment 1, Table D-2	*Storm Water Sampling Results: NO SAMPLES*

Explanation to Item E.1,
How many storm events did you sample?

The 2008-2009 storm season did not generate any qualified rainfall events. Multiple attempts were made to collect storm water samples during the 2008-2009 storm season. A considerable amount of rainfall (usually more than 0.75 inches within 24 hours) is needed to generate sufficient runoff volume at the Lehigh facility to produce enough surface water to sample.

Explanation to Item E.5
Was sample collection or analysis reduced in accordance with Section B.7.d of the General Permit?

Sample collection and analysis was not reduced. Lehigh has not determined whether industrial activities and BMPs within 2 or more drainage areas are substantially identical.

Explanation to Item E.6 (Sampling and Analysis Results)
Were all samples collected during the first hour of discharge?

The 2008-2009 storm season did not generate any qualified rainfall events.

Explanation to Item E.7
Were all stormwater sampling preceded by three (3) working days without a storm water discharge?

The 2008-2009 storm season did not generate any qualified rainfall events.

Attachment 1

Sample Results Summary

SAMPLE RESULTS SUMMARY
AND SEDIMENT CONTROL MEASURES

Lehigh Cement Company (Lehigh) conducts storm water sampling in accordance with the Lehigh Storm Water Monitoring Plan, last revised in August 1999 (see response to Item C.1 of Cleanup and Abatement Order No. 99-018, "Revised Storm Water Monitoring Plan for Hanson Permanente Cement").

This section of the Storm Water Pollution Prevention Plan (SWPPP14) contains four tables (attached). The first table (Table D-1) summarizes the 2008/2009 Storm Water Monitoring Plan sample locations, potential source areas, sampling purpose/objectives, and laboratory and field measurements to be made in the field at the time of sample collection. Table D-2 indicates that no samples were taken during the 2008/2009 wet season. Table D-3 contains historical results of total suspended solids (TSS). Table D-4 states the no field data were collected because there were no eligible storm events. The results of the visual observations conducted during the 2008/2009 season are contained in attachments 4, 5, 6, and 7. Daily inspection forms were not completed for the days on which Permanente Creek did not have any flow. The following provides a detailed description of the information contained within each of the summary tables.

Lehigh did not collect storm water samples during the wet season because there were no eligible storm events. The 2008/2009 storm season generated only a limited number of rainfall events, most of which were small in intensity or otherwise ineligible. Multiple attempts were made to sample the stormwater during the 2008/2009 storm season. However, because a considerable amount of rainfall (usually more than 0.5 inches) is needed to generate runoff at the Lehigh facility, no storm events could be sampled during the 2008/2009 storm season.

To meet the goals of the Lehigh SWPPP and the State Water Resources Control Board (SWRCB) General Water Permit, Lehigh has had an active storm water pollution prevention program to continually evaluate and implement sediment control measures.

Past sampling events have identified several areas of the Lehigh facility as contributing to the TSS in storm water runoff. A summary of the areas identified as contributors, evaluation of implemented sediment control measures, and proposed additional site-specific sediment control BMPs appear in the Storm Water Pollution Prevention Plan, Tables 5-2, 5-3, and 5-4.

Table D-1
2008/2009 Storm Water Monitoring Plan
Lehigh Southwest Cement Company
Cupertino, California

2008/2009 Storm Water Monitoring Plan Sample ID:	Sampling Location:	Potential Source Area(s):	Sample Purpose/Objective:	LABORATORY ANALYSIS			FIELD MEASUREMENTS			
				TSS (Method 160.3)	Oil & Grease (Method 1664)	COD (Method 410.4)	Velocity[4] (fps)	pH	Temp. (deg. F)	Specific Conductance (umhos/cm)
SL-BG-CR	Background creek sample.	Sediments in creek before entering Quarry area of influence.	Assess water quality entering site.	X	X	X	X	X	X	X
SL-1-CR	Upstream creek sample south of Overburden Stockpile (NW corner of facility).	Sediments in creek south of Overburden Stockpile.	Assess runoff from Upper Quarry Road entering Quarry.	X	X	X	X	X	X	X
SL-2-RD	Upper Quarry Road before Pond 5.	Runoff from Upper Quarry Road.	Evaluate the sediment load in storm water runoff from Upper Quarry Road that is diverted into Pond 5 - the Quarry Settlement Pond.	X	X	X		X	X	X
SL-3A-RD	Inlet to Pond 5 from area north of pond.	Runoff from area north of Pond 5.	Evaluate the effectiveness of Pond 5 to reduce sediment load from area north of Pond 5.	X	X	X		X	X	X
SL-3-PD	Effluent from Pond 5 - the Quarry Settlement Pond.	Runoff from Upper Quarry Road.	Evaluate the effectiveness of Pond 5 to reduce sediment load from Upper Quarry Road.	X	X	X		X	X	X
SL-4-CR	Downstream of Overburden Stockpiles before concrete footing.	Former Overburden Stockpiles.	Evaluate the sediment contribution from natural erosion and the Overburden stockpiles prior to entering the operation portion of the property (Creek Sample).	X	X	X	X	X	X	X
SL-4A1-RD	Inlet to Pond 4A (east end).	Runoff from Upper/Middle Quarry Road.	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road.	X	X	X		X	X	X
SL-4A2-RD	Inlet to Pond 4A (west end).	Runoff from Upper/Middle Quarry Road.	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road.	X	X	X		X	X	X
SL-4A3-PD	Effluent from Pond 4A.	Runoff from Upper/Middle Quarry Road.	Evaluate the effectivenss of Pond 4A in removing sediment from the runoff from Upper/Middle Quarry Road.	X	X	X		X	X	X
SL-5-CR	Ore Feeder and the Primary Crusher.	Upstream of runoff from the Primary Crusher.	Determine the TSS in Permanente Creek before the runoff from the Ore Feeder and the Primary Crusher.	X	X	X	X	X	X	X
SL-5A-CR	Creek sample - downstream of Ponds 4 & 4A.	Natural Erosion and Runoff from Ponds 4 & 4A.	Determine the TSS in Permanente Creek before the runoff after Ponds 4 and 4A.	X	X	X	X	X	X	X
SL-6-RD	Runoff along side of Upper Quarry Road.	Upper Quarry Road.	Evaluate the quarry pit water, which consists of both runoff into the quarry and the infiltration of groundwater.	X	X	X		X	X	X
SL-11-CR	Inlet to Pond 13.	Primary Crusher.	Evaluate the effectiveness of Pond 13 at removing sediment from the storm water.	X	X	X	X	X	X	X

Table D-1
2008/2009 Storm Water Monitoring Plan
Lehigh Southwest Cement Company
Cupertino, California

2008/2009 Storm Water Monitoring Plan Sample ID:	Sampling Location:	Potential Source Area(s):	Sample Purpose/Objective:	LABORATORY ANALYSIS			FIELD MEASUREMENTS			
				TSS (Method 160.3)	Oil & Grease (Method 1664)	COD (Method 410.4)	Velocity[1] (fps)	pH	Temp. (deg. F)	Specific Conductance (umhos/cm)
SL-12-PD	Outlet of Pond 13.	Primary Crusher.	Evaluate the effectiveness of Pond 13 at removing sediment from the storm water.	X	X	X	X	X	X	X
SL-13-PD	Inlet to Pond 13 from Pond 13B.	Primary Crusher.	Evaluate the effectiveness of Pre-Settlement Pond 13B at removing sediment from storm water.	X	X	X		X	X	X
SL-13A-RD	Inlet to Pond 13A.	Primary Crusher.	Evaluate the sediment load in runoff from the primary crusher.	X	X	X		X	X	X
SL-13B-PD	Inlet to Pond 13B from Pond 13A.	Primary Crusher.	Evaluate the effectiveness of Pre-Settlement Pond 13A at removing sediment from storm water.	X	X	X		X	X	X
SL-14-CR	Screen Tower Number 4 (under bridge).	Upstream of Screen Tower Number 4.	Determine the TSS in the creek before Screen Tower Number 4 and the adjacent creek embankment (Creek Sample).	X	X	X	X	X	X	X
SL-15-CR	Creek sample at creek embankment below Screen Tower 4	Downstream of Screen Tower Number 4.	Determine the sediment contribution and potential increase from Screen Tower Number 4 and the creek embank runoff (Creek Sample).	X	X	X	X	X	X	X
SL-16A-RD	Inlet to Pond 9 (from culvert under Lower Quarry Road).	Runoff from Rock Plant Road originating after the Primary Crusher.	Evaluate the potential sediment load runoff from Rock Plant Road originating after the Primary Crusher which is diverted into Pond 9.	X	X	X		X	X	X
SL-16B-RD	Inlet to Pond 9 (from eastern culvert from Middle Quarry Road).	Runoff from Lower Quarry Road originating after the Primary Crusher.	Evaluate the potential sediment load runoff from Lower Quarry Road originating after the Primary Crusher which is diverted into Pond 9.	X	X	X		X	X	X
SL-17-PD	Effluent from Pond 9.	Runoff from Lower Quarry Road originating after the Primary Crusher.	Evaluate the effectiveness of Pond 9 in removing sediment from the runoff from Lower Quarry Road.	X	X	X		X	X	X
SL-18-RD	Lower Quarry Road (runoff on road, if any, down-hill of Pond 9).	Runoff from Lower Quarry Road after the drop inlet to Pond 9.	Evaluate the sediment load from Lower Quarry Road that is not captured by Pond 9 and the potential contribution of the sand pile flowing into Dinky Shed Pond.	X	X	X		X	X	X
SL-19-PD	Effluent from Dinky Shed Basin	Effluent from the Dinky Shed Basin	Evaluate the effectiveness at removing sediment form the runoff entering the Dinky Shed Basin from the Lower Quarry Road after Pond 9. Dinky Shed Basin replaces a filtration system removed in Oct. 2000.	X	X	X		X	X	X

Table D-1
2008/2009 Storm Water Monitoring Plan
Lehigh Southwest Cement Company
Cupertino, California

2008/2009 Storm Water Monitoring Plan Sample ID:	Sampling Location:	Potential Source Area(s):	Sample Purpose/Objective:	LABORATORY ANALYSIS			FIELD MEASUREMENTS			
				TSS (Method 160.3)	Oil & Grease (Method 1664)	COD (Method 410.4)	Velocity[1] (fps)	pH	Temp. (deg. F)	Specific Conductance (umhos/cm)
SL-20-RD	Inlet to Pond 17 at Rockplant 2.	Screen Tower Number 4.	Evaluate the effectiveness of Pond 17 at removing sediment from storm water.	X	X	X		X	X	X
SL-21-PD	Outlet of Pond 17 at Rockplant 2 (from the last point near effluent pipe or pump if no discharge).	Screen Tower Number 4.	Evaluate the effectiveness of Pond 17 at removing sediment from storm water.	X	X	X		X	X	X
SL-22A-CR	Downstream of Dinky Shed Basin. Upstream of hillside runoff.	Effluent from the Dinky Shed Basin if Dinky Shed Basin is discharging.	Evaluate the cleanout effectiveness of the new Dinky Shed Basin.	X	X	X	X	X	X	X
SL-22B-CR	Downstream of Dinky Shed Basin and downstream of hillside runoff behind the shed.	Hillside runoff observed on 11/19/99.	Evaluate the impact of hillside runoff if present.	X	X	X	X	X	X	X
SL-23-CR	Creek Sample along Railroad tracks.	KACC	Evaluate the impact of the cement plant and the former KACC property on the creek between Pond 9 and the rail road tracks.	X	X	X	X	X	X	X
SL-24-PD	Outlet of Pond 21 along railroad tracks.	KACC	Evaluate the effectiveness of Pond 21 at removing sediment from storm water.	X	X	X	X	X	X	X
SL-D24-PD	Duplicate of SL-24.		QA/QC	X	X	X		X	X	X
SL-25-CR	Inlet to Pond 22.	Runoff from the main plant area, parking lot, car wash.	Assess the quality of the creek downstream of Ponds 19, 20, and 21, as well as the impact of storm water from the former KACC property.	X	X	X	X	X	X	X
SL-26-PD	Effluent of Pond 22.	Treatment of all sources that originate either upstream or from the Lehigh property.	Determine the effectiveness of the in-stream ponds at reducing sediment load before leaving the Lehigh property (Creek Sample).	X	X	X	X	X	X	X
SL-D26-PD	Duplicate of SL-26		QA/QC	X	X	X		X	X	X
SL-27-PD	Effluent from Pond 14.	Treatment of all sources that originate either upstream or from the Lehigh property.	Evaluate the effectiveness of Pond 14 at removing sediment from storm water.	X	X	X	X	X	X	X
SL-D27-PD	Duplicate of SL-27.		QA/QC	X	X	X		X	X	X

Table D-2
2008/2009 Storm Water Sampling Results
Lehigh Southwest Cement Company
Cupertino, California

No Sampling *Performed - No Eligible Storm Events*

2008/2009 Storm Water Monitoring Plan Sample No:	Sampling Location:	Potential Source Area(s):	Sample Purpose/Objective:	TSS (mg/L)	Oil & Grease (mg/L)	COD (mg/L)	pH	Conductivity (µmhos/cm)	Field Observations
SL-BG-CR	Upstream creek sample - Background	Upper Quarry Road	Assess runoff from Upper Quarry Road entering Quarry.	NA	NA	NA	NA	NA	NA
SL-1-CR	Upstream creek sample south of Overburden Stockpile (NW corner of facility)	Upper Quarry Road	Assess runoff from Upper Quarry Road entering Quarry.	NA	NA	NA	NA	NA	NA
SL-2-RD	Upper Quarry Road before Pond 5	Runoff from Upper Quarry Road before Pond 5	Evaluate the sediment load in storm water runoff from Upper Quarry Road that is diverted into Pond 5 - the Quarry Settlement Pond.	NA	NA	NA	NA	NA	NA
SL-3A-RD	Inlet to Pond 5	Runoff from upper road before Pond 5	Evaluate the sediment load in storm water runoff from upper road that is diverted into Pond 5 - the Quarry Settlement Pond.	NA	NA	NA	NA	NA	NA
SL-3-PD	Outlet of Pond 5 - the Quarry Settlement Pond	Runoff from Upper Quarry Road	Evaluate the effectiveness of Pond 5 to reduce sediment load from Upper Quarry Road.	NA	NA	NA	NA	NA	NA
SL-4-CR	Downstream of Overburden Stockpiles before concrete footing	Former Overburden Stockpiles	Evaluate the sediment contribution from natural erosion and the Overburden stockpiles prior to entering the operation portion of the property (Creek Sample).	NA	NA	NA	NA	NA	NA
SL-4A1-RD	Inlet to Pond 4A (east end)	Runoff from Upper/Middle Quarry Road	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road	NA	NA	NA	NA	NA	NA
SL-4A2-RD	Inlet to Pond 4A (west end)	Runoff from Upper/Middle Quarry Road	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road	NA	NA	NA	NA	NA	NA
SL-4A3-PD	Outlet of Pond 4A	Runoff from Upper/Middle Quarry Road	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road	NA	NA	NA	NA	NA	NA
SL-5-CR	Ore Feeder and the Primary Crusher	Natural Erosion and Runoff from Pond 4A	Determine the TSS in Permanente Creek before the runoff from the Ore Feeder and the Primary Crusher and after Pond 4A	NA	NA	NA	NA	NA	NA

Table D-2
2008/2009 Storm Water Sampling Results
Lehigh Southwest Cement Company
Cupertino, California

No Sampling *Performed - No Eligible Storm Events*

2008/2009 Storm Water Monitoring Plan Sample No:	Sampling Location:	Potential Source Area(s):	Sample Purpose/Objective:	TSS (mg/L)	Oil & Grease (mg/L)	COD (mg/L)	pH	Conductivity (µmhos/cm)	Field Observations
SL-5A-CR	Creek sample - downstream of Ponds 4A & 4B	Natural Erosion and Runoff from Ponds 4A & 4B	Determine the TSS in Permanente Creek before the runoff from the Ore Feeder and the Primary Crusher and after Pond 4A and 4B	NA	NA	NA	NA	NA	NA
SL-6-RD	Upper Quarry Road before Quarry Pit	Runoff from Upper Quarry Road	Evaluate the sediment load in storm water runoff from Upper Quarry Road going into the Quarry Pit	NA	NA	NA	NA	NA	NA
SL-11-CR	Inlet to Pond 13	Primary Crusher	Determine the TSS in Permanente Creek before Pond 13	NA	NA	NA	NA	NA	NA
SL-12-PD	Outlet (overflow) from Pond 13	Primary Crusher	Evaluate the effectiveness of Pond 13 at removing sediment from the storm	NA	NA	NA	NA	NA	NA
SL-13-PD	Inlet to Pond 13 from Pond 13B (lower part of Pond 13B)	Primary Crusher	Evaluate the effectiveness of Pre-Settlement Pond 13B at removing sediment from storm water	NA	NA	NA	NA	NA	NA
SL-13A-RD	Inlet to Pond 13A	Primary Crusher	Evaluate the sediment load in runoff from the primary crusher	NA	NA	NA	NA	NA	NA
SL-13B-PD	Inlet to Pond 13B from Pond 13A	Primary Crusher	Evaluate the effectiveness of Pre-Settlement Pond 13A at removing sediment from storm water	NA	NA	NA	NA	NA	NA
SL-14-CR	Screen Tower Number 4 (under bridge)	Upstream of Screen Tower Number 4	Determine the TSS in the creek before Screen Tower Number 4 and the adjacent creek embankment (Creek Sample).	NA	NA	NA	NA	NA	NA
SL-15-CR	Creek sample at creek embankment below Screen Tower 4	Downstream of Screen Tower Number 4	Determine the sediment contribution and potential increase from Screen Tower Number 4 and the creek embank runoff (Creek Sample).	NA	NA	NA	NA	NA	NA
SL-16A-RD	Inlet to Pond 9 (from culvert off Screen Tower Road)	Runoff from Screen Tower Road	Evaluate the potential sediment load runoff from Screen Tower Road which is diverted into Pond 9.	NA	NA	NA	NA	NA	NA

Table D-2
2008/2009 Storm Water Sampling Results
Lehigh Southwest Cement Company
Cupertino, California

No Sampling *Performed - No Eligible Storm Events*

2008/2009 Storm Water Monitoring Plan Sample No:	Sampling Location:	Potential Source Area(s):	Sample Purpose/Objective:	TSS (mg/L)	Oil & Grease (mg/L)	COD (mg/L)	pH	Conductivity (µmhos/cm)	Field Observations *
SL-16B-RD	Inlet to Pond 9 (from culvert under Lower Quarry Road)	Runoff from Lower Quarry Road originating after the Primary Crusher	Evaluate the potential sediment load runoff from Lower Quarry Road originating after the Primary Crusher which is diverted into Pond 9.	NA	NA	NA	NA	NA	NA
SL-17-PD	Effluent from Pond 9	Runoff from Lower Quarry Road originating after the Primary Crusher	Evaluate the effectiveness of Pond 9 in removing sediment from the runoff from Lower Quarry Road.	NA	NA	NA	NA	NA	NA
SL-18-RD	Lower Quarry Road	Runoff from Lower Quarry Road after the drop inlet to Pond 9	Evaluate the sediment load from Lower Quarry Road that is not captured by Pond 9 and the potential contribution of the sand pile flowing into Dinky Shed Pond.	NA	NA	NA	NA	NA	NA
SL-19-PD	Effluent from Dinky Shed Basin	Effluent from the Dinky Shed Basin	Evaluate the effectiveness at removing sediment form the runoff entering the Dinky Shed Basin from the Lower Quarry Road after Pond 9. Dinky Shed Basin replaces a filtration system removed in Oct. 2000.	NA	NA	NA	NA	NA	NA
SL-20-RD	Inlet to Pond 17 at Rockplant 2	Screen Tower Number 4	Evaluate the effectiveness of Pond 17 at removing sediment from storm water	NA	NA	NA	NA	NA	NA
SL-21-PD	Outlet of Pond 17 at Rockplant 2 (from the last point near effluent pipe if no discharge)	Screen Tower Number 4	Evaluate the effectiveness of Pond 17 at removing sediment from storm water	NA	NA	NA	NA	NA	NA
SL-22A-CR	Downstream of Dinky Shed Basin. Upstream of hillside runoff	Effluent from the Dinky Shed Basin if Dinky Shed Basin is discharging.	Evaluate the cleanout effectiveness of the new Dinky Shed Basin.	NA	NA	NA	NA	NA	NA
SL-22B-CR	Downstream of Dinky Shed Basin and downstream of hillside runoff behind the shed.	Hillside runoff observed on 11/19/99	Evaluate the impact of hillside runoff if present	NA	NA	NA	NA	NA	NA
SL-23-CR	Creek Sample along Railroad tracks	KACC	Evaluate the impact of the cement plant and the former KACC property on the creek between Pond 9 and the rail road tracks	NA	NA	NA	NA	NA	NA

Table D-2
2008/2009 Storm Water Sampling Results
Lehigh Southwest Cement Company
Cupertino, California

No Sampling *Performed - No Eligible Storm Events*

2008/2009 Storm Water Monitoring Plan Sample No:	Sampling Location:	Potential Source Area(s):	Sample Purpose/Objective:	TSS (mg/L)	Oil & Grease (mg/L)	COD (mg/L)	pH	Conductivity (µmhos/cm)	Field Observations
SL-24-PD	Outlet of Pond 21 along railroad tracks	KACC	Evaluate the effectiveness of Pond 21 at removing sediment from storm water	NA	NA	NA	NA	NA	NA
SL-D24-PD	Duplicate of SL-24-PD		QA/QC	NA	NA	NA	NA	NA	NA
SL-25-CR	Inlet to Pond 22	Runoff from the main plant area, parking lot, car wash.	Assess the quality of the creek downstream of Ponds 18, 19, 20, and 21, as well as the impact of storm water from the former KACC property.	NA	NA	NA	NA	NA	NA
SL-26-PD	Outlet of Pond 22	Treatment of all sources that originate either upstream or from the Lehigh property	Determine the effectiveness of the in-stream Pond 22 at reducing sediment load before leaving the Lehigh property (Creek Sample).	NA	NA	NA	NA	NA	NA
SL-D26-PD	Duplicate of SL-26-PD		QA/QC	NA	NA	NA	NA	NA	NA
SL-27-PD	Outlet from Pond 14		Evaluate the effectiveness of Pond 14 at removing sediment from stormwater.	NA	NA	NA	NA	NA	NA
SL-D27-PD	Duplicate of SL-27-PD		QA/QC	NA	NA	NA	NA	NA	NA

NA = Sample not collected because there were no eligible storm events
TSS = Total Suspended Solids by EPA 160.2
COD = Chemical Oxygen Demand by EPA 410.4
Oil and Grease by EPA 1664A
pH by EPA 9040B
Conductivity by EPA 120.1

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2008/2009 Sample	Sampling Location:	Potential Source Area(s):	Sample Purpose/Objective:	2007/2008 TSS Results mg/L	2006/2007 TSS Results mg/L	2005/2006 TSS Results mg/L		2004/2005 TSS Results mg/L	
				1/4/08	2/22/07	1/18/06	2/27/06	12/7/04	1/7/05
SL-BG-CR	Upstream creek sample - Background	Upper Quarry Road	Assess runoff from Upper Quarry Road entering Quarry.	NA Inaccessible	<5	<5	59	<5	8
SL-1-CR	Upstream creek sample.		Background sample to assess water quality entering the facility.	NA Inaccessible	11	<5	18	<5	20
SL-2-RD	Upper Quarry Road before Pond 5	Runoff from Upper Quarry Road	Evaluate the sediment load in storm water runoff from Upper Quarry Road that is diverted into Pond 5 - the Quarry Settlement Pond.	NA Inaccessible	1,250	4,270	29,900	350	14,400
SL-3A-RD	Inlet to Pond 5	Runoff from upper road before Pond 5	Evaluate the sediment load in storm water runoff from upper road that is diverted into Pond 5 - the Quarry Settlement Pond.	NA Inaccessible	NA dry	NA dry	NA dry	NA dry	NA dry
SL-3-PD	Effluent from Pond 5 - the Quarry Settlement Pond	Runoff from Upper Quarry Road	Evaluate the sediment load in storm water runoff from Upper Quarry Road that is diverted into Pond 5 - the Quarry Settlement Pond.	NA Inaccessible	NA dry	NA dry	NA dry	NA dry	NA dry
SL-4-CR	Downstream of Overburden Stockpiles before concrete footing	Former Overburden Stockpiles	Evaluate the sediment contribution from natural erosion and the Overburden stockpiles prior to entering the operation portion of the property (Creek Sample).	NA Inaccessible	NA dry	<5	18	150	7
SL-4A1-RD	Inlet to Pond 4A (east end)	Runoff from Upper/Middle Quarry Road	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road	NA Inaccessible	NA dry	NA dry	NA dry	8	9
SL-4A2-PD	Inlet to Pond 4A (west end)	Runoff from Upper/Middle Quarry Road	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road	NA Inaccessible	570	NA dry	NA dry	NA dry	NA dry
SL-4A3-PD	Effluent from Pond 4A	Runoff from Upper/Middle Quarry Road	Evaluate the effectiveness of Pond 4A in removing sediment from the runoff from Upper/Middle Quarry Road	NA Inaccessible	15	NA dry	NA dry	13	75
SL-4B Sample discontinued	Inlet to Pond 4B (Sample discontinued from 2002-2003 as inlet culvert has been dismantled)	Runoff from Upper/Middle Quarry Road	Evaluate the sediment load in storm water runoff from Upper\Middle Quarry Road. (Sample discontinued from 2002-2003 as inlet culvert has been dismantled)	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinu
L-4B2-PD Sample discontinued	Effluent from Pond 4B	Runoff from Upper/Middle Quarry Road	Evaluate the effectiveness of Pond 4B in removing sediment from the runoff from Upper/Middle Quarry Road	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinu
SL-4C2-PD Sample discontinued	Effluent from Pond 4C	Runoff from Upper/Middle Quarry Road	Evaluate the effectiveness of Pond 4C in removing sediment from the runoff from Upper/Middle Quarry Road	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinu
SL-5-CR	Ore Feeder and the Primary Crusher	Natural Erosion and Runoff from Pond 4A	Determine the TSS in Permanente Creek before the runoff from the Ore Feeder and the Primary Crusher and after Pond 4A	NA Inaccessible	NA dry	56	20	14	27
SL-5A-CR	Creek sample - downstream of Ponds 4A & 4B	Natural Erosion and Runoff from Ponds 4A & 4B	Determine the TSS in Permanente Creek before the runoff after Ponds 4A and 4B	NA Inaccessible	NA dry	34	78	11	180
SL-6-RD	Upper Quarry Road going into Pit	Upper Quarry Road	Evaluate the quarry pit water, which consists of both runoff into the quarry and the infiltration of groundwater	NA Inaccessible	520	4,870	29,900	5,320	25,300
SL-7 Sample discontinued	Middle/Upper Quarry Road after Pond 5	Runoff from Upper/Middle Quarry Road after Pond 5 before the Primary Crusher	Evaluate the sediment load from Upper Quarry Road after Pond 5 but before the Primary Crusher at the inlet to the overflow pipe.	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontin
SL-8 Sample discontinued	Ore Feeder to the Primary Crusher	Runoff from the Ore Feeder to the Primary Crusher	Evaluate the potential sediment load in the runoff from Upper Quarry Road after Pond 5 and the Ore Feeder to the Primary Crusher.	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontin
SL-9 Sample discontinued	Primary Crusher	Runoff from the Primary Crusher	Evaluate the sediment load in the runoff (if any) from the Primary Crusher.	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontin
SL-10 Sample discontinued	Ore Feeder and the Primary Crusher	Downstream from the Primary Crusher before the Quarry Pit discharge	Evaluate the potential increase in TSS from the overland flow from the Ore Feeder and the Primary Crusher (Creek Sample).	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontin
SL-11-CR	Inlet to Pond 13	Primary Crusher	Evaluate the effectiveness of Pond 13 at removing sediment from the storm water	13,200	<5	120	70	50	18
SL-12-PD	Effluent (overflow) from Pond 13	Primary Crusher	Evaluate the effectiveness of Pond 13 at removing sediment from the storm water	29,800	<5	10	<5	<5	18
SL-13-PD	Inlet to Pond 13 from Pond 13B	Primary Crusher	Evaluate the effectiveness of Pre-Settlement Pond 13B at removing sediment from storm water	41,000	NA dry	NA dry	NA dry	NA dry	NA dry

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2003/2004 TSS Results mg/L		2002/2003 TSS Results mg/L		2001/2002 TSS Results mg/L		2000/2001 TSS Results mg/L		1999/2000 TSS Results (mg/L)		1998/1999 TSS Results (mg/L)		1997/1998 TSS Results (mg/L)		1996 TSS Results (mg/L)	
12/29/03	2/18/04	12/13/02	4/24/03	11/29/01	3/6/02	10/10/00	2/20/01	4/17/00	11/19/99	4/5/99	1/18/99	5/23/97	4/22/97	3/3/96	1/18/96
14	<5	NA	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12	<5	16,900 [1]	85	150	<5.0	<5.0	620	<5.0	NA	2,200	66	47	340	NA	NA
NA dry	NA dry	10,800	26,500	NA	NA	NA	NA	not enough water to sample	13,000	NA	NA	NA	NA	NA	NA
NA dry	NA dry	430	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA dry	NA dry	NA dry	NA dry	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18	24	410	810	3,020	<5.0	1,100	300	NA	110	NA	NA	NA	NA	NA	NA
10	<5	270	8	NA	182,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,940	NA dry	33	NA dry	NA	91,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
52	13	NA dry	<5.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA discontinued	NA discontinued	NA discontinued	NA discontinued	6,570	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA discontinued	NA discontinued	NA dry	NA no activity	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA discontinued	NA discontinued	NA dry	NA no activity	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
35	47	200	380	1,760	<5.0	NA	330	NA	<10	NA	NA	NA	NA	NA	NA
14	44	82	NA no activity	NA	2,280	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
28,500	11,100	NA discontinued	NA discontinued	NA	NA	NA	NA	8	not enough water to sample	32,000	290	36	11.0/930	NA	NA
NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA	NA	NA	NA	not enough water to sample	71,300	NA	NA	NA	NA	NA	NA
NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA	NA	45	NA	not enough water to sample	1,320	NA	NA	NA	NA	NA	NA
NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA	230	9,990	NA	NA	110	NA	NA	NA	NA	NA	NA
NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
49	17	17	64	510	190	NA	480	280	42,300	8,000	42,000	1,070	<10	NA	NA
14	<5	NA dry	38	290	230	5,610	320	130	42	660	24,000	848	<10	27,000	1,660
NA dry	NA dry	NA dry	47	NA	NA	5,220	770	87	not enough water to sample	not enough water to sample	10,000	not enough water to sample	not enough water to sample	NA	13,800

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2008/2009 Sample No.	Sampling Location	Potential Source Area(s):	Sample Purpose/Objective:	2007/2008 TSS Results mg/L	2006/2007 TSS Results mg/L	2005/2006 TSS Results mg/L		2004/2005 TSS Results mg/L	
				1/4/08	2/22/07	1/18/06	2/27/06	12/7/04	1/7/05
SL-13A-RD	Inlet to Pond 13A	Primary Crusher	Evaluate the sediment load in runoff from the primary crusher	NA Inaccessible	280	59,300	12,800	NA dry	4,840
SL-13B-PD	Inlet to Pond 13B from Pond 13A	Primary Crusher	Evaluate the effectiveness of Pre-Settlement Pond 13A at removing sediment from storm water	NA Inaccessible	39	2,020	15,000	26	770
SL-13D Sample discontinued	Duplicate of SL-13	Primary Crusher	QA/QC	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinued	NA discontinued
SL-14-CR	Screen Tower Number 4 (under bridge)	Upstream of Screen Tower Number 4	Determine the TSS in the creek before Screen Tower Number 4 and the adjacent creek embankment (Creek Sample).	NA Inaccessible	25	9	24	<5	<5
SL-15-CR	Creek embankment below Screen Tower 4	Downstream of Screen Tower Number 4	Determine the sediment contribution and potential increase from Screen Tower Number 4 and the creek embank runoff (Creek Sample).	5,030	570	64	<5	9	11
SL-16A-RD	Inlet to Pond 9 (from culvert off Screen Tower Road)	Runoff from Screen Tower Road	Evaluate the potential sediment load runoff from Screen Tower Road which is diverted into Pond 9.	51,100	710	1,090	830	3,800	13,500
SL-16B-RD	Inlet to Pond 9 (from culvert under Lower Quarry Road)	Runoff from Lower Quarry Road originating after the Primary Crusher	Evaluate the potential sediment load runoff from Lower Quarry Road originating after the Primary Crusher which is diverted into Pond 9.	NA Inaccessible	920	340	1,470	NA dry	990
SL-17-PD	Effluent from Pond 9	Runoff from Lower Quarry Road originating after the Primary Crusher	Evaluate the effectiveness of Pond 9 in removing sediment from the runoff from Lower Quarry Road.	34,600	720	400	860	43	400
SL-18-RD	Lower Quarry Road	Runoff from Lower Quarry Road after the drop inlet to Pond 9	Evaluate the sediment load from Lower Quarry Road that is not captured by Pond 9 and the potential contribution of the sand pile flowing into Dinky Shed Basin.	3,510	4,580	630	1,030	NA dry	500
SL-19-PD	Effluent from Dinky Shed Basin	Effluent from the Dinky Shed Basin	Evaluate the effectiveness at removing sediment form the runoff entering the Dinky Shed Basin from the Lower Quarry Road after Pond 9. Dinky Shed Basin replaces a filtration system removed in Oct. 2000.	NA Inaccessible	NA dry	NA dry	NA dry	NA dry	NA dry
SL-20-RD	Inlet to Pond 17 at Rockplant 2	Screen Tower Number 4	Evaluate the effectiveness of Pond 17 at removing sediment from storm water	2,750	9,110	31	5,670	76,100	160 [3]
SL-21-PD	Effluent from Pond 17 at Rockplant 2 (from the last point near effluent pipe if no discharge)	Screen Tower Number 4	Evaluate the effectiveness of Pond 17 at removing sediment from storm water	330	820	47	150	6	<5
SL-22A-CR	Downstream of Dinky Shed Basin. Upstream of hillside runoff (jar labeled P-14 for 11/19 storm, labeled P-16 for 4/17/00 storm)	Effluent from the Dinky Shed Pond Filtration system	Evaluate the cleanout effectiveness of the new Dinky Shed Basin.	19,800	110	79	230	12	78
SL-22B-CR	Downstream of Dinky Shed Basin and downstream of hillside runoff behind the shed. (jar labeled P-13 for 11/19 storm, labeled P-17 for 4/17/00 storm.)	Hillside runoff observed on 11/19/99	Evaluate the impact of hillside runoff if present	28,200	94	82	190	11	82
SL-23-CR	Creek Sample along Railroad tracks	KACC	Evaluate the impact of the cement plant and the former KACC property on the creek between Pond 9 and the rail road tracks	17,600	610	1,170	140	<5	110
SL-24-PD	Effluent from Pond 21 along railroad tracks	KACC	Assess the quality of the creek downstream of Ponds 19, 20, and 21, as well as the impact of storm water from the former KACC property.	1,280	13	300	110 J	<5	170
SL-D24-PD	Duplicate of SL-24-PD		QA/QC	1,240	13	290	48 J	<5	180
SL-25-CR	Inlet to Pond 22	Runoff from the main plant area, parking lot, car wash.	Assess the quality of the creek downstream of Ponds 18, 19, 20, and 21, as well as the impact of storm water from the former KACC property.	1,770	300	380	190	<5	91
SL-26-PD	Effluent from Pond 22 (sample bottle labeled SL-12 for 11/19/99 sampling event, labeled P-18 for 4/17/00 storm).	Treatment of all sources that originate either upstream or from the Lehigh property	Determine the effectiveness of the in-stream ponds at reducing sediment load before leaving the Hanson property.	4,660	7	850	150	11	120

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2003/2004 TSS Results mg/L		2002/2003 TSS Results mg/L		2001/2002 TSS Results mg/L		2000/2001 TSS Results mg/L		1999/2000 TSS Results (mg/L)		1998/1999 TSS Results (mg/L)		1997/1998 TSS Results (mg/L)		1996 TSS Results (mg/L)	
12/29/03	2/18/04	12/13/02	4/24/03	11/29/01	3/6/02	10/10/00	2/20/01	4/17/00	11/19/99	4/5/99	1/18/99	5/23/97	4/22/97	3/3/96	1/18/96
12,000	3,580	21,700	NA dry	6,800	13,000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8,860	1,800	NA dry	33	440	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
NA discontinued	NA discontinued	NA discontinued	NA discontinued	7,700 [2]	NA	4,730	810	NA	NA	NA	NA	NA	NA	NA	NA
1,130	32	14	49	280	260	81,100	410	250	1,760	NA	NA	NA	NA	NA	NA
650	29	<5.0	32	170	47	26	430	240	20	NA	NA	NA	NA	NA	NA
23,600	2,300	840	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
750	120	5,530	NA dry	2,450	810	1,240	5,590	<5.0	11,800	1,900	1,800	248,000	not enough water to sample	6,790	22,800
590	39	44	51	110	11	34	290	58	68	80	86	76	14	261	200
3,890	NA dry	8,150	390	7,400	12,300	NA	NA	790	NA	NA	NA	NA	NA	NA	NA
NA dry	NA dry	NA dry	NA dry	NA	NA	NA	NA	9	NA	NA	NA	NA	NA	NA	NA
12,500	26,600	46,900	2,520	31,800	35,900	3,910	12,300	5,340	7,840	13	82	8,270	not enough water to sample	5,870	209
76	12	<5.0	15	10	<5.0	7	11	13	<10	15	25	not enough water to sample	not enough water to sample	119	17
840	29	15	35	210	25	24	410	230	130	NA	NA	NA	NA	NA	NA
820	28	21	34	180	18	NA	440	NA	71,000	NA	NA	NA	NA	NA	NA
1,170	22	1,430	32	200	26	110	520	390	1,340	7,300	20,000	310	<10	1,440	12,100
1,190	13	<5.0	13	24	<5.0	15	34	<5.0	96	64	56	62	<10	467	1,020
1,070	32	31	7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1,410	18	710	38	160	32	NA	720	400	NA	NA	NA	NA	NA	NA	NA
1,230	14	36	31	180	11	800	980	410	16	5,300	16,000	222	<10	7,320	9,320

Tabl
Comparison of Historic Storm Water San
Lehigh Southwes
Cupertino

008/2009 nple	Sampling Location:	Potential Source Area(s):	Sample Purpose/Objective:	2007/2008 TSS Results mg/L	2006/2007 TSS Results mg/L	2005/2006 TSS Results mg/L		2004/2005 TSS Results mg/L	
				1/4/08	2/22/07	1/18/06	2/27/06	12/7/04	1/7/05
SL-D26-PD	Duplicate of SL-26-PD		QA/QC	4,690	13	870	170	6	150
SL-27-PD	Effluent from Pond 14		Evaluate the effectiveness of Pond 14 at removing sediment from stormwater.	320	36	63	66 J	95	28
SL-D27-PD	Duplicate sample of Pond 14 effluent		This duplicate sample is discontinued in SWMP for 2001/2002 as Pond 14 is maintained out of Creek.	320	NA	64	130 J	56	180

[1] This sample was collected after the rain had ceased. The samples were collected starting with the most downstream location and working up towards the background sample. The sampling team did not notice anyt

[2] Duplicate of SL-13A, not SL-13; no water from SL-13

[3] Oringinal sample result was < 5 mg/L. Sample was re-analyzed outside of hold time for TSS with a result of 160 mg/L.

J = estimated result

NA = Sample not collected or data not available

Refer to 2005/2006 SWPPP for Sample IDs prior to 2006.

e D-3
pling Results for Total Suspended Solids
Cement Company
California

2003/2004 TSS Results mg/L		2002/2003 TSS Results mg/L		2001/2002 TSS Results mg/L		2000/2001 TSS Results mg/L		1999/2000 TSS Results (mg/L)		1998/1999 TSS Results (mg/L)		1997/1998 TSS Results (mg/L)		1996 TSS Results (mg/L)	
12/29/03	2/18/04	12/13/02	4/24/03	11/29/01	3/6/02	10/10/00	2/20/01	4/17/00	11/19/99	4/5/99	1/18/99	5/23/97	4/22/97	3/3/96	1/18/96
NA not sampled	NA not sampled	47	NA not sampled	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
760	12	<5.0	<5.0	68	<5.0	NA	320	33	NA	3,400	110	102	<10	9,350	3,340
760	11	NA not sampled	<5.0	NA	NA	NA	NA	35	NA	NA	NA	90	NA	NA	NA

ing unusual around this sampling location and no explanation can be attributed to the high TSS result at this location.

Attachment 2

Storm Water Discharge Sampling Field Data

Table D-4
Field Data for 2008/2009 Storm Water Sampling
Lehigh Southwest Cement Company
Cupertino, California

No Field Data - No Eligible Storm Events

Sample No:	Sample Location	Date	Time	pH	Temp. (F)	Cond (uS/cm)	Notes/Velocity
SL-BG-CR	Upstream creek sample - Background	NA	NA	NA	NA	NA	NA
SL-1-CR	Upstream creek sample south of Overburden Stockpile (NW corner of facility)	NA	NA	NA	NA	NA	NA
SL-2-RD	Upper Quarry Road before Pond 5	NA	NA	NA	NA	NA	NA
SL-3A-RD	Inlet to Pond 5	NA	NA	NA	NA	NA	NA
SL-3-PD	Effluent from Pond 5 - the Quarry Settlement Pond	NA	NA	NA	NA	NA	NA
SL-4-CR	Downstream of Overburden Stockpiles before concrete footing	NA	NA	NA	NA	NA	NA
SL-4A1-RD	Inlet to Pond 4A (east end)	NA	NA	NA	NA	NA	NA
SL-4A2-PD	Inlet to Pond 4A (west end)	NA	NA	NA	NA	NA	NA
SL-4A3-PD	Effluent from Pond 4A	NA	NA	NA	NA	NA	NA
SL-5-CR	Ore Feeder and the Primary Crusher	NA	NA	NA	NA	NA	NA
SL-5A-CR	Creek sample - downstream of Ponds 4A & 4B	NA	NA	NA	NA	NA	NA
SL-6-RD	Upper Quarry Road (runoff along road going into pit)	NA	NA	NA	NA	NA	NA
SL-11-CR	Inlet to Pond 13	NA	NA	NA	NA	NA	NA
SL-12-PD	Effluent (overflow) from Pond 13	NA	NA	NA	NA	NA	NA
SL-13-PD	Inlet to Pond 13 from Pond 13B	NA	NA	NA	NA	NA	NA
SL-13A-RD	Inlet to Pond 13A	NA	NA	NA	NA	NA	NA

Table D-4
Field Data for 2008/2009 Storm Water Sampling
Lehigh Southwest Cement Company
Cupertino, California

No Field Data - No Eligible Storm Events

Sample No:	Sample Location	Date	Time	pH	Temp. (F)	Cond (uS/cm)	Notes/Velocity
SL-13B-PD	Inlet to Pond 13B from Pond 13A	NA	NA	NA	NA	NA	NA
SL-14-CR	Screen Tower Number 4 (under bridge)	NA	NA	NA	NA	NA	NA
SL-15-CR	Creek embankment below Screen Tower 4	NA	NA	NA	NA	NA	NA
SL-16A-RD	Inlet to Pond 9 (from culvert off Screen Tower Road)	NA	NA	NA	NA	NA	NA
SL-16B-RD	Inlet to Pond 9 (from culvert off Screen Tower Road)	NA	NA	NA	NA	NA	NA
SL-17-PD	Effluent from Pond 9	NA	NA	NA	NA	NA	NA
SL-18-RD	Lower Quarry Road (runoff on road, if any, down-hill of Pond 9)	NA	NA	NA	NA	NA	NA
SL-19-PD	Effluent from Dinky Shed Basin.	NA	NA	NA	NA	NA	NA
SL-20-RD	Inlet to Pond 17 at Rockplant 2	NA	NA	NA	NA	NA	NA
SL-21-PD	Effluent from Pond 17 at Rockplant 2 (from the last point near effluent pipe or pump if no discharge)	NA	NA	NA	NA	NA	NA
SL-22A-CR	Downstream of Dinky Shed Basin. Upstream of hillside runoff	NA	NA	NA	NA	NA	NA
SL-22B-CR	Downstream of Dinky Shed Pond and downstream of hillside runoff behind the shed.	NA	NA	NA	NA	NA	NA
SL-23-CR	Creek Sample along Railroad tracks	NA	NA	NA	NA	NA	NA

Table D-4
Field Data for 2008/2009 Storm Water Sampling
Lehigh Southwest Cement Company
Cupertino, California

No Field Data - No Eligible Storm Events

Sample No:	Sample Location	Date	Time	pH	Temp. (F)	Cond (uS/cm)	Notes/Velocity
SL-24-PD	Effluent from Pond 21 along railroad tracks	NA	NA	NA	NA	NA	NA
SL-25-CR	Inlet to Pond 22	NA	NA	NA	NA	NA	NA
SL-26-PD	Effluent of Pond 22	NA	NA	NA	NA	NA	NA
SL-27-PD	Effluent from Pond 14	NA	NA	NA	NA	NA	NA

Notes:
NA = No Eligible Storm Events

Attachment 3

Laboratory Analysis Results and Chains of Custody

There were no samples collected during the 2008/2009 storm season.

Attachment 4

Quarry Staff: Dry and Wet Season Daily Inspection Forms

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/30/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	5:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\My Documents\Creek Inspections 2008Quarry Dry 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/29/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	#1	NA	NA	NA	0850	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	4:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/26/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO		NA	NA	NA		
2. Pond 13 Discharge	NO		NA	NA	NA	0900	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	6:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: QUARRY

Date: 9/25/08

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO		NA	NA	NA		
2. Pond 13 Discharge	NO		NA	NA	NA	0950	
1. Quarry Discharge NTU Meter	NO		NA	NA	NA		
2. Pond 13 Discharge	NO		NA	NA	NA	6:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9-24-08

From: Quarry

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA	7:00 AM	EM
2. Pond 13 Discharge	Yes	1	NA	NA	NA	11:30 AM	EM
1. Quarry Discharge NTU Meter	No		NA	NA	NA		
2. Pond 13 Discharge	No		NA	NA	NA	7:30 PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9-23-08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA	12:00PM	EM
2. Pond 13 Discharge	Yes	1	NA	NA	NA	1:10 PM	EM
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	7:15PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/22

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	7:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 9/19/08

To: GINA FACCA

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2007 to April 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	4.625				1038	H
2. Pond 13 Discharge	Yes	1				0825	H
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	# 3.5				5:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed: Slightly Cloudy WATER. TURBIDITY FAILED TO TURN SYSTEM off

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/18/08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	2.625	NA	NA	NA	0620	H
2. Pond 13 Discharge	Yes	1	NA	NA	NA	1105	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	5:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/17/08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	YES	3.682	NA	NA	NA	0545	H
2. Pond 13 Discharge	YES	2	NA	NA	NA	1105	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	# 1	NA	NA	NA	3:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9-16-08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	yes	3.632	NA	NA	NA	0545	H
2. Pond 13 Discharge	yes	1	NA	NA	NA	0615	H
1. Quarry Discharge NTU Meter	yes	2,560	NA	NA	NA	2:28	[illegible]
2. Pond 13 Discharge	yes	1	NA	NA	NA	9:40 PM	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew **Date:** 9-15-08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	4.829	NA	NA	NA	0545	
2. Pond 13 Discharge	YES	1	NA	NA	NA	0950	
1. Quarry Discharge NTU Meter	YES	5.116	NA	NA	NA	5:26 PM	
2. Pond 13 Discharge	YES	1	NA	NA	NA	7:35 PM	
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/12/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	1.5	NA	NA	NA	0610	H
2. Pond 13 Discharge	Yes	2	NA	NA	NA	1030	H
1. Quarry Discharge NTU Meter	YES	1,381	NA	NA	NA	9:45 PM	MM
2. Pond 13 Discharge	YES	1	NA	NA	NA	7:30 PM	MM
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9-11-08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	4.506	NA	NA	NA	5:45	[illegible]
2. Pond 13 Discharge	Yes	1	NA	NA	NA	10:30	[illegible]
1. Quarry Discharge NTU Meter	YES	3.939	NA	NA	NA	3:15 P	[illegible]
2. Pond 13 Discharge	YES	1	NA	NA	NA	5:30 P	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\My Documents\Creek Inspections 2008Quarry Dry 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/10/08

From: Quarry

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	4.506	NA	NA	NA	0905	[illegible]
2. Pond 13 Discharge	Yes	1 ~~4.506~~	NA	NA	NA	0820	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	6:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/9/08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0100	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	5:30 PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/8/08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0850	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	4:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/5

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0825	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	4:50 PM	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/4/08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0945	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	# 1	NA	NA	NA	4:15PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/3/08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge	YES	1	NA	NA	NA	0925	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	4:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/2/08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0905	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	# 1	NA	NA	NA	3:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 8/29

To: Scott Renfrew

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	1105	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	4:15PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/28

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	1	NA	NA	NA	0105	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	4:10PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8-27-08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0815	[illegible]
1. Quarry Discharge NTU Meter	yes		NA	NA	NA		
2. Pond 13 Discharge	yes	1	NA	NA	NA	6:30pm	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8-26-08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	[illegible]
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	7:PM	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 8-25-08

To: Scott Renfrew

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	1	NA	NA	NA	4:00PM	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/22/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	4:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/21

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	yes		NA	NA	NA		
2. Pond 13 Discharge	yes	1	NA	NA	NA	0755	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	# 1	NA	NA	NA	4:15PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/30/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	[signature]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/19/08

From: Quarry

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0825	[illegible]
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	#1	NA	NA	NA	5:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/18

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	#2	NA	NA	NA	9:45 AM	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	# 1	NA	NA	NA	3:45 PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: GINA FACCA

Date: 8/15

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2007 to April 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	# I				9:00 AM	EM
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	# 1				3:15 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/14

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	#1	NA	NA	NA	9:30AM	EM
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	12:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/13

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	# 1	NA	NA	NA	12:00 PM	EM
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	1:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/12

From: QUARRY

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	# 1	NA	NA	NA	8:00AM	EM
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	12:40 PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew **Date:** 8/11

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	# 1	NA	NA	NA	8:00 AM	EM
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	# 1	NA	NA	NA	4:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/8

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	8:30AM	EM
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	# 1	NA	NA	NA	2:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 8/7

To: Scott Renfrew

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	12:45 PM	EM
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	3:45PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge If observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/6

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	1:00PM	EM
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	3:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 8/4

To: Scott Renfrew

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0725	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	4:40PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: QUARRY

Date: 8/5

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	4:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/4/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/31/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	2.9	NA	NA	NA	0620	H
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	H
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/30/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	3.6	NA	NA	NA	1000	[illegible]
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/29/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	3.2	NA	NA	NA	1100 aM	[illegible]
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0715 aM	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 8/28/08

From: Quarry

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	3.6	NA	NA	NA	0805 AM	H
2. Pond 13 Discharge	Yes	2	NA	NA	NA	1100 AM	H
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/24/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0800	H
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 7/23/08

To: Scott Renfrew

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	#1	NA	NA	NA	0725	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/25/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0815	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/22/08

From: QUARRY

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	12:45PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/21/08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	8:30AM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/8/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0905	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\My Documents\Creek Inspections 2008Quarry Dry 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/17/08

From: QUARRY

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	9:30AM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed: _____

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 7/16/08

To: Scott Renfrew

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	1:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/15/08

From: Quarry

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	# 1	NA	NA	NA	9:00 AM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 7/10/08

To: Scott Renfrew

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0950	H
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/9/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/8/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/07/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0805	
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/3/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/02/08

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0855	H
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 7/1

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	10:15AM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: Quarry

Date: 6/30

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	# 1	NA	NA	NA	2:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 6/24

To: Scott Renfrew

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	8:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed: _____

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 6/23

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	yes	1	NA	NA	NA	0825	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	7:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: GINA FACCA

Date: 6/20/08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0815	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	4:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not required.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: GINA FACCA

Date: 6/19/08

From: QUARRY

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0750	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	7:30PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: GINA FACCA

Date: 6/18

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	8:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 6/17/08

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				0825	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	1				7:30 PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: GINA FACCA

From: Quarry

Date: 6/16

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	8:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: GINA FACCA

Date: JUNE 14, 2008

From: Quarry

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	1	NA	NA	NA	6:25 AM	[illegible]
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: GINA FACCA

Date: 6/13/08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	5:00PM	G
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: GINA FACCA

Date: 6/12

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0745	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	8:15PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 6.11.08

To: GINA FACCA

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0805	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	6:15 PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: GINA FACCA

Date: 6-10-08

From: Quarry

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	# 1	NA	NA	NA	8:00PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

TSS is the only visual observation required during dry season. Other visual ob[illegible]tions are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: GINA FACCA

Date: 6-9-08

From: QUARRY

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0755	[illegible]
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#1	NA	NA	NA	8:00 PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: GINA FACCA

Date: 6/6/08

From: QUARRY

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes		NA	NA	NA		
2. Pond 13 Discharge	Yes	1	NA	NA	NA	0820	H
1. Quarry Discharge NTU Meter	YES		NA	NA	NA		
2. Pond 13 Discharge	YES	#	NA	NA	NA	3:45PM	GV
1. Quarry Discharge NTU Meter			NA	NA	NA		
2. Pond 13 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

TSS is the only visual observation required during dry season. Other visual ob[illegible]

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/30/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				0835	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				5:30 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/29

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				0805	H
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				7:30PM	G
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/28/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	2.172				0528	
2. Pond 13 Discharge	Yes	1				0948	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				6:15 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/27

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	1. 323				0535	
2. Pond 13 Discharge	Yes	1				1105	
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				5:45 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4-24-09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes					7:00 AM	EM
2. Pond 13 Discharge	Yes	#2				12:00 PM	EM
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	# 1				4:50 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 2/-23-09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	No					7:00AM	EM
2. Pond 13 Discharge	Yes	1 #				11:00 AM	EM
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	# 1				8:45 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/22

From: Quarry

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				0905	[illegible]
1. Quarry Discharge NTU Meter	No						
2. Pond 13 Discharge	YES	#1				9:00 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/21/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	[illegible]	[illegible]					
2. Pond 13 Discharge	[illegible]	[illegible]				[illegible]	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				8:30PM	GI
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/20/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	1.283					
2. Pond 13 Discharge	Yes	2				0938	
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				9:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/17/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	1.038					
2. Pond 13 Discharge	Yes	1				0628	
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				5:30 PM	O.S
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/16/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	yes	2.048					
2. Pond 13 Discharge	yes	1				1235	
1. Quarry Discharge NTU Meter	yes					4:30 PM	
2. Pond 13 Discharge	yes	1				5:15 PM	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 9/10/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	1.087					
2. Pond 13 Discharge	Yes	1				0733	[illegible]
1. Quarry Discharge NTU Meter	Yes	3:05 P.M					
2. Pond 13 Discharge	Yes	1				5:30 PM	OS
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/14/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	1.068				0518	
2. Pond 13 Discharge	Yes	1				0735	H
1. Quarry Discharge NTU Meter	YES					2:15 PM	
2. Pond 13 Discharge	YES	1				2:35 PM	O.S
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4-13-09

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	1.158				0831	
2. Pond 13 Discharge	Yes	1				0754	
1. Quarry Discharge NTU Meter	YES					3:30 PM	[illegible]
2. Pond 13 Discharge	YES	1					
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/10/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	yes						
2. Pond 13 Discharge	yes	1				0850	H
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				8:45 PM	G
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge If observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

N:\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/9

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	3.431					
2. Pond 13 Discharge	Yes	1				0918	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				3:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

N:\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/8/09

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	3.848				0517	[illegible]
2. Pond 13 Discharge	Yes	1				0915	
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				8:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: Quarry

Date: 4/7/09

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	1-482				8:36	
2. Pond 13 Discharge	Yes	1				1022	
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				5:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/6/09

From: Quarry

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	Yes	1				0838	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	YES	1				7:15 pm	OS
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew **Date:** 4-03-09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes					9:30 AM	EM.
2. Pond 13 Discharge	Yes	1				12:00 PM	EM.
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				3:00 PM	G/
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/2/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				0902	[illegible]
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	YES	#1				3:15PM	GN
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/1/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	2				0907	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				7:15PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: [illegible]

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	2				[illegible]	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	# 1				5:15 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/30

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO	2				1154	H
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				4:45PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/27/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	471				0515	
2. Pond 13 Discharge	Yes	1				0635	
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	※ 1				530 PM	O.S
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/26

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	.476				0535	
2. Pond 13 Discharge	Yes	2				0745	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	# 1				6:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/25/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	.785				0538	
2. Pond 13 Discharge	Yes	1				0738	
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				6:30PM	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew **Date:** 3-24-09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	.473				7:05 AM	EM
2. Pond 13 Discharge	Yes	#1				8:00 AM	EM
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				7:45 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/23

From: Quarry

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	.509				0550	
2. Pond 13 Discharge	Yes	[illegible]				1235	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	# 1				4:15PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/20/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	3.721				0907	
2. Pond 13 Discharge	Yes	1				0826	
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	# 1				4:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/18/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	3.486				1155	
2. Pond 13 Discharge	Yes	1				1232	
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				5:15PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/18/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	yes	1				0922	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				8:45PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 3/17/09

To: Scott Renfrew

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	Yes	2				0123	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	YES	# 1				5:00PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: QUARRY

Date: 3/16

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	Yes	1				0825	H
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	YES	~~#~~ 1				5:45PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3-13-09

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	yes	1				0835	[illegible]
1. Quarry Discharge NTU Meter	NO					4:00 P.M	[illegible]
2. Pond 13 Discharge	YES	1					
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

N:\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/12

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	Yes	1				1125	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	YES	#1				5:40 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew **Date:** 3/11

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	Yes	2				01 55	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	YES	#1				3:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3-10-09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	Yes	1				1010	[illegible]
1. Quarry Discharge NTU Meter	NO					4:30	[illegible]
2. Pond 13 Discharge	YES	1					
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/9

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	Yes	1				0915	[illegible]
1. Quarry Discharge NTU Meter	No						
2. Pond 13 Discharge	YES	#1				8:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/6

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	No	1				0815	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	YES	#1				5:15PM	[illegible] GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed: _____

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/5

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	Yes	2				0 85r	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	YES	#2				4:15	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/4

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge						6:5[illegible]	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	YES	#1				7:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/3

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	#2				1207	#
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#3				8:15PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 3/2/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	Yes	2				0905	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 2/6/09

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0715	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					7:30PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: QUARRY

Date: 2/5

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0835	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					8:45PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No.
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 2/4

To: Scott Renfrew

From: Quarry

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0905	[illegible]
1. Quarry Discharge NTU Meter	No						
2. Pond 13 Discharge	NO					8:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 2/2

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	#1				0730	H
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				8:30PM	G
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 2/1/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	NO					0821	H
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

Scott
I came in today just to start up PWW — H

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 2/1/09

From: Amry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	NO					0821	H
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

Scott
I came in today just to start up PWI — H

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/30

From: Quarry

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	No						
2. Pond 13 Discharge	NO					0850	H
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					8:00PM	G/
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/29/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	8.265					
2. Pond 13 Discharge	NO					9:30	
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	YES	#1				4:45PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/28/09

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	NO					0855	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				4:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/27/09

From: Quarry

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0805	
1. Quarry Discharge NTU Meter	No						
2. Pond 13 Discharge	NO					8:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/26

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	1.656				6:29	
2. Pond 13 Discharge	Yes	7				12:15	
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				4:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: QUARRY

Date: 1/23

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	4, 251				6121	
2. Pond 13 Discharge	Yes	1				12:38	[illegible]
1. Quarry Discharge NTU Meter	No						
2. Pond 13 Discharge	YES	#1				4:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

N:\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: Quarry

Date: 1/22/09

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	NO					0733	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					8:30PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\hernandejl\My Documents\Excel Files\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/24/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	3.836				0639	
2. Pond 13 Discharge	~~No~~					0815	
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					5:30 PM	GN
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/29/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	.827				5:49	
2. Pond 13 Discharge	NO	—				7:52	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	YES	#1				5:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1-19-09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	1.347				6612	
2. Pond 13 Discharge	Yes	2				1219	
1. Quarry Discharge NTU Meter	YES	1.3					
2. Pond 13 Discharge	YES	#1				4:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/16/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				1125	H
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/15/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				1239	H
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/14/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	NO					0815	[signature]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/13/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				1219	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/12/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				1105	H
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/9/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	yes	1				1215	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/8/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	1.625					
2. Pond 13 Discharge	Yes	2				1125	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/7/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	1.456					
2. Pond 13 Discharge	Yes	2				1025	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/6/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	yes						
2. Pond 13 Discharge	yes	1				0858	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/5/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	2				0948	H
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 4/2/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

Quarry Shut down for Maintenance

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 1/1/09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter	Quarry Down due to the Holyday						✓
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/30

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	No					11:00AM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/29

From: QUARRY

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					11:15 AM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 12/26/08

To: Scott Renfrew

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					10:00AM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/22/08

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0735	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

Note Quarry is only Runnig One Shift

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

Date: 12/18

To: Scott Renfrew

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					9:30AM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/17/08

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					1010	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/16/08

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0815	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/15/08

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO	—				0950	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/12/08

From: QUARRY

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	# 1				4:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/11/08

From: Quarry

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				4:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/10

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter	No						
2. Pond 13 Discharge	No					4:15 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/9

From: Quarry

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	#1				0905	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	# 1				4:15PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/8

From: QUARRY

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	yes						
2. Pond 13 Discharge	yes	2				0750	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	# 1				4:45	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/5/08

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0905	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/4

From: QUARRY

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	#1				0915	H
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				3:15PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: Quarry

Date: 12/3

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	# 1				0845	H
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				4:30 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/2

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				4:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/1

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				5:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/18/09

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 30 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/20/09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	100 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3-23-09

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3-24-09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/27/07

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 45 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/28/09

From:

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	~~O~~	1	~~O~~	~~O~~	~~O~~	7 1/2 A	VLMcCarthy
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 3/29/09

To: SCOTT RENFREW

From:

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	715-A	VLM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/30/09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 4-6-09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 55 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 4/11/09

From: G. Cabai

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	1045	GC
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 4/12/09

To: SCOTT RENFREW

From: G. Cobi

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	0830	GC
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 4/16/09

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12:10 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 4/25/09

From:

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	715 AM	VLM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 6/22/08

From:

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	NA	NA	NA	920 A	VLMcCall
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/6/08

From: D. RICARDO

Subject: **Creek Inspections - Dry Season:** (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NA	NA	NA	1245 PM	D. RICARDO
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/4/08

From: D. RICARDO

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	NA	NA	NA	10:15 AM	D. RICARDO
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/12/08

From: D. RICARDO

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NA	NA	NA	1205 PM	D. RICARDO
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/13/08

From: D. RICARDO

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NA	NA	NA	11:20 AM	D. RICARDO
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA - TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/19/08

From: Control

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	NA	NA	NA	7:19 Am	VLM
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge If observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/20/08

From: Control

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	~~O~~	1	NA	NA	NA		VLM
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Attachment 5

Control Room Staff: Dry and Wet Season Daily Inspection Forms

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/20/08

From: Control

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	NA	NA	NA		VLM
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/2

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					2:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/3/08

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					4:00 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/6

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					4:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/14

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	#2				0845	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				4:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/15

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0905	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					3:45PM	G
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/16

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0825	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					4:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/20

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0945	H
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					4:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/21

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	NO					0810	H
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	NO					5:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/22

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				0830	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				4:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/23

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	#1				0745	
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				3:00 PM	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/24

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0915	
1. Quarry Discharge NTU Meter	No						
2. Pond 13 Discharge	YES	#1				5:00PM	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/27

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	yes						
2. Pond 13 Discharge	yes	# 7				0935	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	yes	#1				3:50 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/28

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0810	
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	YES	#1				5:00PM	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: QUARRY

Date: 10/29

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0950	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					5:00 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/30

From: QUARRY

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0110	
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					5:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10-31-08

From: Quarry

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	NO					0805	[illegible]
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				4:20PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11-3-08

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	4.625					
2. Pond 13 Discharge	NO					1100	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	1				4:15	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: Quarry

Date: 11-4-08

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	yes						
2. Pond 13 Discharge	yes	1				0745	[illegible]
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	YES	1				3:15 PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11-5-08

From: [illegible]

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0905	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO	1				7 PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11-6-08

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0830	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					3:PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11/10

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0455	[illegible]
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					4:45PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 10/11

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0830	[illegible]
1. Quarry Discharge NTU Meter	No						
2. Pond 13 Discharge	No					4:45PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11/13

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter	~~NO~~ YES						
2. Pond 13 Discharge	No					5:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11/12

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					0845	✓
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					5:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11/14

From: QUARRY

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	yes	1.056				0720	H
2. Pond 13 Discharge	NO					10:11	H
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				5:30PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11/17

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes	5.400				0625	H
2. Pond 13 Discharge	NO					1105	H
1. Quarry Discharge NTU Meter	YES						H
2. Pond 13 Discharge	YES	#1				4:40 PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11/18

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	yes	5.046				6:40	[illegible]
2. Pond 13 Discharge	yes	1				11:06	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				5:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11/09

From: QUARRY

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				1105	[illegible]
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	YES	#1				4:30PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11/20/08

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	Yes						
2. Pond 13 Discharge	Yes	1				0935	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11/21/08

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Quarry Discharge NTU Meter	Yes	5.037				0525	[illegible]
2. Pond 13 Discharge	Yes	1				0912	[illegible]
1. Quarry Discharge NTU Meter	yes	1.947				5:15pm	[illegible]
2. Pond 13 Discharge	YES	1				5:30pm	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11-24-08

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	1,101					6:45AM	[illegible]
2. Pond 13 Discharge	YES	1				11:35AM	[illegible]
1. Quarry Discharge NTU Meter	1,196					4:30PM	[illegible]
2. Pond 13 Discharge	YES	1				4:00PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11-25-08

From: QUARRY

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	1,235					6:40	[illegible]
2. Pond 13 Discharge	YES	1				11:30 AM	[illegible]
1. Quarry Discharge NTU Meter	1,169					3:00 PM	[illegible]
2. Pond 13 Discharge	YES	1				5:30 PM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11-26-09

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	1,220					6:35 AM	
2. Pond 13 Discharge	YES	1				10 AM	
1. Quarry Discharge NTU Meter	1,651					2:25	
2. Pond 13 Discharge	YES	1				3:45 PM	
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 11-28-08

From: Quarry

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	1.628					6:30AM	[illegible]
2. Pond 13 Discharge	Yes	1				11:30AM	[illegible]
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/12/09

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 55 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/11/09

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1255 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/10/09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1:00 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/9/09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 00 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 1/2/09

From: D. BALTAZAR

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	945 AM	[signature]
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-30-08

From: DAVID BALTAZAR

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	100 PM	[illegible]
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 12-29-08

To: SCOTT RENFREW

From: DAVID BALTAZAR

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	12 15 PM	[illegible]
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-27-09

From: DAVID

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	730 AM	[signature]
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/26/08

From: DAVID

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	930 AM	
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 12/25/08

To: SCOTT RENFREW

From:

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	3	Ø	Ø	Ø	750 A	VLMcC
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 12/24/08

To: SCOTT RENFREW

From:

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	2	Ø	Ø	Ø	720 AM	VLMcCarthy
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

From: Quarry

Date: 12/17

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					1:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/16/08

From: QUARRY

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	NO					10:00AM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/17/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-15-08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	2	No	No	No	1250 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/12/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-11-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/10/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-9-08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/7/08

From:

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	7AM	VLMC
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/6/08

From:

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	920 A	VLMcCall
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/5/08

From: J. Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	2	No	No	No	12 55 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/4/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	2	No	No	No	12 55 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. ~~*Clear*~~
   2. *Almost Clear*
   3. ~~*Slightly Cloudy*~~
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-1-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	Leaves	No	No	100 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/29/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	Leaves	No	No	2:00 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/24/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	Leaves	No	No	1 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

From: ZACH

Date: 11/23/08

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NONE	NO	NO	9AM	ZACH
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/22/08

From: ZACH

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NONE	NO	NO	11AM	ZACH
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-21-08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	2	Leaves	No	No	1:00 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-20-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	Leaves	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/19/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 45 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/18/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10:00 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-17-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10:15 AM	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/14/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 50 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/13/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/12/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 30 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/11/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	2 10 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/10/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/9/08

From:

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	700 A	VLMcCall
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/8/08

From:

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	710 A	VLMcCall
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/7/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	2:00 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/6/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	2:10 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/4/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	205 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/05/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 15 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-3-08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10:20 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. ~~TSS Observation~~: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *~~Almost Clear~~*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-1-08

From: M. Martin

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	NO	NO	NO	NO	9:30 AM	M Martin
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-2-08

From: Michael Martinez

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	NO	NO	NO	NO	11:30 ~~9:30~~ AM	M. Martinez
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. ~~Clear~~
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/30/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. ~~TSS Obs~~ervation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/29/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 45 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/28/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 45 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 1-27-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 45 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. ~~TSS Observation~~: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. ~~*Almost Clear*~~
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/24/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	8 45 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/23/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	805 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/22/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 30 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/21/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	840 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/20/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10:30 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10-16-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	810 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10-15-08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/14/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	#1	No	No	No	8 15 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/13/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	#1	No	No	No	8:00 am	J Malcolm
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/12/08

From: VM

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	~~O~~	1	~~O~~	~~O~~	~~O~~	705 A	VLMCa
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

From: VLMcCarthy

Date: 10/11/08

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	905 AM	VLM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/10/08

From: Joan Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	8 AM	J. Malcolm
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 10-13-08

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:03 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:15 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

N:\EH[illegible]vironment\z - Inspection Forms\Creek Inspections 2008Yard Wet 2008

Attachment 6

Rock Plant Staff: Dry and Wet Season Daily Inspection Forms

9-25-08

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-30-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GRR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	9:30 AM	[illegible]
2. Creek Below Screen Tower # 4		1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond		1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	6:10 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	6:10	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	6:10	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dry S

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-29-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	UPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	NA		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	NO	—	NA	NA	NA	6:50	PM AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	6:50	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	6:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dr. ason

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-26-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 Am	GCN
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	ϕ	NA	NA	NA	9:10AM	GF
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	0	NA	NA	NA	5:50 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	5:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:50	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dr. as

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-25-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GEN
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	~~0~~	NA	NA	NA	8 AM	GI
2. Creek Below Screen Tower # 4	YES	~~1~~	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	~~0~~	NA	NA	NA	8:10	DM AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	8:10	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	8:10	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dry Season

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-24-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPM
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	Ø	NA	NA	NA	8:30AM	G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	—	NA	NA	NA	4:50 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	4:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	4:50	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dry

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-23-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	Ø	NA	NA	NA	8:40 AM	GP
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	~~0~~	NA	NA	NA	5:50 PM	A.G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	5:50	A.G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:50	A.G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dry Se

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-22-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	NO WATER	NA	NA	NA	10 AM	GP
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	N	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:10	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	5:10	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:10	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Di[illegible]

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-19-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GLR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	10AM	GL
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7:10	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	7:10	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:10	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dry Season

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-18-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	11AM	GP
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7:10 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	7:10	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:10	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-17-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GRR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	8AM	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	6:50 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	6:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	6:50	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dr. ason

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-16-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	9:00 AM	GP N
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9:30 AM	GP
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	6:20 PM	A G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	6:20	A G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	6:20	A G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dry

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-15-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9:30 AM	GP
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	6:30 PM	A.G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	6:30	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	6:30	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dry Season

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-12-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	[illegible]
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	10AM	[illegible]
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5 45 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	5 45	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5 45	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-11-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:30 AM	GEA
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9AM	GA
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	4:20	PM AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	4:20	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	4:20	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dry S[illegible]on

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-10-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	9:00 AM	[illegible]
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	10:30AM	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:10	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	5:10	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:10	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dry Se

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-9-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	2:00 AM	[illegible]
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9:30 AM	[illegible]
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:20	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	5:20	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:20	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dry Season

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-8-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9AM	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:20 PM	A G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	5:20	A G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:20	A G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-5-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	[illegible]
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	11:30AM	[illegible]
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:50 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	5:50	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Dry S[illegible]on

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-4-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	ARR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	10:30 AM	cd
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	6 50	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	6:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	6 50	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-3-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	[illegible]
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	8:30AM	[illegible]
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	NA		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-2-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPN
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	10AM	Cd
2. Creek Below Screen Tower # 4	"	"	NA	NA	NA	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	4:20 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	NA	4:20	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	4:20	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-1-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	"	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9:00 AM	[illegible]
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	4:20 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	4:20	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	4:30	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-4-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA		
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A		
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	3:50	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3:50	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-5-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	"	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:20 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	5:20	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-6-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	12:50 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	12:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	12:50	A-G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	8:00 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	8:00	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	8:00	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-8-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GRR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	12:00 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	12:00	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	12:00	AG
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:10 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	5:10	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:10	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-11-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	ARR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	7:00 PM	ARR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-12-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	APR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	7:00 PM	APR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-13-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	7:30 PM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-14-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPN
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5 20	PM AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	5 20	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5 20	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-15-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2 AM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	12:20	PM A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	12 20	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	12:20	A-G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:50	PM A G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	5:50	A G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:50	A G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-18-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	12:50 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	12:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	12:50	A-G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	4:20 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	4:20	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	4:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-19-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA	6:30 PM	GPR
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	"	"
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-20-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	8:00 AM	[illegible]
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	12:50 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	12:50	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	12:50	AG
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	3:55 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3:55	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3:55	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-21-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	CBR
2. Creek Below Screen Tower # 4	"	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	11:50	A G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	11:50	A G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	11:50	A G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	3:10	A G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3:10	A G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3:10	A G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-22-08

From: Rock Plant

Subject: Creek inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:30 AM	GPR
2. Creek Below Screen Tower # 4	"	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:20	A G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	5:20	A G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:20	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 9-25-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7 AM	GPR
2. Creek Below Screen Tower # 4	"	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9AM	GP
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	4:10 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	4:10	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	4:10	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-26-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	~~NO~~ YES	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	11AM	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	4:20	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	4:20	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	4:20	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-27-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	8:50 AM	[illegible]
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	10 AM	[illegible]
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	450	A G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	450	A G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	450	A G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-28-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 am	[illegible]
2. Creek Below Screen Tower # 4	"	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9AM	G/
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:00	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	5:00	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:00	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 8-29-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	[illegible]
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-31-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:30 AM	GPR
2. Creek Below Screen Tower # 4	"	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9:30AM	GI
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	7:10 PM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-30-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GRR
2. Creek Below Screen Tower # 4	"	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9:30 AM	GI
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7:10 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	7:10	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:10	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-29-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	"	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	11AM	GI
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	3:20PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3:20	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-28-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	Yes	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	3:50PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3:50	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-25-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	2:50AM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	2:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	2:50	A-G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9AM	"
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-24-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:50AM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3:50	A-G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	10AM	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	4:40	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-23-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	2:10 AM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	2:10	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	2:10	AG
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	10:30 AM	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	6:50 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	7:50	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-22-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	2:20 AM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	2:20	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	2:20	A-G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	12PM	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7:20PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	7:20	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew **Date: 7-21-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	2:50AM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	2:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	2:50	A-G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9:30AM	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7:50PM	A G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	7:50 PM	A G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:5 PM	A G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-18-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	2:20 AM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	2:20	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	2:20	AG
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9:30 AM	"
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7:10 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	7:10	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:10	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-17-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	3:50 AM	A.G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3:50 "	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3:50 "	A-G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	10 AM	cd
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	6 30 PM	A G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	6 30	A G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	6 30	A G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew **7 16 08**

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	4:20 AM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	4:20	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	4:20	AG
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	11:30 PM	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	8:00 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	8:00	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	8:00	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

7 15 08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	11:55AM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	11:55AM	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	11:55AM	AG
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew **7 14 08**

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	3 10 AM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3 10	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3 10	A-G
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7:50 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	7:50	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-11-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	3:50AM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3:50	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3:50	AG
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7:50PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	7:50	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-10-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	4:50 AM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	4:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	4:50	A-G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	10:30AM	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7:30 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	7:30	AG
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:30	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew **Date: 7-9-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	4:20 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	4:20	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	4:20	A-G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9:40 AM	G
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	8:50 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	8:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	8:50	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew

Date: 7-8-08

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	3:20AM	A G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3:20	A G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3:20	A G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	11AM	"
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7:50PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	7:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:50	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew **Date: 7-7-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	3:50AM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3:50	A-G
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9AM	"
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	7:50PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	7:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	7:5	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew **Date: 7-3-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge			NA	NA	NA		
2. Creek Below Screen Tower # 4			NA	NA	N/A		
3. Adjacent to Dinky Shed Pond			NA	NA	NA		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	3:00	A-G
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	3:00	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	3:00	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew **Date: 7-2-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GPR
2. Creek Below Screen Tower # 4	"	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9:30AM	GI
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:10PM	A-6
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	5:10	A-6
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:10	A-6

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Scott Renfrew **Date: 7-1-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NA	NA	NA	2:00 AM	GDR
2. Creek Below Screen Tower # 4	"	1	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	1	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	9AM	[illegible]
2. Creek Below Screen Tower # 4	"	"	NA	NA	N/A	"	"
3. Adjacent to Dinky Shed Pond	"	"	NA	NA	NA	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NA	NA	NA	5:20PM	[illegible]
2. Creek Below Screen Tower # 4	YES	1	NA	NA	N/A	5:20	[illegible]
3. Adjacent to Dinky Shed Pond	YES	1	NA	NA	NA	5:20	[illegible]

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 6-30-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	2:00 AM	GOR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	11 AM	GR
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	5:20 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NO	NO	NO	520	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NO	NO	NO	520	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager

Date: 6-27-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NO	NO	NO	2:00 AM	GRR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	9:30AM	G
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	5:20 PM	AG
2. Creek Below Screen Tower # 4	YES	1	NO	NO	NO	5:20	AG
3. Adjacent to Dinky Shed Pond	YES	1	NO	NO	NO	5:20	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager

Date: 6-26-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	No	NO	NO	2:00 AM	AEN
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	11AM	CJ
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	4:50 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NO	NO	NO	4:50	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NO	NO	NO	4:50	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager**

Date: **6-25-08**

From: **Rock Plant**

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NO	NO	NO	2:00 AM	GPR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	9:30 AM	GJ
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	4 20 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NO	NO	NO	420	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NO	NO	NO	420	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager

Date: 6-24-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	No	No	NO	8:00 AM	GPR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	9:30AM	GP
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	4 20PM	A G
2. Creek Below Screen Tower # 4	YES	1	NO	NO	NO	4 20	A G
3. Adjacent to Dinky Shed Pond	YES	1	NO	NO	NO	4 0	A G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very C y >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 6-23-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NO	NO	NO	2:00 PM	GPR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	Yes	1	NO	NO	NO	9:30AM	G
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	4:40pm	A-G
2. Creek Below Screen Tower # 4	YES	1	NO	NO	NO	4 40	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NO	NO	NO	4 40	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 6-16-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	No	1	No	No	No	2:00 AM	GP
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10:AM	GP
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	3:20	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	3:20	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	3:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 6-17-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GPR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10:30 AM	GP
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	6:50 PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	6:50	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	6:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 6-18-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GCR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	5:10 PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	5:10	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	5:10	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager**

Date: **6-19-08**

From: **Rock Plant**

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GPJr
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10:30AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	3:55PM	A.G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	3:55	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	3:55	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager**

Date: 6-20-08

From: **Rock Plant**

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	2:00 AM	GD
2. Creek Below Screen Tower # 4	YES	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	YES	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	11:30 AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	YES	1	NO	NO	NO	4:20 PM	A-G
2. Creek Below Screen Tower # 4	YES	1	NO	NO	NO	4:20	A-G
3. Adjacent to Dinky Shed Pond	YES	1	NO	NO	NO	4:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager

Date: 6-9-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9:00 AM	GPR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10 AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	5:20 PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	5:20	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	5:20	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 6-10-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9:30 AM	CPR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10:30AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	4:10 PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4:10	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4:10	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 6-11-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:AM	GPR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	12PM	GP
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	3:00 PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	3:0	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	3:0	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 6-12-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GPR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9:AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	5:10 PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	5:10	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	5:10	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 6-13-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00	ABR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	11 AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	4 20	A G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4 20	A G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4 20	A G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager** Date: **6-6-08**

From: **Rock Plant**

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2 AM	GR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9:30 AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	3:50 PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	3:50	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	3:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 6-5-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9:00 AM	GPM
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	3:50 PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	3:50	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	3:50	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager

Date: 6-4-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GRR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10AM	d
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	3:50PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	3:50	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	3:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager

Date: 6-3-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GRR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	11AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	520 PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	520	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	52	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 6-2-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	CBR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	12pm	CJ
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	4:20PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4:20	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4:20	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager

Date: 5-30-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO.	NO	NO	2:00 AM	GEA
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9 AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	4 20 PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4 20	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4 20	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 5-29-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GEA
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9:30AM	G
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	6:50PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	6:50	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	6:50	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager**

Date: **5-28-08**

From: **Rock Plant**

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GPR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	11 AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	6.50 PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	6-50	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	6-50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager

Date: 5-27-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GRR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	12PM	"
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	1	NO	3 55	AG
2. Creek Below Screen Tower # 4	NO	1	NO	1	NO	3 55	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	1	NO	3 55	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager**

Date: **5-23-08**

From: **Rock Plant**

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	12:40AM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	12:40	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	12:40	AG
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	5:15PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	5:15	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	5:15	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 5-22-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GPR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	5:20PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	5:20	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	5:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager**

Date: 5-21-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge							
2. Creek Below Screen Tower # 4							
3. Adjacent to Dinky Shed Pond							
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9:30AM	CG
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	5:20PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	5:20	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	5:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager**

Date: 5-20-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GPR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	11:30 AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	6:50 PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	6:50	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	6:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager**

Date: **5-19-08**

From: **Rock Plant**

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10AM	GR
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	7:00 PM	GR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 5-16-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	8:00 AM	GPR
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	11AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	3:20 PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	3:20	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	3:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager**

Date: **5-15-08**

From: **Rock Plant**

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	CP 92
2. Creek Below Screen Tower # 4	"	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10AM	CJ
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	4:20PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4:20	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager

Date: 5-14-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:20 AM	GR
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	"	"
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	11AM	GR
2. Creek Below Screen Tower # 4	NO	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	4:20 PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4:20	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager

Date: 5-13-08

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GPR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10:30 AM	GP
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	4:50 PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4:50	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager**

Date: **5-12-08**

From: **Rock Plant**

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GPR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10 AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	5:45	PM A.G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	5:45	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	5:45	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 5-9-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	APR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9:30 AM	CJ
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	4:50 PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4:50	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 5-8-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GPR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	9:30AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	GI
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	GI
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	5:20PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	5:20	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	5:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 5-7-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 PM	GPR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10:50 AM	"
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	4:50	PM AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4:50	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4:50	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 5-6-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	APR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	8 AM	CL
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	NO	NO	NO	NO	4:20 PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4:20	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4:20	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: **Environmental Manager**

Date: **5-5-08**

From: **Rock Plant**

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GPR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	11:30 AM	GI
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	4:30 PM	AG
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4:30	AG
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4:30	AG

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 5-2-08**

From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	2:00 AM	GEB
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	10 AM	GL
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	4:10 PM	A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	4:10	A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	4:10	A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
HEIDELBERGCEMENT Group
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
ROCK PLANT STAFF

To: Environmental Manager **Date: 5-1-08**

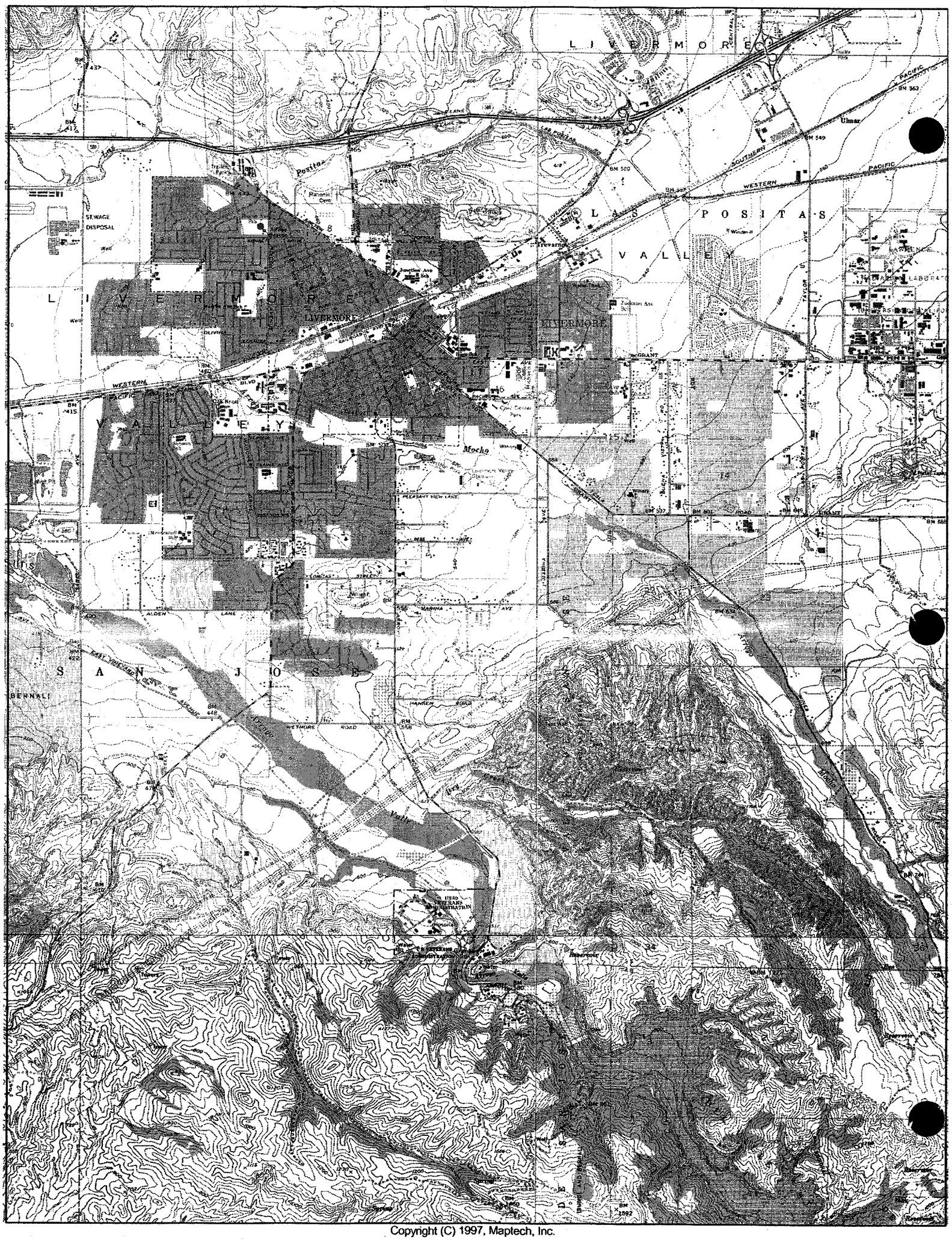
From: Rock Plant

Subject: Creek Inspections - Dry Season:May 1, 2008 to September 30, 2008

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	8:45 AM	GPR
2. Creek Below Screen Tower # 4	NO	1	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	NO	1	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	8:45AM	G
2. Creek Below Screen Tower # 4	"	"	"	"	"	"	"
3. Adjacent to Dinky Shed Pond	"	"	"	"	"	"	"
1. Rock Plant Rd. at Full Culvert Discharge	NO	1	NO	NO	NO	6:50	PM A-G
2. Creek Below Screen Tower # 4	NO	1	NO	NO	NO	6:50	PM A-G
3. Adjacent to Dinky Shed Pond	NO	1	NO	NO	NO	6:50	PM A-G

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:



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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 4/25/09

To: SCOTT RENFREW

From:

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	715 AM	VLM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 4/16/09

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12¹⁰ pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 4/12/09

To: SCOTT RENFREW

From: G - Cobai

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	0830	GC
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 4/11/09

From: G. Cibai

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	1045	GC
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 4-6-09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 55 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/30/09

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 3/29/09

To: SCOTT RENFREW

From:

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	715-A	VLM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 3/28/09

To: SCOTT RENFREW

From:

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	~~O~~	1	~~O~~	~~O~~	~~O~~	7¼A	VLMcCarthy
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/24/07

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 45 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3-24-09

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3-23-09

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/20/09

From: J. Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	100 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/18/09

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 30 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/16/09

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1:05 pm	J Malcolm
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/15/09

From: G. Cobin

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	0830	GC
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/14/08

From: G. Cobari

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	NO	NO	NO	0930	GC
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3-13-09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 30 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/12/09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 55 PM	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/11/09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1255 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/10/09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 00 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 3/9/09

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 00 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 1/2/09

From: D. BALTAZAR

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	945 AM	[signature]
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-30-08

From: DAVID BALTAZAR

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	100 PM	[illegible]
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 12-29-08

To: SCOTT RENFREW

From: DAVID BALTAZAR

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	12:15 PM	[illegible]
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-27-09

From: DAVID

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	730 AM	[illegible]
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/26/08

From: DAVID

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NO	NO	NO	930 AM	
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 12/25/08

To: SCOTT RENFREW

From:

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	3	Ø	Ø	Ø	750 A	VLMcCall
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/24/08

From:

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	⊘	2	⊘	⊘	⊘	720 AM	VLMcCarthy
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/17

From: Quarry

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	NO						
2. Pond 13 Discharge	NO					1:00PM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
QUARRY STAFF

To: Scott Renfrew

Date: 12/16/08

From: QUARRY

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Quarry Discharge NTU Meter	YES						
2. Pond 13 Discharge	NO					10:00AM	GV
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							
1. Quarry Discharge NTU Meter							
2. Pond 13 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Hernandez*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

C:\Documents and Settings\prod. supervisors\Desktop\Creek Inspections 2008Quarry Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/17/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 12-15-08

To: SCOTT RENFREW

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	2	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanehte Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 12/12/08

To: SCOTT RENFREW

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1250	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-11-08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/10/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10:50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-9-08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/7/08

From:

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	7AM	VLMC
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/6/08

From:

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	~~Y~~	1	~~Y~~	~~Y~~	~~Y~~	920 A	VLMcCall
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/5/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	2	No	No	No	12 55 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/4/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	2	No	No	No	12 55 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. ~~*Clear*~~
   2. *Almost Clear*
   3. ~~*Slightly Cloudy*~~
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-1-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	Leaves	No	No	100 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/29/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	Leaves	No	No	2:00 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/24/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	Leaves	No	No	1 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

Date: 11/23/08

To: SCOTT RENFREW

From: ZACH

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NONE	NO	NO	9AM	ZACH
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/22/08

From: ZACH

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NONE	NO	NO	11AM	ZACH
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-21-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	2	Leaves	No	No	1:00 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-20-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	Leaves	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/19/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10:45 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/18/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10:00 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-17-08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10:15 AM	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/14/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 50 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/13/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12:50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/12/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 30 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/11/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	2 10 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/10/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/9/08

From:

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	700 A	VLMcCall
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/8/08

From:

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	7:10 A	VLMcCall
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/7/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	2:00 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/6/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	2:10 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/4/08

From: J. Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	205 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11/05/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 15 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-3-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10:20 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-1-08

From: M. Martin

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	NO	NO	NO	NO	9:30 AM	M Martin
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 11-2-08

From: Michael Martinez

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	NO	NO	NO	NO	11:30 ~~9:30~~ AM	M. Martinez
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/30/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. ~~TSS Observation~~: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. ~~*Almost Clear*~~
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/29/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 45 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/28/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 45 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. ~~TSS Observation~~: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *~~Almost Clear~~*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 1-27-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 45 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. ~~TSS Observation~~: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. ~~*Almost Clear*~~
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/24/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	8 45 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/23/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	805 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/22/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 30 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/21/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	840 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/20/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		~~Total Suspended Solids (TSS)~~[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10 30 am	JM
1. Pond 22 Discharge	-						
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10-16-08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	810 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10-15-08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	12 50 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/14/08

From: J Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	#1	No	No	No	8 15 am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/13/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	#1	No	No	No	8:00 am	J Malcolm
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/12/08

From: VM

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	~~Y~~	1	~~Y~~	~~Y~~	~~Y~~	705 A	VLMCa
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

From: VLMcCarthy

Date: 10/11/08

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	Ø	Ø	Ø	905 AM	VLM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 10/10/08

From: Joan Malcolm

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	8 AM	J Malcolm
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 10-13-08

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:03 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:15 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

N:\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Yard Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/20/08

From: Control

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	~~Y~~	1	NA	NA	NA		VLM
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/19/08

From: Control

Subject: **Creek Inspections - Dry Season:** (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	NA	NA	NA	7:19 AM	VLM
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/13/08

From: D. RICARDO

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NA	NA	NA	11:20 AM	D. RICARDO
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/12/08

From: D. RICARDO

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NA	NA	NA	1205 PM	D. RICARDO
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/4/08

From: D. RICARDO

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	NA	NA	NA	10:15 AM	D. RICARDO
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA **Date:** 7/6/08

From: D. RICARDO

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NA	NA	NA	1245 PM	D. RICARDO
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 6/22/08

From:

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	Ø	1	NA	NA	NA	920 A	VLMcCall
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Attachment 7

Yard Staff: Dry and Wet Season Daily Inspection Forms

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 9-30-08

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3:00 p.m	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3:13 p.m	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-29-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3:12 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3:15 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is - clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

\\per[redacted]Everyone\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Ya[redacted] 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-26-08

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	1-45 P.M	Cusanovich
2. Pond 22 Discharge	Yes	1	NA	NA	NA	1-58 P.M	Cusanovich
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-25-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	12-47 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	1-00 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-26-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	1-53 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2-08 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-22-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3-10 PM	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3-21 P-M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-19-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2:04 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2:18 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew **Date:** 9-18-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2:10 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2:22 PM	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-17-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3-00 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3-13 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is - Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-16-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	1-53 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2:06 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-15-08

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2:42 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2:55 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-14-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2-15 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2-26 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-12-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:04 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:14 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-11-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3:04 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3:16 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

\\per[redacted]Everyone\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Yar[redacted]2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-10-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	1-5-7 10.m	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2:08 P.m	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-9-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2:48 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3:00 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

\\per[redacted]Everyone\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Yar[redacted]2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-8-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3-12 P.M	Cosa nova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3-20 P.M	Cosa nova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-6-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	1-50 12:11	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2:02 12:11	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9.5.08

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2:14 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2:25 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-4-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-50 p-m	Casanova
2. Pond 22 Discharge	Yes	1				2:02 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9 · 3 · 08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2:58 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3:08 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-2-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3-33 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3:46 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8-30-08

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	1:43 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	1:54 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 9-1-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	1-31 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	1-44 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8·29·08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	1-35 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	1-45 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8-28-08

From: Yard.

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2:32 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2:43 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8-27-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2-55 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3-06 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 5·26·08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3·11 P·M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3·22 P·M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

\\per[redacted]Everyone\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Yar[redacted]2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8-25-08

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2-13 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2-22 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8-23 08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	1-43 p.m	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	1-56 p.m	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8 · 22 · 08

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	12·50 P·M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	1·02· P·M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8-21-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2:00 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2:12 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8-19-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3:05 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3:15 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8·20·08

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3·07 PM	Casamovin
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3-20 P-M	Casamovin
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew **Date:** 8-18-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	4-25 P-M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	4-35 P-M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

\\perm02\Everyone\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Yard Dry 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 8-16-08

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	1:47 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	1:59 P-M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

\\pe[redacted]Everyone\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Ya[redacted] 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8-15-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3-30 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3-40 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8-14-09

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3:00 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3:12 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew **Date:** 8 13 · 08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3^10 P·M	Casanovar
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3·22 P·M	Casanovar
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8-12-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2:50 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3:00 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

\\pe[redacted]Everyone\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Y[redacted]y 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 8·11-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	2·20 P·M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	2·30 P·M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 07-21-08

From: David Ocho 2 YARD

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2:00PM	David Ochoa
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2:00PM	David Ochoa
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-18-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	3-12 p.m	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	3-20 p.m	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-17-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	3:27 P.M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	3:36 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-16-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	2:52 PM	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	3:03 PM	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-25-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	3:37 P.M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	3:52 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-14-08

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	3:07 P.M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	4:17 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: GINA FACCA

Date: 7/14/08

From: D. RICARDO

Subject: Creek Inspections - Dry Season: (May 1, 2006 to September 30, 2006)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	NO	1	NA	NA	NA	1230 PM	D. RICARDO
1. Pond 22 Discharge			NA	NA	NA		
1. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Jose Solorio*

Description of Discharge if observed:

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-11-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	3-26 P.M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	3-44 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7 10 - 08

From: Casanova

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	3 · 19 p·m	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	3 - 43 p·m	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-9-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	2:25 p.m	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	2:39 p.m	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-8-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	1-32 P.M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	1-45 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-7-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	2:10 P.M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	2:20 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

\\perm02\Everyone\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Yard Dry 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-3-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	12:20 P.M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	12:34 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-2-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	2.10 P.M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	2.20 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7-1-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	2:15 P.M	Casanover
2. Pond 22 Discharge		1	NA	NA	NA	2:30 P.M	Casanover
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

\\per[redacted]Everyone\EHS\Environment\z - Inspection Forms\Creek inspections 2008Yat[redacted]2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 7·30·08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	2·50 P·M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	3·00 P·M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 6·28·08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	1-30 P·M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	1·40 P·M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew **Date:** 6-27-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	12:30 P.M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	12:50 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 6-26-08

From: Yard.

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	12:50 P.M.	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	1-00 P.M.	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew **Date:** 6-25-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	1-40 P.M.	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	1.55 P.M.	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge?.- Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 6-24-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	1:40 PM	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	1:48 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 6·23·08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	1 30 P·M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA	1-38 P·M	
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 6-22-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	4:30 PM	E. Hernandez
2. Pond 22 Discharge		1	NA	NA	NA	4:35PM	E. Hernandez
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 6·21·08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1				3·15 P·M	Casanova
2. Pond 22 Discharge		1					
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 6. 20 '08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	3-00 P.M	Casanova
2. Pond 22 Discharge		1	NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clean

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 6-19-08

From: Yard.

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	3-00 P.M	Casazzova
2. Pond 22 Discharge		1	NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clean

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 6-18-08

From: Casanova

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	10:30 AM	Casanova
2. Pond 22 Discharge		1	NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 6-17-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA	p.m 3:30	Casanova
2. Pond 22 Discharge		1	NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: clean water

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 6-16-08

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1	NA	NA	NA		Casanova
2. Pond 22 Discharge		1	NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-30-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:33 p.m	Casanova
2. Pond 22 Discharge	Yes	1				1:09 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-29-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	yes	1				2:07 p.m	Casanova
2. Pond 22 Discharge	yes	1				2:24 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-28-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-22 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1-53 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-27-09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1:35 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1:54 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-24-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-30 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-20 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-23-09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2.47 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3.00 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clean

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-22-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	3				12-31 P.M	Casanova
2. Pond 22 Discharge	Yes	3				12-49 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Adjacent To Dinky-Shed Pond, The water is slightly cloudy
Pond 22: The water is slightly cloudy

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-21-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-17 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-15 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 4-20-09

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	2:05 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	2:19 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-17-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:20 P.M	Casanova
2. Pond 22 Discharge	Yes	1				12:40 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-16-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-26 p.m	Casanova
2. Pond 22 Discharge	Yes	1				1.57 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew **Date:** 4-15-09

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	12:00 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	1:57 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 4-14-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				3:37 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3:52 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 4-13-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				1-10 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1-22 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-10-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1:56 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:20 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 4-8-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:04 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:19 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clean

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 4-7-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-38 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-10 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4 · 6 · 09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12·20 PM	Casanova
2. Pond 22 Discharge	Yes	1				12·50 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-3-09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1·25 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1·55 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-2-09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				1-41 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-03 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 4-1-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12-30 p.m	Casanova
2. Pond 22 Discharge	yes	1				12:56 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 3-31-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:27 p.m	Casanova
2. Pond 22 Discharge	Yes	1				1:00 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew **Date:** 3-30-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				1-42 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:00 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 3-27-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-20 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:00 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 3-26-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:21 P.M	Casanova
2. Pond 22 Discharge	Yes	1				12:55 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3-25-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				1-23 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-05 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1.. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3-24-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	yes	1				1-35 P.M	Casanova
2. Pond 22 Discharge	yes	1				2-15 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 3-20-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-30 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1-45 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3.19.09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				2.01 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2.26 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3-18-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				1-12 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1-40 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clean

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 3-17-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:30 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1:00 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3.16.09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1.28 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2.22 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3-13-09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-36 p.m	Casanova
2. Pond 22 Discharge	Yes	1				2:18 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3·12·09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1·45 P·M	Casanova
2. Pond 22 Discharge	Yes	1				2·00 P·M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 3-11-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	yes	1				1-25 P-M	Casanova
2. Pond 22 Discharge	yes	1					
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3.10.09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				12.31 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1-00 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 3-9-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:30 P.M	Casanova
2. Pond 22 Discharge	Yes	1				12:45 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3·6·09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				1-25 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1-43 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3-5-09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	yes	1				1:37 p.m	Casanova
2. Pond 22 Discharge	Yes	1				3:18 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3-4-09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-34 P.M	Casanova
2. Pond 22 Discharge	Yes	2				1-50 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water on Dinky shed Pond is Clear
The water on pond 22 - is Almost Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 3-3-09

From: Yard

Subject: **Creek Inspections - Dry Season:** (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	3	NA	NA	NA	12:00 P.M	Casanova
2. Pond 22 Discharge	Yes	3	NA	NA	NA	12:40 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is slightly Cloudy For the storm

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

\\oerm02\Everyone\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Yard Dry 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 3-2-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	3				2-16 P.M	Casanova
2. Pond 22 Discharge	Yes	3				2:25 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is slightly cloudy. For the storm

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

3/1/09

To: SCOTT RENFREW

Date: ~~[illegible]~~ 09

From:

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	0	2	0	0	0	715 A	[illegible]
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 2/28/09

From:

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	~~O~~	1	~~O~~	~~O~~	~~O~~	705 Am	VLMcCall
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2-27-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:34 P.M	Casanova
2. Pond 22 Discharge	Yes	1				12:51 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2-26-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:45 p.m.	Casanova
2. Pond 22 Discharge	Yes	1				1:00 p.m.	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2-25-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:00 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:23 P.M	
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2·24-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-49 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2·18 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2-23-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-55 P.M	Casanova
2. Pond 22 Discharge	Yes	2				2-10 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Adjacent To Dinky shed Pond. The water is Clear. Pond 22 Discharge. The water is Almost Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2-20-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-50 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:38 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2-19-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:35 P.M	Casanova
2. Pond 22 Discharge	Yes	2				1:00 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Adjacent To Dinky Shed Pond The water is Clear
Pond 22 Discharge The Water is Almost Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2-19-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12-40 P'M	Casanova
2. Pond 22 Discharge	Yes	1				1-00 P'M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew **Date:** 2·17·09

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	yes	3	NA	NA	NA	12:50 P.M	Casanova
2. Pond 22 Discharge	yes	3	NA	NA	NA	1-15 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is slightly cloudy for the storm

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2-13-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:20 P.M	Casanova
2. Pond 22 Discharge	Yes	2.				12:45 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water on One is clear.
The water on 2. is Almost Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2-12-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-36 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-03 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 2-11-09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				1-02 P.M	Casanova
2. Pond 22 Discharge	Yes	2				1-45 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water Adjacent To Dinky shed Pond. I is Clear. The water 22 - Discharge is Almos Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 2-10-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:03 P.M	Casazzola
2. Pond 22 Discharge	Yes	1				12:45 P.M	Casazzola
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2-9-09

From: Casanova

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1				1-25 P.M	Casanova
2. Pond 22 Discharge		1				1-35 PM	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Adjacent to Dinky shed Pond: Water is Clear
Pond 22 water is slightly cloudy.

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 2-9-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-25 P.M	Casanova
2. Pond 22 Discharge	Yes	3				1-35 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittenden*

Description of Discharge if observed: Adjacent to Dinky Shed Pond. Water is Clear
Pond 22 Discharge water is slightly Cloudy

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 2-6-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				1-39 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-03 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2·5·09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				2:03 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:25 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clean

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew **Date:** 2-4-09

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	12:30 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	12:50 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clean

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 2-3-09

From: Yard

Subject: Creek Inspections - Dry Season: (May 1, 2008 to September 30, 2008)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1	NA	NA	NA	3-15 P.M	Casanova
2. Pond 22 Discharge	Yes	1	NA	NA	NA	3:45 P.M	Casanova
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		
1. Adjacent to Dinky Shed Pond			NA	NA	NA		
2. Pond 22 Discharge			NA	NA	NA		

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 2·2·09

To: Scott Renfrew

From: Casanova

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	8 89	1				1·35 P·M	Casanova
2. Pond 22 Discharge	4-22	1				2·10 P·M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? -- Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 2-2-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-35 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-10 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 01-22-09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1:30 Pm	Ochoa
2. Pond 22 Discharge	Yes	1				1:45 Pm	Ochoa
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: The water is running slightly Cloudy. (as rain again)

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 1-21-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				1-30 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-00 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 1-19-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				12:45 P.M.	Casanova
2. Pond 22 Discharge	Yes	1				2:15 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 1-16-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-55 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2.15 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clean

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 1-15-09

From: Yard.

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-32 p.m	Casanova
2. Pond 22 Discharge	Yes	1				1-46 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 1-14-09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:00 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:25 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is Clean

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 1-13-09

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2.00 p.m	Casanova
2. Pond 22 Discharge	Yes	1				2.19 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 1-12-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:06 P.M.	Casazzolo
2. Pond 22 Discharge	Yes	1				12:54 P.M.	Casazzolo
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 1-6-09

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1:50 p.m	Casanova
2. Pond 22 Discharge	Yes	1				2:25 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 1-9-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:10 p.m	Casanova
2. Pond 22 Discharge	Yes	1				2:26 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 1-6-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	yes	1				1-00 p.m	Casanova
2. Pond 22 Discharge	yes	1				1-42 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 1-7-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				1-40 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:05 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 1-5-09

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:02 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:21 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 1-2-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-56 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-30 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12-30-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:37 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1:56 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clean

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12-29-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2-05 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-16 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 12-26-08

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				12:35 P.M	Casanova
2. Pond 22 Discharge	Yes	1				12:47 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12-23-09

From: Yard.

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1·50 p·m	Casanova
2. Pond 22 Discharge	Yes	1				2·15 p·m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

N:\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Yard Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12-22-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-50 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2.03 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

N:\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Yard Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12·19·08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	yes	1				7·00 P·M	Casanova
2. Pond 22 Discharge	yes	1				7·25 P·M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12-18-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:03 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:19 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12/19/08

From: J Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	1 30 pm	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed:

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
CONTROL ROOM STAFF

To: SCOTT RENFREW

Date: 12-18-08

From: J. Malcolm

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Pond 22 Discharge	No	1	No	No	No	10^{15} am	JM
1. Pond 22 Discharge							
1. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Ray*

Description of Discharge if observed: _____

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12-16-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:23 P.M	Casanova
2. Pond 22 Discharge	Yes	2				2:36 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: on one water is Clear
on Two water is almos clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12.15.08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	yes	1				1-45 P.M	Casanova
2. Pond 22 Discharge	yes	1				2.00 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12·12·08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2·07 P·M	Casanova
2. Pond 22 Discharge	Yes	1				2·19 P·M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12-11-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:04 p.m	Casanova
2. Pond 22 Discharge	Yes	1				2:15 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 12·10·08

To: Scott Renfrew

From: Yard.

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	yes	1				3·50 P.M	Casanova
2. Pond 22 Discharge	yes	1				4·05 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 5/ 12-9-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:11 p.m.	Casanova
2. Pond 22 Discharge	Yes	1				2:24 p.m.	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12·8·08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2·06 p·m	Casanova
2. Pond 22 Discharge	Yes	1				2·18 p·m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12·5·08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2·00 P·M	Casanova
2. Pond 22 Discharge	Yes	1				2·15 P·M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12 - 4 - 08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2·13 P·M	Casanova
2. Pond 22 Discharge	Yes	1				2·25 P·M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 12-3-08

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				2:09 p.m	Casanova
2. Pond 22 Discharge	Yes	1				2:21 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12-2-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:10 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:21 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 12-1-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2-05 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2-17 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-28-08

From: yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				11:50 A.M.	Casanova
2. Pond 22 Discharge	Yes	1				12:02 P.M.	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-27-08

From: Yard.

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-28 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1-39 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-26-08

From: Yard.

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2·10 P·M	Casanova
2. Pond 22 Discharge	Yes	3				2·25 P·M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Rendy Crittendon*

Description of Discharge if observed: Adjacent Dinky shed. Pond water. is clear. Pond 22 The water. is slightly

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-25-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2-08 P.M	Casanova
2. Pond 22 Discharge	Yes	2				2-23 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Adjacent to Dinky Shed Pond - water is Clear
Pond 22 Discharge water Almos Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-24-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:03 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:18 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-21-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1				1-10 P.M	Casanova
2. Pond 22 Discharge		2				1-36 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Adjacent To Dinky shed The water is Clear
Pond 22 Discharge water is Almost Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-20-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				12:24 P.M	Casanova
2. Pond 22 Discharge	Yes	1				12:37 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear.

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-19-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-46 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1-54 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-18-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-30 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1-45 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-17-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	yes	1				1-27 P.M	Casanova
2. Pond 22 Discharge	yes	1				1-40 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-14-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:06 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:19 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-13-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:08 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:21 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 11-12-08

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:20 p.m	Casanova
2. Pond 22 Discharge	Yes	1				2:31 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 11-11-08

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	yes	1				1-57 P.M	Casanova
2. Pond 22 Discharge	yes	1				2.10 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 11-10-08

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	yes	1				2:00 P.M	Casanova
2. Pond 22 Discharge	yes	1				2:13 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-7-09

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2.05 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2.17 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-6-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	yes	1				2:10 P.M.	Casanova
2. Pond 22 Discharge	yes	1				2:21 P.M.	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-5-08

From: Yard.

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2.04 P.M	Casanover
2. Pond 22 Discharge	Yes	1				2.16 P.M	Casanover
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 11-4-08

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				10:42 A.M	Casanova
2. Pond 22 Discharge	Yes	1				10:55 A.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear.

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 11-3-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				3-02 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3-15 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-31-08

From: yard.

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				3:26 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3:38 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-30-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				3-12 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3-20 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 10-29-08

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				4:20 p.m.	Casanova
2. Pond 22 Discharge	Yes	1				4:30 p.m.	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clean

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10·28·08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	yes	1				3·45 p·m	Casanova
2. Pond 22 Discharge	yes	1				3·59 p·m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

N:\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Yard Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10 - 27 - 08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				3:11 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3:22 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-24-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				3:20 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3:30 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-23-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				3-18 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3-30 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 10-22-08

To: Scott Renfrew

From: Yard.

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				3-18 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3-30 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-21-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				3:10 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3:21 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 10-20-08

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond		1				3:02 P.M	Casanova
2. Pond 22 Discharge		1				3:14 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 10-17-08

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:00 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:11 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-16-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:10 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:21 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-15-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				3-00 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3.13 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 10-10-08

To: Scott Renfrew

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:05 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:15 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

N:\EHS\Environment\z - Inspection Forms\Creek Inspections 2008Yard Wet 2008

Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-9-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	yes	1				3:20 P.M	Casanova
2. Pond 22 Discharge	yes	1				3:31 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

Date: 10-8-08

To: Scott Renfrew

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				2:03 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:11 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-7-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-11 p.m	Casanova
2. Pond 22 Discharge	Yes	1				1-20 p.m	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-6-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				2:14 P.M	Casanova
2. Pond 22 Discharge	Yes	1				2:25 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-3-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-30 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1-42 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-2-08

From: Yard

Subject: **Creek Inspections - Wet Season:** (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations: Total Suspended Solids (TSS)[2]	Visual Observations: Floating Materials/ Debris	Visual Observations: Odors	Visual Observations: Oil & Grease Sheen	Time	Staff Person Performing Inspection
1. Adjacent to Dinky Shed Pond	Yes	1				1-30 P.M	Casanova
2. Pond 22 Discharge	Yes	1				1-42 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: water is clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Hanson Permanente Cement Corporation
Inter Office Memorandum
DAILY CREEK INSPECTION FORM
YARD STAFF

To: Scott Renfrew

Date: 10-1-08

From: Yard

Subject: Creek Inspections - Wet Season: (October 1, 2008 to April 30, 2009)

Area of Inspection	Evidence of Discharge?[1]	Visual Observations				Time	Staff Person Performing Inspection
		Total Suspended Solids (TSS)[2]	Floating Materials/ Debris	Odors	Oil & Grease Sheen		
1. Adjacent to Dinky Shed Pond	Yes	1				3-17 P.M	Casanova
2. Pond 22 Discharge	Yes	1				3-29 P.M	Casanova
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							
1. Adjacent to Dinky Shed Pond							
2. Pond 22 Discharge							

1. Evidence of Discharge? - Answer Yes or No
2. TSS Observation: Rank 1 to 5 Based On Comparison of Sample Vials
   1. *Clear*
   2. *Almost Clear*
   3. *Slightly Cloudy*
   4. *Cloudy*
   5. *Very Cloudy >1,000 NTUs - Call Randy Crittendon*

Description of Discharge if observed: Water is Clear

NA: TSS is the only visual observation required during dry season. Other visual observations are not applicable.

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Appendix E

APPENDIX E

HANSON CEMENT CORPORATION
WATER BALANCE STUDY

URS

December 20, 2000
51-981194NA.00

Mr. Lee Cover
Hanson Permanente Cement Co.
24001 Stevens Creek Blvd.
Cupertino, CA 95014

Re: **Hanson Cement Co. Refined Water Balance Study**

Dear Mr. Cover:

URS Corporation is pleased to present to Hanson Permanenete Cement Company this Refined Water Balance Study (Refined Study). The purpose of the Refined Study is to provide a more detailed evaluation of the water usage at the plant as a follow-up of the Draft Water Balance (DWB) study performed by Radian. In this Refined Study, we developed a detailed model of the site sources and uses of water at the site. The model was used to provide recommendations to decrease water supply cost by managing and reusing on-site stormwater runoff. The model can also be used to evaluate other issues related to the site hydrology and the water discharges to increase flexibility of operations.

The DWB investigated two scenarios representing the upper and lower bounds of the site hydrologic conditions: (1) a relatively high volume storm and (2) dry weather conditions. The DWB identified and quantified the main sources and discharges of water at the plant. The DWB also provided a stormwater runoff analysis using the rational method.

The Refined Study presented here is based on the framework of the DWB study. The DWB study was refined and made more realistic by using the locally observed precipitation data in the last fifty years instead of only evaluating the effect of one isolated large storm and dry weather conditions as in the DWB study.

In this Refined Study, a new water balance model was developed to provide insight on the water cycle at the plant and improve water management. This model accounts for about fifty years of measured precipitation data in the area. The incorporation of the rain data for the site enabled to perform an engineering analysis comparing costs and benefits of implementing increased storage of stormwater for recycling. The details of the model are presented in the next section.

URS Corporation
500 12th Street, Suite 200
Oakland, CA 94607-4014
Tel: 510.893.3600
Fax: 510.874.3268

MODEL DESCRIPTION

The water balance model is based on balancing the volume of water entering the site (the sum of all water sources) and the volume of water exiting the site (through uses and discharges). The sources of water are represented by precipitation runoff, groundwater surfacing in the quarry, and water purchased from the city. The uses of water at the site include dust control, process water, mineral aggregate, flue gas condenser, rock crusher, potable water, evaporation losses, discharges, etc. In addition, water can be stored in a reservoir at the site, and recycled in the plant. This would decrease the cost of buying water from the City. On the other end, building a reservoir to store runoff onsite and reuse the water in the plant involves investment of capitals that needs to be quantified to make sure that the savings in water bills are not out-weighted by the cost of increasing storage volume. Quantitative details about the identification and characterization of the above mentioned sources and uses are presented in the attached DWB report.

Table 1 presents the key elements of the model and part of the calculations. These include from left to right, the intensity of the storm events measured daily from 1948 to 1999 in the area and the corresponding runoff volumes in the quarry and at the plant, and the groundwater volume entering the quarry. The volumes of stormwater runoff and of groundwater seepage into the quarry represent the total source of water at the plant. In our water recycle analysis we assumed that the water volume that is usually supplied by the City is withdrawn from a reservoir of given capacity. The model balances the source of water with the water uses that were identified and quantified in the DWB. The result of the balance is the daily need or surplus of water that must be addressed either by the City water supply, the on-site reservoir, or by discharge into the creek in case of overflow.

The model was used to estimate the long-term annual average amount of water that needs to be purchased from the City with respect to the volume of recycle water that may be stored on-site. The yearly City water need, the number of years in which water needs to be purchased, and the average water need over the last fifty years of data are estimated for storage capacities up to 150 MG (million gallon). Based on the model, we developed a preliminary tool to optimize the reservoir with a cost-benefit analysis of the long-term savings in water bill versus costs of storage volume.

MODEL RESULTS

Table 2 presents a summary of the estimated yearly volumes of water needed from the City for various reservoir volumes. Figure 1 presents the results of the model calculations in terms of the City water need versus storage volumes up to 150 MG. According to the model results shown on Figure 1, if there is relatively little storage available (as in the current conditions) the plant needs to buy an average of more than 200 MG per year for each year in the period 1948-1998. This is based on the findings of the DWB study that estimated an average City water consumption of 0.152 MGD during wet weather and 0.655 MGD during dry weather, resulting in an average of about 210 MG per year.

If the storage volume is increased to more than 150 MG, the model estimates that there is no need to buy water based on the hydrologic conditions used in the DWB to represent the site and the local precipitation data. For storage volume of about 50 MG, the model estimates that about 50 MG of City water would need to be purchased in 36 out of the 51 years under consideration.

Figure 2 presents the results of the preliminary optimization analysis. This is based on model calculations of the average long-term City water need versus storage volumes. According to the model results shown on Figure 2, if there is very little storage available (as in the current conditions) the plant needs to buy an average of more than 200 MG per year for each year in the period 1948-1998. This is based on the DWB estimate of an average City water consumption of 0.152 MGD during wet weather and 0.655 MGD during dry weather, resulting in an average 210 MG per year, and should be updated in case of more accurate information is available.

For a storage volume of 150 MG, the model estimates that there is no need to buy water based on the hydrologic conditions used in the DWB to represent the site. For storage volume of about 50 MG, the model predicts that about 50 MG of City water would need to be purchased in 36 out of the 51 years under consideration. This means that, averaging over the whole 51 years, the average cost per year decreases to about 40 MG.

The chart in Figure 2 can be used as the basis for a cost-benefit analysis by introducing a cost/benefit factor representing the cost per MG of storage and the corresponding savings per MG in water bill. Assuming storage and purchased water have the same worth, the point of the chart where the two series cross (between 30 and 50 MG) is the optimum storage volume with respect to water savings. A supply of about 40 MG per average year would still be needed from the City. The saving corresponds to about 150 MG per average year. For a storage volume of about 80 MG and up, the model predicts that the plant would be almost independent from the City by recycling its stormwater.

CONCLUSIONS AND RECOMMENDATIONS

This refined water balance study evaluated the benefits of decreasing the needs for City water by implementing capture and storage of site runoff. The results of this study are:

- Using a reservoir to recycle stormwater and reuse it to meet the plant needs may result in significant savings and decrease of discharges to the creek;
- The model results indicate that if the storage volume is increased to 80 MG the need for use of City water would be relatively low;
- Even smaller storage volumes of 10 to 30 MG would significantly reduce City water needs; and,
- If we assume the cost of a MG storage is equal to the price of a MG City water, the optimum storage volume is estimated to be about 50 MG.

URS

The recommendations of this study are:

- The feasibility of locating one or more storm water storage facilities should be considered
- The cost-benefit analysis should be revisited using up-to-date information about the cost per MG of reservoir and the savings for MG of recycled water.
- The water balance model developed for the site should be regarded as a useful tool to assist in understanding the plant water cycle and may be used in the future to explore alternative water management options.

Please call Mr. Ridley at 510-874-3125 or Mr. Lobascio at 510-874-3254 if you have any questions or if we can provide additional information.

Sincerely,

URS CORPORATION

Marco Lobascio, P.E.
Project Engineer

Albert P. Ridley, C.E.G.
Project Manager

Attachments: Figure 1
Figure 2
Table 1
Table 2
Attachment A

cc: Mr. Stewart Smith, Hanson Permanente Cement Co.
Mr. Gary Palhegyi, URS Corp.

FIGURE 1. ESTIMATED CITY WATER NEEDS VS STORAGE VOLUME [MG]

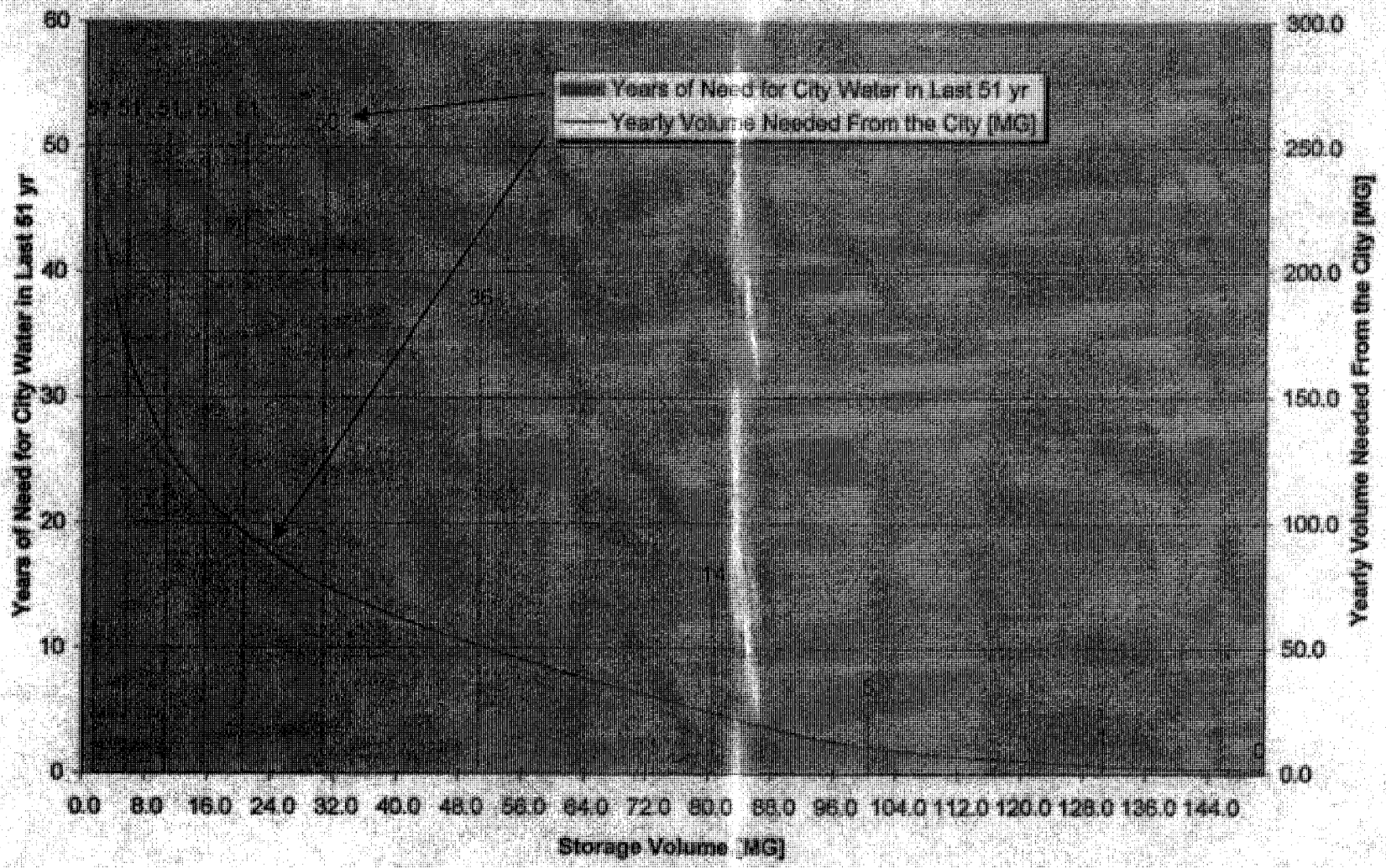

FIGURE 2. AVERAGE LONG-TERM YEARLY CITY WATER NEEDS VS STORAGE VOLUME [MG]

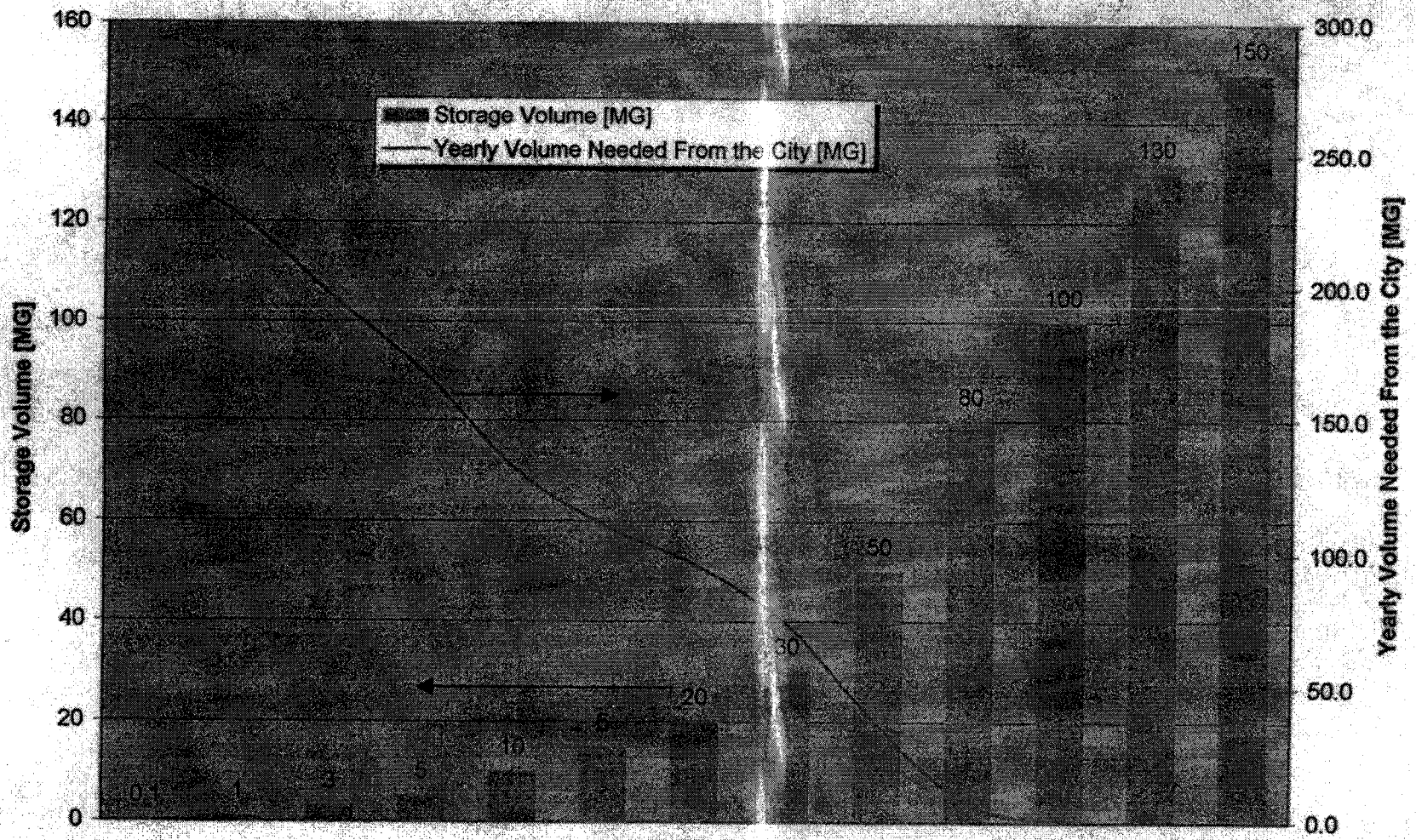

TABLE 1. WATER BALANCE MODEL STRUCTURE

Date	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
11/18/48	2.00E-2	0.00E+0	8.08E-1	2.90E-1	5.90E+0	2.00E-2	1.00E-1	0.00E+0	1.60E-1	3.00E-3	0.00E+0	0.00E+0	3.00E-1	5.67E+0		0.00E+0	0.00E+0
11/17/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.60E-1	5.00E-2	1.00E-1	1.00E-1	4.00E-1	5.00E-3	1.10E-1	1.00E-3	1.70E+0	0.00E+0		0.00E+0	0.00E+0
11/16/48	1.52E-2	0.00E+0	1.21E+0	2.90E-1	8.70E+0	3.00E-2	1.00E-1	0.00E+0	1.60E-1	2.00E-3	0.00E+0	0.00E+0	2.53E-1	5.41E+0		0.00E+0	0.00E+0
11/15/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-2	1.10E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
11/20/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
11/21/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
11/22/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
11/23/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
11/24/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
11/25/48	2.00E-2	0.00E+0	9.08E-1	2.90E-1	5.90E+0	5.00E-2	1.00E-1	0.00E+0	1.60E-1	2.00E-3	0.00E+0	0.00E+0	2.53E-1	5.61E+0		0.00E+0	0.00E+0
11/26/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
11/27/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
11/28/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
11/29/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
11/30/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
12/1/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
12/2/48	0.00E+0	0.00E+0	1.55E+1	2.90E-1	1.07E+2	5.00E-2	1.00E-1	0.00E+0	1.60E-1	2.00E-3	0.00E+0	0.00E+0	2.53E-1	1.07E+2		1.07E+2	0.00E+0
12/3/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	0.00E-1		0.00E+0	0.00E+0
12/4/48	3.20E-1	0.00E+0	1.29E+1	2.90E-1	9.60E+1	3.00E-2	1.00E-1	0.00E+0	1.60E-1	2.00E-3	0.00E+0	0.00E+0	2.82E-1	9.91E+1		9.91E+1	0.00E+0
12/5/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		2.00E+0	1.10E+0
12/6/48	4.00E-2	0.00E+0	1.82E+0	2.90E-1	1.15E+1	5.00E-2	1.00E-1	0.00E+0	1.60E-1	2.00E-3	0.00E+0	0.00E+0	2.53E-1	1.12E+1		1.12E+1	0.00E+0
12/7/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/8/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/9/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/10/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/11/48	1.00E-2	0.00E+0	4.04E-1	2.90E-1	3.00E+0	4.00E-2	1.00E-1	0.00E+0	1.60E-1	2.00E-3	0.00E+0	0.00E+0	2.82E-1	3.30E+0		0.00E+0	0.00E+0
12/12/48	7.20E-1	0.00E+0	2.91E+1	2.90E-1	2.02E+2	3.00E-2	1.00E-1	0.00E+0	1.60E-1	2.00E-3	0.00E+0	0.00E+0	3.92E-1	2.02E+2		2.02E+2	0.00E+0
12/13/48	2.00E-1	0.00E+0	1.13E+1	2.90E-1	7.08E+1	5.00E-2	1.00E-1	0.00E+0	1.60E-1	2.00E-3	0.00E+0	0.00E+0	1.63E-1	7.85E+1		7.85E+1	0.00E+0
12/14/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/15/48	6.70E-1	0.00E+0	2.71E+1	2.90E-1	1.88E+2	3.00E-2	1.00E-1	0.00E+0	1.60E-1	2.00E-3	0.00E+0	0.00E+0	2.82E-1	1.88E+2		1.88E+2	0.00E+0
12/16/48	7.20E-1	0.00E+0	2.91E+1	2.90E-1	2.02E+2	5.00E-2	1.00E-1	0.00E+0	1.60E-1	2.00E-3	0.00E+0	0.00E+0	3.92E-1	2.02E+2		2.02E+2	0.00E+0
12/17/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/18/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/19/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/20/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/21/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/22/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/23/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/24/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/25/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/26/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/27/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/28/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/29/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/30/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0
12/31/48	0.00E+0	0.00E+0	0.00E+0	2.90E-1	2.90E-1	5.00E-1	1.00E-1	1.80E-1	2.00E-1	5.00E-3	1.10E-1	1.00E-3	1.10E+0	-8.09E-1		0.00E+0	0.00E+0

TABLE 2. SUMMARY OF ESTIMATED YEARLY VOLUMES FOR VARIOUS STORAGE CAPACITIY

	Volume [MG]	150	Volume [MG]	100	Volume [MG]	50	Volume [MG]	20	Volume [MG]	1
Year	Discharge [MG]	Buy From City [MG]	Discharge [MG]	Buy From City [MG]	Discharge [MG]	Buy From City [MG]	Discharge [MG]	Buy From City [MG]	Discharge [MG]	Buy From City [MG]
1949	18.91	0.21	19.18	0.21	19.33	0.21	19.36	0.28	19.44	0.61
1950	16.05	0.00	16.05	0.06	16.11	0.06	16.29	0.21	16.38	0.62
1951	25.69	0.00	25.69	0.08	25.87	0.21	25.90	0.33	25.95	0.60
1952	35.11	0.00	35.11	0.04	35.11	0.18	35.17	0.23	35.23	0.57
1953	20.48	0.00	20.48	0.01	20.48	0.15	20.54	0.30	20.63	0.63
1954	18.01	0.00	18.01	0.00	18.14	0.12	18.22	0.20	18.32	0.59
1955	18.82	0.00	18.82	0.02	18.82	0.17	18.82	0.34	18.86	0.64
1956	34.91	0.00	34.91	0.13	34.91	0.27	34.91	0.35	34.93	0.60
1957	16.57	0.00	16.57	0.01	16.57	0.14	16.57	0.18	16.59	0.57
1958	36.74	0.00	36.74	0.00	36.74	0.10	36.80	0.20	36.84	0.55
1959	15.40	0.00	15.40	0.00	15.55	0.11	15.55	0.36	15.66	0.69
1960	14.46	0.00	14.46	0.01	14.46	0.20	14.46	0.34	14.48	0.66
1961	12.60	0.00	12.60	0.02	12.69	0.16	12.80	0.27	12.93	0.65
1962	20.44	0.00	20.44	0.00	20.44	0.11	20.52	0.27	20.69	0.65
1963	27.72	0.01	27.72	0.15	27.72	0.26	27.79	0.38	27.83	0.66
1964	13.07	0.00	13.07	0.00	13.07	0.07	13.07	0.18	13.17	0.66
1965	18.61	0.00	18.61	0.00	18.74	0.14	18.84	0.31	18.84	0.61
1966	11.98	0.00	11.98	0.08	12.14	0.12	12.23	0.25	12.38	0.65
1967	27.26	0.00	27.26	0.00	27.26	0.02	27.26	0.23	27.32	0.59
1968	14.56	0.00	14.56	0.00	14.64	0.17	14.84	0.31	14.85	0.66
1969	26.53	0.00	26.53	0.00	26.73	0.15	26.73	0.23	26.83	0.65
1970	12.52	0.00	12.64	0.06	12.84	0.22	12.84	0.33	12.90	0.64
1971	16.24	0.00	16.24	0.12	16.24	0.22	16.30	0.32	16.42	0.63
1972	9.39	0.00	9.39	0.00	9.39	0.11	9.46	0.22	9.65	0.65
1973	26.85	0.00	26.85	0.03	26.85	0.25	26.85	0.34	26.88	0.56
1974	21.29	0.00	21.29	0.11	21.29	0.11	21.29	0.24	21.30	0.57
1975	16.49	0.00	16.49	0.00	16.49	0.09	16.59	0.21	16.63	0.63
1976	6.09	0.00	6.09	0.00	6.09	0.00	6.09	0.23	6.16	0.67
1977	8.04	0.00	8.04	0.00	8.04	0.03	8.13	0.23	8.22	0.66
1978	28.82	0.00	28.82	0.00	28.82	0.18	28.82	0.30	28.85	0.60
1979	9.96	0.00	9.96	0.06	10.06	0.12	10.35	0.32	10.40	0.67
1980	23.88	0.00	23.88	0.00	24.05	0.10	24.05	0.24	24.08	0.61
1981	11.28	0.00	11.28	0.02	11.28	0.26	11.28	0.35	11.38	0.65
1982	24.60	0.00	24.60	0.01	24.60	0.06	24.62	0.20	24.80	0.58
1983	37.21	0.00	37.21	0.00	37.21	0.09	37.32	0.19	37.43	0.53
1984	14.17	0.00	14.17	0.02	14.17	0.19	14.17	0.28	14.27	0.61
1985	13.22	0.00	13.50	0.02	13.50	0.07	13.50	0.16	13.62	0.59
1986	24.71	0.00	24.71	0.00	24.71	0.13	24.71	0.25	24.74	0.63
1987	8.72	0.00	8.72	0.02	8.84	0.17	8.95	0.27	9.07	0.62
1988	9.96	0.00	10.03	0.09	10.29	0.18	10.29	0.31	10.41	0.63
1989	8.59	0.00	8.59	0.03	8.59	0.18	8.72	0.27	8.82	0.62
1990	8.53	0.00	8.53	0.00	8.53	0.09	8.53	0.24	8.60	0.67
1991	14.29	0.00	14.29	0.00	14.29	0.02	14.29	0.14	14.39	0.64
1992	17.07	0.00	17.07	0.00	17.07	0.07	17.19	0.26	17.24	0.64
1993	23.18	0.00	23.18	0.02	23.18	0.17	23.21	0.27	23.29	0.59
1994	11.68	0.00	11.68	0.00	11.92	0.16	11.92	0.25	12.00	0.65
1995	28.81	0.00	28.81	0.00	28.81	0.09	28.87	0.18	28.95	0.53
1996	21.16	0.00	21.16	0.03	21.30	0.23	21.30	0.34	21.33	0.63
1997	18.95	0.00	18.95	0.08	18.95	0.13	18.95	0.25	18.99	0.64
1998	30.69	0.00	30.69	0.00	30.69	0.08	30.76	0.21	30.81	0.53
1999	2.98	0.00	2.98	0.00	2.98	0.22	2.98	0.34	2.98	0.77
Average	18.69	0.00	18.71	0.03	18.76	0.14	18.80	0.26	18.88	0.62

ATTACHEMENT A

Draft Water Balance (DWB) Study from Radian, Inc.

APPENDIX E

HANSON CEMENT CORPORATION
WATER BALANCE STUDY

KAISER CEMENT CORPORATION, PERMANENTE FACILITY
REPORT OF WASTE DISCHARGE
WATER BALANCE STUDY
DRAFT

1.0 PURPOSE

The purpose of this water balance study is to gain an understanding of the sources, uses, and discharges of all water used at the Kaiser Cement, Permanente Facility (facility) to guide the development of reasonable discharge limitations by the California Regional Water Quality Control Board (RWQCB). This study has the added benefit of providing data which will lead to recommendations to enable more efficient management of water at the facility.

2.0 PROJECT SCOPE

This water balance study consists of a mass balance of all water used and discharged at the Kaiser Cement Permanente, and former Kaiser Aluminum facilities. The balance includes all sources of water used and all discharges or disposal of water. All sources of water are described, and flow volumes, including variations, are provided. Uses of this water in the plant, including uses that reclaim or vaporize water, are described. Finally, all discharge locations and flow volumes are specified. A water balance analysis is then made to quantitatively reconcile all uses and discharges of water. Comprehensive flow diagrams are included to schematically indicate all sources, uses, and discharges of water and illustrate discharges to Permanente Creek.

Volumes of water used and discharged at the facility vary substantially due to changes in facility operations and seasonal variations. Therefore, an attempt is made to provide ranges and/or averages of the volumes used or discharged at specific locations. Actual volume determinations of maximum, minimum, and average flows at each use or discharge location are very difficult due to these process and seasonal variations. The focus

is on relative proportions and not actual amounts. As much detail on volumes has been provided as is reasonably available. Enough information on plant process descriptions is provided to indicate how process operations can affect water use and discharge.

3.0 APPROACH

Several site visits were performed to examine site operations, review water-related records and plant drawings, and interview plant staff. Sources of water, including potable water, treated domestic plant wastewater, surfacing groundwater, and stormwater runoff were investigated. Information for stormwater was also gathered from the efforts performed to complete the 1994 Annual Report for Stormwater and the recommended list of sediment control measures. Implementation of these measures will affect this water balance discussion.

Uses of these sources of water were next quantified by methods similar to those explained above. Finally, discharge points were identified and quantified. Separate discussions are presented for process water and stormwater since these are generally separate systems. The interconnections between process water and stormwater are then discussed.

The water balance results are presented by a table. The table presents the information in a format such that a balance of water volumes can be made to reconcile all inflows, uses, and outflows to facility operations.

4.0 PLANT WATER SYSTEM

Figure 1 presents the flow diagram of the facility water system indicating water sources, uses, and discharges. There are three separate water sources for the facility. The first two sources are collected in the quarry in the form of rainfall runoff in the quarry drainage basin and groundwater infiltration. The rainfall accumulation is seasonal, while the groundwater infiltration occurs year round. The quarry is pumped out all year, although at a

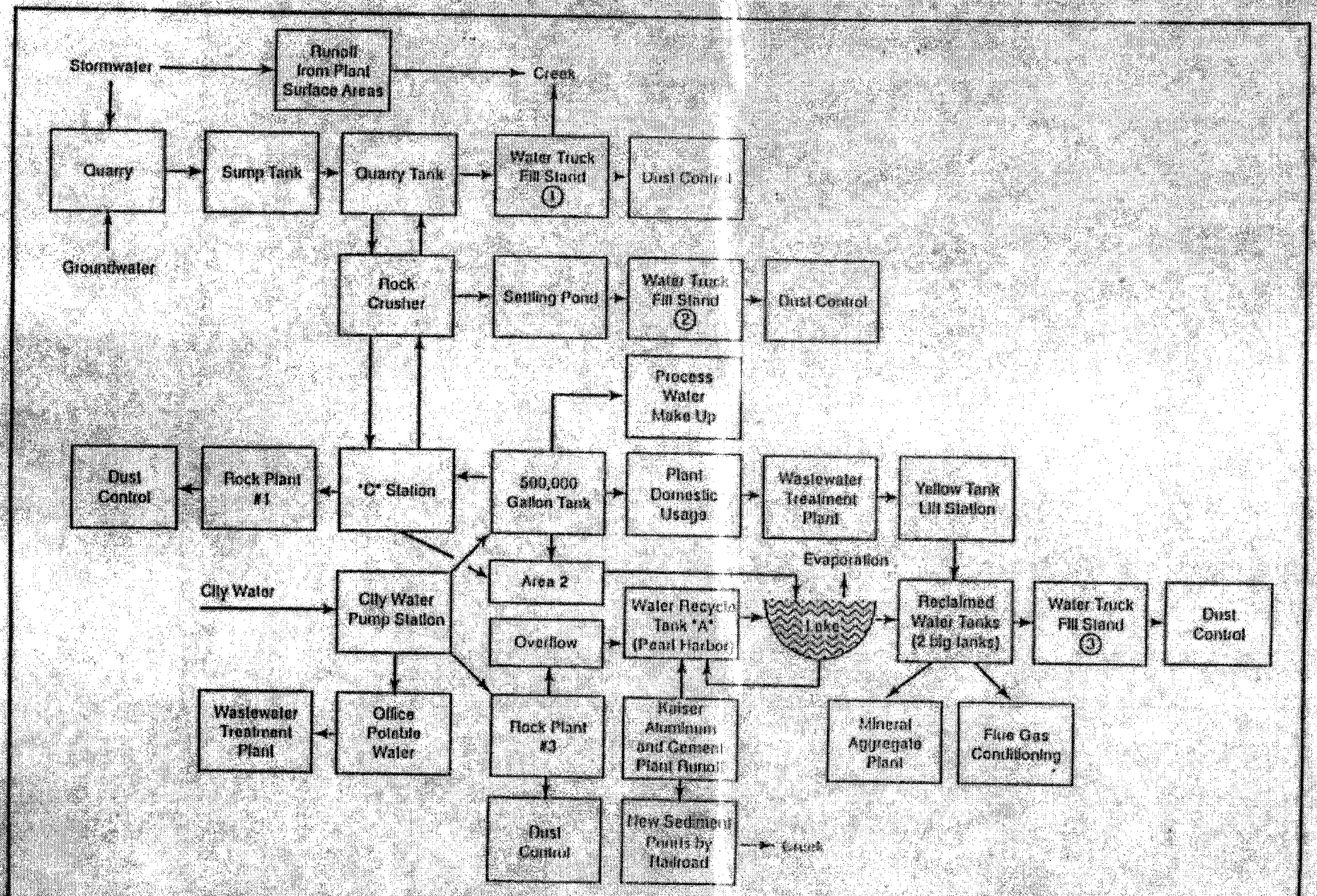

Figure 1. Kaiser Cement Plant Water System

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higher rate during the rainy season. The other major source of water for the facility is city of Cupertino potable water, which is pumped to the facility from a pumping station located downhill at the terminal end of the city's water main.

4.1 Water System Description

There are two distinct water systems at the facility. One is the quarry, quarry tank, Rock Plant #1, Rock Crusher, "C" station, and Water Truck Fill Stands #1 & #2. This system handles the water pumped from the quarry. The facility also uses makeup water from the City of Cupertino. Water used for the flue gas conditioning makes up the largest use of water at the plant. Occasionally, during periods of intensive quarry pumping, water from the quarry will be overflowed to the Lake for use in the rest of the facility. The "Lake" is the man-made pond, located near the kiln, which is used by Kaiser as a key element of the water recycle system.

The quarry water is pumped via a submersible pump to a 10,000 gallon sump tank. Pumping is controlled by a float switch to keep the quarry water at a preset level. From there the water is pumped intermittently uphill to a 12,000 gallon quarry water storage tank. This storage tank is connected to Water Truck Fill Stand (WTFS) #1 and the Rock Crusher. The Rock Crusher utilizes the quarry water for washdown purposes. Washdown water is collected in a small settling pond and then pumped to WTFS #2. Both WTFS #1 and #2 are fill points for dust suppression trucks for the upper portion of the facility. From the Rock Crusher, the quarry water line continues down to "C" Station and Rock Plant #1. Here water is again used for dust suppression and washdown of heavy equipment. From "C" Station, the quarry water line continues to the 500,000 gallon tank. This is the only crossover connection between the quarry water and city potable water. In theory, quarry water could be used to fill the 500,000 gallon tank. However, the real use of this connection is to supplement the quarry water for dust suppression during the summer with potable water. Also located at the connection point is an overflow line running down to the Storage

Lake, located near the kiln. During periods when quarry pumping exceeds demand, quarry water can be pumped down to the Lake.

Potable water is the source of makeup water to supplement the water recycle system. The potable water is first pumped up to the 500,000 gallon tank. From there it is distributed throughout the plant. The only direct process use of potable water is at Rock Plant #3 for washdown and dust suppression. All washdown water is recycled within Rock Plant #3 from a sump which catches all flows. Potable water is used primarily for domestic usage and process water makeup. All domestic usage is collected and treated by the on-site wastewater treatment plant. This water is pumped to the reclaimed water tanks for use as dust control, flue gas conditioning, and at the Mineral Aggregate Plant. Dust control occurs at eight points along the conveyor belts and crusher. These water demands are also supplemented by direct potable water makeup.

All overflow resulting from dust suppression or washdown in the main plant area is collected at Water Recycle Tank "A". This water is pumped to the Storage Lake to eventually be used as process water. Washdown water and stormwater in the main plant area, i.e., plant runoff, will be directed to a new sediment pond to be located along the railroad tracks prior to discharge into the creek. This new system will decrease the amount of water going to Water Recycle Tank "A", which will, in turn, lessen the chances of any discharge of stormwater overflow from Water Recycle Tank "A" to the creek.

4.2 Water Usage Rates

Table 1 presents the water usage rates for sources, uses, and discharges of water. The rest of the Section 4.0 discusses the usage rates and how they were derived. To place boundaries on the analysis, rates are included for both dry weather and wet weather conditions. The wet weather conditions assume a storm event of 3 inches of rain over a 24-hour period, with a maximum intensity of 1 inch of rain per hour.

Table 1

Water Balance

	Wet Weather (MGD)	Dry Weather (MGD)	Basis of Estimate
Sources			
Stormwater into Quarry	19.6	0	Calculated from Q = KiA
Stormwater into Plant	5.1	0	Calculated from Q = KiA
Groundwater into Quarry	0.29	0.29	Quarry tank pumping records
City Potable Water	0.152	0.655	City water pumping records
Total Sources	25.142	0.945	
Uses			
Dust Control			
Truck Fill Stand 1	0.030	0.090	Water truck usage rates
Truck Fill Stand 2	0.000	0.010	Water truck usage rates
Truck Fill Stand 3	0.000	0.030	Water truck usage rates
Rock Plant 1	0.000	0.070	Analysis of spraying operations
Rock Plant 3	0.000	0.300	Analysis of spraying operations
Process Water Make Up	0.1	0.1	Plant estimates
Mineral Aggregate Plant	0.000	0.180	Analysis of spraying operations
Flue Gas Conditioning	0.160	0.200	Plant metering records
Office Potable Water	0.002	0.005	Analysis of plant water use operations
Rock Crusher	0.000	0.110	Analysis of spraying operations
Evaporation	0.000	0.001	Engineering calculations
Total Uses	0.292	1.096	
Discharges			
Excess water discharged from Quarry	19.6	0.01	Preliminary estimate
Cement Plant Runoff	2.30	0	Calculated from Q = KiA
Aluminum Plant Runoff	2.10	0	Calculated from Q = KiA
Total Discharges	24.0	0.01	
Water Balance			
Sources	25.142	0.945	
Minus uses	0.292	1.096	
	24.85	-0.151	
Equals Discharges	24.0	0.01	

4.2.1 Sources of Water

City Potable Water

The rates of consumption for potable water may be directly quantified using City of Cupertino water bills. For a representative period in June 1994 (dry weather), water usage was about 655,000 gallons per day. During the wet season, monthly use decreased to 152,000 gallons per day, also based on an analysis of water bills. Less water is needed in the winter months since makeup water from stormwater can be supplied through the water recycle system.

Groundwater into Quarry

The rate of groundwater infiltration into the quarry may be determined from the running time on the 500 gallons per minute (gpm) pump at the quarry sump tank, which operates intermittently. The pump is equipped with a time meter recording total operational hours. This pump has been monitored to determine maximum and average pumping rates. The pumping rate during the dry season should reflect groundwater infiltration. An analysis of pumping records results in a calculated inflow of 200 gpm, or 0.29 MGD. This flow rate is considered to be constant throughout the year.

Stormwater into Quarry and Plant

Refer to Section 5.0 for a discussion of the stormwater control system and how flow estimates were made. The inflows are assumed to be zero in dry weather. The wet weather stormwater flow into the quarry is estimated to be 19.6 MGD, based on an analysis of drainage area A. The estimated wet weather stormwater flow into the plant, 5.1 MGD, is based on an analysis of drainage area B.

4.2.2 Usage of Water

Dust Control

At several locations in the plant, water is used for dust control to facilitate adequate materials handling and maintain a healthy work environment. Much of the water used for dust control is distributed through three water truck fill stands. Refer to Figure 1 for the locations of these fill stands. Empty water trucks drive under these fill stands, are filled with water, and spray the water directly on roads and material requiring dust control. The estimate of usage shown in Table 1 for each of the three truck fill stands are based on plant estimates of the number of times per day that trucks are filled at the stand, and the volume of water that the trucks can hold, which is 10,000 gallons. For example, at the quarry, truck fill stand #1 services 2-4 truckloads per day in the winter and 8-10 truckloads per day in summer which corresponds to the volumes shown in Table 1. Less water is required in the winter since conditions are less dusty and rainwater assists in keeping dust down.

For all facility spray systems, including those at Rock Plant #1 and #3, dust control water is discharged from spray heads on piping systems which use general plant water. The following assumptions were made as part of the effort to estimate the water usage rates in Table 1 for these areas:

- Each spray head emits 3-5 gpm (based on field measurements).
- Constant water pressure across a spray bar.
- Constant water volume flowing from each spray head.
- Each spray bar has two heads.
- All spray bars in an area are rarely used at the same time.

The following areas list the number of spray bars and ranges:

- The primary crusher has 4 spray bars.
- C-station has 3 spray bars.
- Area 2 has 3 spray bars.
- The mineral aggregate plant has 7 spray bars.
- Rock Plant #3 has a meter on the line for make up water. In the month of September 1994, the rock plant used 2.6 million gallons of water.

Process Water Make Up

Process water make up consists of a wide variety of plant water use needs that are directly related to plant operations. The 500,000 gallon tank, which receives water from the city of Cupertino, is the source for these uses. Volume for this stream is very difficult to estimate, as the flows are not metered. An estimate of 0.1 MGD has been made, based on a review of plant operations and discussions with facility personnel.

Mineral Aggregate Plant

Water is used chiefly for dust control at this plant. The volume estimate for this use was obtained in the same manner as the other dust control estimates, applied to the seven spray bars at the mineral aggregate plant.

Flue Gas Conditioning

This is one of the largest continuous uses of process water in the plant. This water is injected directly into the hot exit gas from the cement kiln, which is at 400°C, to reduce the temperature to 160°C prior to entering the particulate control baghouse. After the baghouse, the flue gas and water vapor exit from the stacks at 130°C. The water is

completely vaporized and escapes to the atmosphere. Flue gas conditioning demands a continuous 120 gpm during cement plant operation. This correlates to a monthly demand of about 5.2 MG.

Plant Domestic Use and the Wastewater Treatment Plant

The wastewater treatment system was originally sized for approximately 2,500 employees. Currently, the municipal load on the system is only about 200 persons operating in three different shifts. Flow rates vary depending on both worker operating schedules and precipitation. Dry weather flow responds to personnel shift changes, peaking in the morning around 8:00 am, noontime, and again at the end of the day between 4 and 6 pm. Flows are measured by a free discharge 45 degree triangular weir placed in the channel between the secondary clarifier and the chlorine contact basin. Flow variations from 2.4 to 61.2 gpm have been reported. The high value was probably measured during a rainfall event. The high flow rate associated with storm events no longer occurs with the August 1993 disconnection of the Kaiser Aluminum storm drains. Flow between peak periods has been measured at approximately 5 gpm at 11 am, rising to approximately 10 gpm by noon. The flow at 5 pm has been measured at approximately 20 gpm. By assuming that the three peak flow periods have a duration of two hours each, and that the "baseline flow" is consistent at the measured value of 5.3 gpm, a flow weighted average of 7.5 gpm is obtained. This number may be high considering that nighttime flows will be much lower than the daytime minimum.

To confirm this estimate of 7.5 gpm, an analysis of flow measurements, taken from the last Kaiser Cement Quarterly Self-Monitoring Report for the Sewage Treatment Plant, which covered the period of June 27, 1994 through September 22, 1994, was performed. This Report, which was sent to the RWQCB on October 7, 1994, contains 39 flow measurements, with the average value calculated as 8.68 gpm, or 0.0125 MGD. This compares closely with the previous estimate of 7.5 gpm.

It should be noted that this estimated flow volume through the plant is not applied to the water balance since the water is not "used" but rather passes through to the recycle system.

Office Potable Water

Estimates for this use are based on an analysis of plant operations.

Rock Crusher

This water use is for dust control at the rock crusher area. The same methodology as was used for the other dust control uses was applied.

Evaporation

The main source of evaporation is from the Lake that is used as a source of reclaimed water throughout the plant. The rate of evaporation in dry weather was calculated using a rate of 0.14-0.25 inches/day (literature value) and a surface area of 17,850 ft^2. Evaporation is assumed to be zero during the storm event.

4.2.3 Discharges of Water 256645

Quarry Discharge

This discharge of water occurs from Water Truck Fill Stand #1, which receives water pumped from the quarry. During wet weather, not all quarry water can be recycled within the plant, and discharges of water to the creek occur. This discharge of water is not plant process water, but rather quarry water, i.e., groundwater and stormwater inflows to the quarry. Volumes discharged are difficult to estimate since the overflow pipeline is not metered. Based on a review of the design and layout of the discharge system,

a maximum discharge of 1 MGD during wet weather is estimated. However, for the Water Balance, the peak flowrate for stormwater into the quarry, 19.6 MGD, is used in Table 1, since this is the flow that the 1 MGD pump will pump over the time of the storm. The dry weather discharge is estimated to be 0.1 MGD.

4.2.4 Water Balance

The water balance is obtained by subtracting the summation of the uses from the summation of the sources and comparing to the discharge totals. As noted on Table 1, the results indicate a fairly close match for both dry weather and wet weather conditions (see Table 1).

5.0 STORMWATER CONTROL SYSTEM

The June 30, 1994 Annual Report for Stormwater presents a discussion of stormwater management and sampling. Figure 2 presents the flow paths for each of the stormwater drainage areas, including the Quarry Pit. The enclosed Drawing #1 presents an updated (August 19, 1994) drainage map of the Kaiser Cement Permanente Facility. The main drainage areas A-F are indicated on this map and are discussed below.

Drainage Area A - Stormwater in this drainage basin, the quarry pit area and upper Quarry Road, drains into the sedimentation pond at the bottom of the quarry. This water is then pumped out through the sump tank and quarry tanks as discussed above. This water is used, and recycled, throughout the plant for operational purposes. Some of the water can also be discharged to the creek through WTFS #1, as shown on Figure 1.

Drainage Area B - The water from the Cement Plant is collected in the storm drain system and enters the process water stream via water recycle tank "A." During heavy precipitation, stormwater is diverted and discharged to the ditch on the north side of the

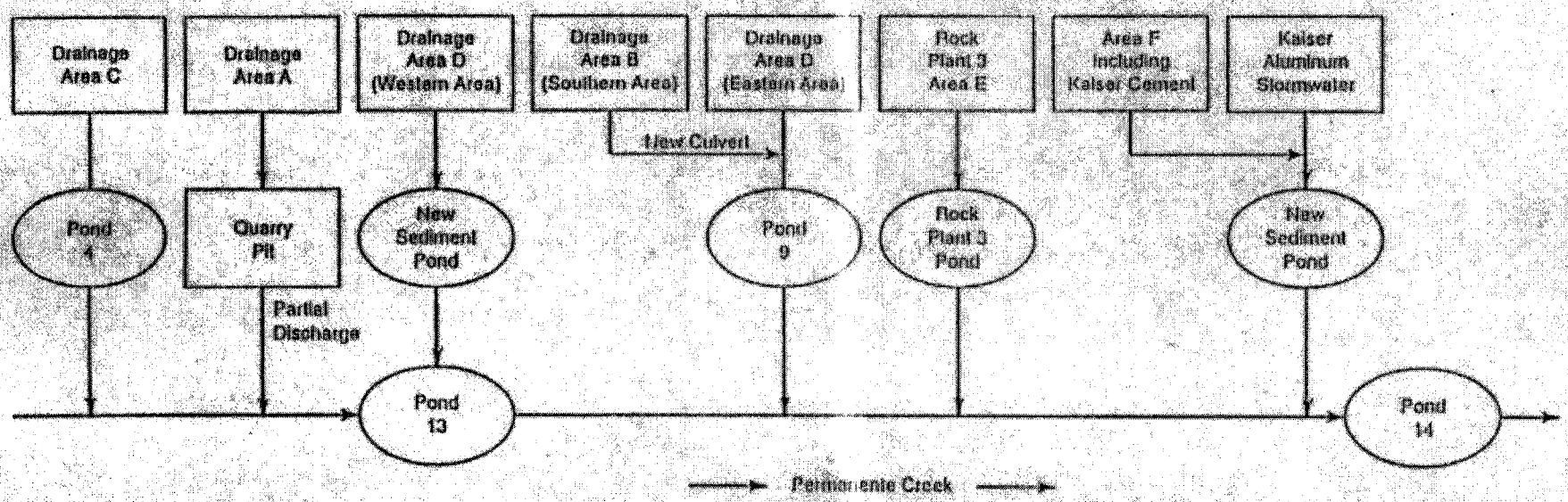

Figure 2. Discharges from Kaiser Cement to Permanente Creek

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railroad tracks. After exiting settlement ponds in the ditch, the water is discharged to the creek.

The remainder of this drainage area runs along Lower Quarry Road and is directed into Pond 9 via a culvert. Upon passing through settlement pond 9, the water is discharged to the creek.

Drainage Area C - The runoff from this area is primarily overland flow to the creek, although a small portion of water collected by an access road is directed through Pond 4 before being discharged to the creek.

Drainage Area D - Stormwater from the western portion of this area runs to the newly constructed settlement above Rock Plant #1. The runoff from the remaining area runs along Rock Plant Road and into settlement Pond 9.

Drainage Area E - Stormwater drainage from this area runs through Rock Plant #3 and into the settlement pond along Rock Plant Road. Water from the pond is discharged to the creek via a culvert.

Discharge Area F - Stormwater from the Kaiser Aluminum Plant and the area behind the plant is primarily overland and sheet flow. The runoff is collected in the Kaiser Aluminum drain system and is discharged to the creek via a culvert.

The next step related to stormwater is to estimate daily flow rates to be expected from each drainage area during storm events. Standard engineering methods include use of the rational method which applies the following equation:

$$Q_p = KiA_d$$

where:

Q_p	=	Peak rate of runoff in acre-inches per hour
k	=	Runoff coefficient
i	=	Rainfall intensity in inches per hour
A_d	=	Watershed area in acres

The stormwater runoff calculations for each drainage area are presented in Table 2. The peak runoff rates are based on a storm producing 3 inches of precipitation in three hours with a maximum intensity of 1 inch per hour. This volume is then averaged over a 24-hour period resulting in a daily flow (MGD).

A system will also be devised to estimate flow at the discharge of the facility over the weir at Pond 14.

In summary, stormwater at the facility either enters the creek directly or enters the process water stream through inflow to either the quarry pit or the cement plant storm drain system via Water Recycle Tank "A" or the Lake. The way the overall plant process water system is designed, process water, i.e., all water except groundwater and stormwater, does not discharge to the creek.

6.0 FURTHER WORK

The next tasks for completing the water balance will be to obtain more detailed information regarding the water usage of all process areas to refine flow estimates where direct measurements are not possible. The flow from the quarry will be refined through tracking operational hours over time for the quarry sump pump in both wet and dry seasons. Field observations and continued evaluation of plant processes will be performed to refine these numbers.

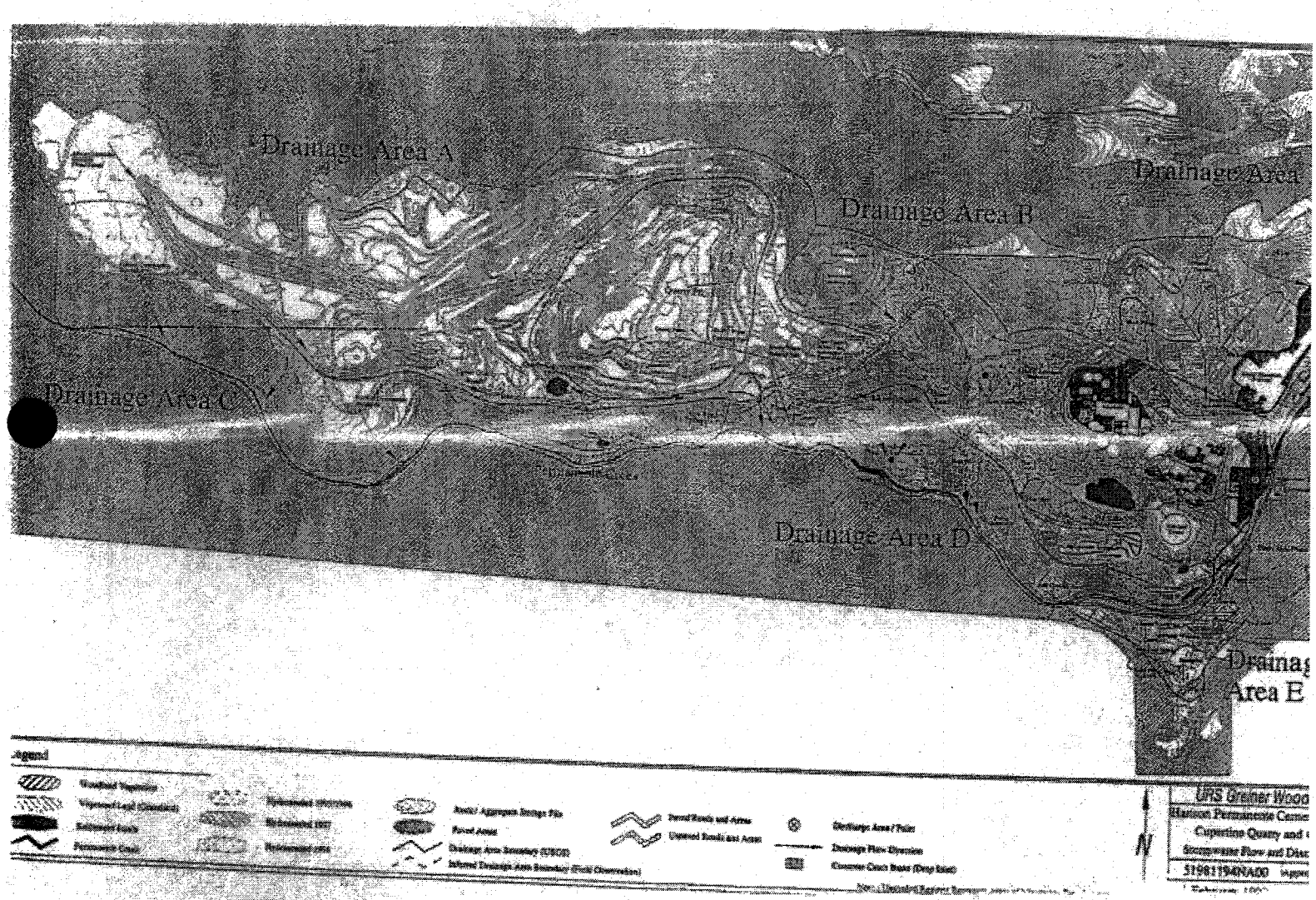
Table 2

Stormwater Runoff Calculations

Drainage Area	K[1] (Runoff coefficient)	Area[2] (Acres)	I[3] (in/hr) (Max. rainfall intensity)	Q_p[4] (MGD) (Peak Runoff Rate)	Average Rate of Daily Runoff[5] (MGD)
A	0.80	300	1.0	157	19.6
B	0.50	125	1.0	40.8	5.1
C	0.50	125	1.0	40.8	5.1
D	0.55	100	1.0	35.9	4.5
E	0.60	18	1.0	7.0	0.9
F	0.60	48	1.0	18.8	2.3
Kaiser Aluminum	0.80	32	1.0	16.7	2.1
Total	–	748	–	317	39.6

1 Estimated based on surface type, i.e., paved, vegetated, open land.
2 Estimated based on topographic map analysis.
3 Assumes a large storm event of 3 inches per 24-hour period with a maximum intensity of 1 inch/hour.
4 Q_p calculated by the formula, $Q_p = KIA$
5 Calculated as $3Q_p \div 24$, or the average rate of runoff, spreading the maximum intensity (Q_p) out over a 24-hour period, considering 3 inches of rain for the day.

- reduce discharge of sw
- reduce water use
-


Drainage Area A
Drainage Area B
Drainage Area
Drainage Area C
Drainage Area D
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Area E
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Appendix F

Long-Term Stormwater Facility Maintenance Plan, Cupertino, Santa Clara County, California

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June 2009

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This report should be cited as: Huffman-Broadway Group, Inc. 2009. *Long-Term Stormwater Facility Maintenance Plan, Cupertino, Santa Clara County,*. June 2009. San Rafael, California. 4 pp. Prepared for Leigh Southwest Cement Company.

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1 Introduction and Executive Summary

On behalf of Lehigh Southwest Cement Company (Lehigh)[1], Huffman-Broadway Group, Inc. (HBG) has prepared this Long-Term Stormwater Facilities Maintenance Plan to conduct periodic maintenance and sediment removal from sedimentation basins and culverts in support of current and future mining operations at the Permanente Quarry (Quarry).

1.1 Goal and Objectives of the Long Term Stormwater Facilities Maintenance Plan

The objective of this Long-Term Stormwater Facilities Maintenance Plan (Plan) is to conduct periodic maintenance and sediment removal from sedimentation basins in upland areas within the Quarry in a manner that avoids impacts to federally-listed threatened California red-legged frog (CRLF; *Rana aurora draytonii*). The Plan will maintain design capacity of constructed sedimentation basins, also referred to as "sedimentation ponds", to minimize sediment load into Permanente Creek as mandated by San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) requirements (including SFBRWQCB Cleanup and Abatement Order #99-018) for current and future mining operations.

1.2 Responsible Parties

Successful implementation of this Long-Term Stormwater Facilities Maintenance Plan is the responsibility of the following:

Party with Financial Responsibility for Implementation of Plan:
Leigh Southwest Cement Company
24001 Stevens Creek Blvd.
Cupertino, California 95014-5659
Contact: Mr. Henrik Wesseling, Plant Manager

[1] Lehigh is the site operator. The property owner is Hanson Permanente Cement, Inc.

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2 Sedimentation Basin Maintenance Schedule, Maintenance Procedure and Conservation Measures

This section describes the implementation of the Plan for conducting sedimentation basin maintenance activities. The Plan involves maintenance to remove accumulated sedimentation and repair structures within the sedimentation basins on an "as-needed" basis. Implementation of this Plan will incorporate conservation measures designed to avoid potential impacts to CRLF that may occupy a sedimentation basin.

2.1 Sedimentation Basin Maintenance Schedule

Sedimentation Basin and Culvert Maintenance will be implemented on an as-needed basis and will be inspected, at a minimum, annually as described below.

Table 1. Sedimentation Basin and Culvert Maintenance Schedule

Sedimentation Basin/Ponds	Frequency of Sedimentation Removal	Frequency of Inspection and Repair of Mechanical Structures in Sedimentation Basins and Culverts	Comments
Pond 9	As-Needed	Annual	
Pond 13A	As-Needed	Annual	
Pond 13B	As-Needed	Annual	
Pond 16	As-Needed	Annual	
Pond 17	As-Needed	Annual	
Pond 19	As-Needed	Annual	
Pond 20	As-Needed	Annual	
Pond 4A	NA	NA	Maintenance activities will resume pending approval from Corps, USFWS, SFBRWQCB and CADFG
Pond 11	NA	NA	
Pond 13	NA	NA	
Pond 14	NA	NA	
Pond 21	NA	NA	
Pond 22	NA	NA	

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2.2 Ponds 9, 13a, 13b, 16, 17, 19 and 20 Sedimentation Basin Maintenance Procedure

1 Sediment would be excavated using heavy equipment (e.g. backhoe loader, excavator, etc), placed in a truck and disposed of in an upland location.

2 If water is present within a Pond, prior to scheduled sedimentation removal activities, existing outflow control structures would be closed or capped off to prevent the discharge of water into Permanente Creek.

3 If water is present within a Pond, prior to scheduled sedimentation removal activities or maintenance on control structures within a Pond, a preconstruction CRLF survey would be conducted by a qualified biologist as described in Section 2.3.1 below.

2.3 Conservation Measures

In order to avoid potential effects to special-status species and their habitats, the following conservation measures will be implemented:

2.3.1 CRLF Conservation Measures

1. Prior to the start of sedimentation removal or maintenance activities, all construction personnel will receive CRLF training by a field supervisor who has received training from a qualified biologist. If new personnel are added during the course of construction they will also receive training on CRLF by the field supervisor prior to being allowed to work on-site. An educational brochure containing color photographs of CRLF and description of their habitat will be distributed to all construction personnel. A list of employees who attend the training sessions will be maintained and made available for review upon request.

2. If water is present within a Pond, prior to scheduled sedimentation removal activities or maintenance on water control structures, a preconstruction CRLF survey would be conducted by a qualified biologist. Preconstruction surveys would consist of two daytime and two night time focused pre-construction surveys for CRLF within 30 days of a scheduled activity. If CRLF are determined to be present within a Pond, the scheduled work activity would be delayed until a qualified biologist verifies the CRLF have moved from the Pond.

3. The United States Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CADFG) shall be notified within twenty-four (24) hours of the finding of any injured or dead CRLF.

4. If a CRLF is found within the work zone during sedimentation removal or maintenance activities, all work shall immediately stop. Work may resume once a

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qualified biologist verifies the CRLF have moved from the Pond.

5. A representative(s) will be appointed by Lehigh to be the contact source for any employee or contractor who might inadvertently kill or injure a CRLF or who finds a dead, injured, or entrapped individual. The representative will be responsible for immediately reporting any incident to the Service. The appointed representative(s) will be identified during the CRLF training program.

3.0 Reporting Requirements

The USFWS and CADFG shall be notified within twenty-four (24) hours of the finding of any injured or dead CRLF.

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Appendix G

APPENDIX G

CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICES (SOURCE CONTROL)

4. SOURCE CONTROL BMPs

INTRODUCTION

This chapter describes specific source control Best Management Practices (BMPs) for common industrial activities that may pollute storm water. Chapter 2 led you through the steps of identifying activities at your facility that can pollute storm water while Chapter 3 provided guidance on selection of BMPs. This chapter provides you with the BMPs that best fill your facility's need. Best management practices for each of the activities shown below are provided in the following fact sheets.

Each fact sheet contains a cover sheet with:

- A description of the BMP
- Approach
- Requirements
  - Cost, including capital costs, and Operation and Maintenance (O&M)
  - Maintenance (including administrative and staffing)
- Limitations

The side bar presents information on where this BMP applies, targeted constituents, and an indication of the level of effort and cost to implement.

Further information is also provided in additional sheets. This information includes a more detailed description of the BMP, requirements to implement, examples of effective programs, and references.

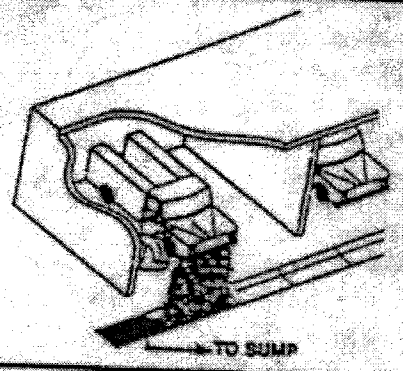
BMPs are provided for each of the following industrial activities consistent with Worksheet 4 in Chapter 2.

Industrial Activities Requiring BMPs

SC1	Non-Storm Water Discharges to Drains
SC2	Vehicle and Equipment Fueling
SC3	Vehicle and Equipment Washing and Steam Cleaning
SC4	Vehicle and Equipment Maintenance and Repair
SC5	Outdoor Loading/Unloading of Materials
SC6	Outdoor Container Storage of Liquids
SC7	Outdoor Process Equipment Operations and Maintenance
SC8	Outdoor Storage of Raw Materials, Products, and By-Products
SC9	Waste Handling and Disposal
SC10	Contaminated or Erodible Surface Areas
SC11	Building and Grounds Maintenance
SC12	Building Repair, Remodeling, and Construction
SC13	Over-Water Activities
SC14	Employee Training

Fact sheet SC14, Employee Training, is a compilation of the training aspects of the individual source control fact sheets. Its purpose is to facilitate the integration and development of a comprehensive training program for all industrial activities at a facility.

ACTIVITY: VEHICLE AND EQUIPMENT WASHING & STEAM CLEANING



DESCRIPTION

Prevent or reduce the discharge of pollutants to storm water from vehicle and equipment washing and steam cleaning.

APPROACH

- Consider off-site commercial washing and steam cleaning businesses.
- Use designated wash areas, preferably covered to prevent contact with storm water and bermed to contain wash water.
- Discharge wash water to sanitary sewer, after contacting local sewer authority to find out if pretreatment is required.
- Educate employees on pollution prevention measures.
- Consider filtering and recycling wash water.
- Do not permit steam cleaning wash water to enter the storm drain.
- For a quick reference on disposal alternatives for specific wastes see Table 4.1, SC1.

REQUIREMENTS

- Capital costs vary depending on measures implemented.
  - Low cost ($500-1,000) for berm construction.
  - Medium cost ($5,000-20,000) for plumbing modifications (including re-routing discharge to sanitary sewer and installing simple sump).
  - High cost ($30,000-150,000) for on-site treatment and recycling.
- O&M costs increase with increasing capital investment.
- Maintenance
  - Berm repair and patching.
  - Inspection and maintenance of sumps, oil/water separators, and on-site treatment/recycling units.

LIMITATIONS

- Some municipalities may require pretreatment and monitoring of wash water discharges to the sanitary sewer.
- Steam cleaning can generate significant pollutant concentrations requiring permitting, monitoring, pretreatment, and inspections. The measures outlined in this fact sheet are insufficient to address all the environmental impacts and compliance issues related to steam cleaning.

Applications

- ● Manufacturing
- ● Material Handling
- ● Vehicle Maintenance
- ● Construction
- ● Commercial Activities
- ● Roadways
- ● Waste Containment
- ● Housekeeping Practices

Targeted Constituents

- ● Sediment
- ● Nutrients
- ● Heavy Metals
- ● Toxic Materials
- ○ Floatable Materials
- ● Oxygen Demanding Substances
- ● Oil & Grease
- ○ Bacteria & Viruses

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ○ O&M Costs
- ○ Maintenance
- ◒ Training

● High ○ Low

SC3

Best Management Practices

Additional Information — Vehicle and Equipment Washing and Steam Cleaning

Washing vehicles and equipment outdoors or in areas where wash water flows onto the ground can pollute storm water. If your facility washes or steam cleans a large number of vehicles or pieces of equipment, consider contracting out this work to a commercial business. These businesses are better equipped to handle and dispose of the wash waters properly. Contracting out this work can also be economical by eliminating the need for a separate washing/cleaning operation at your facility.

If washing/cleaning must occur on-site, consider washing vehicles inside the building to control the targeted constituents by directing them to the sanitary sewer where they can be pretreated or sent directly to the sanitary treatment facility. Washing operations outside should be conducted in a designated wash area having the following characteristics:

- Paved with Portland cement concrete,
- Covered or bermed to prevent contact with storm water,
- Sloped for wash water collection,
- Discharges wash water to the sanitary or process waste sewer, or to a dead-end sump. Discharge pipe should have a positive control valve that allows switching between the storm drain and sanitary or process sewer,
- Clearly designated, and
- Equipped with an oil/water separator (see Chapter 5, TC7, Oil/Water Separators and Water Quality Inlets).

Examples of Effective Programs

The City of Palo Alto has an effective program for commercial vehicle service facilities. Many of the program's elements, including specific BMP guidance and lists of equipment suppliers, are applicable to industrial vehicle service facilities.

The U.S. Postal Service in West Sacramento has a new vehicle wash system that collects, filters, and recycles the wash water

REFERENCES

Best Management Practices for Automotive-Related Industries, Santa Clara Valley Nonpoint Source Pollution Control Program, 1992.

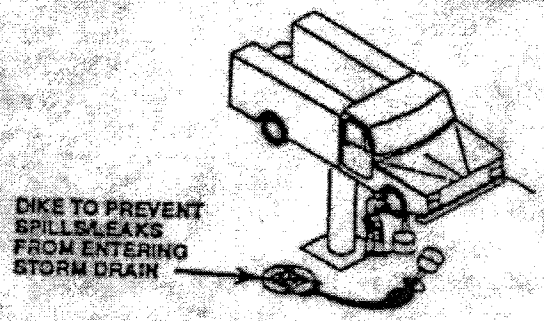
Best Management Practices for Industrial Storm Water Pollution Control, Santa Clara Valley Nonpoint Source Pollution Control Program, 1992.

Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans, and Best Management Practices, EPA 8320R-92-006, USEPA, 1992.

Water Quality Best Management Practices Manual, City of Seattle, 1989.

SC3

ACTIVITY: VEHICLE AND EQUIPMENT MAINTENANCE AND REPAIR



Applications

- Manufacturing
- Material Handling
- Vehicle Maintenance
- Construction
- Commercial Activities
- Roadways
- Waste Containment
- Housekeeping Practices

Targeted Constituents

- ○ Sediment
- ○ Nutrients
- ● Heavy Metals
- ● Toxic Materials
- ○ Floatable Materials
- ○ Oxygen Demanding Substances
- ● Oil & Grease
- ○ Bacteria & Viruses

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ○ Capital Costs
- ◒ O&M Costs
- ◒ Maintenance
- ◒ Training

● High ○ Low

DESCRIPTION

Prevent or reduce the discharge of pollutants to storm water from vehicle and equipment maintenance and repair by running a dry shop.

APPROACH

- Keep equipment clean, don't allow excessive build-up of oil and grease.
- Keep drip pans or containers under the areas that might drip.
- Do not change motor oil or perform equipment maintenance in non-appropriate areas. Use a vehicle maintenance area designed to prevent storm water pollution.
- Inspect equipment for leaks on a regular basis.
- Segregate wastes.
- Make sure oil filters are completely drained and crushed before recycling or disposal.
- Make sure incoming vehicles are checked for leaking oil and fluids.
- Clean yard storm drain inlets(s) regularly and especially after large storms.
- Do not pour materials down drains or hose down work areas; use dry sweeping.
- Store idle equipment under cover.
- Drain all fluids from wrecked vehicles.
- Recycle greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic, and transmission fluids.
- Switch to non-toxic chemicals for maintenance when possible.
- Clean small spills with rags, general clean-up with damp mops and larger spills with absorbent material.
- Paint signs on storm drain inlets to indicate that they are not to receive liquid or solid wastes.
- Train employees.
- Minimize use of solvents.
- For a quick reference on disposal alternatives for specific wastes see Table 4.1, SC1.

REQUIREMENTS

- Costs (Capital, O&M) - Should be low, but will vary depending on the size of the facility.
- Maintenance - Should be low if procedures for the approach are followed.

LIMITATIONS

- Space and time limitations may preclude all work being conducted indoors.
- It may not be possible to contain and clean up spills from vehicles/equipment brought on-site after working hours.
- Drain pans (usually 1 ft. x 1 ft.) are generally too small to contain antifreeze, which may gush from some vehicles, so drip pans (3 ft. x 3 ft.) may have to be purchased or fabricated.
- Dry floor cleaning methods may not be sufficient for some spills. Use three-step method instead.
- Identification of engine leaks may require some use of solvents.

SC4

Best Management Practices

Additional Information — Vehicle and Equipment Maintenance and Repair

Vehicle or equipment maintenance is a potentially significant source of storm water pollution. Activities that can contaminate storm water include engine repair and service (parts cleaning, spilled fuel, oil, etc.), replacement of fluids, and outdoor equipment storage and parking (dripping engines). For further information on vehicle or equipment servicing, see SC2, Vehicle and Equipment Fueling, and SC3, Vehicle and Equipment Washing and Steam Cleaning.

Waste Reduction

Parts are often cleaned using solvents such as trichloroethylene, 1,1,1-trichloroethane or methylene chloride. Many of these cleaners are harmful and must be disposed of as a hazardous waste. Cleaning without using liquid cleaners (e.g. wire brush) whenever possible reduces waste. Prevent spills and drips of solvents and cleansers to the shop floor. Do all liquid cleaning at a centralized station so the solvents and residues stay in one area. Locate drip pans, drain boards, and drying racks to direct drips back into a solvent sink or fluid holding tank for re-use.

Safer Alternatives

If possible, eliminate or reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials. For example:

- Use non-caustic detergents instead of caustic cleaning agents for parts cleaning (ask your supplier about alternative cleaning agents).
- Use detergent-based or water-based cleaning systems in place of organic solvent degreasers. Wash water may require treatment before it can be discharged to the sewer. Contact your local sewer authority for more information.
- Replace chlorinated organic solvents (1,1,1-trichloroethane, methylene chloride, etc.) with non-chlorinated solvents. Non-chlorinated solvents like kerosene or mineral spirits are less toxic and less expensive to dispose of properly. Check list of active ingredients to see whether it contains chlorinated solvents. The "chlor" term indicates that the solvent is chlorinated.
- Choose cleaning agents that can be recycled.
- Contact your supplier or refer to trade journals for more waste minimization ideas.

Reducing the number of solvents makes recycling easier and reduces hazardous waste management costs. Often, one solvent can perform a job as well as two different solvents.

Recycling

Separating wastes allows for easier recycling and may reduce treatment costs. Keep hazardous and non-hazardous wastes separate, do not mix used oil and solvents, and keep chlorinated solvents (like 1,1,1-trichloroethane) separate from non-chlorinated solvents (like kerosene and mineral spirits).

Many products made of recycled (i.e., refined or purified) materials are available. Engine oil, transmission fluid, antifreeze, and hydraulic fluid are available in recycled form. Buying recycled products supports the market for recycled materials.

Spill Leak Clean Up

Clean leaks, drips, and other spills with as little water as possible. Use rags for small spills, a damp mop for general cleanup, and dry absorbent material for larger spills. Use the following three-step method for cleaning floors:

1. Clean spills with rags or other absorbent materials.
2. Sweep floor using dry absorbent material.
3. Mop floor. Mop water may be discharged to the sanitary sewer via a toilet or sink.

SC4

Good Housekeeping

Also consider the following measures:

* Avoid hosing down your work areas. If work areas are washed, direct wash water to sanitary sewer.
* Collect leaking or dripping fluids in drip pans or containers. Fluids are easier to recycle if kept separate.
* Keep a drip pan under the vehicle while you unclip hoses, unscrew filters, or remove other parts. Use a drip pan under any vehicle that might leak while you work on it to keep splatters or drips off the shop floor.
* Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.

Do not pour liquid waste to floor drains, sinks, outdoor storm drain inlets, or other storm drains or sewer connections. Used or leftover cleaning solutions, solvents, and automotive fluids and oil are toxic and should not be put in the sanitary sewer. Post signs at sinks to remind employees, and paint stencils at outdoor drains to tell customer and others not to pour wastes down drains.

Oil filters disposed of in trash cans or dumpsters can leak oil and contaminate storm water. Most municipalities prohibit or discourage disposal of these items in solid waste facilities. Place the oil filter in a funnel over the waste oil recycling or disposal collection tank to drain excess oil before disposal. Oil filters can be crushed and recycled. Ask your oil supplier or recycler about recycling oil filters.

Put pans under leaks to collect fluids for proper recycling or disposal. Keeping leaks off the ground reduces the potential for storm water contamination and reduces cleanup time and costs. If the vehicle or equipment is to be stored outdoors, oil and other fluids should be drained first.

Designate a special area to drain and replace motor oil, coolant, and other fluids, where there are no connections to the storm drain or the sanitary sewer and drips and spills can be easily cleaned up.

Be especially careful with wrecked vehicles, whether you keep them indoors or out, as well as vehicles kept on-site for scrap or salvage. Wrecked or damaged vehicles often drip oil and other fluids for several days.

* As the vehicles arrive, place drip pans under them immediately, even if you believe that the fluids have leaked out before the car reaches your shop.
* Build a shed or temporary roof over areas where you park cars awaiting repair or salvage, especially if you handle wrecked vehicles. Build a roof over vehicles you keep for parts.
* Drain all fluids, including air conditioner coolant, from wrecked vehicles and "part" cars. Also drain engines, transmission, and other used parts.
* Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries, even if you think all the acid has drained out. If you drop a battery, treat it as if it is cracked. Put it into the containment area until you are sure it is not leaking.

Examples of Effective Programs

The City of Palo Alto has an effective program for commercial vehicle service facilities. Many of the program's elements, including specific BMP guidance and lists of equipment suppliers, are also applicable to industrial vehicle service facilities.

Pick N Pull Auto Dismantlers in Rancho Cordova drains all fluids from automobiles before they enter the yard.

Ecology Auto Wrecking in Rialto is surrounded by a steel plate/concrete fence and has a completely paved lot that is graded to a central low point. Collected storm water is channeled through an underground drainage system of clarifiers

SC4

and then stored in a 60,000 gallon UST before being processed through a filter system. In addition, the work area is covered, ventilated and has an additional sump. Vehicle fluids are drained in this area and segregated for recycling.

All Auto Parts, Fontana, has a complete water recycling system in a 10,000 square foot concrete slab surrounded by a curb that contains all the runoff and sends it to the recycling system. All receiving, dismantling, and shipping occurs on the slab.

REFERENCES

Best Management Practices for Automotive-Related Industries, Santa Clara Valley Nonpoint Source Pollution Control Program, 1992.

Best Management Practices for Controlling Oil and Grease in Urban Storm Water Runoff, G. S. Silverman, et. al, 1986 Environmental Professional, Vol. 8, pp 351-362.

Best Management Practices for Industrial Storm Water Pollution Control, Santa Clara Valley Nonpoint Source Pollution Control Program, 1992.

Fact Sheet - Waste Reduction for Automotive Repair Shops; DTSC, 1989.

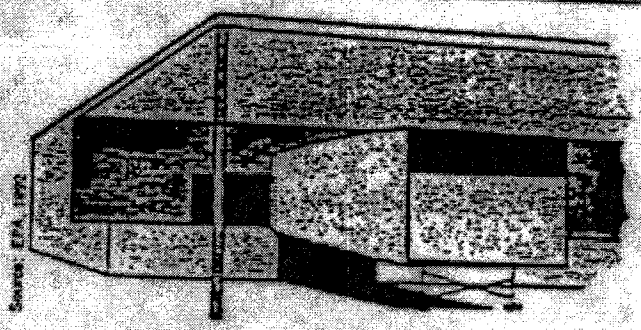
Hazardous Waste Reduction Assessment Handbook - Automotive Repair Shops; DTSC, 1988.

Hazardous Waste Reduction Checklist - Automotive Repair Shops; DTSC, 1988.

Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans, and Best Management Practices, EPA 832-R-92-006, USEPA, 1992.

SC4

ACTIVITY: OUTDOOR LOADING/UNLOADING OF MATERIALS



DESCRIPTION

Prevent or reduce the discharge of pollutants to storm water from outdoor loading/unloading of materials.

APPROACH

- Park tank trucks or delivery vehicles so that spills or leaks can be contained.
- Cover the loading/unloading docks to reduce exposure of materials to rain.
- Seal or door skirt between trailer and building can also prevent exposure to rain.
- Design loading/unloading area to prevent storm water runon:
  - grading or berming, and
  - position roof downspouts to direct storm water away from loading/unloading areas.
- Contain leaks during transfer.
- Use drip pans under hoses.
- Make sure fork lift operators are properly trained.
- Employee training for spill containment and cleanup.

REQUIREMENTS

- Costs (Capital, O&M) - Should be low except when covering a large loading/unloading area.
- Maintenance
  - Conduct regular inspections and make repairs as necessary. The frequency of repairs will depend on the age of the facility.
  - Check loading and unloading equipment regularly for leaks:
    - valves,
    - pumps,
    - flanges, and
    - connections.

LIMITATIONS

- Space and time limitations may preclude all transfers from being performed indoors or under cover.
- It may not be possible to conduct transfers only during dry weather.

Applications

- Manufacturing
- Material Handling
- Vehicle Maintenance
- Construction
- Commercial Activities
- Roadways
- Waste Containment
- Housekeeping Practices

Targeted Constituents

- ○ Sediment
- ● Nutrients
- ● Heavy Metals
- ● Toxic Materials
- ● Floatable Materials
- ● Oxygen Demanding Substances
- ● Oil & Grease
- ○ Bacteria & Viruses

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ○ O&M Costs
- ○ Maintenance
- ◒ Training

● High ○ Low

SC5

Best Management Practices

Additional Information — Outdoor Loading/Unloading of Materials

The loading/unloading of materials usually takes place outside. Loading or unloading of materials occurs in two ways: materials in containers or direct liquid transfer. Materials spilled, leaked or lost during loading/unloading may collect in the soil or on other surfaces and be carried away by runoff or when the area is cleaned. Rainfall may wash pollutants from machinery used to unload or move materials. The loading or unloading may involve rail or truck transfer.

The most important factors in preventing these constituents from entering storm water is:

- Limit exposure of material to rainfall.
- Prevent storm water runon.
- Check equipment regularly for leaks.
- Contain spills during transfer operations.

Loading or unloading of liquids should occur in the manufacturing building so that any spills that are not completely retained can be discharged to the sanitary sewer, treatment plant, or treated in a manner consistent with local sewer authorities and permit requirements. Best management practices include:

- Use overhangs or door skirts that enclose the trailer.
- Park tank trucks during delivery so that spills or leaks can be contained.
- Design loading/unloading area to prevent storm water runon which would include grading or berming the area, and positioning roof downspouts so they direct storm water away from the loading/unloading areas.
- Check loading and unloading equipment regularly for leaks, including valves, pumps, flanges and connections.
- Look for dust or fumes during loading or unloading operations.
- Use a written operations plan that describes procedures for loading and/or unloading.
- Have an emergency spill cleanup plan readily available.
- Employees trained in spill containment and cleanup should be present during the loading/unloading.
- Establish depots of cleanup materials next to or near each loading/unloading area, and train employees in their use.
- For loading and unloading tank trucks to above and below ground storage tanks, the following procedures should b used.
  - The area where the transfer takes place should be paved. If the liquid is reactive with the asphalt, Portland cement should be used to pave the area.
  - Transfer area should be designed to prevent runon of storm water from adjacent areas. Sloping the pad and using a curb, like a speed bump, around the uphill side of the transfer area should reduce runon.
  - Transfer area should be designed to prevent runoff of spilled liquids from the area. Sloping the area to a drain should prevent runoff. The drain should be connected to a dead-end sump or to the sanitary sewer. A positive control valve should be installed on the drain.
- For transfer from rail cars to storage tanks that must occur outside, use the following procedures:
  - Drip pans should be placed at locations where spillage may occur, such as hose connections, hose reels, and filler nozzles. Use drip pans when making and breaking connections.
  - Drip pan systems should be installed between the rails to collect spillage from tank cars.

REFERENCES

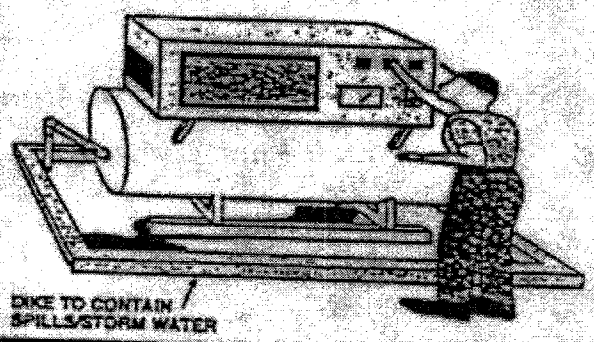
Best Management Practices for Industrial Storm Water Pollution Control, Santa Clara Valley Nonpoint Source Pollution Control Program, 1992

Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans, and Best Management Practices, EPA 832-R-92-006, USEPA, 1992.

Water Quality Best Management Practices Manual, City of Seattle, 1989.

SC5

ACTIVITY: OUTDOOR PROCESS EQUIPMENT OPERATIONS AND MAINTENANCE



Applications

- Manufacturing
- Material Handling
- Vehicle Maintenance
- Construction
- Commercial Activities
- Roadways
- Waste Containment
- Housekeeping Practices

DESCRIPTION

Prevent or reduce the discharge of pollutants to storm water from outdoor process equipment operations and maintenance by reducing the amount of waste created, enclosing or covering all or some of the equipment, installing secondary containment, and training employees.

APPROACH

- Alter the activity to prevent exposure of pollutants to storm water.
- Move activity indoors.
- Cover the area with a permanent roof.
- Minimize contact of storm water with outside manufacturing operations through berming and drainage routing (run on prevention).
- Connect process equipment area to public sewer or facility wastewater treatment system.
- Clean regularly the storm drainage system.
- Use catch basin filtration inserts (Chapter 5, TC6, Media Filtration) as a means to capture particulate pollutants.
- Some municipalities require that secondary containment areas (regardless of size) be connected to the sanitary sewer, prohibiting any hard connections to the storm drain.

REQUIREMENTS

- Costs (Capital, O&M)
  - Variable depending on the complexity of the operation and the amount of control necessary for storm water pollution control..
- Maintenance
  - Routine preventive maintenance, including checking process equipment for leaks.

LIMITATIONS

- Providing cover may be expensive.
- Space limitations may preclude enclosing some equipment.
- Storage sheds often must meet building and fire code requirements.

Targeted Constituents

- ● Sediment
- ○ Nutrients
- ● Heavy Metals
- ● Toxic Materials
- ○ Floatable Materials
- ○ Oxygen Demanding Substances
- ● Oil & Grease
- ○ Bacteria & Viruses

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ● Capital Costs
- ◒ O&M Costs
- ◒ Maintenance
- ◒ Training

● High ○ Low

SC7

Best Management Practices

Additional Information — Outdoor Process Equipment Operations and Maintenance

Outside process equipment operations can contaminate storm water runoff. Activities, such as rock grinding or crushing, painting or coating, grinding or sanding, degreasing or parts cleaning, landfills, waste piles, wastewater and solid waste treatment and disposal, and land application are process operations that use hazardous materials and that can lead to contamination of storm water runoff. Pollutants from the wastewater and solid waste treatment and disposal areas result from waste pumping, additions of treatment chemicals, mixing, aeration, clarification, and solids dewatering.

Possible storm water contaminants include heavy metals, toxic materials, and oil and grease. Waste spilled, leaked, or lost from outdoor process equipment operations may build up in soils or on other surfaces and be carried away by storm water runoff. There is also a potential for liquid waste from lagoons or surface impoundments, associated with outdoor equipment operations, to overflow to surface waters or soak the soil, which can be picked up by storm water runoff.

The preferred (and possibly the most economical) action to reduce storm water pollution is to alter the nature of activity such that pollutants are not exposed to storm water. This may mean performing the activity during dry periods only or substituting benign materials for more toxic ones. Actions other than altering the activity include enclosing the activity in a building and connecting the floor drains to the sanitary sewer. The area used by the activity may be so great as to make enclosure prohibitively expensive. Building cost can be reduced by not covering the sides, and thus eliminating the need for ventilating and lighting systems. When certain parts of the activity are the worst source of pollutants, those parts can be segregated and enclosed or covered.

Curbs can be placed around the immediate boundaries of the process equipment. The storm drains from these interior areas can be connected to the facility's process wastewater system.

Reducing the amount of waste that is created and consequently the amount that must be stored or treated is another way to reduce the potential for storm water contamination from outside manufacturing activities. Waste reduction BMPs are available for a wide range of industries and are designed to provide ideas and ways to reduce waste (see References).

Hydraulic/Treatment Modifications

If storm water becomes polluted, it should be captured and treated. If you do not have your own process wastewater treatment system, consider discharging to the public sewer system. Use of the public sewer might be allowed under the following conditions:

* If the activity area is very small (less than a few hundred square feet), the local sewer authority may be willing to allow the area to remain uncovered with the drain connected to the public sewer.
* It may be possible under unusual circumstances to connect a much larger area to the public sewer, as long as the rate of storm water discharges do not exceed the capacity of the wastewater treatment plant. The storm water could be stored during the storm and then transferred to the public sewer when the normal flow is low, such as at night.

The majority of the pollutants in storm water are discharged over time by the small, high frequency storms. Less polluted runoff from the infrequent large storms can be bypassed to the storm drain. To implement this BMP, a hydraulic evaluation of the downstream sewer system should occur in consultation with the local sewer authority.

Industries that generate large volumes of process wastewater typically have their own treatment system that discharges directly to the nearest receiving water. These industries have the discretion to use their wastewater treatment system to treat storm water within the constraints of their permit requirements for process treatment. It may also be possible for the industry to discharge the storm water directly to its effluent outfall without treatment as long as the total loading of the discharged process water and storm water does not exceed the loading had a storm water treatment device been used. This could be achieved by reducing the loading from the process wastewater treatment system. Check with your Regional Water Quality Control Board, as this option would be subject to permit constraints and potentially regular monitoring.

SC7

REFERENCES

Best Management Practices for Industrial Storm Water Pollution Control. Santa Clara Valley Nonpoint Source Pollution Control Program, 1992.

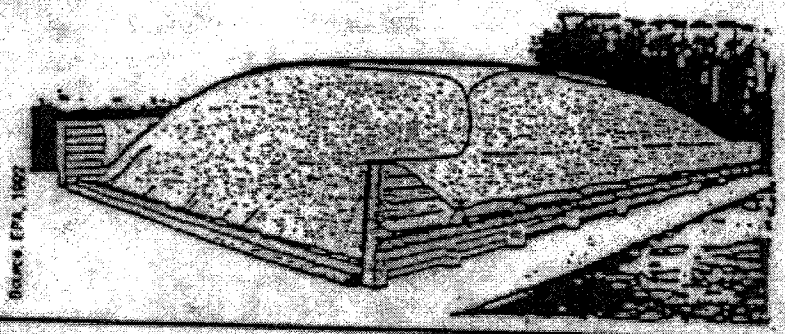
Publications That Can Work For You!; California Department of Toxic Substances Control, Sacramento, CA, 1991 (A list and order form for waste minimization publications from the State).

Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans, and Best Management Practices, EPA 832-R-92-006, USEPA, 1992.

Water Quality Best Management Practices Manual, City of Seattle, 1989.

SC7

ACTIVITY: OUTDOOR STORAGE OF RAW MATERIALS, PRODUCTS, AND BY-PRODUCTS



Applications

- Manufacturing
- **Material Handling**
- Vehicle Maintenance
- **Construction**
- **Commercial Activities**
- Roadways
- Waste Containment
- **Housekeeping Practices**

DESCRIPTION

Prevent or reduce the discharge of pollutants to storm water from outdoor material and product storage areas by enclosing or covering materials, installing secondary containment, and preventing storm water runon.

APPROACH

- Protect materials from rainfall, runon, runoff and wind dispersal:
  - Store material indoors.
  - Cover the storage area with a roof.
  - Cover the material with a temporary covering made of polyethylene, polypropylene, or bypalon.
  - Minimize storm water runon by enclosing the area or building a berm around the area.
  - Use "doghouse" for storage of liquid containers
- Parking lots or other surfaces near bulk materials storage areas should be swept periodically to remove debris blown or washed from storage area.
- Install pellet traps at storm water discharge points where plastic pellets are loaded and unloaded.
- Keep liquids in a designated area on a paved impervious surface within a secondary containment.
- Keep outdoor storage containers in good condition.
- Use berms and curbing.
- Use catch basin filtration inserts (Chapter 5, TC6, Media Filtration)

REQUIREMENTS

- Costs (Capital, O&M)
  - Costs should be low except where large areas may have to be covered.
- Maintenance
  - Berm and curbing repair and patching.

LIMITATIONS

- Space limitations may preclude storing some materials indoors.
- Some municipalities require that secondary containment areas (regardless of size) be connected to the sanitary sewer, prohibiting any hard connections to the storm drain.
- Storage sheds often must meet building and fire code requirements.

Targeted Constituents

- ● Sediment
- ○ Nutrients
- ● Heavy Metals
- ● Toxic Materials
- ● Floatable Materials
- ○ Oxygen Demanding Substances
- ● Oil & Grease
- ○ Bacteria & Viruses

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ○ O&M Costs
- ○ Maintenance
- ◒ Training

● High ○ Low

SC8

Additional Information — Outdoor Storage of Raw Materials, Products, and By-Products

Raw materials, by-products, finished products, containers, and material storage areas exposed to rain and/or runoff can pollute storm water. Storm water can become contaminated by a wide range of contaminants when materials wash off or dissolve into water or are added to runoff by spills and leaks.

Paved areas should be sloped in a manner that minimize the pooling of water on the site, particularly with materials that may leach pollutants into storm water and/or groundwater, such as compost, logs, and wood chips. A minimum slope of 1.5 percent is recommended.

Curbing should be placed along the perimeter of the area to prevent the runon of uncontaminated storm water from adjacent areas as well as runoff of storm water from the stockpile areas. The storm drainage system should be designed to minimize the use of catch basins in the interior of the area as they tend to rapidly fill with manufacturing material. In these cases, consider the use of the catch basin insert filter described in Chapter 5, TC6 (Media Filtration). The area should be sloped to drain storm water to the perimeter where it can be collected or to internal drainage alleyways where material is not stockpiled. If the raw material, by-product, or product is a liquid, more information for outside storage of liquids can be found under SC6, Outdoor Container Storage of Liquids.

Examples

The "dogbouse" design has been used to store small liquid containers. The roof and flooring design prevent contact with direct rain or runoff. The dogbouse has two solid structural walls and two canvas covered walls. The flooring is wire mesh about secondary containment. The unit has been used successively at Lockheed Missile and Space Company in Sunnyvale.

REFERENCES

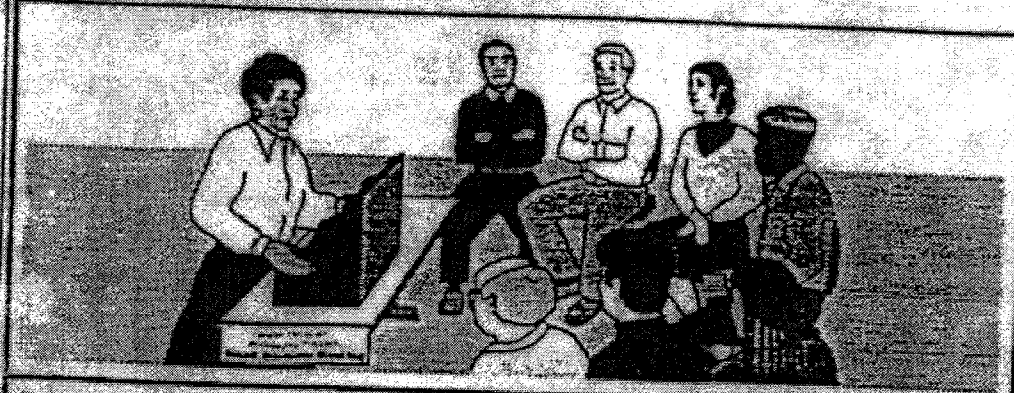
Best Management Practices for Industrial Storm Water Pollution Control, Santa Clara Valley Nonpoint Source Pollution Control Program, 1992.

Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans, and Best Management Practices, EPA 832-R-92-006, EPA, 1992.

Water Quality Best Management Practices Manual, City of Seattle, 1989.

SC8

ACTIVITY: EMPLOYEE TRAINING



Applications

- Manufacturing
- Material Handling
- Vehicle Maintenance
- Construction
- Commercial Activities
- Roadways
- Waste Containment
- Housekeeping Practices

DESCRIPTION

Employee training, like equipment maintenance, is not so much a best management practice as it is a method by which to implement BMPs. This fact sheet highlights the importance of training and of integrating the elements of employee training from the individual source controls into a comprehensive training program as part of a facility's Storm Water Pollution Prevention Plan (SWPPP).

The specific employee training aspects of each of the source controls are highlighted in the individual fact sheets. The focus of this fact sheet is more general, and includes the overall objectives and approach for assuring employee training in storm water pollution prevention. Accordingly, the organization of this fact sheet differs somewhat from the other fact sheets in this chapter.

OBJECTIVES

Employee training should be based on four objectives:

- Promote a clear identification and understanding of the problem, including activities with the potential to pollute storm water;
- Identify solutions (BMPs);
- Promote employee ownership of the problems and the solutions; and
- Integrate employee feedback into training and BMP implementation.

APPROACH

- Integrate training regarding storm water quality management with existing training programs that may be required for your business by other regulations such as: the Illness and Injury Prevention Program (IIPP) (SB 198) (California Code of Regulations Title 8, Section 3203), the Hazardous Waste Operations and Emergency Response (HAZWOPER) standard (29 CFR 1910.120), the Spill Prevention Control and Countermeasure (SPCC) Plan (40 CFR 112), and the Hazardous Materials Management Plan (Business Plan) (California Health and Safety Code, Section 6.95).
- Businesses, particularly smaller ones that are not regulated by Federal, State, or local regulations, may use the information in this Handbook to develop a training program to reduce their potential to pollute storm water.

LISTING OF INDUSTRIAL ACTIVITIES

Employee training is a vital component of many of the individual source control BMPs included in this chapter. Following is a compilation of the training aspects of the source control fact sheets.

SC14

Best Management Practices

ACTIVITY — EMPLOYEE TRAINING (Continue)

SC1 Non-Storm Water Discharges to Drains

- Use the quick reference on disposal alternatives (Table 4.1) to train employees in proper and consistent methods for disposal.
- Consider posting the quick reference table near storm drains to reinforce training.

SC2 Vehicle and Equipment Fueling

- Train employees in proper fueling and cleanup procedures.
- The SPCC Plan may be an effective program to reduce the number of accidental spills from fueling.

SC3 Vehicle and Equipment Washing and Steam Cleaning

- Train employees in standard operating procedures and spill cleanup techniques described in the fact sheet.

SC4 Vehicle and Equipment Maintenance and Repair

- Train employees in standard operating procedures and spill cleanup techniques described in the fact sheet.
- Paint stencils to remind employees not to pour waste down storm drains.

SC5 Outdoor Loading/Unloading of Materials

- Use a written operations plan that describes procedures for loading and/or unloading.
- Have an emergency spill cleanup plan readily available.
- Employees trained in spill containment and cleanup should be present during loading/unloading.
- Make sure fork lift operators are also properly trained.

SC6 Outdoor Container Storage of Liquids

- Registered and specifically trained professional engineers can identify and correct potential problems such as loose fittings, poor welding, and improper or poorly fitted gaskets for newly installed tank systems.
- Employees trained in emergency spill cleanup procedures should be present when dangerous waste, liquid chemicals, or other wastes are handled.

SC7 Outdoor Process Equipment Operations and Maintenance

- The preferred and possibly most economical action to reduce storm water pollution is to alter the activity. This may mean training employees to perform the activity during dry periods only or substituting benign materials for more toxic ones.

SC8 Outdoor Storage of Raw Materials, Products, and By-Products

- Train employees in standard operating procedures and spill cleanup techniques described in the fact sheet.

SC9 Waste Handling and Disposal

- Train employees in standard operating procedures and spill cleanup techniques described in the fact sheet.
- Paint stencils to remind employees not to pour waste down storm drains.

SC10 Contaminated or Erodible Surface Areas

- Training is not a significant element of this best management practice.

SC14

ACTIVITY — EMPLOYEE TRAINING (Continue)

SC11 Building and Grounds Maintenance

- Personnel who use pesticides should be trained in their use. The California Department of Pesticide Regulation and county agricultural commissioners license pesticide dealers, certify pesticide applicators, and conduct on-site inspections.
- Written procedures for the use of pesticides and fertilizers relevant to your facility would help maintenance staff understand the "do's" and "don'ts". If you have large vegetated areas, consider the use of integrated pest management (IPM) techniques to reduce the use of pesticides.

SC12 Building Repair, Remodeling, and Construction

- Proper education of off-site contractors is often overlooked. The conscientious efforts of well trained employees can be lost by unknowing off-site contractors, so make sure they are well informed about what they are expected to do.

SC13 Over-Water Activities

- Post signs to indicate proper use and disposal of residual paints, rags, used oil, and other engine fluids.
- Educate tenants and employees on spill prevention and cleanup.
- Include appropriate language in tenant contracts indicating their responsibilities.

SC14

Appendix H

APPENDIX H

CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICES (EROSION AND SEDIMENT CONTROL)

5. BMPs FOR EROSION AND SEDIMENTATION CONTROL

INTRODUCTION

This chapter describes specific Best Management Practices (BMPs) for common construction activities that result in erosion of the construction site and the generation of sediment which impacts waterways and off-site property. Chapter 2 led you through the steps of identifying activities at your site that can cause erosion, while Chapter 3 provided guidance with BMP selection. This chapter will provide you with the BMPs that best fit your site's needs.

Each fact sheet contains a cover sheet with:

- A description of the BMP
- Suitable Applications
- Installation/Application Criteria
- Requirements
  - Costs, including capital costs, and operations and maintenance (O&M)
  - Maintenance (including administrative and staffing)
- Limitations

The side bar presents information on which BMP objective applies, targeted constituents, and an indication of the level of effort and costs to implement. The remainder of the fact sheet provides further information on some or all of these topics, and provides references for additional guidelines.

Sizing and design criteria for erosion and sedimentation control may be standardized for each local area. This handbook cannot develop specific sizing criteria for all topographies and climates in California. Many local agencies have developed such criteria and should be consulted before sizing specific BMPs. A common design storm for sizing temporary erosion and sedimentation controls is a two-year, 24-hour storm. Sizing criteria given in this handbook assume that such a storm would result in 0.042 ac-ft/ac. of runoff (0.5 inches of runoff). This should be appropriate for sizing controls in most areas. Keep in mind that these controls must also be able to safely contain or

BMPs for Erosion and Sedimentation Control

Site Planning Considerations
- ESC1 Scheduling
- ESC2 Preservation of Existing Vegetation

Vegetative Stabilization
- ESC10 Seeding and Planting
- ESC11 Mulching

Physical Stabilization
- ESC20 Geotextiles and Mats
- ESC21 Dust Control
- ESC22 Temporary Stream Crossing
- ESC23 Construction Road Stabilization
- ESC24 Stabilized Construction Entrance

Diversion of Runoff
- ESC30 Earth Dike
- ESC31 Temporary Drains and Swales
- ESC32 Slope Drain

Velocity Reduction
- ESC40 Outlet Protection
- ESC41 Check Dams
- ESC42 Slope Roughening/Terracing

Sediment Trapping/Filtering
- ESC50 Silt Fence
- ESC51 Straw Bale Barrier
- ESC52 Sand Bag Barrier
- ESC53 Brush or Rock Filter
- ESC54 Storm Drain Inlet Protection
- ESC55 Sediment Trap
- ESC56 Sediment Basin

convey storms larger than the design storm for erosion and sediment control.

These BMP fact sheets are suitable for inclusion in many SWPPPs for erosion and sedimentation control. They may be used to supplement and provide details for erosion and sedimentation controls shown on the project site map. In all cases, however, local erosion and sedimentation criteria and standards supersede the suggested criteria on these fact sheets.

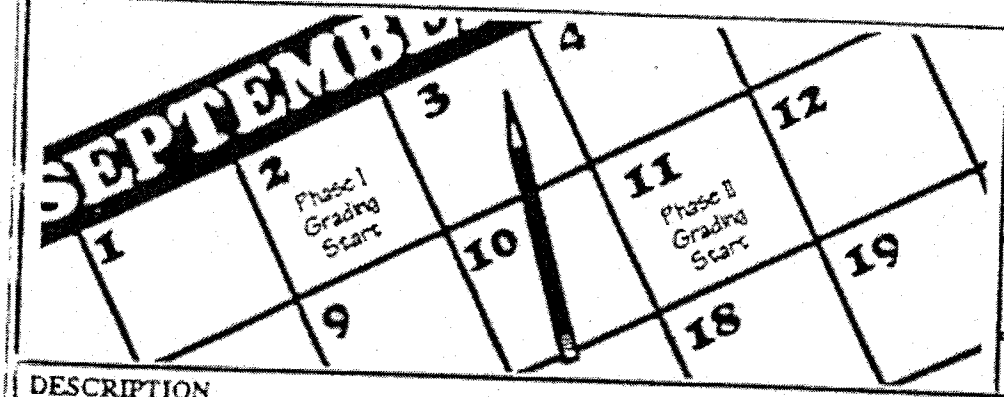
BMPs fact sheets are provided for each of the following BMP categories, and are consistent with Worksheet 5 in Chapter 2.

TABLE 5.1 EROSION AND SEDIMENT CONTROL AND BMP OBJECTIVES

	BMP CATEGORY	BMP OBJECTIVES						
		PRACTICE GOOD HOUSE-KEEPING	CONTAIN WASTE	MINIMIZE DISTURBED AREA	STABILIZE DISTURBED AREA	PROTECT SLOPES AND CHANNELS	CONTROL SITE PERIMETER	CONTROL INTERNAL EROSION
	Site Planning Considerations							
ESC1	Scheduling	✓	✓	✓	✓	✓	✓	✓
ESC2	Preservation of Existing Vegetation			✓	✓	✓	✓	
	Vegetative Stabilization							
ESC10	Seeding and Planting				✓	✓		
ESC11	Mulching				✓	✓		
	Physical Stabilization							
ESC20	Geotextiles and Mats				✓	✓		
ESC21	Dust Control	✓		✓	✓		✓	
ESC22	Temporary Stream Crossing	✓		✓	✓	✓		
ESC23	Construction Road Stabilization	✓		✓	✓	✓		
ESC24	Stabilized Construction Entrance	✓		✓	✓		✓	
	Diversion of Runoff							
ESC30	Earth Dike		✓			✓	✓	✓
ESC31	Temporary Drains and Swales					✓	✓	✓
ESC32	Slope Drain					✓		
	Velocity Reduction							
ESC40	Outlet Protection					✓		
ESC41	Check Dams (see ESC 53 also)					✓		
ESC42	Slope Roughening/Terracing				✓	✓		

BMP CATEGORY		BMP OBJECTIVES						
		PRACTICE GOOD HOUSE-KEEPING	CONTAIN WASTE	MINIMIZE DISTURBED AREA	STABILIZE DISTURBED AREA	PROTECT SLOPES AND CHANNELS	CONTROL SITE PERIMETER	CONTROL INTERNAL EROSION
	Sediment Trapping/Filtering							
ESC50	Silt Fence						✓	✓
ESC51	Straw Bale Barrier						✓	✓
ESC52	Sand Bag Barrier					✓	✓	✓
ESC53	Brush or Rock Filter					✓	✓	✓
ESC54	Storm Drain Inlet Protection						✓	✓
ESC55	Sediment Trap							✓
ESC56	Sediment Basin							✓

BMP: SCHEDULING



DESCRIPTION

Sequencing the construction project to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking.

SUITABLE APPLICATIONS

Proper sequencing of construction activities to reduce erosion potential should be incorporated into the schedule of every construction project. Use of other, more costly yet less effective, erosion and sedimentation controls, may often be reduced through proper construction sequencing.

APPROACH

- Project design considerations: Design project to integrate into existing land contours. Significant regrading of a site will require more costly erosion and sedimentation control measures and may require that on-site drainage facilities be installed.
- Incorporate existing, natural areas: Inventory and evaluate the existing site terrain and vegetation. Disturbance of highly erosive natural areas (e.g., steep, unstable slope areas, watercourses) should be minimized, while protecting other areas may enhance site aesthetics. Construction should not disturb these areas (see ESC2).
- Avoid rainy periods: Schedule major grading operations during dry months. Allow enough time before rainfall begins to stabilize the soil with vegetation or physical means (see ESC 10 to 24) or to install temporary sediment trapping devices (see ESC 50 to 56).
- Practice erosion and sediment control year round: Erosion may be caused during dry seasons by "freak" rainfall, wind and vehicle tracking. Therefore, keep the site stabilized year-round, and retain wet season sediment trapping devices.
- Minimize soil exposed at one time: Schedule projects to disturb only small portions of the site at any one time. Complete grading as soon as possible. Immediately stabilize the disturbed portion before grading the next portion. Practice staged seeding—revegetate cut and fill slopes as the work progresses.
- Trenching: Close and stabilize open trenches as soon as possible. Sequence trenching projects so that most open portions of the trench are closed before new trenching is begun.

REQUIREMENTS

- Cost
  - Construction scheduling to reduce erosion may increase other construction costs due to reduced economies of scale in performing site grading. The cost-effectiveness of scheduling techniques should be compared with the other, less effective erosion and sedimentation controls to achieve a cost-effective balance.

Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion

Targeted Pollutants

- ○ Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ○ Capital Costs
- ○ O&M Costs
- ○ Maintenance
- ○ Training
- ○ Suitability for Slopes >5%

● High ○ Low

ESC1

Best Management Practices

LIMITATIONS

There are no significant limitations to the use of this BMP.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona - 1992.

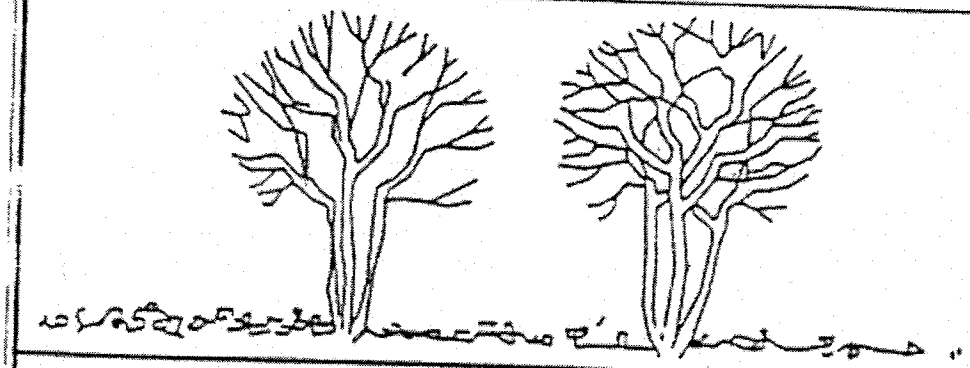
Erosion and Sediment Control Guidelines for Developing Areas in Texas, U.S. Department of Agriculture, Soil Conservation Service, Fort Worth, Texas - 1976.

Storm Water Management for Construction Activites. Developing Pollution Prevention Plans and Best Management Practices, U.S. Environmental Protection Agency, Office of Water (EPA 832-R-92-005) - September, 1992.

Virginia Erosion and Sediment Control Handbook, Third Edition, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation - 1992.

ESC1

BMP: PRESERVATION OF EXISTING VEGETATION



GENERAL DESCRIPTION

Carefully planned preservation of existing vegetation minimizes the potential of removing or injuring existing trees, vines, shrubs and/or grasses that serve as erosion controls.

SUITABLE APPLICATIONS

- Areas within site where no construction activity occurs, or occurs at a later date.
- Sensitive areas where natural vegetation exist and should be preserved, such as: steep slopes, watercourses, and building sites in wooded areas.
- Areas where local, state and federal government requires preservation, such as: vernal pools, wetlands, marshes, certain oak trees, etc.

INSTALLATION/APPLICATION CRITERIA

- Clearly mark, flag or fence vegetation or areas where vegetation should be preserved.
- Prepare landscaping plans which include as much existing vegetation as possible and state proper care of this vegetation both during and after construction.
- Define and protect with berms, fencing, signs, etc., a setback area from vegetation to be preserved. Setback area size should be based on the location, species, size, age and potential impact of adjacent construction activities or permanent improvements.
- Proposed landscaping plans which do not include plant species that compete with the existing vegetation.
- Do not locate construction traffic routes, spoil piles, etc., where significant adverse impact on existing vegetation may occur.

REQUIREMENTS

- Maintenance
  - Inspection and maintenance requirements for protection of vegetation are low.
  - During construction the limits of grading or disturbance should be clearly marked at all times.
  - Irrigation or maintenance of native trees or vegetation should conform to specifications on the Landscape Plan.
- Cost
  - There is little cost associated with preserving existing vegetation if properly planned during the project design, and may yield aesthetic benefits which enhance property values.

LIMITATIONS

- Requires forward planning by the owner/developer, contractor and design staff.
- For sites with diverse topography, it is often difficult and expensive to save existing trees while grading the site satisfactorily for the planned development.

Objectives

- Housekeeping Practices
- Contain Waste
- **Minimize Disturbed Areas**
- **Stabilize Disturbed Areas**
- **Protect Slopes/Channels**
- **Control Site Perimeter**
- Control Internal Erosion

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ○ Capital Costs
- ○ O&M Costs
- ○ Maintenance
- ○ Training
- ● Suitability for Slopes >5%

● High ○ Low

ESC2

Best Management Practices

Additional Information — Preservation of Existing Vegetation

The best way to prevent excessive erosion is to not disturb the land. On a construction site, where extensive land disturbance is necessary, a reasonable BMP would be to not disturb land in sensitive areas of the site which need not be altered for the project to be viable (e.g., natural watercourses, steep slopes), and to design the site to incorporate particularly unique or desireable existing vegetation into the site landscaping plan. Clearly marking and leaving a buffer area around these unique areas will both help to preserve these areas as well as take advantage of natural erosion prevention and sediment trapping in naturally vegetated areas.

Existing vegetation to be preserved on the site must be protected from mechanical and other injury while the land is being developed. The purpose of protecting existing vegetation is to insure the survival of desirable vegetation for shade, beautification, and erosion protection. Mature vegetation has extensive root systems that help to hold soil in place, thus reducing erosion. Also, vegetation helps to keep soil from drying rapidly and becoming susceptible to erosion. To effectively save existing vegetation, no disturbances of any kind should be allowed within a defined area around the vegetation. For trees, no construction activity should occur within the drip line of the tree.

The following criteria may be used for deciding which vegetation will remain on the site:

- Aesthetic values: Consideration should be given to foliage, flowering habits, bark and crown characteristics (for trees).
- Freedom from disease and rot.
- Life span of trees: Short-lived trees need not be preserved.
- Environmental values: Habitat; screening; and buffers.
- Sudden exposure: Save vegetation which grows in direct sunlight and is able to withstand radiated heat from proposed buildings and pavement.
- Space needed: Sufficient space must be provided between the vegetation and any structures, electric and telephone lines, water and sewer lines, driveways and streets. Mark trees and shrubs with bright paint or ribbon so there is no doubt as to which trees and shrubs are to be left and protected from damage during construction.

Saving existing vegetation and mature trees on-site, beautifies the area and may save money by reducing new landscaping requirements. Mature trees also increase property values and satisfy consumer aesthetic needs.

Preserving and protecting existing vegetation can often result in more stable soil conditions during construction. Careful site planning and identification of plantings to preserve can provide erosion and sedimentation controls during construction, and contribute to the aesthetics of the development. For example, in Sacramento County a tree ordinance has been adopted that protects the native California Oak tree. Provisions to protect the tree and its root system during construction must be specified in the project plans, and an area must be provided where the soil stability may not be disturbed. No grading or construction storage within the tree dripline is allowed.

Installation/Application

Building sites may be planned to integrate existing vegetation and trees. Construction impacts must be considered. Trench width for pipe construction projects and the location of permanent structures, such as buildings, needs to be considered when preserving existing vegetation, including mature trees and their root system. Native vegetation should be preserved since it is able to adapt to the climate. The USDA Soil Conservation Service should be contacted about existing vegetation for sites throughout California. Mature trees are generally preferable to newly planted trees because of the greater soil stabilization provided by the extensive root system of a mature tree.

ESC2

Additional Information — Preservation of Existing Vegetation

Methods for protecting existing vegetation and trees:

- Stake off root system limits (drip line of tree). Some counties limit construction within 5 feet of the tree drip line.
- Fence off the area to be preserved or along the tree drip line.
- Flag or mark trees to remain in place.
- Tree wells and retaining walls (permanent) help preserve existing vegetation, but must be large enough to protect the root system (see below).
- For the California Oak tree, no trenching or irrigation should be allowed within the driplines of the tree, since both these activities are detrimental to the preservation of the tree.
- Where grading under trees is necessary, excavation and fill should be limited to 1 foot within the driplines.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

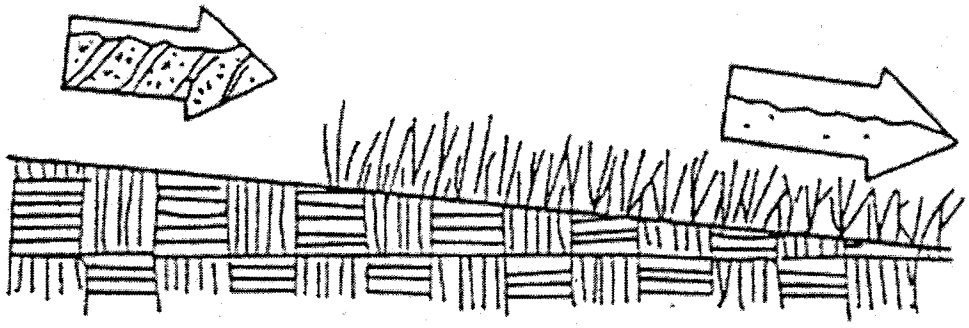
County of Sacramento Tree Preservation Ordinance - September 1981.

Stormwater Management Water for the Puget Sound Basin, Washington State Department of Ecology, The Technical Manual - February 1992, Publication # 91-75.

Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency - November 1988.

ESC2

BMP: SEEDING AND PLANTING



GENERAL DESCRIPTION

Seeding of grasses and plantings of trees, shrubs, vines and ground covers provide long-term stabilization of soil. In some areas, with suitable climates, grasses can be planted for temporary stabilization.

SUITABLE APPLICATIONS

- Appropriate for site stabilization both during construction and post-construction.
- Any graded/cleared areas where construction activities have ceased.
- Open space cut and fill areas.
- Steep slopes.
- Spoil piles.
- Vegetated swales.
- Landscape corridors.
- Stream banks.

INSTALLATION/APPLICATION CRITERIA

Type of vegetation, site and seedbed preparation, planting time, fertilization and water requirements should be considered for each application.

Grasses:

- Ground preparation: fertilize and mechanically stabilize the soil.
- Tolerant of short-term temperature extremes and waterlogged soil conditions.
- Appropriate soil conditions: shallow soil base, good drainage, slope 2:1 or flatter.
- Develop well and quickly from seeds.
- Mowing, irrigating, and fertilizing are vital for promoting vigorous grass growth.

Trees and Shrubs:

- Selection Criteria: vigor, species, size, shape & wildlife food source.
- Soil conditions: select species appropriate for soil,drainage & acidity.
- Other Factors: wind/exposure, temperature extremes, and irrigation needs.

Vines and Ground Covers:

- Ground preparation: lime and fertilizer preparation.
- Use proper seeding rates.
- Appropriate soil conditions: drainage, acidity, slopes.
- Generally avoid species requiring irrigation.

Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion

Targeted Pollutants

- ● Sediment
- ◒ Nutrients
- ◒ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ◒ O&M Costs
- ◒ Maintenance
- ◒ Training
- ◒ Suitability for Slopes >5%

● High ○ Low

ESC10

Best Management Practices

APPENDIX H

CALIFORNIA STORM WATER BEST MANAGEMENT PRACTICES (EROSION AND SEDIMENT CONTROL)

5. BMPs FOR EROSION AND SEDIMENTATION CONTROL

INTRODUCTION

This chapter describes specific Best Management Practices (BMPs) for common construction activities that result in erosion of the construction site and the generation of sediment which impacts waterways and off-site property. Chapter 2 led you through the steps of identifying activities at your site that can cause erosion, while Chapter 3 provided guidance with BMP selection. This chapter will provide you with the BMPs that best fit your site's needs.

Each fact sheet contains a cover sheet with:

- A description of the BMP
- Suitable Applications
- Installation/Application Criteria
- Requirements
  - Costs, including capital costs, and operations and maintenance (O&M)
  - Maintenance (including administrative and staffing)
- Limitations

The side bar presents information on which BMP objective applies, targeted constituents, and an indication of the level of effort and costs to implement. The remainder of the fact sheet provides further information on some or all of these topics, and provides references for additional guidelines.

Sizing and design criteria for erosion and sedimentation control may be standardized for each local area. This handbook cannot develop specific sizing criteria for all topographies and climates in California. Many local agencies have developed such criteria and should be consulted before sizing specific BMPs. A common design storm for sizing temporary erosion and sedimentation controls is a two-year, 24-hour storm. Sizing criteria given in this handbook assume that such a storm would result in 0.042 ac-ft/ac. of runoff (0.5 inches of runoff). This should be appropriate for sizing controls in most areas. Keep in mind that these controls must also be able to safely contain or

BMPs for Erosion and Sedimentation Control

Site Planning Considerations
- ESC1 Scheduling
- ESC2 Preservation of Existing Vegetation

Vegetative Stabilization
- ESC10 Seeding and Planting
- ESC11 Mulching

Physical Stabilization
- ESC20 Geotextiles and Mats
- ESC21 Dust Control
- ESC22 Temporary Stream Crossing
- ESC23 Construction Road Stabilization
- ESC24 Stabilized Construction Entrance

Diversion of Runoff
- ESC30 Earth Dike
- ESC31 Temporary Drains and Swales
- ESC32 Slope Drain

Velocity Reduction
- ESC40 Outlet Protection
- ESC41 Check Dams
- ESC42 Slope Roughening/Terracing

Sediment Trapping/Filtering
- ESC50 Silt Fence
- ESC51 Straw Bale Barrier
- ESC52 Sand Bag Barrier
- ESC53 Brush or Rock Filter
- ESC54 Storm Drain Inlet Protection
- ESC55 Sediment Trap
- ESC56 Sediment Basin

convey storms larger than the design storm for erosion and sediment control.

These BMP fact sheets are suitable for inclusion in many SWPPPs for erosion and sedimentation control. They may be used to supplement and provide details for erosion and sedimentation controls shown on the project site map. In all cases, however, local erosion and sedimentation criteria and standards supersede the suggested criteria on these fact sheets.

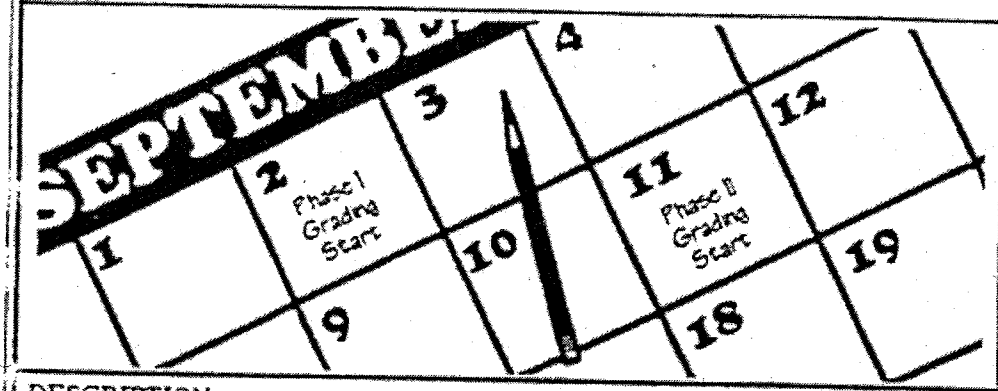
BMPs fact sheets are provided for each of the following BMP categories, and are consistent with Worksheet 5 in Chapter 2.

TABLE 5.1 EROSION AND SEDIMENT CONTROL AND BMP OBJECTIVES

	BMP CATEGORY	BMP OBJECTIVES						
		PRACTICE GOOD HOUSE-KEEPING	CONTAIN WASTE	MINIMIZE DISTURBED AREA	STABILIZE DISTURBED AREA	PROTECT SLOPES AND CHANNELS	CONTROL SITE PERIMETER	CONTROL INTERNAL EROSION
	Site Planning Considerations							
ESC1	Scheduling	✓	✓	✓	✓	✓	✓	✓
ESC2	Preservation of Existing Vegetation			✓	✓	✓	✓	
	Vegetative Stabilization							
ESC10	Seeding and Planting				✓	✓		
ESC11	Mulching				✓	✓		
	Physical Stabilization							
ESC20	Geotextiles and Mats				✓	✓		
ESC21	Dust Control	✓		✓	✓		✓	
ESC22	Temporary Stream Crossing	✓		✓	✓	✓		
ESC23	Construction Road Stabilization	✓		✓	✓	✓		
ESC24	Stabilized Construction Entrance	✓		✓	✓		✓	
	Diversion of Runoff							
ESC30	Earth Dike		✓			✓	✓	✓
ESC31	Temporary Drains and Swales					✓	✓	✓
ESC32	Slope Drain					✓		
	Velocity Reduction							
ESC40	Outlet Protection					✓		
ESC41	Check Dams (see ESC 53 also)					✓		
ESC42	Slope Roughening/Terracing				✓	✓		

BMP CATEGORY		BMP OBJECTIVES						
		PRACTICE GOOD HOUSE-KEEPING	CONTAIN WASTE	MINIMIZE DISTURBED AREA	STABILIZE DISTURBED AREA	PROTECT SLOPES AND CHANNELS	CONTROL SITE PERIMETER	CONTROL INTERNAL EROSION
	Sediment Trapping/Filtering							
ESC50	Silt Fence						✓	✓
ESC51	Straw Bale Barrier						✓	✓
ESC52	Sand Bag Barrier					✓	✓	✓
ESC53	Brush or Rock Filter					✓	✓	✓
ESC54	Storm Drain Inlet Protection						✓	✓
ESC55	Sediment Trap							✓
ESC56	Sediment Basin							✓

BMP: SCHEDULING



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion

DESCRIPTION

Sequencing the construction project to reduce the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking.

SUITABLE APPLICATIONS

Proper sequencing of construction activities to reduce erosion potential should be incorporated into the schedule of every construction project. Use of other, more costly yet less effective, erosion and sedimentation controls, may often be reduced through proper construction sequencing.

APPROACH

- Project design considerations: Design project to integrate into existing land contours. Significant regrading of a site will require more costly erosion and sedimentation control measures and may require that on-site drainage facilities be installed.
- Incorporate existing, natural areas: Inventory and evaluate the existing site terrain and vegetation. Disturbance of highly erosive natural areas (e.g., steep, unstable slope areas, watercourses) should be minimized, while protecting other areas may enhance site aesthetics. Construction should not disturb these areas (see ESC2).
- Avoid rainy periods: Schedule major grading operations during dry months. Allow enough time before rainfall begins to stabilize the soil with vegetation or physical means (see ESC 10 to 24) or to install temporary sediment trapping devices (see ESC 50 to 56).
- Practice erosion and sediment control year round: Erosion may be caused during dry seasons by "freak" rainfall, wind and vehicle tracking. Therefore, keep the site stabilized year-round, and retain wet season sediment trapping devices.
- Minimize soil exposed at one time: Schedule projects to disturb only small portions of the site at any one time. Complete grading as soon as possible. Immediately stabilize the disturbed portion before grading the next portion. Practice staged seeding—revegetate cut and fill slopes as the work progresses.
- Trenching: Close and stabilize open trenches as soon as possible. Sequence trenching projects so that most open portions of the trench are closed before new trenching is begun.

REQUIREMENTS

- Cost
  - Construction scheduling to reduce erosion may increase other construction costs due to reduced economies of scale in performing site grading. The cost-effectiveness of scheduling techniques should be compared with the other, less effective erosion and sedimentation controls to achieve a cost-effective balance.

Targeted Pollutants

- ○ Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ○ Capital Costs
- ○ O&M Costs
- ○ Maintenance
- ○ Training
- ○ Suitibility for Slopes >5%

● High ○ Low

ESC1

Best Management Practices

LIMITATIONS

There are no significant limitations to the use of this BMP.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona - 1992.

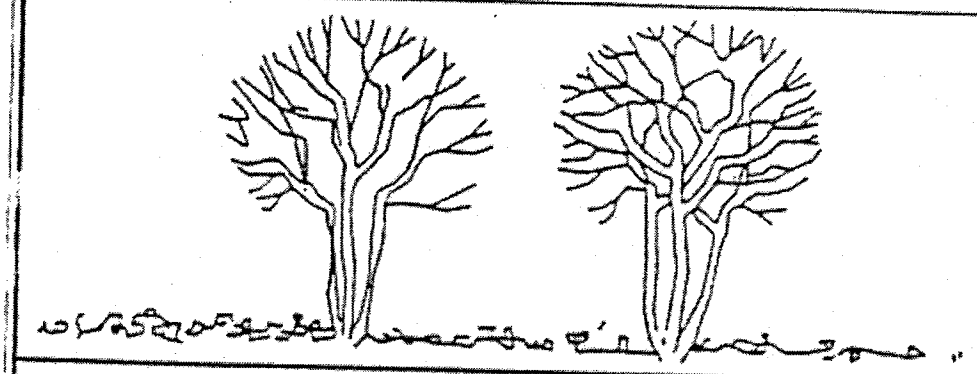
Erosion and Sediment Control Guidelines for Developing Areas in Texas, U.S. Department of Agriculture, Soil Conservation Service, Fort Worth, Texas - 1976.

Storm Water Management for Construction Activites. Developing Pollution Prevention Plans and Best Management Practices, U.S. Environmental Protection Agency, Office of Water (EPA 832-R-92-005) - September, 1992.

Virginia Erosion and Sediment Control Handbook, Third Edition, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation - 1992.

ESC1

BMP: PRESERVATION OF EXISTING VEGETATION



GENERAL DESCRIPTION

Carefully planned preservation of existing vegetation minimizes the potential of removing or injuring existing trees, vines, shrubs and/or grasses that serve as erosion controls.

SUITABLE APPLICATIONS

- Areas within site where no construction activity occurs, or occurs at a later date.
- Sensitive areas where natural vegetation exist and should be preserved, such as: steep slopes, watercourses, and building sites in wooded areas.
- Areas where local, state and federal government requires preservation, such as: vernal pools, wetlands, marshes, certain oak trees, etc.

INSTALLATION/APPLICATION CRITERIA

- Clearly mark, flag or fence vegetation or areas where vegetation should be preserved.
- Prepare landscaping plans which include as much existing vegetation as possible and state proper care of this vegetation both during and after construction.
- Define and protect with berms, fencing, signs, etc., a setback area from vegetation to be preserved. Setback area size should be based on the location, species, size, age and potential impact of adjacent construction activities or permanent improvements.
- Proposed landscaping plans which do not include plant species that compete with the existing vegetation.
- Do not locate construction traffic routes, spoil piles, etc., where significant adverse impact on existing vegetation may occur.

REQUIREMENTS

- Maintenance
  - Inspection and maintenance requirements for protection of vegetation are low.
  - During construction the limits of grading or disturbance should be clearly marked at all times.
  - Irrigation or maintenance of native trees or vegetation should conform to specifications on the Landscape Plan.
- Cost
  - There is little cost associated with preserving existing vegetation if properly planned during the project design, and may yield aesthetic benefits which enhance property values.

LIMITATIONS

- Requires forward planning by the owner/developer, contractor and design staff.
- For sites with diverse topography, it is often difficult and expensive to save existing trees while grading the site satisfactorily for the planned development.

Objectives

- Housekeeping Practices
- Contain Waste
- (Minimize Disturbed Areas)
- (Stabilize Disturbed Areas)
- (Protect Slopes/Channels)
- (Control Site Perimeter)
- Control Internal Erosion

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

- ● Likely to Have Significant Impact
- ○ Probable Low or Unknown Impact

Implementation Requirements

- ○ Capital Costs
- ○ O&M Costs
- ○ Maintenance
- ○ Training
- ● Suitability for Slopes >5%

● High ○ Low

ESC2

Best Management Practices

Additional Information — Preservation of Existing Vegetation

The best way to prevent excessive erosion is to not disturb the land. On a construction site, where extensive land disturbance is necessary, a reasonable BMP would be to not disturb land in sensitive areas of the site which need not be altered for the project to be viable (e.g., natural watercourses, steep slopes), and to design the site to incorporate particularly unique or desireable existing vegetation into the site landscaping plan. Clearly marking and leaving a buffer area around these unique areas will both help to preserve these areas as well as take advantage of natural erosion prevention and sediment trapping in naturally vegetated areas.

Existing vegetation to be preserved on the site must be protected from mechanical and other injury while the land is being developed. The purpose of protecting existing vegetation is to insure the survival of desirable vegetation for shade, beautification, and erosion protection. Mature vegetation has extensive root systems that help to hold soil in place, thus reducing erosion. Also, vegetation helps to keep soil from drying rapidly and becoming susceptible to erosion. To effectively save existing vegetation, no disturbances of any kind should be allowed within a defined area around the vegetation. For trees, no construction activity should occur within the drip line of the tree.

The following criteria may be used for deciding which vegetation will remain on the site:

- Aesthetic values: Consideration should be given to foliage, flowering habits, bark and crown characteristics (for trees).
- Freedom from disease and rot.
- Life span of trees: Short-lived trees need not be preserved.
- Environmental values: Habitat; screening; and buffers.
- Sudden exposure: Save vegetation which grows in direct sunlight and is able to withstand radiated heat from proposed buildings and pavement.
- Space needed: Sufficient space must be provided between the vegetation and any structures, electric and telephone lines, water and sewer lines, driveways and streets. Mark trees and shrubs with bright paint or ribbon so there is no doubt as to which trees and shrubs are to be left and protected from damage during construction.

Saving existing vegetation and mature trees on-site, beautifies the area and may save money by reducing new landscaping requirements. Mature trees also increase property values and satisfy consumer aesthetic needs.

Preserving and protecting existing vegetation can often result in more stable soil conditions during construction. Careful site planning and identification of plantings to preserve can provide erosion and sedimentation controls during construction, and contribute to the aesthetics of the development. For example, in Sacramento County a tree ordinance has been adopted that protects the native California Oak tree. Provisions to protect the tree and its root system during construction must be specified in the project plans, and an area must be provided where the soil stability may not be disturbed. No grading or construction storage within the tree dripline is allowed.

Installation/Application

Building sites may be planned to integrate existing vegetation and trees. Construction impacts must be considered. Trench width for pipe construction projects and the location of permanent structures, such as buildings, needs to be considered when preserving existing vegetation, including mature trees and their root system. Native vegetation should be preserved since it is able to adapt to the climate. The USDA Soil Conservation Service should be contacted about existing vegetation for sites throughout California. Mature trees are generally preferable to newly planted trees because of the greater soil stabilization provided by the extensive root system of a mature tree.

ESC2

Additional Information — Preservation of Existing Vegetation

Methods for protecting existing vegetation and trees:

- Stake off root system limits (drip line of tree). Some counties limit construction within 5 feet of the tree drip line.
- Fence off the area to be preserved or along the tree drip line.
- Flag or mark trees to remain in place.
- Tree wells and retaining walls (permanent) help preserve existing vegetation, but must be large enough to protect the root system (see below).
- For the California Oak tree, no trenching or irrigation should be allowed within the driplines of the tree, since both these activities are detrimental to the preservation of the tree.
- Where grading under trees is necessary, excavation and fill should be limited to 1 foot within the driplines.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

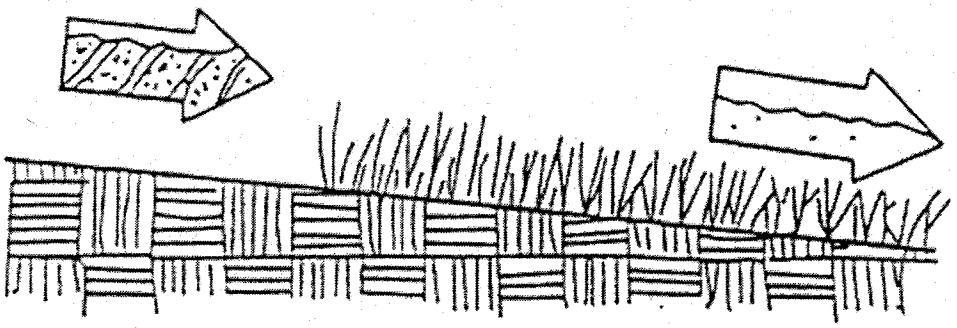
County of Sacramento Tree Preservation Ordinance - September 1981.

Stormwater Management Water for the Puget Sound Basin, Washington State Department of Ecology, The Technical Manual - February 1992, Publication # 91-75.

Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency - November 1988.

ESC2

BMP: SEEDING AND PLANTING



GENERAL DESCRIPTION

Seeding of grasses and plantings of trees, shrubs, vines and ground covers provide long-term stabilization of soil. In some areas, with suitable climates, grasses can be planted for temporary stabilization.

SUITABLE APPLICATIONS

- Appropriate for site stabilization both during construction and post-construction.
- Any graded/cleared areas where construction activities have ceased.
- Open space cut and fill areas.
- Steep slopes.
- Spoil piles.
- Vegetated swales.
- Landscape corridors.
- Stream banks.

INSTALLATION/APPLICATION CRITERIA

Type of vegetation, site and seedbed preparation, planting time, fertilization and water requirements should be considered for each application.

Grasses:

- Ground preparation: fertilize and mechanically stabilize the soil.
- Tolerant of short-term temperature extremes and waterlogged soil conditions.
- Appropriate soil conditions: shallow soil base, good drainage, slope 2:1 or flatter.
- Develop well and quickly from seeds.
- Mowing, irrigating, and fertilizing are vital for promoting vigorous grass growth.

Trees and Shrubs:

- Selection Criteria: vigor, species, size, shape & wildlife food source.
- Soil conditions: select species appropriate for soil,drainage & acidity.
- Other Factors: wind/exposure, temperature extremes, and irrigation needs.

Vines and Ground Covers:

- Ground preparation: lime and fertilizer preparation.
- Use proper seeding rates.
- Appropriate soil conditions: drainage, acidity, slopes.
- Generally avoid species requiring irrigation.

Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- **Stabilize Disturbed Areas**
- **Protect Slopes/Channels**
- Control Site Perimeter
- Control Internal Erosion

Targeted Pollutants

- ● Sediment
- ◒ Nutrients
- ◒ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ◒ O&M Costs
- ◒ Maintenance
- ◒ Training
- ◒ Suitability for Slopes >5%

● High ○ Low

ESC10

Best Management Practices

BMP: SEEDING AND PLANTING (Continue)

REQUIREMENTS

- Maintenance
  - Shrubs and trees must be adequately watered and fertilized and if needed pruned.
  - Grasses may need to be watered and mowed.
- Cost: Average annual cost for installation and maintenance (2-year useful life, source: EPA, 1992)
  - Seeding: $300 per acre, appropriate for flat slopes and stable soils.
  - Seeding with Mulching: $1,100 per acre, appropriate for moderate to steep slopes and/or erosive soils.
  - Trees, shrubs, vines, and ground cover: Cost, applicability based on species used and terrain features.

LIMITATIONS

- Permanent and temporary vegetation may not be appropriate in dry periods without irrigation.
- Fertilizer requirements may have potential to create storm water pollution if improperly applied.

ESC10

Additional Information — Seeding and Planting

Permanent seeding of grasses, sodding, and planting of trees, shrubs, vines and ground covers can provide long-term stabilization of soil. Permanent seeding and planting contributes to long-term site aesthetics and helps reduce erosion by reducing the velocity of runoff, allowing infiltration to occur, filtering sediments, and by holding soil particles in place.

Seeding and planting should be applied as soon as final grading is done to all graded and cleared areas of the construction site where plant cover is ultimately desired. For example, vegetation may be established along landscaped corridors and buffer zones where they may act as filter strips (see TC6 in Chapter 5 of the Municipal Handbook). Additionally, vegetated swales, steep and/or rocky slopes and stream banks can also serve as appropriate areas for seeding and plantings.

Installation/Application Criteria

Application of appropriate vegetation must consider: the seedbed or plantbed, proper seasonal planting times, water requirements fertilizer requirements and availability of the selected vegetation within the project's region. Permanent plantings during the construction stage of projects require careful coordination between the local agency inspectors, project managers, construction managers, and landscape contractor. Protocols for coordination and implementation procedures regarding site access, construction staging, and short- and long-term planting areas should be developed prior to the construction bid process. Where possible, these protocols should be established by and remain the responsibility of the site owner.

Because of the many available types of plants and ground covers and because site conditions and land use vary so widely within California, a set of general guidelines is included for installation/application of grasses, trees and shrubs, vines and ground covers. However, your local municipality, Soil Conservation Service, agricultural extention, or other resources should be consulted on appropriate species, planting requirements, and maintenance needs for your climate and soils.

Grasses

Grasses, depending on the type, provide short-term soil stabilization during construction or can serve as long- term/ permanent soil stabilization for disturbed areas. In general, grasses provide low maintenance to areas that have been cleared, graded and mechanically stabilized.

Selection:

The selection of the grass type is determined by the climate, irrigation, mowing frequency, maintenance effort and soil-bed conditions. Although grasses provide quick germination and rapid growth, they also have a shallow root system and are not as effective in stabilizing deep soils, where trees, shrubs and deep rooted ground covers may be more appropriate. Several grasses are adaptable to the various California climates. The figure at the end of these fact sheets shows appropriate grasses for regions within California. Blue grass is well adapted throughout California except for in the valley regions. The blue grass is found on dry, sandy soils that have good drainage. Bermuda grass, on the other hand is well adapted in the valley region where soils are dry, coarse and heavier. Specific seed mix and/or varieties for each site should be provided by an approved/qualified plant materials specialist.

ESC10

Additional Information — Seeding and Planting

Planting:
The following steps should be followed to ensure established growth:

1. Select the proper grass for the site.
2. Prepare the seedbed; soil should be fertilized and contain good topsoil or soil at least a 2:1 or flatter slope.
3. Broadcast the seedings in the late fall or early spring. In the late fall, seedings should be planted by mid- September to have established grass by the October rainy season.
4. Initial irrigation will be required often for most grasses, with follow-up irrigation and fertilization as needed. Mulching may be required in dry climates or during drought years.

Trees & Shrubs

Selection:
Trees and shrubs, when properly selected, are low maintenance plantings that stabilize adjacent soils, moderate the adjacent temperatures, filter air pollutants, and serve as a barrier to wind. Some desirable characteristics to consider in selecting trees and shrubs include: vigor, species, age, size and shape, and use as a wildlife food source and habitat.

Trees and shrubs to be saved should be clearly marked so that no construction activity will take place within the dripline of the plant. The sites for new plantings should be evaluated. Consider the prior use of the land: adverse soil conditions such as poor drainage or acidity; exposure to wind; temperature extremes; location of utilities, paved areas, and security lighting and traffic problems.

Transplanting:
Time of Year - Late fall through winter (November to February) is the preferred time for transplanting in most of California.

Preparation - Proper digging of a tree/shrub includes the conservation of as much of the root system as possible. Soil adhering to the roots should be damp when the tree is dug, and kept moist until re-planting. The soil ball should be 12 inches in diameter for each inch of diameter of the trunk.

Site preparation - Refer to landscape plans and specifications for site and soil preparation, and for ability to coordinate construction strategy with permanent vegetation.

Supporting the trunk - Many newly planted trees/shrubs need artificial support to prevent excessive swaying.

Watering - Soil around the tree should be thoroughly watered after the tree is set in place. When the soil becomes dry, the tree should be watered deeply, but not often. Mulching around the base of the tree is helpful in preventing roots from drying out.

Vines & Ground Covers

Selection:
Vines, ground covers, and low growing plants, that can quickly spread, come in many types, colors, and growth habits. Some are suitable only as part of a small maintained landscape area, while some can stabilize large areas with little maintenance. Flowers, which provide little long-term erosion control may be planted to add color and varietal appearances.

ESC10

Additional Information — Seeding and Planting

Caution should be exercised in the non-native vegetation because of impacts to native vegetation on adjacent lands. For example, species that may be planted at the construction site can quickly spread and compete with originally undisturbed vegetation such as the California Poppy and California buckwheat, both of which complete poorly with introduced grasses (e.g., planting wild oats is illegal in California). In addition to stabilizing disturbed soil, vines and ground covers can perform the following functions:

1. Provide attractive cover that does not need mowing.
2. Help to define traffic areas and control pedestrian movement.

Site Preparation:
Ground covers are plants that naturally grow very close together, causing severe competition for space nutrients and water. Soil for ground covers should be well prepared. The entire area should be spaded, disced, or rototilled to a depth of six to eight inches. Two to three inches of organic material, such as good topsoil or peat, should be spread over the entire area.

Planting:
The following steps will help ensure good plant growth.

1. Make the plantings following the contours of the land.
2. Dig the holes 1/3 larger than the plant root ball.
3. Know what depth to place the plants.
4. Use good topsoil or soil mixture with a lot of organic matter.
5. Fill hole 1/3 to 1/2 full, shake plants to settle soil among roots, then water.
6. Leave saucer-shaped depression around the plant to hold water.
7. Water thoroughly and regularly.
8. Space plants according to the type of plant and the extent of covering desired.

Materials:
There are many different species of vines and ground covers from which to choose, but care must be taken in their selection. It is essential to select planting materials suited to both the intended use and specific site characteristics. The plants discussed in this handbook are those which are known to be adapted to California, and commonly available from commercial nurseries. Additional information can be obtained from local nurserymen, landscape architects, and extension agents. An approved low water use plant list may be obtained from the State Department of Water Resources or the Soils Conservation Service.

Requirements
Maintenance

General requirements include:

- Grass maintenance should be minimal to none. Irrigation and regular fertilizing may be required for some types of grasses. Mowing is only required in areas where aesthetics or fire hazards are a concern.
- Young trees should receive an inch of water each week for the first two years after planting. The tree should be watered deeply, but not more often than once per week.
- Transplanted trees should be fertilized on an annual basis.
- Proper pruning, watering, and application of fertilizer is necessary to maintain healthy and vigorous shrubs. A heavy layer of mulch applied around the shrubs reduces weeds and retains moisture.
- Trim old growth as needed to improve the appearance of ground covers. Most covers need once-a-year trimming to promote growth.

ESC10

Additional Information — Seeding and Planting

Limitations

- Construction activities are likely to injure or kill trees unless adequate protective measures are taken. Direct contact by equipment is the most obvious problem, but damage is also caused by root stress from filling, excavation, or compacting too close to trees.
- Temporary seeding can only be viable when adequate time is available for plants to grow and establish.
- Over fertilizing of plants may cause pollution of storm water runoff.
- Irrigation source and supply may be limiting.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, September 1992.

"Draft - Sedimentation and Erosion Control, An Inventory of Current Practices", U.S.E.P.A., April, 1990.

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Kiowa Engineering, Interim Erosion and Sedimentation Control for Construction Activities, Urban Drainage and Flood Control District, Denver, Colorado.

Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, Jun 1981.

Proposed Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, Work Group Working Paper, USEPA, April, 1992.

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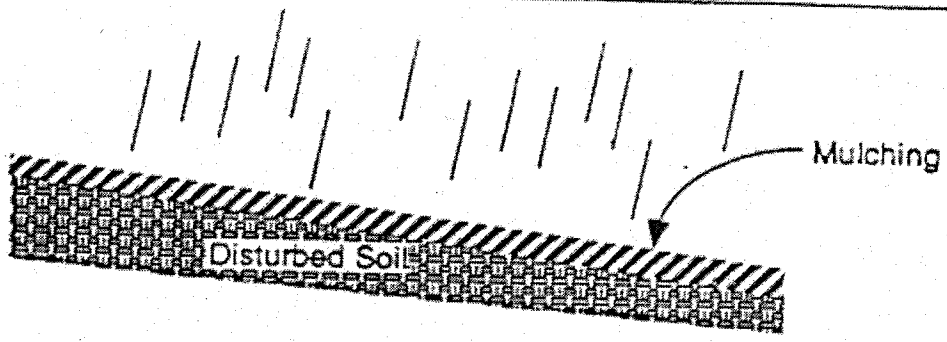
ESC10

BMP: MULCHING



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- (Stabilize Disturbed Areas)
- (Protect Slopes/Channels)
- Control Site Perimeter
- Control Internal Erosion

GENERAL DESCRIPTION

Mulching is used to temporarily and permanently stabilize cleared or freshly seeded areas. Types of mulches include organic materials, straw, wood chips, bark or other wood fibers, decomposed granite, and gravel.

SUITABLE APPLICATIONS

- Temporary stabilization of freshly seeded and planted areas.
- Temporary stabilization during periods unsuitable for growing vegetation.
- Temporary stabilization of areas that cannot be seeded or planted (e.g., insufficient rain, steep slope).
- Mulches such as gravel and decomposed soils may be used as post-construction BMPs, particularly in arid regions.

INSTALLATION/APPLICATION CRITERIA

Mulch prevents erosion by protecting the soil surface and fostering growth of new seedings that do not stabilize by themselves.

- May be used with netting to supplement soil stabilization.
- Apply to planting areas where slopes are 2:1 or greater.
- Binders may be required for steep areas, or if wind and runoff is a problem.
- Type of mulch, binders, and application rates should be recommended by manufacturer/contractor.

REQUIREMENTS

- Maintenance
  - Must be inspected weekly and after rain for damage or deterioration.
- Cost: Average annual cost for installation and maintenance (3-4 month useful life, source: EPA, 1992)
  - Straw Mulch: $7,500 per acre.
  - Wood Fiber Mulch: $3,500 per acre.
  - Jute Netting: $12,500 per acre.

LIMITATIONS

- Wood fiber mulches should be used only in areas with over 20 inches annual precipitation.
- Organic mulches are not permanent erosion control measures.
- Mulches tend to lower the soil surface temperature, and may delay germination of some seeds.
- Permanent mulches for arid regions should include gravel and decomposed soils.

Targeted Pollutants

- ● Sediment
- ◒ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ◒ O&M Costs
- ◒ Maintenance
- ○ Training
- ● Suitability for Slopes >5%

● High ○ Low

ESC11

Best Management Practices

Additional Information — Mulching

Mulching protects the soil from rainfall impact; increases infiltration; conserves moisture around trees, shrubs and seedings; prevents compaction and cracking of soil; and aids plant growth for seedings and plantings by holding the seeds, fertilizers and topsoil in place until growth occurs. Mulches include organic materials, straw, wood chips, bark or other wood fibers, decomposed granite and gravel. A variety of nettings or mats of organic or non-organic materials and chemical soil stabilization are practices that may be used conjunctively with mulching.

Mulching may be applied to all graded and cleared areas of the construction site:

- Areas which have been permanently seeded to assist in retaining moisture, and to hold seedings;
- Areas which need temporary soil surface protection because seeding cannot occur due to the season;
- Areas between trees, shrubs and certain ground covers;
- Areas where climatic conditions require a soil moisture retention aid to avoid cracking of the soil and associated compaction, and require soil temperature modification.

Installation/Application Criteria

Only a set of general guidelines is included for application and installation of mulching on disturbed lands because of the various climates, soil conditions and land uses in California. Installation of mulch consists of furnishing all materials, preparing the soil surface and applying the mulch to all soil surface areas designated on the project plans or established by the site engineer.

Materials

Organic mulch materials, such as straw, wood chips, bark and wood fiber, have been found to be most effective where re-vegetation will be provided by reseeding. The choice of mulch should be based on the size of the area, site slopes, surface conditions such as hardness and moisture; weed growth and availability of mulch materials.

Wood Fiber Mulches: Wood fiber mulches consist of specially prepared wood fiber processed to contain no growth germination inhibiting factors. The mulch should be from virgin wood, and be manufactured and processed so the fibers will remain in uniform suspension in water under agitation to form a homogenous slurry. The fiber lengths should be as long as possible to increase the effectiveness for erosion control. Wood fiber mulching should not be used in areas of extremely hot summer and late fall seasons because of fire danger. When used as a tackifier with straw mulch, wood fiber mulches are good for steep slopes and severe climates. The California Office of the Soils Conservation Service recommends a non-toxic mulch green dye be used to provide a visual aid in metering applications.

Wood Chips and Bark Chips: Wood and bark chips are suitable for application in landscaped areas that will not be closely mowed. Wood chips do not require tacking, but do require nitrogen treatment (12 pounds/ton) to prevent nutrient deficiency. Bark chips do not require additional nitrogen fertilizer. When the wood source is near the project site, wood and bark chips can be very inexpensive. Caution must be used in areas of steep slopes, since both wood and bark chips tend to wash down slopes exceeding 6 percent.

Straw Mulch: Straw mulch is a good short-term protection most commonly used with seeding. The mulch should be from the current season's crop. A letter of certification from the supplier should be required to show that the straw was baled less than 12 months from the delivery date. Wheat or oat straw is recommended.

Emulsified Asphalt: Asphalt is used to adhere the mulch to the ground surface, preventing the mulch from blowing or washing off. The type and quantity of asphalt used should not result in a storm water pollution problem.

Binder: Binder should be free flowing, noncorrosive powder produced from natural plant gum such as those marketed under M-Binder, M145 Binder, or AZ-TAC. Synthetic, spray-on materials are not recommended since they tend to create an impervious surface, and may enter the stormwater sewer system via discharge runoff.

ESC11

Additional Information — Mulching

Preparations/Methods and Equipment

Straw Mulch: Should be applied in an even, uniform manner, either by hand or by mulch blowing equipment. Straw mulches must be anchored to prevent the mulch from being blown or washed off the site. Anchoring is achieved in two ways:

- Crimping: The mulch is anchored by running a heavy disc with flat, dull, serrated, closely-spaced blades over the mulched soil. Effective crimping embeds the mulch about 2 inches into the soil without completely covering it. The disc should be run once or twice across the soil. About 2 1/2 tons of straw mulch per acre should be applied if the mulch is anchored by crimping.
- Tacking: Achieved using a emulsified asphalt or binder either independently or followed by crimping. If tacked, straw mulch may be applied at a rate of 1 3/4 ton per acre, and tacked with emulsified asphalt at a rate of 500 gallons per acre.

Wood Fiber Mulch: Typically applied with a hydroseeder at a rate of about 1000 to 1500 pounds per acre, or as a slurry consisting of at least 150 pounds of binder, 400 pounds of wood fiber mulch, and 200 gallons of water per acre.

Requirements

Maintenance: Mulched areas require frequent inspection for damage and deterioration. Requirements will vary greatly based on the type of mulch used and the type of vegetation to be established. Vegetative mulches are usually not intended to be permanent but are extended only as a base for re-seeding or re-vegetation. Where a permanent anchor for vegetation is required, along steep slopes or areas of higher velocity flows, then a geotextile mat or net is recommended (see ESC20).

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, September 1992.

Controlling Erosion of Construction Sites, U.S. Department of Agriculture, Soil Conservation Service, Agriculture Information # 347.

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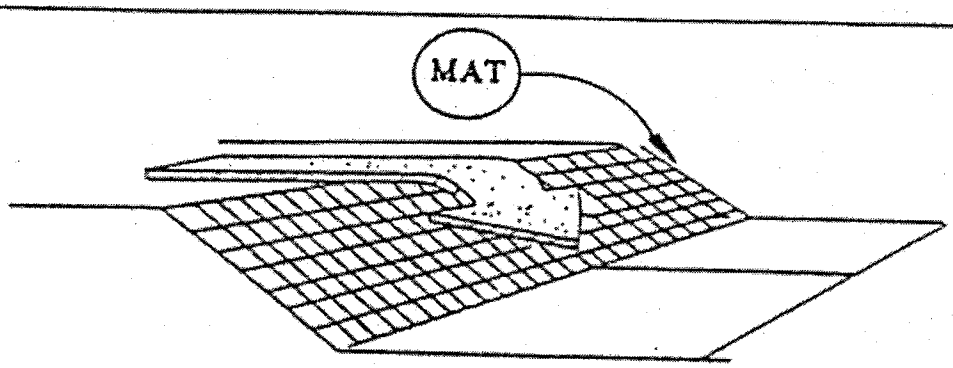
ESC11

BMP: GEOTEXTILES AND MATS



Objectives

- *Housekeeping Practices*
- *Contain Waste*
- *Minimize Disturbed Areas*
- *Stabilize Disturbed Areas* (●)
- *Protect Slopes/Channels* (●)
- *Control Site Perimeter*
- *Control Internal Erosion*

GENERAL DESCRIPTION

Mattings made of natural or synthetic material which are used to temporarily or permanently stabilize soil.

SUITABLE APPLICATIONS

Typically suited for post-construction site stabilization, but may be used for temporary stabilization of highly erosive soils.

- Channels and streams.
- Steep slopes.

INSTALLATION/APPLICATION CRITERIA

Mattings may be applied to disturbed soils and where existing vegetation has been removed. The following organic matting materials provide temporary protection until permanent vegetation is established, or when seasonal circumstances dictate the need for temporary stabilization until weather or construction delays are resolved.

- Jute mattings.
- Straw mattings.

The following synthetic mattings may be used for either temporary or post-construction stabilization, both with and without vegetation

- Excelsior matting.
- Glass fiber matting.
- Staples.
- Mulch nettings.

REQUIREMENTS

- Maintenance
  - Inspect monthly and after significant rainfall.
  - Re-anchor loosened matting and replace missing matting and staples as required.
- Cost
  - Relatively high compared to other BMPs.

LIMITATIONS

- Mattings are more costly than other BMP practices, limiting their use to areas where other BMPs are ineffective (e.g., channels, steep slopes).
- May delay seed germination, due to reduction in soil temperature.
- Installation requires experienced contractor to ensure soil stabilization and erosion protection.

Targeted Pollutants

- ● *Sediment*
- ○ *Nutrients*
- ○ *Toxic Materials*
- ○ *Oil & Grease*
- ○ *Floatable Materials*
- ○ *Other Construction Waste*

● *Likely to Have Significant Impact*
○ *Probable Low or Unknown Impact*

Implementation Requirements

- ● *Capital Costs*
- ◒ *O&M Costs*
- ◒ *Maintenance*
- ○ *Training*
- ● *Suitability for Slopes >5%*

● *High* ○ *Low*

ESC20

Best Management Practices

Additional Information — Geotextiles and Mats

Mattings are used to reduce erosion from rainfall impact, hold soil in place, and absorb and hold moisture near the soil surface. Additionally, mattings may be used to stabilize soils until vegetation is established. This practice may be used alone or with a mulch during the establishment of protective cover on critical slopes (see ESC11, Mulching).

Suitable Applications

Mattings are commonly applied on short, steep slopes where erosion hazard is high and vegetation will be slow to establish. Mattings are also used on stream banks where moving water at velocities between 3 fps and 6 fps is likely to wash out new vegetation, and in areas where the soil surface is disturbed and where existing vegetation has been removed. Matting may also be used when seeding cannot occur (e.g., late season construction and/or the arrival of an early rain season). Erosion control matting should be considered when the soils are fine grained and potentially erosive.

The following natural or synthetic mattings are commonly used:

Jute Mat - should be cloth of a uniform plain weave of undyed and unbleached single jute yarn, 48" in width, and weighing an average of 1.2 pounds per linear yard of cloth with a tolerance of plus or minus five (5) percent, with approximately 78 warp ends per width of cloth and 41 weft ends per linear yard of cloth. The yarn should be of a loosely twisted construction having an average twist of not less than 1.6 turns per inch and shall not vary in thickness by more than its normal diameter.

Straw Mat - should be a machine produced mat consisting of 70% (±3%) agricultural straw and 30% (±3%) coconut fiber. The blanket should be of consistent thickness with the straw and coconut fiber evenly distributed over the entire area of the mat. The blanket should be covered on the top side with polypropylene netting having an approximate 5/8" x 5/8" mesh containing ultraviolet additives to resist breakdown, and on the bottom with a polypropylene netting with an approximate " x " mesh. The blanket should be sewn together with cotton thread.

Excelsior Mat - should be wood excelsior, 48 inches in width plus or minus one inch and weighing 0.8 pound per square yard plus or minus ten percent. The excelsior material should be covered with a netting to facilitate handling and to increase strength.

Glass Fiber Matting - should be of bonded textile glass fibers with an average fiber diameter of eight to twelve microns, two to four inch strands of fiber bonded with phenol formaldehyde resin. Mat should be roll type, water permeable, minimum thickness inch, maximum thickness inch, density not less than three pounds per cubic foot.

Staples for anchoring soil stabilizing materials should be Number 11 gauge wire or heavier. Their length should be six to ten inches, with longer staples used in loose, unstable soils.

Other Mulch Netting - such as paper, plastic, cotton or fiber glass matting should be installed according to the manufacturer's recommendations.

Installation/Application Criteria

Organic matting materials have been found to be effective where re-vegetation will be provided by re-seeding. The choice of matting should be based on the size of area, side slopes, surface conditions such as hardness and moisture; weed growth and availability of materials. Matting strengths and uses vary, therefore, manufacturer's specifications must be followed. Proper installation of mattings is critical in order to obtain firm, continuous contact with the soil.

ESC20

Additional Information — Geotextiles and Mats

Site Preparation: After the site has been shaped and graded to the approved design, prepare a friable seed bed relatively free from clods and rocks more than 1 inches in diameter and any foreign material that will prevent contact of the protective mat with the soil surface.

Planting: Fertilize and seed in accordance with seeding specifications or other types of landscaping plans. When using jute matting on a seeded area, apply approximately half the seed before laying the mat and the remainder after laying the mat. The protective matting can be laid over areas where grass has been planted and the seedlings have emerged. Where vines or other ground covers are to be planted, lay the protective matting first and then plant through matting according to design of planting.

Erosion Stops: Erosion stops are made of glass fiber strips, excelsior matting strips or tight-folded jute matting blanket or strips for use on steep, highly erodible watercourses. The stops are placed in narrow trenches six to twelve inches deep across the channel and left flush with the soil surface. They are to cover the full cross section of designed flow.

Laying and Securing Matting: Before laying the matting, all erosion stops should be installed and the friable seed bed made free from clods, rocks, and roots. The surface upon which the separation fabric will be placed should be compacted and finished according to the requirements of the manufacturer's recommendations.

Most matting comes with the manufacturer's recommendations for installation. Most channels will require multiple widths of matting, and the matting should be unrolled starting at the upper end of the channel, allowing a four inch overlap of mattings along the center of the channel. To secure, bury the top ends of the matting in a narrow trench, a minimum of six inches deep. Backfill trench and tamp firmly to conform to channel cross section. Secure with a row of staples about four inches down slope from the trench with staples twelve inches apart.

Where matting crosses erosion stops, reinforce with a double row of staples at six inch spacing, using a staggered pattern on either side of the erosion stop. When the matting is overlapped, the discharge end of the matting liner should be similarly secured with a double row of staples.

Mechanical or manual laydown equipment should be capable of handling full rolls of fabric, and laying the fabric smoothly, without wrinkles or folds. The equipment should meet the fabric manufacturer's recommendations or equivalent standards.

Final Check: Check the following after the mating is installed:

- Make sure matting is uniformly in contact with the soil.
- All lap joints are secure.
- All staples are flush with the ground.
- All disturbed areas seeded.

Limitations

Properly installed mattings provide excellent erosion control but do so at relatively high cost. This high cost typically limits the use of mattings to areas of concentrated channel flow and steep slopes.

Installation is critical and requires experienced contractors. The contractor should install the matting material in such a manner that continuous contact between the material and the soil occurs, otherwise the material will not stabilize the soil and erosion will occur beneath the material. Ultraviolet protection may be required on some geotextiles. Matting strengths and uses vary; the manufacturer's specifications should be followed.

ESC20

Additional Information — Geotextiles and Mats

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites. Flood Control District of Maricopa County, September 1992.

Guides for Erosion and Sediment Controls in California. USDA Soils Conservation Service - January 1991.

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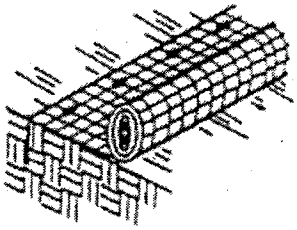
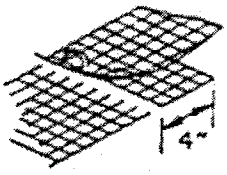
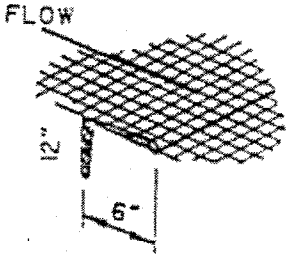
ESC20



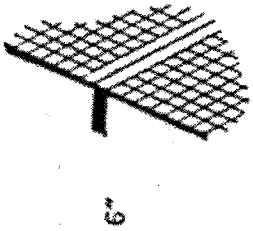
ANCHOR SLOT: BURY THE UP-CHANNEL END OF THE NET IN A 12" DEEP TRENCH. TAMP THE SOIL FIRMLY. STAPLE AT 12" INTERVALS ACROSS THE NET.



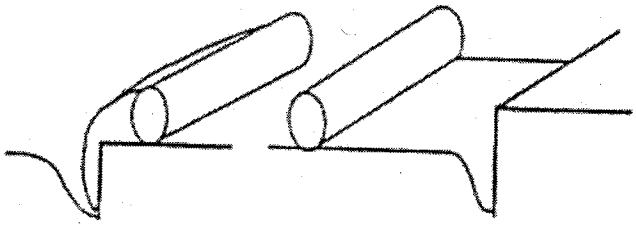
OVERLAP: OVERLAP EDGES OF THE STRIPS AT LEAST 4". STAPLE EVERY 12" DOWN THE CENTER OF THE STRIP.



JOINING STRIPS: INSERT THE NEW ROLL OR NET IN A TRENCH, AS WITH THE ANCHOR SLOT. OVERLAP THE UP-CHANNEL END OF THE PREVIOUS ROLL 18" AND TURN THE END OF THE PREVIOUS ROLL, JUST BELOW THE ANCHOR SLOT, LEAVING 6" OVERLAP.



CHECK SLOTS: ON ERODIBLE SOILS OR STEEP SLOPES, CHECK SLOTS SHOULD BE MADE EVERY 15 FEET. INSERT A FOLD OF THE NET INTO A 6" TRENCH AND TRAMP FIRMLY. STAPLE AT 12" INTERVALS ACROSS THE NET. LAY THE NET SMOOTHLY ON THE SURFACE OF THE SOIL - DO NOT STRETCH THE NET, AND DO NOT ALLOW WRINKLES.

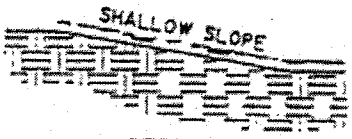


ANCHORING ENDS AT STRUCTURES: PLACE THE END OF THE NET IN A 12" SLOT ON THE UP-CHANNEL SIDE OF THE STRUCTURE. FILL THE TRENCH AND TAMP FIRMLY. ROLL THE NET UP THE CHANNEL. PLACE STAPLES AT 12" INTERVALS ALONG THE ANCHOR END OF THE NET.

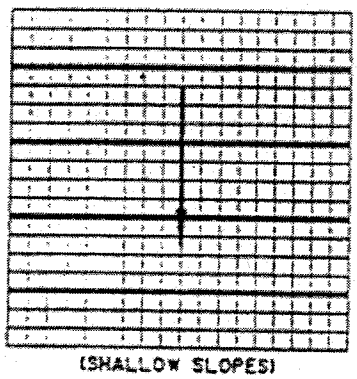
INSTALLATION OF NETTING AND MATTING

ESC20

ON SHALLOW SLOPES, STRIPS OF NETTING MAY BE APPLIED ACROSS THE SLOPE.



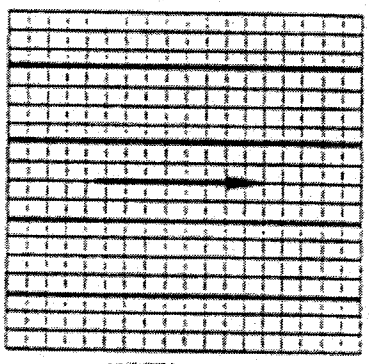
SECTION



(SHALLOW SLOPES)
PLAN

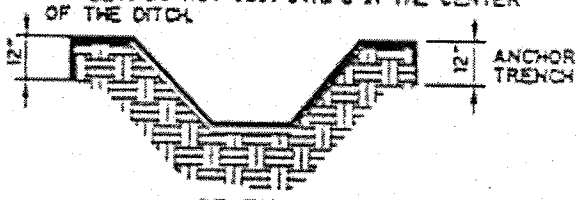
ON STEEP SLOPES, APPLY STRIPS OF NETTING PARALLEL TO THE DIRECTION OF FLOW AND ANCHOR SECURELY.

SECTION



(STEEP SLOPES)
PLAN

IN DITCHES, APPLY NETTING PARALLEL TO THE DIRECTION OF FLOW. USE CHECK SLOTS EVERY 15 FEET. DO NOT JOIN STRIPS IN THE CENTER OF THE DITCH.



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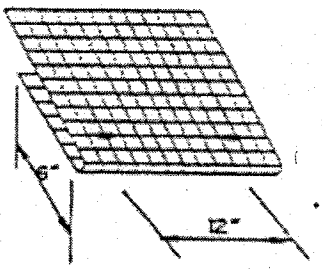
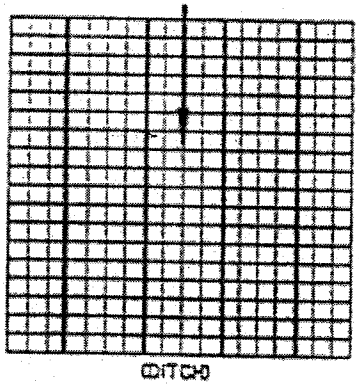
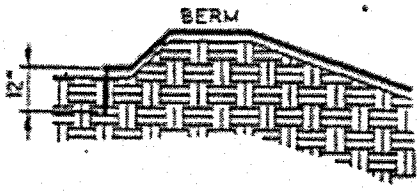


FLOW



DITCH
PLAN

BRING NETTING DOWN TO A LEVEL BEFORE TERMINATING THE INSTALLATION. TURN THE END UNDER 6" AND STAPLE AT 12" INTERVALS.

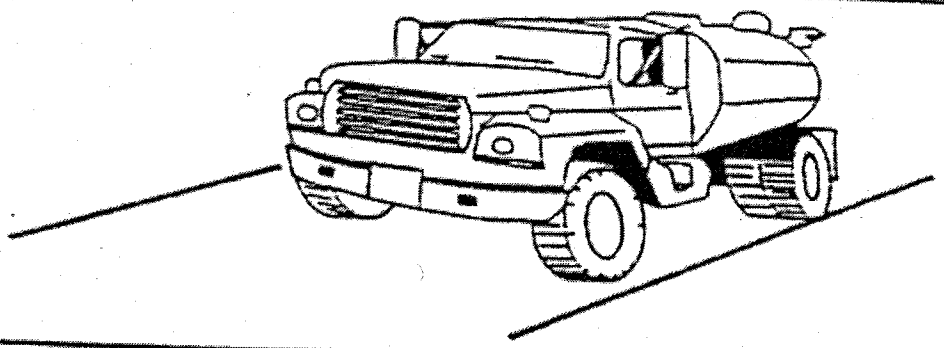


WHERE THERE IS A BERM AT THE TOP OF THE SLOPE, BRING THE MATTING OVER THE BERM AND ANCHOR IT BEHIND THE BERM WITH A 12" ANCHOR TRENCH.

ESC20

ORIENTATION OF NETTING AND MATTING

BMP: DUST CONTROLS



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion

GENERAL DESCRIPTION

Dust control measures are used to stabilize soil from wind erosion, and reduce dust generated by construction activities.

SUITABLE APPLICATIONS

- Clearing and grading activities.
- Construction vehicle traffic on unpaved roads.
- Drilling and blasting activities.
- Sediment tracking onto paved roads.
- Soil and debris storage piles.
- Batch drop from front end loaders.
- Areas with unstabilized soil.
- Final grading/site stabilization usually is sufficient to control post-construction dust sources.

INSTALLATION/APPLICATION CRITERIA

- Schedule construction activities to minimize exposed area (See ESC 1).
- Quickly stabilize exposed soils using vegetation, mulching, spray-on adhesives, calcium chloride, sprinkling, and stone/gravel layering (See ESC 10 and 11).
- Identify and stabilize key access points prior to commencement of construction (See ESC 24).
- Minimizing the impact of dust by anticipating the direction of prevailing winds.
- Direct most construction traffic to stabilized roadways within the project site (See ESC 23).

REQUIREMENTS

- Maintenance
  - Most dust control measures require frequent, often daily, attention.
- Cost
  - Installation costs for water/chemical dust suppression are low, but annual costs may be quite high since these measures are effective for only a few hours to a few days.

LIMITATIONS

- Watering prevents dust only for a short period and should be applied daily (or more often) to be effective.
- Overwatering may cause erosion.
- Oil should not be used for dust control because the oil may migrate into drainageway and/or seep into the soil.
- Certain chemically-treated subgrades may make soil water repellant, increasing runoff.

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ◒ Toxic Materials
- ◒ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ○ Capital Costs
- ◒ O&M Costs
- ◒ Maintenance
- ○ Training
- ○ Suitability for Slopes >5%

● High ○ Low

ESC21

Best Management Practices

Additional Information — Dust Controls

California's mediterranean climate, with short wet seasons and long hot dry seasons, allow the soils to thoroughly dry out. During these dry seasons, construction activities are at their peak, and disturbance and exposed areas are increasingly subject to wind erosion, sediment tracking and dust generated by construction equipment.

Dust control, as a BMP, is a practice that is already in place for many construction activities. Los Angeles, the North Coast and Sacramento, among others have enacted dust control ordinances for construction activities that cause dust to be transported beyond the construction project property line. Recently, the State Air Resources Control Board has, under the authority of the Clean Air Act, started to address air quality in relation to inhalable particulate matter less than 10 microns (PM-10). 90% of these small particles are considered to be dust. Existing dust control regulations by local agencies, municipal departments, public works department, and/or public health departments are in place in some regions within California. For jurisdictions that have no formal dust control regulations and/or standards, Sections 10, 17 and 18 of CalTrans' Standard Specifications provide detailed provisions for dust control practices.

Many local agencies require dust control in order to comply with local nuisance laws, opacity laws (visibility impairment) and the requirements of the Clean Air Act. The following are measures that local agencies may have already implemented as requirements for dust control from contractors:

- Construction & Grading Permits: Require provisions for dust control plans;
- Opacity Emission Limits: Enforce compliance with California air pollution control laws;
- Increase overall enforcement activities: Priority given to cases involving citizen complaints;
- Maintain Field Application Records: Require records of dust control measures from contractor;
- Stormwater Pollution Prevention Plan: (SWPPP): Integrate dust control measures into SWPPP.

Dust Control Practices

Dust control BMP's generally stabilize exposed surfaces and minimize activities that suspend or track dust particles. Table ESC21.1 shows which Dust Control BMPs apply to site conditions which cause dust. For heavily traveled and disturbed areas, wet suppression (watering), chemical dust suppression, gravel or asphalt surfacing, temporary gravel construction entrances, equipment wash-out areas, and haul truck covers can be employed as dust control applications. Permanent or temporary vegetation and mulching and sand fences can be employed for areas of occasional or no construction traffic. Preventive measures would include minimizing surface areas to be disturbed, limiting on-site vehicle traffic to 15 miles per hour, and controlling the number and activity of vehicles on a site at any given time.

Many of the reasonably available control measures for controlling dust from construction sites can also be implemented as BMPs for storm water pollution prevention. Those BMPs include:

- Pave, vegetate, or chemically stabilize access points where unpaved traffic surfaces adjoin paved roads.
- Provide covers for haul trucks transporting materials that contribute to dust.
- Provide for wet suppression or chemical stabilization of exposed soils.
- Provide for rapid clean-up of sediments deposited on paved roads. Furnish stabilized construction road entrances and vehicle wash down areas.
- Stabilize unpaved haul roads, parking and staging areas. Reduce speed and trips on unpaved roads.
- Implement dust control measures for material stockpiles.
- Prevent drainage of sediment laden storm water onto paved surfaces.
- Stabilize abandoned construction sites using vegetation or chemical stabilization methods.
- Limit the amount of areas disturbed by clearing and earth moving operations by scheduling these activities in phases.

For the chemical stabilization, there are many products available for chemically stabilizing gravel roadways and stockpiles. The types of chemicals available and recommendations for their use are tabulated in Table ESC 21.2, Commonly Used Chemicals for Dust Control.

ESC21

Additional Information — Dust Controls

In addition, there are many other BMPs identified in this handbook that provide dust control including:

- Seeding and Plantings (ESC 10)
- Mulching (ESC 11)
- Construction Road Stabilization (ESC 23)
- Stabilized Construction Entrances (ESC 24)

Limitations

- Oil treated subgrades should not be used because the oil may migrate into drainageways and/or seep into the soil.
- Chemically treated subgrades may make the soil water repellant, interfering with long-term infiltration, and the vegetation/re-vegetation of the site. Some chemical dust suppressants may be subject to freezing and may contain solvents and should be handled properly.
- Asphalt, as a mulch tack or chemical mulch, requires a 24 hour curing time to avoid adherence to equipment, worker shoes, etc. Application should be limited because asphalt surfacing may eventually migrate into the drainage system.
- In compacted areas, watering and other liquid dust control measures may wash sediment or other constituents into the drainage system.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

California Air Pollution Control Laws, California Air Resources Board, 1992.

CalTrans, Standard Specifications, Sections 10, "Dust Control"; Section 17, "Watering"; and Section 18, "Dust Palliative".

Prospects for Attaining the State Ambient Air Quality Standards for Suspended Particulate Matter (PM10), Visibility Reducing Particles, Sulfates, Lead, and Hydrogen Sulfide, California Air Resources Board, April 1991.

Sacramento County, Winterization Ordinance & Dust Control Ordinance (example).

USDA Soil Conservation Service, "Guides for Erosion and Sediment Control".

ESC21

TABLE ESC 21.1 DUST CONTROL BMPs FOR GIVEN SITE CONDITIONS

SITE CONDITION	DUST CONTROL BMPs								
	Permanent Vegetation	Mulching	Wet Suppression (Watering)	Chemical Dust Suppression	Gravel or Asphalt Surfacing	Sand Fences	Temporary Gravel Construction Entrances/Equipment Wash Down	Haul Truck Covers	Minimize Extent of Area Disturbed
Disturbed Areas not Subject to Traffic	X	X	X	X	X				X
Disturbed Areas Subject to Traffic			X	X	X				X
Material Stock Pile Stabilization			X	X		X			X
Demolition			X				X	X	
Clearing/Excavation			X	X					X
Truck Traffic on Unpaved Roads			X	X	X			X	
Mud/Dirt Carry-Out					X		X		

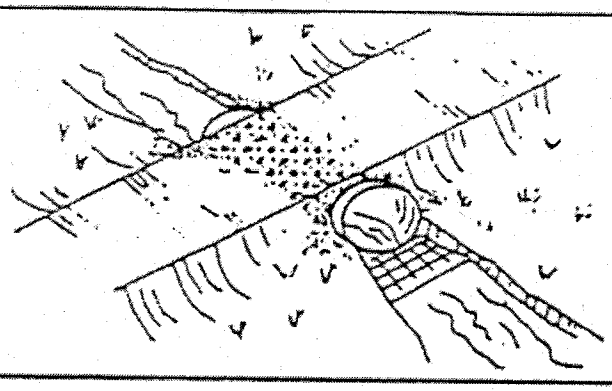
TABLE ESC 21.2 COMMONLY USED CHEMICALS FOR DUST CONTROL

	SALTS	ORGANIC, NON PETROLEUM-BASED	PETROLEUM BASED PRODUCTS[1]
CHEMICAL TYPES	• Calcium Chloride[2] • Magnesium Chloride • Natural Brines	• Calcium Lignosulfonate • Sodium Lignosulfonate • Ammonium Lignosulfonate	• Bunker Oil • Asphalt Primer • Emulsified Asphalt
LIMITATIONS	Can lose effectiveness in dry periods with low humidity. Leaches from road in heavy rain Not recommended for gravel road surfaces with low fines. Recommended 10-20% fines.	Not affected by dry weather and low humidity. Leached from road in heavy rain if not sufficiently cured. Best performance on gravel roads with high surface fines (10-30%) and dense compact surface with loose gravel.	Generally effective regardless of climatic conditions may pothole in wet weather. Best performance on gravel roads with 5-10% fines.
COMMENTS	Calcium Chloride is popular. May become slippery when wet on gravel surfaces with high fines.	Ineffective on gravel surfaces low in fines. May become slippery when wet on gravel surfaces with high fines content.	Creates a hardened crust.

[1] Motor oils and oil treatments are not recommended due to adverse effects on plant life and groundwater.

[2] Not recommended due to adverse effects on plant life.

BMP: TEMPORARY STREAM CROSSING



GENERAL DESCRIPTION

A temporary access stream crossing is a temporary culvert, ford or bridge placed across a waterway to provide access for construction purposes for a period of less than one year. Temporary access crossings are not intended to be used to maintain traffic for the general public.

SUITABLE APPLICATIONS

Temporary stream crossings should be installed at all designated crossings of perennial and intermittent streams on the construction site, as well as for dry channels which may be significantly eroded by construction traffic.

INSTALLATION/APPLICATION CRITERIA

Requires knowledge of stream flows and soil strength and should be designed under the direction of a California registered engineer with knowledge of both hydraulics and construction loading requirements for structures.

REQUIREMENTS

- Maintenance
  - Inspect weekly and after each significant rainfall, including assessment of foundations.
  - Periodically remove silt from crossings.
  - Replace lost aggregate from inlets and outlets of culverts.
- Cost
  - CalTrans Construction Cost Index for temporary bridge crossing is $45-$95 per square feet.

LIMITATIONS

- May be an expensive for a temporary improvement.
- Requires other BMPs to minimize soil disturbance during installation and removal.
- Fords should only be used in dry weather.

Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ◒ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ○ O&M Costs
- ◒ Maintenance
- ○ Training
- ○ Suitability for Slopes >5%

● High ○ Low

ESC22

Best Management Practices

Additional Information — Temporary Stream Crossing

A temporary access stream crossing is a culvert, ford, or bridge placed across a waterway to provide access for construction for a period of less than one year. Temporary access crossings are not intended to be used for general public traffic.

The purpose of this BMP is to provide a safe, erosion-free access across a stream for construction equipment. Minimum standards and specifications for the design, construction, maintenance, and removal of the structure should be established by an engineer registered in California. Temporary stream crossings may be necessary to prevent construction equipment from causing erosion of the stream and tracking sediment and other pollutants into the stream.

Temporary stream crossings are used as access points to construction sites when other detour routes may be too long or burdensome for the construction equipment. Often heavy construction equipment must cross streams or creeks, and detour routes may impose too many constraints such as being too narrow or poor soil strength for the equipment loadings. Additionally, the contractor may find a temporary stream crossing more economical for light-duty vehicles to use for frequent crossings, and may have less environmental impact than construction of a temporary access road.

Installation/Application

Temporary access stream crossings should be sized and installed according to the drainage design criteria of the local municipality. Design criteria should be based on standard engineering practices for culvert design with provisions for minimizing impacts on disturbed crossing areas. Three types of temporary access stream crossings may be considered:

Temporary Access Culvert: A temporary access culvert is effective in controlling erosion but will cause erosion during installation and removal. A temporary culvert can be easily constructed and allows for heavy equipment loads.

Temporary Access Ford: A temporary access ford provides little sediment and erosion control and is ineffective in controlling erosion in the stream channel. A temporary ford is the least expensive stream crossing and allows for maximum load limits. It also offers very low maintenance. Fords are more appropriate during the dry season and in arid areas of California.

Temporary Access Bridge: With the appropriate materials and designs, a temporary access bridge causes the least erosion of the stream channel crossing during its installation and removal.

During the long summer construction season in California, rainfall is infrequent and many streams are dry. Under these conditions, a temporary access ford may be sufficient. A ford is not appropriate if construction will continue through the winter rainy season, if summer thunderstorms are likely, or if the stream flows during most of the year. Temporary access culverts and bridges should then be considered and, if used, should be sized to pass a significant design storm (i.e., at least a 10-year storm). The temporary stream crossing should be protected against erosion, both to prevent excessive sedimentation in the stream and to prevent washout of the crossing (and, consequently, costly construction delays).

Limitations

Special care must be taken when crossing an environmentally sensitive waterway. Oils or other potentially hazardous materials shall not be used for surface treatments. Street runoff should not be allowed to spill down crossing sideslopes. Construction in watercourses should be at or near the natural elevation of the stream bed to prevent any potential flooding upstream of the crossing. In addition, the following limitations may apply:

ESC22

Additional Information — Temporary Stream Crossing

- May be expensive temporary cost
- Increased soil disturbance upon installation and removal
- Temporary culverts need regular maintenance and can cause erosion if the culvert becomes clogged.
- A temporary ford offers little if any erosion control in flowing streams and can often make erosion worse. Fords should only be used in the dry season on dry streams.

Construction in waterways is subject to additional permit requirements. Contact the local municipal storm water agency for additional information.

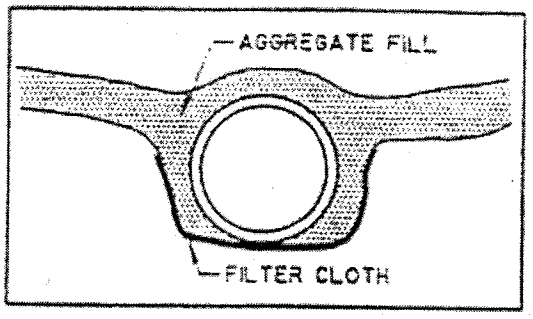
REFERENCES

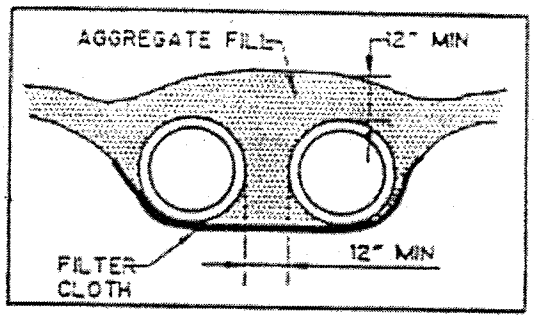
Bank and Shore Protection, CalTrans - November 1970.

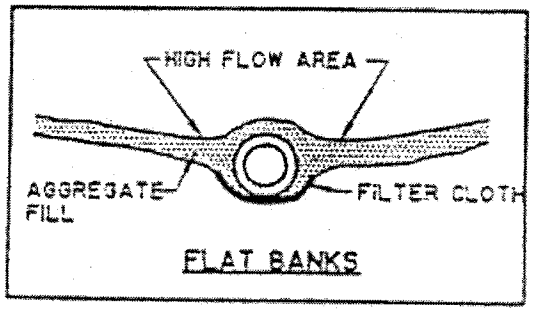
Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September, 1992.

ESC22

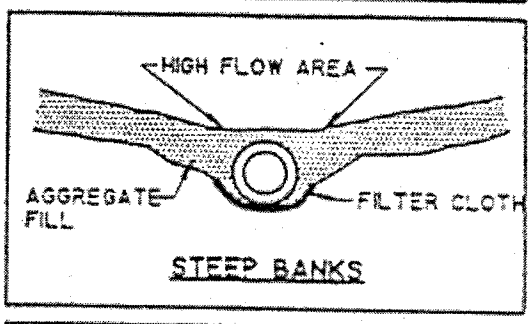
Additional Information — Temporary Stream Crossing



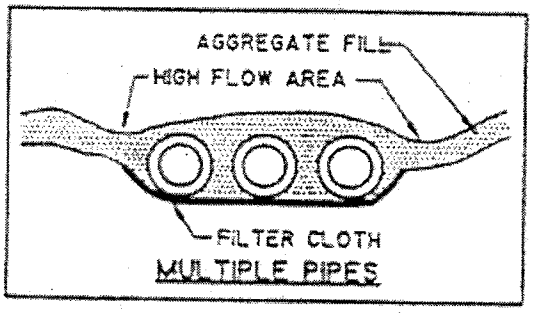




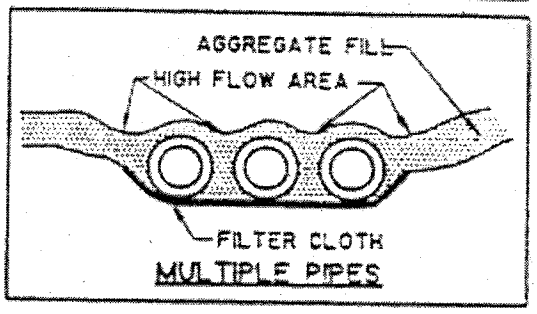
FLAT BANKS



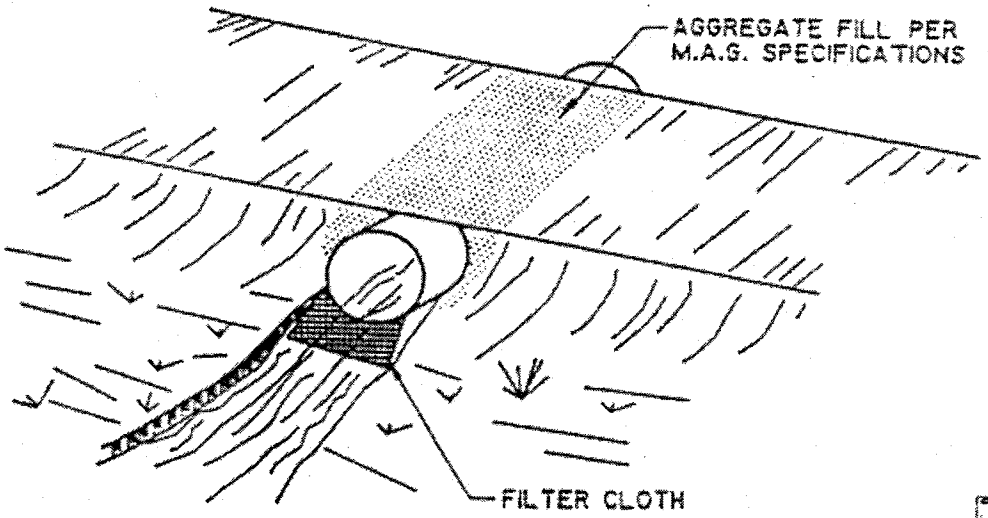
STEEP BANKS



MULTIPLE PIPES

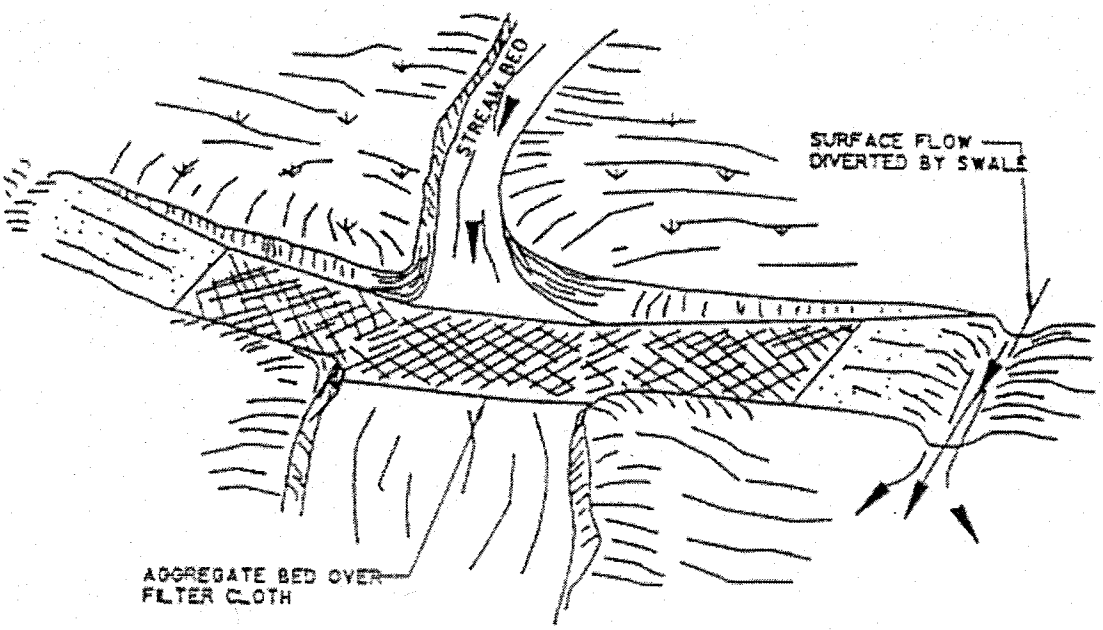


MULTIPLE PIPES

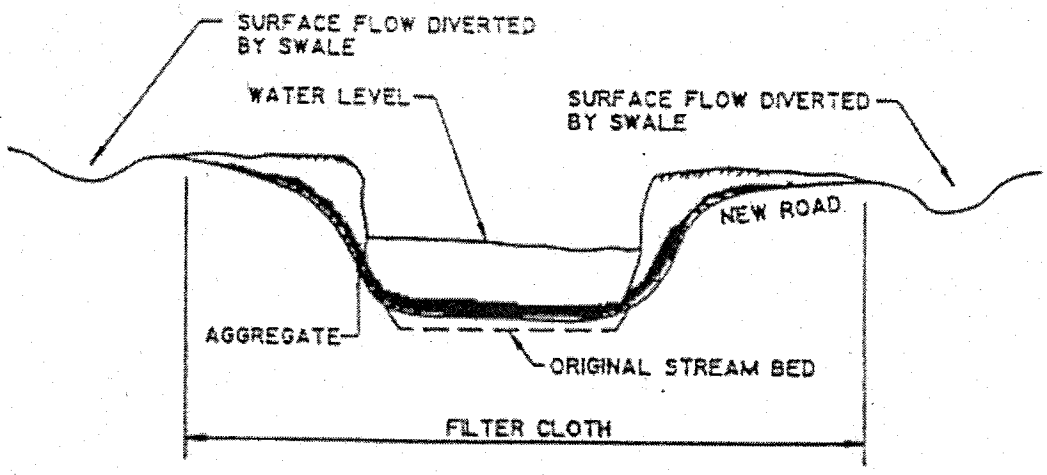


TEMPORARY ACCESS CULVERT

ESC22



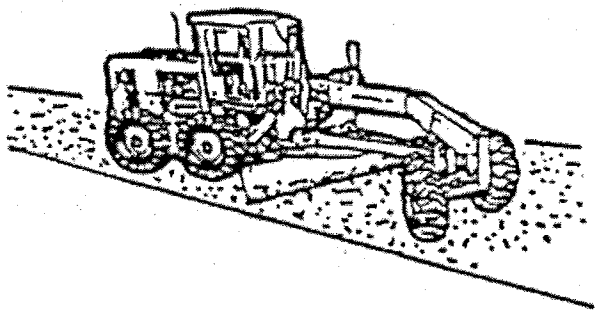
AGGREGATE APPROACH
5 : 1 MAXIMUM SLOPE ON ROAD



TEMPORARY ACCESS FORD

ESC22

BMP: CONSTRUCTION ROAD STABILIZATION



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion

GENERAL DESCRIPTION

Access roads, subdivision roads, parking areas, and other on-site vehicle transportation routes should be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.

SUITABLE APPLICATIONS

- Temporary construction traffic.
- Phased construction projects and off-site road access.
- Detour roads.
- Construction during wet weather.

INSTALLATION/APPLICATION CRITERIA

- Road should follow topographic contours to reduce erosion of the roadway.
- The roadway slope should not exceed 15 percent.
- Gravel roads should be a minimum 4-inch thick. 2-3 inch coarse aggregate base applied immediately after grading, or as recommended by soils engineer.
- Chemical stabilizers or water are usually required on gravel or dirt roads to prevent dust (see Dust Control ESC 21).

REQUIREMENTS

- Maintenance
  - Periodically apply additional aggregate on gravel roads.
  - Active dirt construction roads are commonly watered three or more times per day during the dry season.
  - Inspect weekly, and after each rain.
  - Repair any eroded areas immediately.
- Cost
  - Gravel construction roads are moderately expensive, but cost is often balanced by reductions in construction delay.
  - No additional costs for dust control on construction roads should be required above that needed to meet local air quality requirements.

LIMITATIONS

- The roadway must be removed or paved when construction is complete.
- Certain chemical stabilization methods may cause storm water or soil pollution and should not be used (see Dust Control ESC 21).
- Management of construction traffic is subject to air quality control measures. Contact the local air quality management agency.

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ◒ O&M Costs
- ◒ Maintenance
- ○ Training
- ◒ Suitability for Slopes >5%

● High ○ Low

ESC23

Best Management Practices

Additional Information — Construction Road Stabilization

Areas which are graded for construction vehicle transport and parking purposes are especially susceptible to erosion and dust. The exposed soil surface is continually disturbed, leaving no opportunity for vegetative stabilization. Such areas also tend to collect and transport runoff waters along their surfaces. During wet weather, they often become muddy quagmires which generate significant quantities of sediment that may pollute nearby streams or be transported off-site on the wheels of construction vehicles. Dirt roads can become so unstable during wet weather that they are virtually unusable.

Efficient construction road stabilization not only reduces on-site erosion but can significantly speed on-site work, avoid instances of immobilized machinery and delivery vehicles, and generally improve site efficiency and working conditions during adverse weather.

Installation/Application Criteria

Where feasible, alternative routes should be made for construction traffic; one for use in dry condition, the other for wet conditions which incorporate the measures listed for this BMP. Permanent roads and parking areas should be paved as soon as possible after grading. As an alternative where construction will be phased, the early application of gravel or chemical stabilization may solve potential erosion and stability problems. Temporary gravel roadway should be considered during the rainy season and/or on slopes greater than 5 percent.

When gravel road is needed, apply a minimum 4-inch course of 2 to 4-inch crushed rock, gravel base, or crushed surfacing base course immediately after grading or the completion of utility installation within the right-of-way. Chemical stabilization may also be used upon compacted native sub-grade (see the Dust Control BMP ESC 21). These chemical controls should be applied per the manufacturer's directions.

Temporary roads should follow the contour of the natural terrain to the maximum extent possible. Slope should not exceed 15 percent. Roadways should be carefully graded to drain transversely. Provide drainage swales on each side of the roadway in the case of a crowned section, or one side in the case of super-elevated section. Simple gravel berms without a trench can also be used.

Installed inlets should be protected to prevent sediment-laden water from entering the storm sewer system (see "Storm Drain Inlet Protection" ESC 54).

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites. Flood Control District of Maricopa County, Arizona, September1992.

Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, June1981.

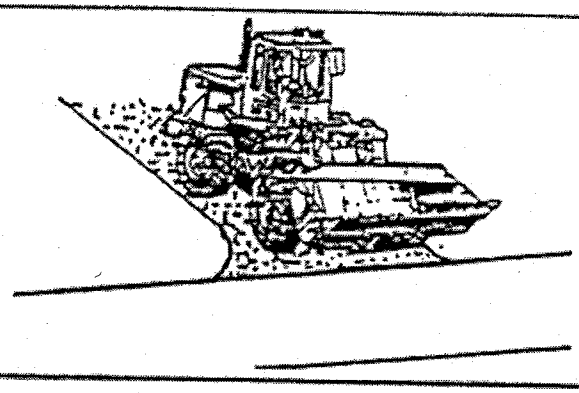
Stormwater Management Water for the Puget Sound Basin, Washington State Department of Ecology, The Technical Manual - February 1992, Publication # 91-75.

Virginia Erosion and Sedimentation Control Handbook, Virginia Department of Conservation and Recreation, Division of Soil and Water Conservation, 1991.

Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency - November 1988.

ESC23

BMP: STABILIZED CONSTRUCTION ENTRANCE



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion

GENERAL DESCRIPTION

The construction entrance practice is a stabilized pad of aggregate underlain with filter cloth located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area. Stabalizing the construction entrance significantly reduces the amount of sediment (dust, mud) tracked off-site, especially if a washrack incorporated for removing caked on sediment.

SUITABLE APPLICATIONS

- All points of construction ingress and egress.
- Unpaved areas where sediment tracking occurs from site onto paved roads.

INSTALLATION/APPLICATION CRITERIA

- Construct on level ground where possible.
- Stones should be 1-3 inches.
- Minimum depth of stones should be 6 inches or as recommended by soils engineer.
- Length should be 50-foot minimum, and 30-foot minimum width.
- Provide ample turning radii as part of entrance.

REQUIREMENTS

- Maintenance
  - Inspect monthly and after each rainfall.
  - Replace gravel material when surface voids are visible.
  - Remove all sediment deposited on paved roadways within 24 hours.
  - Remove gravel and filter fabric at completion of construction
- Cost: Average annual cost for installation and maintenance (Source: EPA, 1992)
  - Without Wash Rock: $1500 each.
  - With Wash Rock: $2200 each.

LIMITATIONS

- Requires periodic top dressing with additional stones.
- Should be used in conjunction with street sweeping on adjacent public right-of-way.

Targeted Pollutants

- ◒ Sediment
- ◒ Nutrients
- ◒ Toxic Materials
- ◒ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

- ● Likely to Have Significant Impact
- ○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ○ O&M Costs
- ○ Maintenance
- ○ Training
- ○ Suitability for Slopes >5%

● High ○ Low

ESC24

Best Management Practices

Additional Information — Stabilized Construction Entrance

A stabilized construction entrance is a pad of aggregate underlain with filter cloth located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk or parking area. The purpose of a stabilized construction entrance is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets. Reducing trackout of sediments and other pollutants onto paved roads helps prevent deposition of sediments into local storm drains and production of airborne dust.

Where traffic will be entering or leaving, a stabilized construction entrance should be used at all points of construction ingress and egress. NPDES permits require that appropriate measures be implemented to prevent trackout of sediments onto paved roadways, which is a significant source of sediments derived from mud and dirt carryout from the unpaved roads and construction sites.

Stabilized construction entrances are moderately effective in removing sediment from equipment leaving a construction site. The entrance should be build on the level ground. Advantages of the Stabilized Construction Entrance is that it does remove some sediment from equipment and serves to channel construction traffic in and out of the site at specified locations. Efficiency is greatly increased when a washing rack is included as part of a stabilized construction entrance.

The aggregate for a stabilized construction entrance aprons should be 1 to 3 inches in size, washed, well-graded gravel or crushed rock. Minimum apron dimensions of 30 ft. x 50 ft. and 6 inches deep is adequate for two-way ingress/egress traffic.

The entrance must be properly graded to prevent runoff from leaving the construction site.
When wash areas are provided, washing is done on a reinforced concrete pad (if significant washing is necessary) or in an area stabilized with crushed stone which drains into a properly constructed sediment trap or basin (ESC 55 and 56). Sediment barriers are provided to prevent sediments from entering into the stormwater sewer system, ditch, or waterway.

Limitations

- Construct on level ground.
- Stabilized construction entrances are rather expensive to construct and when a wash rack is included, a sediment trap of some kind must also be provided to collect wash water runoff.
- Requires periodic top dressing with additional stones.
- Should be used in conjunction with street sweeping on adjacent public right-of-way.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, June 1981.

Proposed Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, Work Group Working Paper, USEPA, April, 1992.

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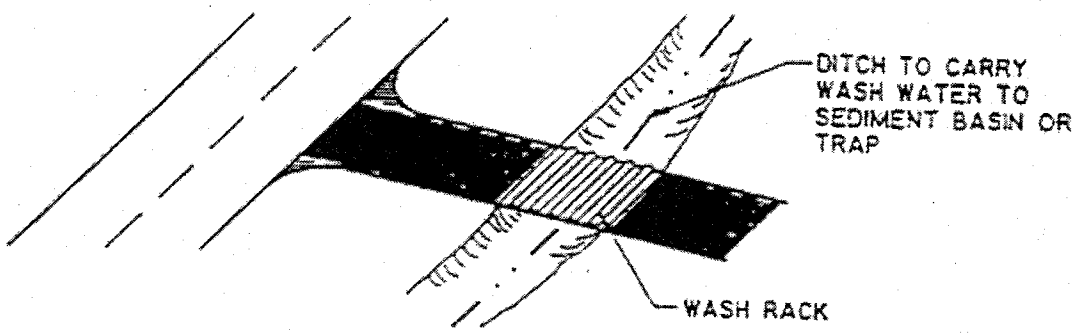
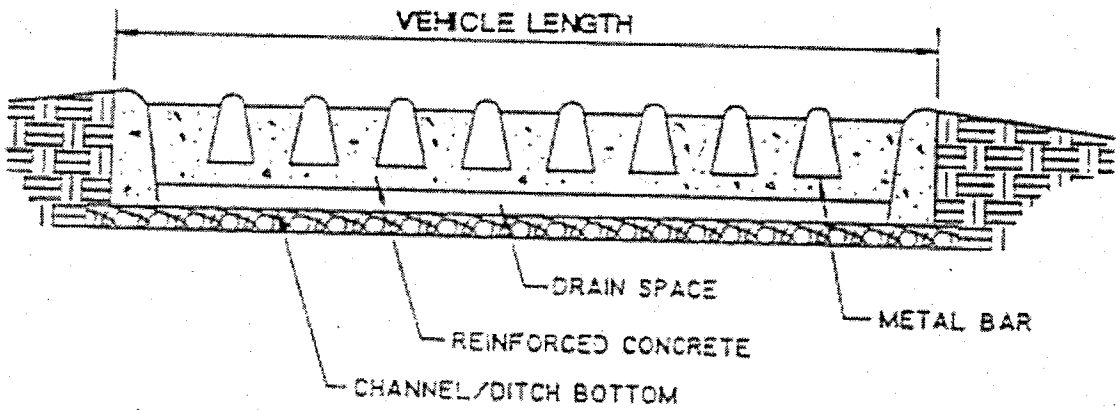
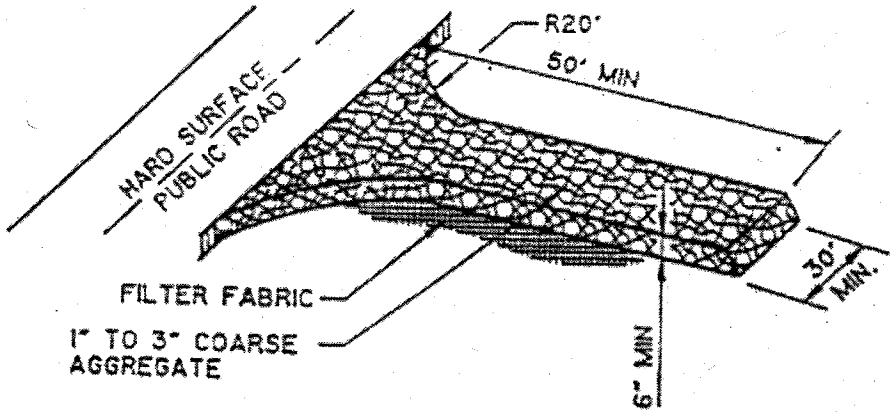
ESC24

Additional Information — Stabilized Construction Entrance





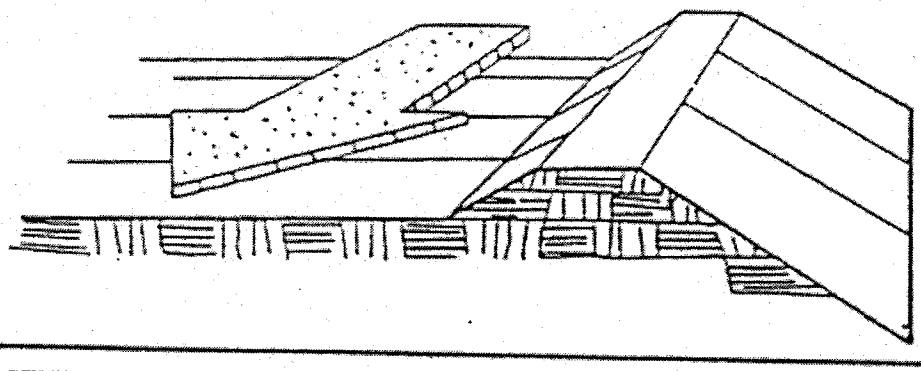
WASH RACK (SCHEMATIC)



STABILIZED CONSTRUCTION ENTRANCE

ESC24

BMP: EARTH DIKE



GENERAL DESCRIPTION

The temporary earth dike is a temporary berm or ridge of compacted soil, used to divert runoff or channel water to a desired location.

SUITABLE APPLICATIONS

Earth dikes are typically used to divert concentrated runoff through disturbed areas into another BMP (e.g., sediment basins), to divert runoff away from disturbed or unstable slopes, to divert runoff from off-site and undisturbed areas around disturbed areas, and as a containment for construction materials and wastes. The dikes should remain in place until the disturbed areas are permanently stabilized. The dikes must be on-site and must safely convey anticipated flood flows.

INSTALLATION/APPLICATION CRITERIA

- All dikes should be compacted by earth-moving equipment.
- All dikes should have positive drainage to a stabilized outlet.
- Top width may be wider and side slopes may be flatter at crossings for construction traffic.
- Dikes should direct sediment-laden runoff into a sediment trapping device.
- Dikes should be stabilized with vegetation, chemicals, or physical devices.

REQUIREMENTS

- Maintenance
  - Inspect periodically and after every significant rainfall; repair as necessary.
- Cost
  - Cost ranges from $15 to $55 per foot for both earthwork and stabilization and depends on availability of material, site location, and access.

LIMITATIONS

Dikes should not be used for drainage areas greater than 10 acres, or along slopes greater than 10 percent. For larger areas more permanent drainage structures should be built. All drainage structures should be built in compliance with local municipal requirements.

- Earth dikes may create more disturbed area on site and become barriers to construction equipment.
- Earth dikes must be stabilized immediately, which adds cost and maintenance concerns.
- Diverted storm water may cause downstream flood damage.
- Dikes should not be constructed of soils which may be easily eroded.
- Regrading the site to remove the dike may add additional cost.

Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ◒ Toxic Materials
- ◒ Oil & Grease
- ○ Floatable Materials
- ◒ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ○ O&M Costs
- ◒ Maintenance
- ○ Training
- ◒ Suitability for Slopes >5%

● High ○ Low

ESC30

Best Management Practices

Additional Information — Earth Dike

The temporary earth dike is a berm or ridge of compacted soil, located in such a manner as to divert storm water to a sediment trapping device or stabilized outlet, thereby reducing the potential for erosion and offsite sedimentation. Earth dikes can also be used to divert runoff from off-site and from undisturbed areas away from disturbed areas, and to divert sheet flows away from unprotected slopes.

An earth dike does not itself control erosion or remove sediment from runoff; a dike prevents erosion by directing runoff to an erosion control device such as a sediment trap or directing runoff away from an erodible area. Temporary diversion dikes should not adversely impact adjacent properties and must conform to local floodplain management regulations, and should not be used in areas with slopes steeper than 10%.

- The advantages of the temporary earth dike include the ability to handle flows from large drainage areas.
- Once stabilized, earth dikes require relatively little maintenance. Additionally, the earth dikes are relatively inexpensive to install since the soil material required for construction may be available on-site, and can be constructed as part of the initial grading operations, while the equipment is on-site.
- Uses on-site materials.

Installation/Application Criteria

Temporary earth dikes are a practical, inexpensive BMP used to divert storm water runoff. Temporary diversion dikes should be installed in the following manner:

1. All dikes should be compacted by earth-moving equipment.
2. All dikes should have positive drainage to an outlet.
3. All dikes should have 2:1 side slopes, 18 inches minimum height, and a minimum top width of 24 inches. Top width may be wider and side slopes may be flatter at crossings for construction traffic.
4. The outlet from the earth dike must function with a minimum of erosion. Runoff should be conveyed to a sediment trapping device such as a sediment trap (ESC 55) or sediment basin (ESC 56) when either the dike channel or the drainage area above the dike are not adequately stabilized.
5. Temporary stabilization may be achieved using seed and mulching for slopes less than 5%, and either rip-rap or sod for slopes in excess of 5%. In either case, stabilization of the earth dike should be completed immediately after construction or prior to the first rain.
6. If riprap is used to stabilize the channel formed along the toe of the dike, the following typical specifications apply:

CHANNEL GRADE	RIPRAP STABILIZATION
0.5-1.0%	4" Rock
1.1-2.0%	6" Rock
2.1-4.0%	8" Rock
4.1-5.0%	8-12" Riprap

7. The stone riprap, recycled concrete, etc. used for stabilization should be pressed into the soil with construction equipment.
8. Filter cloth may be used to cover dikes in use for long periods.
9. Construction activity on the earth dike should be kept to a minimum.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

"Draft - Sedimentation and Erosion Control, An Inventory of Current Practices", U.S.E.P.A., April, 1990.

ESC30

Additional Information — Earth Dike

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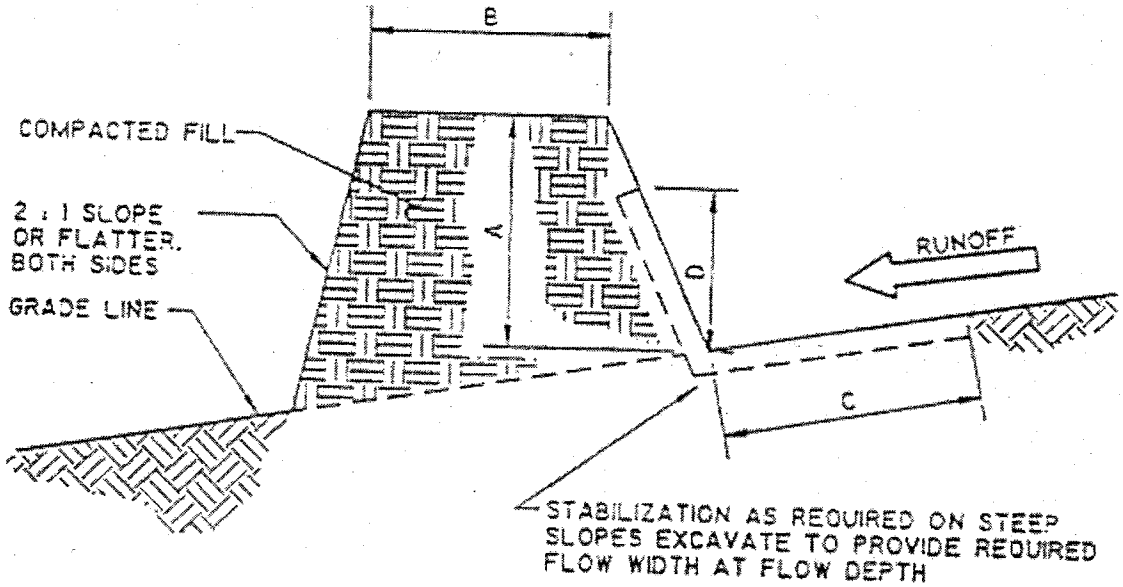
ESC30

Additional Information — Earth Dike



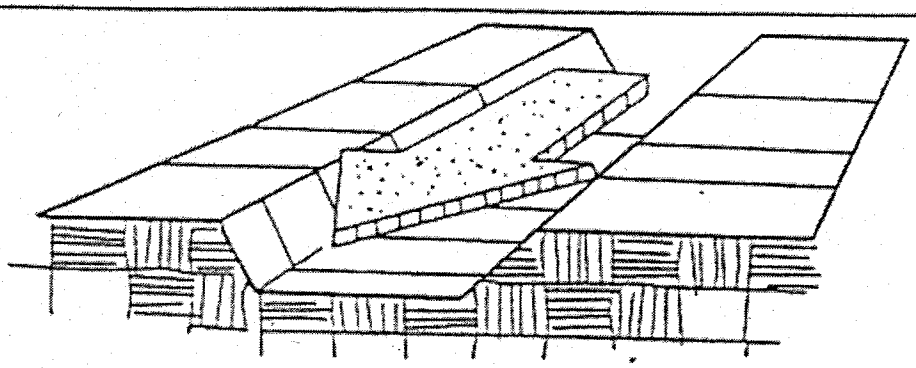
REQUIREMENTS BASED ON UPSTREAM DRAINAGE AREA

	DIKE 1 (5 ACRES OR LESS)	DIKE 2 (5-10 ACRES)
A-DIKE HEIGHT	18"	36"
B-DIKE WIDTH	24"	36"
C-FLOW WIDTH	4'	6'
D-FLOW DEPTH	8"	15"

TEMPORARY DIVERSION DIKE

ESC30

BMP: TEMPORARY DRAINS AND SWALES



GENERAL DESCRIPTION

Temporary drains and swales are used to divert off-site runoff around the construction site, divert runoff from stabilized areas around disturbed areas, and direct runoff into sediment basins or traps.

SUITABLE APPLICATIONS

Temporary drains and swales are appropriate for diverting any upslope runoff around unstabilized or disturbed areas of the construction site:

- Prevent slope failures.
- Prevent damage to adjacent property.
- Prevents erosion and transport of sediments into water ways.
- Increases the potential for infiltration.
- Diverts sediment-laden runoff into sediment basins or traps.

INSTALLATION/APPLICATION CRITERIA

Temporary drainage swales will effectively convey runoff and avoid erosion if built properly:

- Size temporary drainage swales using local drainage design criteria.
- A permanent drainage channel must be designed by a professional engineer (see the local drainage design criteria for proper design).
- At a minimum, the drain/swale should conform to predevelopment drainage patterns and capacities.
- Construct the drain/swale with an uninterrupted, positive grade to a stabilized outlet.
- Provide erosion protection or energy dissipation measures if the flow out of the drain or swale can reach an erosive velocity.

REQUIREMENTS

- Maintenance
  - Inspect weekly and after each rain.
  - Repair any erosion immediately.
  - Remove sediment which builds up in the swale and restricts its flow capacity.
- Cost
  - The cost of a drainage swale increases with drainage area and slope. Typical, swales for controlling internal erosion are inexpensive.

LIMITATIONS

- Temporary drains and swales or any other diversion of runoff should not adversely impact upstream or downstream properties.
- Temporary drains and swales must conform to local floodplain management requirements.

Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- (Protect Slopes/Channels)
- (Control Site Perimeter)
- (Control Internal Erosion)

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ○ O&M Costs
- ○ Maintenance
- ○ Training
- ◒ Suitability for Slopes >5%

● High ○ Low

ESC31

Best Management Practices

Additional Information — Temporary Drains and Swales

Slopes that are formed during cut and fill operations should be protected from erosion by runoff. A combination of a temporary drainage swale and an earth dike (see ESC30) at the top of a slope can safely divert runoff to a location where it can safely be brought to the bottom of the slope (see Pipe Slope Drain ESC32). A combination dike and swale is easily constructed by a single pass of a bulldozer or grader and compacted by a second pass of the tracks or wheels over the ridge. Diversion structures should be installed when the site is initially graded, and remain in place until post-construction BMPs are installed and/or the slopes are stabilized.

Diversion practices concentrate the volume of surface runoff, increasing its velocity and erosive force. Thus, the flow out of the drain or swale must be directed onto a stabilized area or into a grade stabilization structure. A swale should be stabilized using vegetation, chemical treatment, rock rip-rap, matting, or other physical means of stabilization, if significant erosion will occur. Any drain or swale which conveys sediment-laden runoff must be diverted into a sediment basin or trap before it is discharged from the site.

Installation/Application Criteria

Diversion drains or swales are only effective if they are properly installed. Swales are more effective than dikes because they tend to be more stable. The combination of a swale with a dike on the downhill side is the most cost-effective diversion.

Standard engineering design criteria for small open channel and closed conveyance systems should be used (see the local drainage design manual). Unless local drainage design criteria state otherwise, drains or swales should be designed as follows:

- No more than 5 acres may drain to a temporary drain or swale
- Place the drain or swale above, not on, a cut and fill slope
- Swale bottom width should be at least 2 ft
- Depth of the swale should be at least 18 inches
- Side slopes should be 2:1 or flatter
- Drain or swale should be layed at a grade of at least 1 percent, but not more than 15 percent
- The swale must not be overtopped by the 10-year, 24-hour storm, irrespective of the design criteria stated above
- Remove all trees, stumps, obstructions, and other objectionable material from the swale when it is built
- Compact any fill material along the path of the swale
- Stabilize all swales immediately. Seed and mulch swales at a slope of less than 5 percent, and use rip-rap or sod for swales with a slope between 5 and 15 percent
- Do not operate construction vehicles across a swale unless a stabilized crossing is provided.
- The cost of swales and other diversion devices is generally included in the earthwork cost, as a separate item under the grading budget of the project construction contract.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

"Draft - Sedimentation and Erosion Control, An Inventory of Current Practices", U.S.E.P.A., April, 1990.

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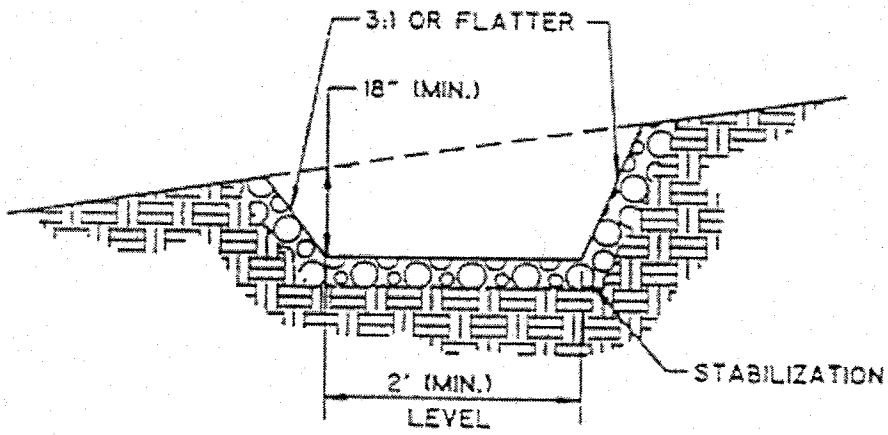
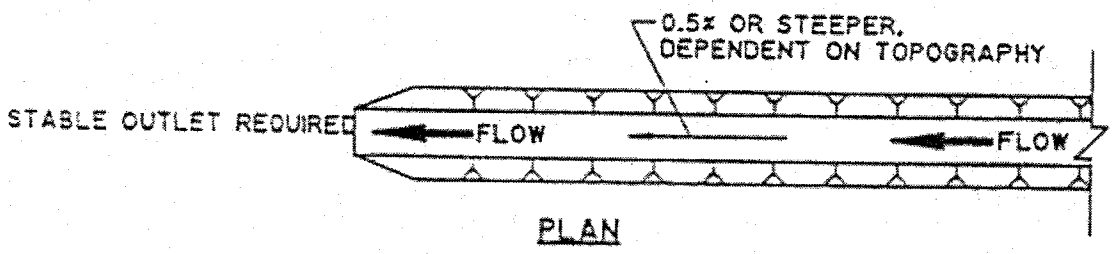
ESC31



CROSS SECTION

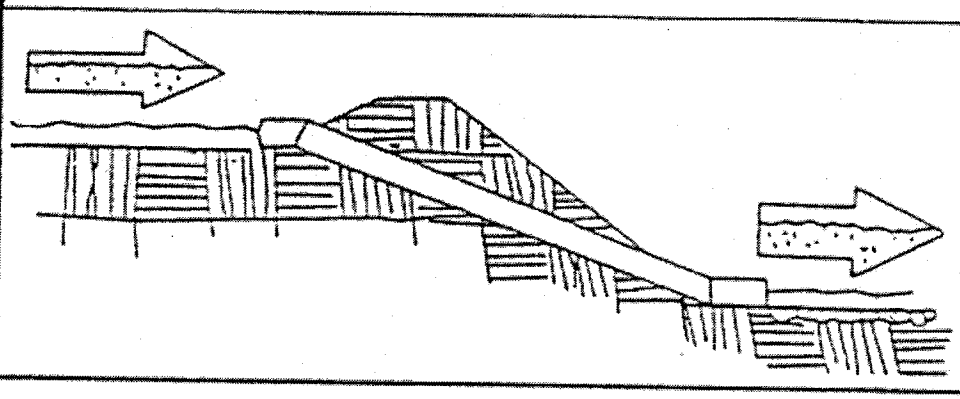


PLAN

TEMPORARY DRAINAGE SWALE

ESC31

BMP: SLOPE DRAIN



GENERAL DESCRIPTION

A temporary pipe or lined channel to drain the top of a slope to a stable discharge point at the bottom of a slope without causing erosion.

SUITABLE APPLICATIONS

- Where concentrated flow of surface runoff must be conveyed down a slope in order to prevent erosion.
- Drainage for top of slope diversion dikes or swales.
- Emergency spillway for a sediment basin.
- Drainage for top of cut/fill slopes where water can accumulate.

The types of slope drain can include:

- Pipe drops.
- Flexible downdrains.
- Sectional downdrains.
- Lined terrace drains.

INSTALLATION/APPLICATION CRITERIA

- Secure inlet and surround with dikes to prevent gully erosion, and anchor pipe to slope.
- Size to convey at least the peak of a 10-year, 24-hour storm (See local flood control agency for requirements).
- Stabilize outlet.

REQUIREMENTS

- Maintenance
  - Structure must be inspected regularly and after storms.
  - Inlet must be free of undercutting and no water should circumvent the entry.
  - Outlet should not produce erosion; velocity dissipators must be maintained.
  - Pipe anchors must be checked to ensure that the pipe remains anchored to the slope.
- Cost
  - CalTrans Cost Schedule gives regional cost ranges.

LIMITATIONS

- Maximum drainage area per slope drain is 5 acres. (For large areas use a paved chute, rock lined channel or additional pipes.)
- Clogged slope drains will force water around the pipe and cause slope erosion.
- Dissipation of high flow velocities at the pipe outlet is required to avoid downstream erosion.
- Failure can result in flooding and severe erosion.

Objectives

- *Housekeeping Practices*
- *Contain Waste*
- *Minimize Disturbed Areas*
- *Stabilize Disturbed Areas*
- *Protect Slopes/Channels*
- *Control Site Perimeter*
- *Control Internal Erosion*

Targeted Pollutants

- ● *Sediment*
- ○ *Nutrients*
- ○ *Toxic Materials*
- ○ *Oil & Grease*
- ○ *Floatable Materials*
- ○ *Other Construction Waste*

● *Likely to Have Significant Impact*
○ *Probable Low or Unknown Impact*

Implementation Requirements

- ◒ *Capital Costs*
- ○ *O&M Costs*
- ◒ *Maintenance*
- ○ *Training*
- ◒ *Suitability for Slopes >5%*

● *High* ○ *Low*

ESC32

Best Management Practices

Additional Information — Slope Drain

The slope drain may be a rigid pipe, such as corrugated metal, a flexible conduit, or a lined terrace drain with the inlet placed on the top of a slope. The drain conveys concentrated runoff down to the bottom of the slope. The BMP typically is used in combination with a diversion control; such as a temporary dike or swale, at the top of the slope, and serves as a temporary BMP to reduce or eliminate slope erosion until permanent BMPs are installed and the slope is stabilized.

The slope drain is applicable for any construction site where concentrated surface runoff can accumulate and must be conveyed down the slope in order to prevent erosion. The slope drain is effective because it prevents the stormwater from flowing directly down the slope by confining all the runoff into an enclosed pipe or channel. Due to the time lag between grading slopes and installation of permanent storm water collection systems and slope stabilization measures, temporary provisions to intercept runoff are sometimes necessary. Particularly in steep terrain, slope drains can protect unstabilized areas from erosion. Typical uses include:

- Emergency spillway for a sediment basin.
- Drainage for top of cut/fill slopes where storm water can accumulate and must be conveyed down the slope.

Installation/Application Criteria

Temporary slope drains are highly effective in eliminating slope erosion. Installation and maintenance requirements are small, especially when flexible pipe is used. General criteria:

- Gully erosion is the major problem with slope drains. Inlet structures must be securely entrenched and compacted to avoid severe gully erosion.
- The drain must be securely anchored to the slope and must be adequately sized to carry the capacity of the design storm and associated forces.
- The outlet must be stabilized with rip-rap, concrete or other type of energy dissipator, or directed into a stable sediment trap or basin.
- A debris rack is recommended at the inlet, and should be encouraged for larger pipes and at the outlet as a safety devic to prevent small children from entering the pipe.

Materials:

Material selection and criteria for the pipe slope drain is often established by the local municipality. Soil type, rainfall patterns, construction schedule, and available supply are some of the factors to be considered. The following types of slope drains are commonly used:

- Rigid Pipe: This type of slope drain is also known as a pipe drop. The pipe usually consists of corrugated metal pipe or rigid plastic pipe. The pipe is placed on undisturbed or compacted soil and secured into the slope. One foot minimum cover is required on the pipe, and concrete thrust blocks must be used when required by the municipality or warranted by the calculated thrust forces. Collars should be properly installed and secured with metal strappings or watertight collars.
- Flexible Pipe: The flexible pipe slope drain consists of a flexible conduit of heavy duty material. The conduit material is securely anchored into the slope and connections are watertight. The conduit should be securely fastened to the metal inlet and outlet conduit sections with metal strappings or water tight collars.
- Sectional Downdrains: The sectional downdrain consists of pre-fabricated, sectional conduit of half-round or third-round material. The sectional downdrain performs similar to a flume or chute. The pipe must be placed on undisturbed or compacted soil and secured into the slope.
- Concrete-lined Terrace Drain: This is a concrete channel for draining water from a terrace on a slope to the next level. These drains are after permenant structures which should be designed according to local drainage design criteria.

ESC32

Additional Information — Slope Drain

Design:
Unless specified by the local municipality, the capacity for temporary drains should be sufficient to handle the peak runoff from a 10-year, 24-hour rainfall event. The pipe size may be computed using the Rational Method or a method established by the local municipality. Higher flows must be safely stored or routed to prevent any offsite concentration of flow, and any erosion of the slope.

As a guide, temporary pipe slope drains should not be sized smaller than shown in the following table:

MINIMUM PIPE DIAMETER	MAXIMUM DRAINAGE AREA (ACRES)
12"	0.5
18"	1.5
21"	2.5
24"	3.5
30"	5.0

Permanent improvements must be designed and installed if the drainage area is greater than 5 acres.

The following additional design criteria should be considered:

- Construct the pipe slope drain entrance of a standard flared end section with a minimum 6-inch metal toe plate to prevent runoff from undercutting the pipe inlet. The slope of the entrance is usually at least 3 percent.
- Thoroughly compact the soil around and under the pipe and entrance section.
- Securely fasten the slope drain sections together, have gasketed watertight fittings, and securely anchored into the soil.
- Secure the flared inlet section to the slope drain and have watertight connecting bands.
- Use interceptor dikes to direct runoff into a slope drain. The height of the dike should be at least 1 foot higher at all points than the top of the inlet pipe.
- If the pipe slope drain is conveying sediment-laden water, direct all flows into a sediment trap (ESC55) or sediment basin (ESC56).
- Unless the pipe directly enters a sediment trap/basin, stabilize the area below the outlet with a riprap apron.

Limitations
Installation is critical for effective use of the pipe slope drain to minimize potential gully erosion. Maximum drainage area per pipe slope drain is 5 acres. For larger areas use a paved chute, rock lined channel or additional pipes. (See the local municipality for drainage requirements)

- During large storms, pipe slope drains may become clogged or overcharged, forcing water around the pipe and causing extreme slope erosion.
- Structures for dissipation of high flow velocities at the pipe outlet must be constructed to avoid downstream erosion.
- Failure of this type of temporary structure may result in flooding and severe erosion.
- If the sectional downdrain is not sized correctly, the runoff can spill over the drain sides causing gully erosion, and potential failure of the structure.

ESC32

Additional Information — Slope Drain

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

"Draft - Sedimentation and Erosion Control, An Inventory of Current Practices", U.S.E.P.A., April, 1990.

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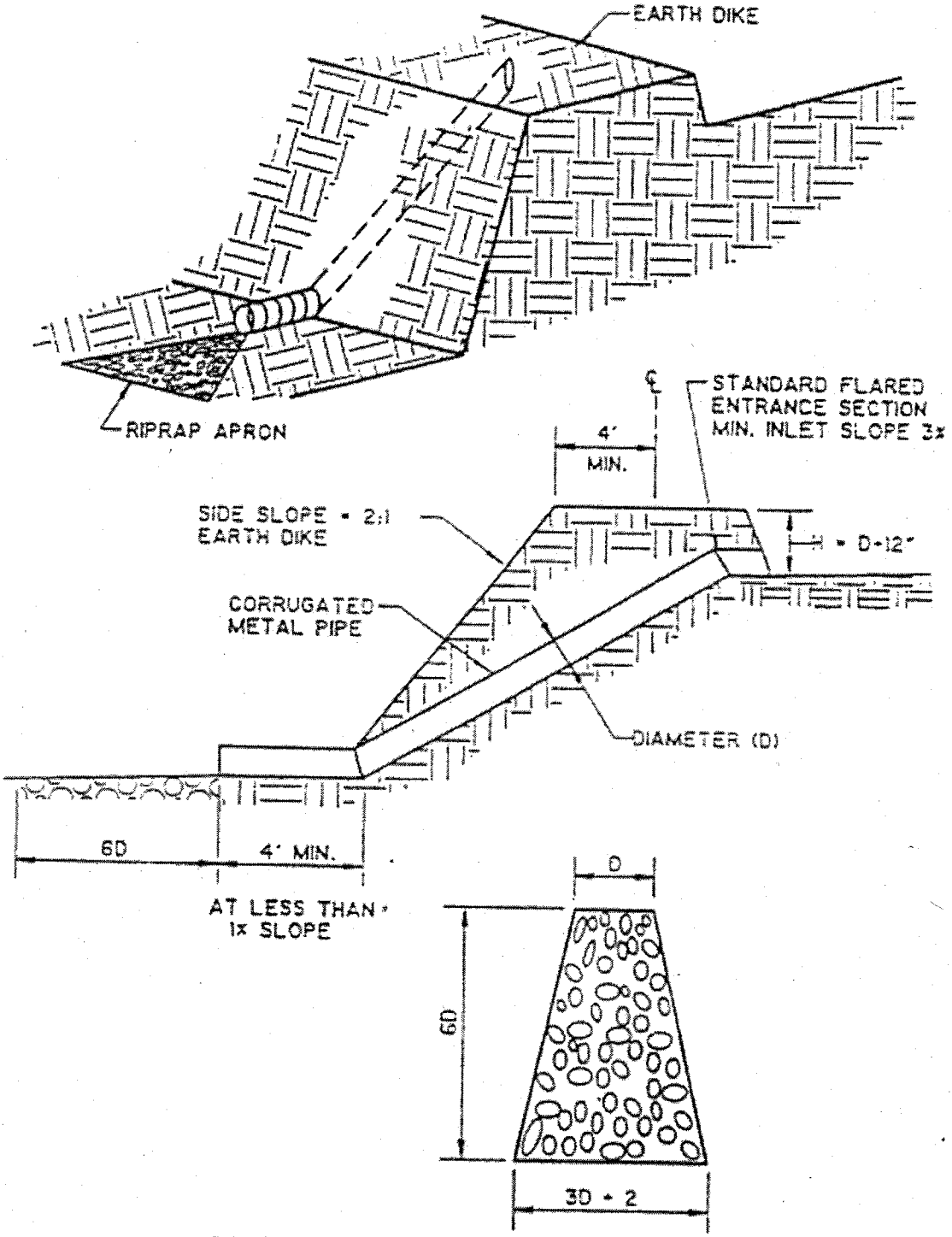
ESC32

Additional Information — Slope Drain

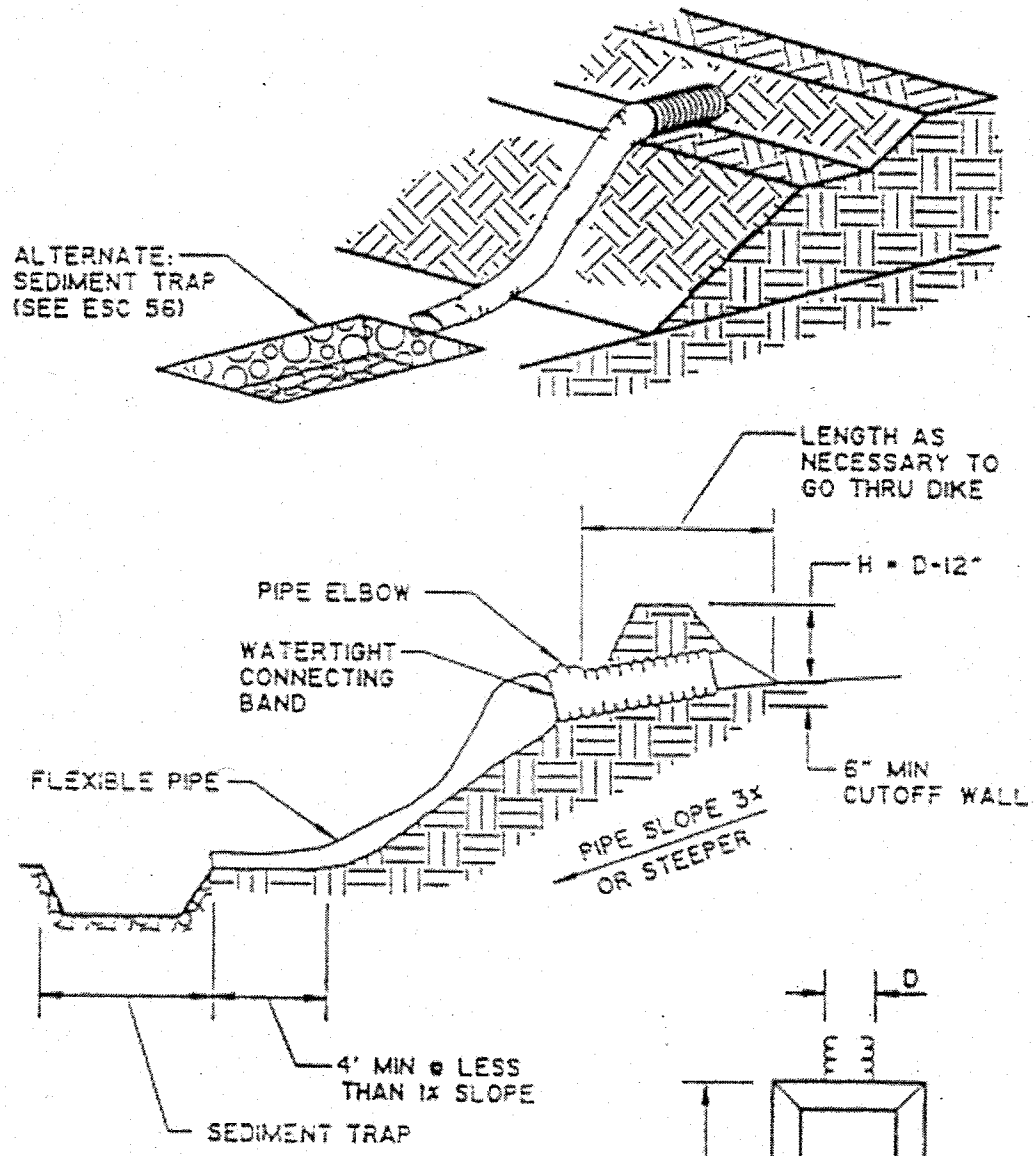


RIPRAP SHOULD CONSIST OF 6" DIAMETER STONE PLACED AS SHOWN AND SHOULD BE A MINIMUM OF 12" IN THICKNESS.

PIPE SLOPE DRAIN (RIGID)

ESC32

Additional Information — Slope Drain



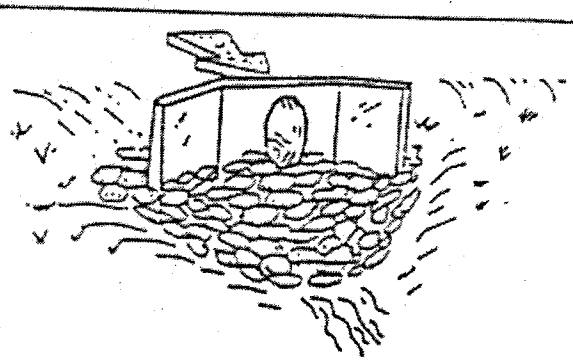
RIPRAP SHOULD CONSIST OF 6" DIA STONE PLACED AS SHOWN. DEPTH OF APRON SHOULD EQUAL THE PIPE DIA AND RIPRAP SHALL BE A MINIMUM OF 12" IN THICKNESS.

ALTERNATIVE SEDIMENT TRAP: RIPRAP PLAN

PIPE SLOPE DRAIN (FLEXIBLE)

ESC32

BMP: OUTLET PROTECTION



Objectives

- *Housekeeping Practices*
- *Contain Waste*
- *Minimize Disturbed Areas*
- *Stabilize Disturbed Areas*
- *Protect Slopes/Channels*
- *Control Site Perimeter*
- *Control Internal Erosion*

GENERAL DESCRIPTION

Rock outlet protection is a physical device composed of rock, grouted riprap, or concrete rubble which is placed at the outlet of a pipe to prevent scour of the soil caused by high pipe flow velocities, and to absorb flow energy to produce non-erosive velocities.

SUITABLE APPLICATIONS

- Wherever discharge velocities and energies at the outlets of culverts, conduits or channels are sufficient to erode the next downstream reach.
- Rock outlet protection is best suited for temporary use during construction because it is usually less expensive and easier to install than concrete aprons or energy dissipators.
- A sediment trap below the pipe outlet is recommended if runoff is sediment laden.
- Permanent rock riprap protection should be designed and sized by the engineer as part of the culvert, conduit or channel design.
- Grouted riprap should be avoided in areas of freeze and thaw because the grout will break up.

INSTALLATION/APPLICATION CRITERIA

Rock outlet protection is effective when the rock is sized and placed properly. When this is accomplished, rock outlets do much to limit erosion at pipe outlets. Rock size should be increased for high velocity flows. General recommendations for rock size and length of outlet protection mat are presented in the additional information sheet. Best results are obtained when sound, durable, angular rock is used. CalTrans Standard Specifications or the local municipality can provide additional specifications for constructing outlet protection devices.

REQUIREMENTS

- Maintenance
  - Inspect after each significant rain for erosion and/or disruption of the rock, and repair immediately.
  - Grouted or wire-tied rock riprap can minimize maintenance requirements.
- Cost
  - CalTrans Cost Schedule gives regional cost ranges.

LIMITATIONS

- Large storms often wash away the rock outlet protection and leave the area susceptible to erosion.
- Sediment captured by the rock outlet protection may be difficult to remove without removing the rock.
- Outlet protection may negatively impact the channel habitat.

Targeted Pollutants

- ● *Sediment*
- ○ *Nutrients*
- ○ *Toxic Materials*
- ○ *Oil & Grease*
- ○ *Floatable Materials*
- ○ *Other Construction Waste*

● *Likely to Have Significant Impact*
○ *Probable Low or Unknown Impact*

Implementation Requirements

- ◒ *Capital Costs*
- ○ *O&M Costs*
- ◒ *Maintenance*
- ○ *Training*
- ○ *Suitability for Slopes >5%*

● *High* ○ *Low*

ESC40

Best Management Practices

Additional Information — Outlet Protection

Outlet protection is needed where discharge velocities and energies at the outlets of culverts, conduits or channels are sufficient to erode the immediate downstream reach. This practice protects the inlet or outlet from developing small eroded pools (plange pools), and protects against gully erosion resulting from scouring at a culvert mouth.

Rock outlet protection is usually less expensive and easier to install than concrete aprons or energy dissipators. It also serves to trap sediment and reduce flow velocities.

As with most channel design projects, depth of flow, roughness, gradient, side slopes, discharge rate and velocity should be considered in the outlet design. Compliance to local and state regulations should also be considered while working in environmentally sensitive streambeds. General recommendations for rock size and length of outlet protection mat is shown in the rock outlet protection figure. Best results are obtained when sound, durable, angular rock is used. Rock depth and outlet protection length are governed by the discharge pipe size, but hydraulic calculations and velocities should be used to determine length. Your local municipality or CalTrans should be consulted for appropriate sizing criteria in your area.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Mariposa County, Arizona, September 1992.

County of Sacramento Improvement Standards, Sacramento County - May 1989.

Environmental Criteria Manual, City of Austin, TX, 1989.

Erosion and Sediment Control Handbook, S.J. Goldman, K. Jackson, T.A. Bursztynsky, P.E., McGraw Hill Book Company, 1986.

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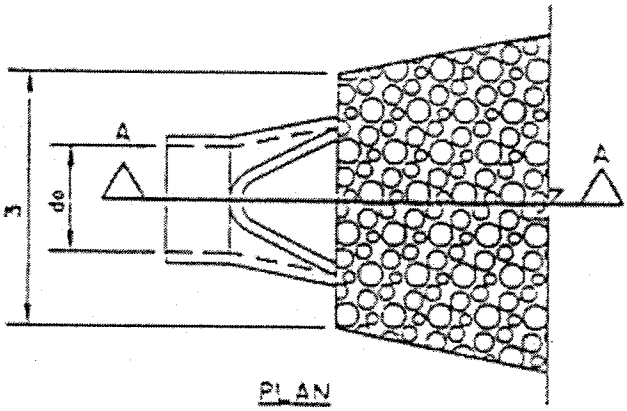
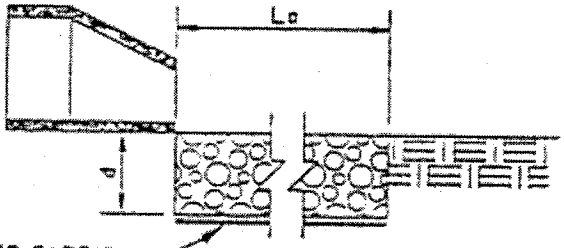
ESC40

Additional Information — Outlet Protection



PLAN

La = LENGTH OF APRON
do = INSIDE PIPE DIAMETER
w = APRON WIDTH
d = APRON THICKNESS

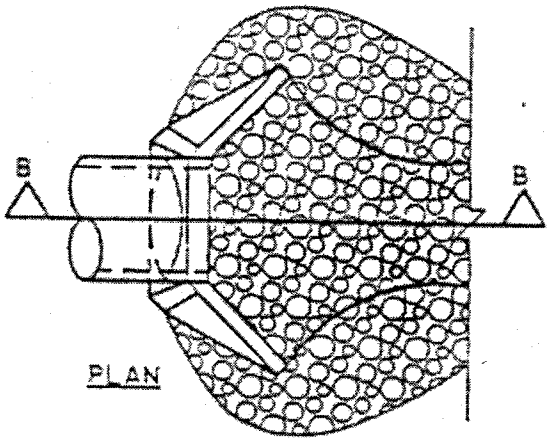


FILTER FABRIC — SECTION A-A

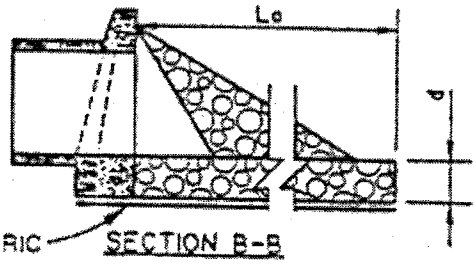
PIPE OUTLET TO FLAT AREA WITH NO DEFINED CHANNEL

NOTES

1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP, OR CONCRETE
2. PIPE DIAMETER, APRON DIMENSIONS, AND AVERAGE ROCK SIZE FOR RIPRAP ARE BASED ON THE DESIGN FLOW RATE AND VELOCITY. La AND ROCK SIZE MUST BE SET TO SLOW THE FLOW TO NON-EROSIVE VELOCITIES (e.g., LESS THAN 10 fps). SEE CALTRANS AND LOCAL AGENCY DESIGN CRITERIA FOR APPROPRIATE SIZING CRITERIA.
3. d = 1.5 TIMES THE MAXIMUM ROCK SIZE DIAMETER BUT NOT LESS THAN 6 INCHES.



PLAN



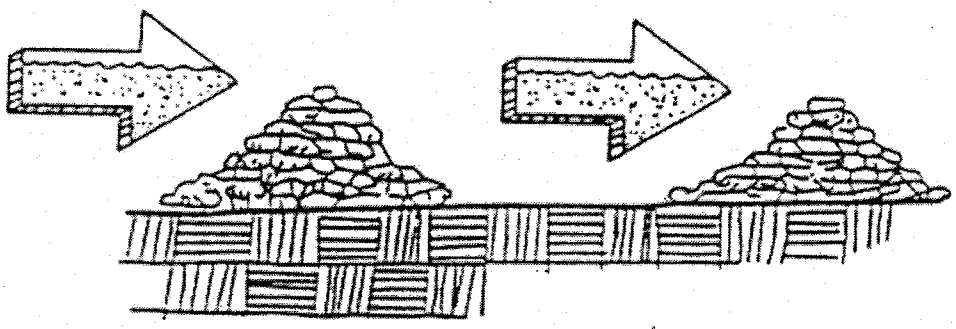
FILTER FABRIC — SECTION B-B

PIPE OUTLET TO WELL-DEFINED CHANNEL

PIPE OUTLET CONDITIONS

ESC40

BMP: CHECK DAMS



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- (Protect Slopes/Channels)
- Control Site Perimeter
- Control Internal Erosion

GENERAL DESCRIPTION

Small temporary dams constructed across a swale or drainage ditch. Check dams reduce the velocity of concentrated stormwater flows, thereby reducing erosion of the swale or ditch, and promoting sedimentation behind the dam. If properly anchored, brush or rock filter berms (ESC53) may be used for check dams.

SUITABLE APPLICATIONS

- Used to prevent erosion by reducing the velocity of channel flow in small intermittent channels and temporary swales.
- May also promote sedimentation behind the dam, but should not be considered to be a primary sediment trapping device because subsequent storms will scour and resuspend much of the trapped sediment.

INSTALLATION/APPLICATION CRITERIA

- Check dams should be placed at a distance and height to allow small pools to form between each one.
- Backwater from a downstream check dam should reach the toe of the upstream check dam.
- Major floods (2 year storm or larger) should safely flow over the check dam without an increase in upstream flooding or destruction of the checkdam.
- Primarily used in small, steep channels where velocities exceed 2 fps.
- Used in steep terrain where velocity reduction is required.
- A deep sump may be provided immediately upstream of the check dam to capture excessive sediment.
- Check dams may be built of rocks or logs, which are secured against damage during significant floods.

REQUIREMENTS

- Maintenance
  - Inspect for sediment buildup behind the check dam and signs of erosion around the check dam after each rain.
  - Remove accumulated sediment whenever it reaches one-half the sump depth.
- Cost
  - See CalTrans Cost Schedule for regional cost data.

LIMITATIONS

- Use only in small open channels which drain 10 acres of less.
- Not to be used in live streams.
- Do not install in lined or vegetated channels.

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ○ O&M Costs
- ◒ Maintenance
- ○ Training
- ○ Suitability for Slopes >5%

● High ○ Low

ESC41

Best Management Practices

Additional Information — Check Dams

Check dams create small pools in swales and ditches which drain 10 acres or less. These pools reduce the velocity of storm water flows, thus reducing erosion of the swale/ditch. Sedimentation also occurs in these small pools, but probably results in little net sediment removal because of the small detention time and probable scour during longer storms. A sediment trap (ESC55) may be placed immediately upstream of the check dam to increase sediment removal efficiency (but never in a natural stream or channel). Check dams should not be placed in swales/ditches with a base flow during some or all of the year.

Installation/Application Criteria

Check dams must be sized and constructed correctly and maintained properly, or they will be either washed out or cause flooding. Check dams can be constructed of either rock or logs. Use of other natural materials available on-site that can withstand the stormwater flow velocities is acceptable, such as pea-gravel filled in sand bags. Check dams should not be constructed from straw bales or silt fences, since concentrated flows quickly wash out these materials.

A sediment trap (ESC55) may be installed immediately upstream of the check dam, but may be of limited effectiveness if channel flows are large enough to scour the trap during moderate to large storms. Maximum velocity reduction is achieved if the toe of the upstream dam is at the same elevation as the top of the downstream dam. The center section of the dam should be lower than the edge sections so that the check dam will act like a weir during major floods.

Rock check dams are usually constructed of appropriately 8"-12" rock. The rock is placed either by hand or mechanically, but never just dumped into the channel. The dam must completely span the ditch or swale to prevent washout. The rock used must be large enough to stay in place given the expected design flow through the channel.

Log check dams are usually constructed of 4 to 6-inch diameter logs. The logs should be embedded into the soil at least 18 inches.

If grass is planted to stabilize the ditch or swale, the check dam should be removed when the grass has matured (unless the slope of the swale is greater than 4 percent).

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maripose County, Arizona, September 1992.

"Draft - Sedimentation and Erosion Control, An Inventory of Current Practices", U.S.E.P.A., April, 1990.

Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, June 1981.

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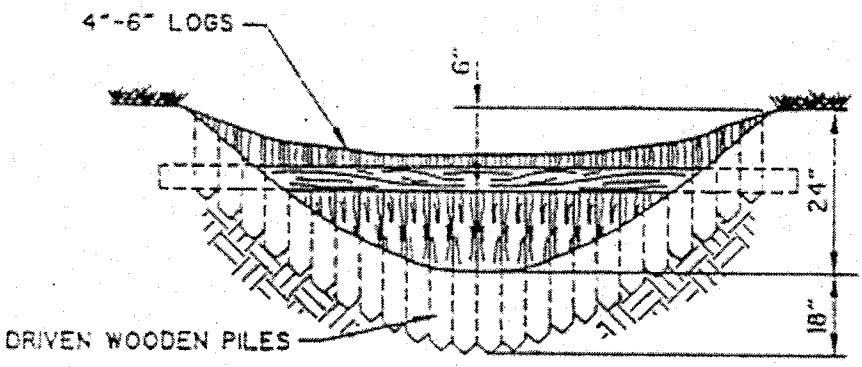
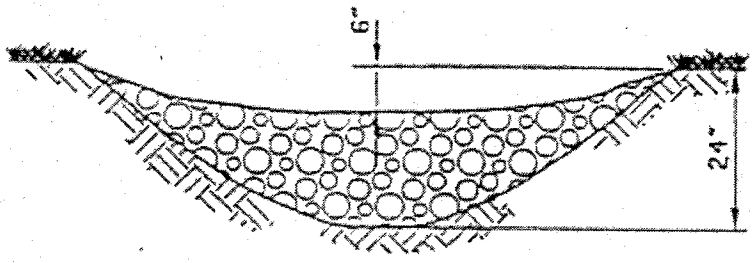
Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency - November 1988.

ESC41

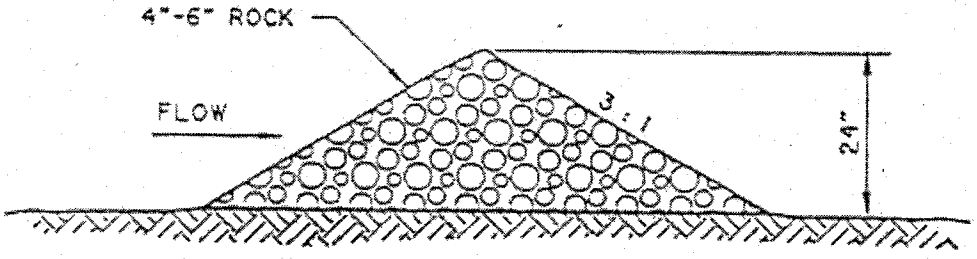
Additional Information — Check Dams



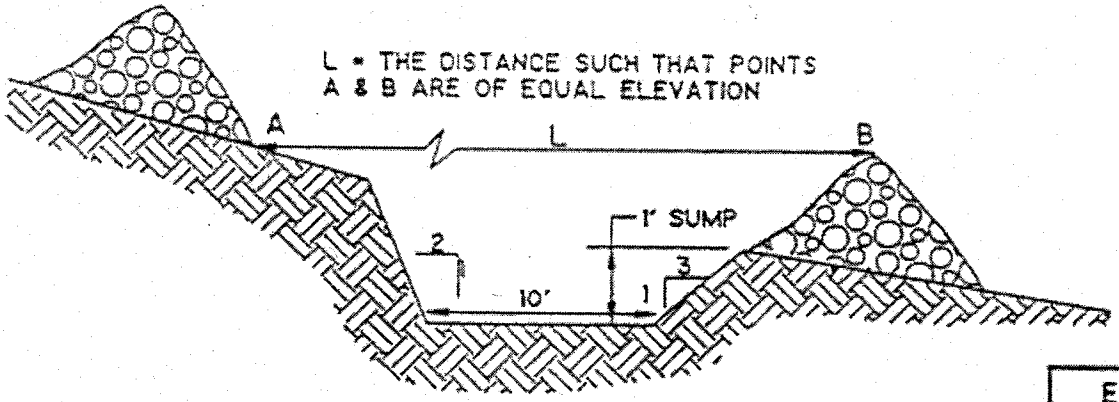
LOG CHECK DAM



ROCK CHECK DAM



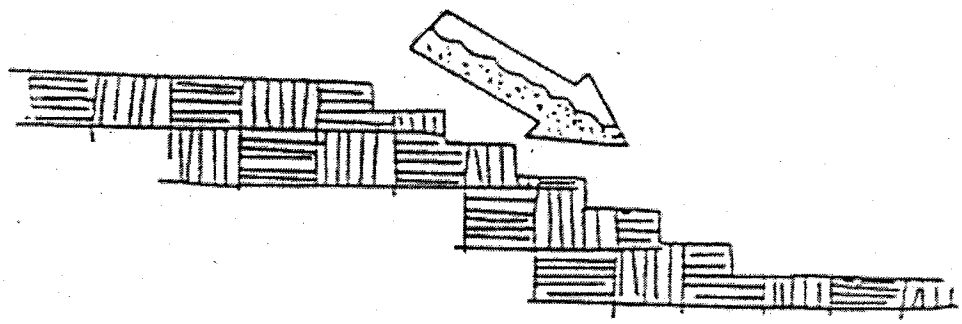
ROCK CHECK DAM CROSS-SECTION



• SPACING BETWEEN CHECK DAMS

ESC41

BMP: SLOPE ROUGHENING/TERRACING



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- (Stabilize Disturbed Areas)
- (Protect Slopes/Channels)
- Control Site Perimeter
- Control Internal Erosion

GENERAL DEFINITION

Slope roughening/terracing creates microclimates for establishing vegetation, reduces runoff velocity, increases infiltration, and provides small depressions for trapping sediment.

SUITABLE APPLICATIONS

- Any cleared area prior to seeding and planting.
- Required for cleared, erodible slopes steeper than 3:1 and higher than 5 feet prior to seeding and planting.

INSTALLATION/APPLICATION CRITERIA

Slope roughening/terracing is performed in several ways:

- Stair-step grading.
- Grooving.
- Furrowing.
- Tracking.
- Rough grading.
- No grading.

REQUIREMENTS

- Maintenance
  - Inspect roughened slopes weekly and after rainfall for excessive erosion.
  - Revegetate as quickly as possible.
- Cost (source: EPA, 1992)
  - Surface Roughening: Performed at no (e.g., rough grading) to low (e.g., tracking) cost.
  - Terracing: Average annual cost is $4 per linear foot (2 year useful life).

LIMITATIONS

- Roughening is of limited effectiveness on its own, but is used to speed revegetation.

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

- ● Likely to Have Significant Impact
- ○ Probable Low or Unknown Impact

Implementation Requirements

- ○ Capital Costs
- ○ O&M Costs
- ○ Maintenance
- ○ Training
- ● Suitability for Slopes >5%

● High ○ Low

ESC42

Best Management Practices

Additional Information — Slope Roughening/Terracing

Slope roughening/terracing creates uneven depressions, steps or grooves on the soil surface to aid in establishment of vegetation, reduce runoff velocity, increase infiltration, and provide for sediment trapping.

Surface roughening may be applied to all slopes steeper than 3:1, and greater than 5 vertical feet, providing some instant erosion protection on bare soil while vegetative cover is being established. It is an inexpensive, simple and short-term erosion control measure for roadway cut slopes.

Terracing usually is a more permanent measure used to stabilize a steep slope. Terraces should be designed by a registered professional engineer and included in the project construction plans. Local design criteria should be used.

Installation/Application

Graded areas with smooth, hard surfaces give a false impression of "finished grading" and a job well done. It is difficult to establish vegetation on such surfaces due to reduced water infiltration and the potential for erosion. Rough slope surfaces with uneven soil and rocks left in place may appear unattractive or unfinished at first, but they encourage water infiltration, speed the establishment of vegetation, and decreased runoff velocity. Rough, loose soil surfaces give lime, fertilizer, and seed some natural coverage. Niches in the surface provide microclimates which generally provide a cooler and more favorable moisture level than hard flat surfaces; this aids seed germination.

There are different methods for achieving a roughened soil surface on a slope, and the selection of an appropriate method depends upon the type of slope. Roughening methods include stair-step grading, grooving, and tracking. Factors to be considered in choosing a method are slope steepness, mowing requirements, and whether the slope is formed by cutting or filling.

1. Disturbed areas which will not require mowing may be stair-step graded, grooved, or left rough after filling.
2. Graded areas steeper than 3:1 should be stair-stepped with benches (See figure at end of fact sheet). The stair-steping will help vegetation become attached and also trap soil eroded from the slopes above. Stair-step grading is particularly appropriate in soils containing large amounts of soft rock. Each "step" catches material which sloughs from above, and provides a level site where vegetation can become established. Stairs should be wide enough to work with standard earth moving equipment.
3. Areas which will be mowed (these areas should have slopes less than 3:1) may have small furrows left by disking, harrowing, raking, or seed-planting machinery operated on the contour.
4. It is important to avoid excessive compacting of the soil surface when scarifying. Tracking with bulldozer treads is preferable to not roughening at all, but is not as effective as other forms of roughening, as the soil surface is severely compacted and runoff is increased. Tracking can be accomplished in a variety of ways, including "track walking," or driving a crawler tractor up and down the slope, in leaving a pattern of cleat imprints parallel to slope contours.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

Handbook of Steel, Drainage & Highway Construction, American Iron and Steel Institute, 1983.

Proposed Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, Work Group Working Paper, USEPA, April, 1992.

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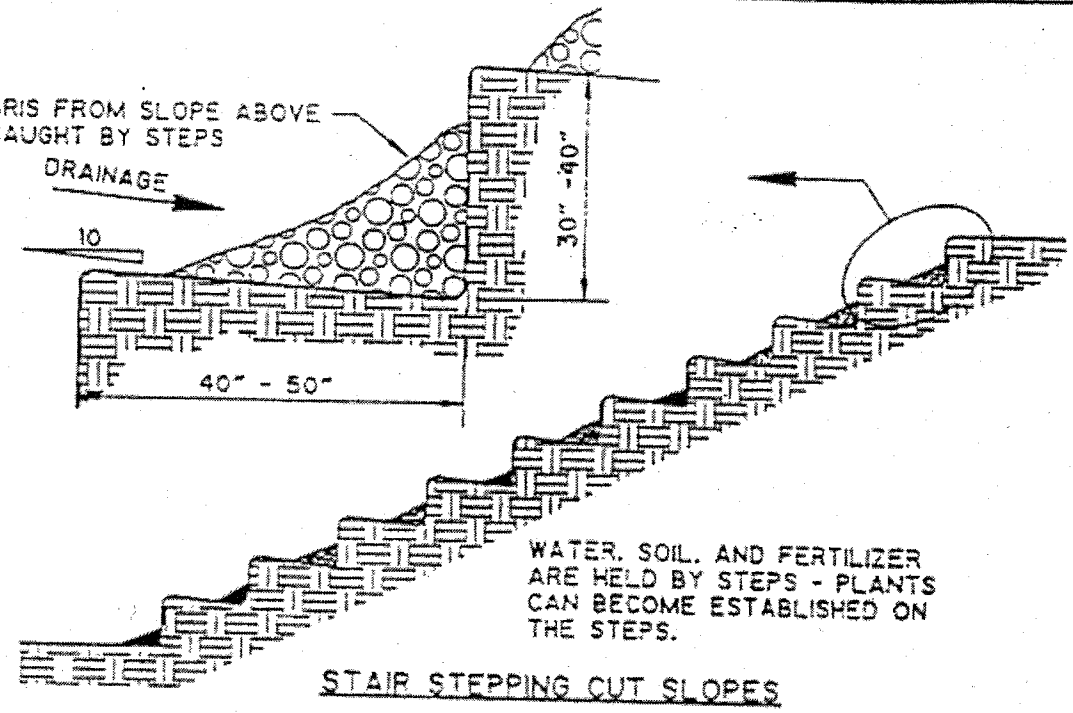
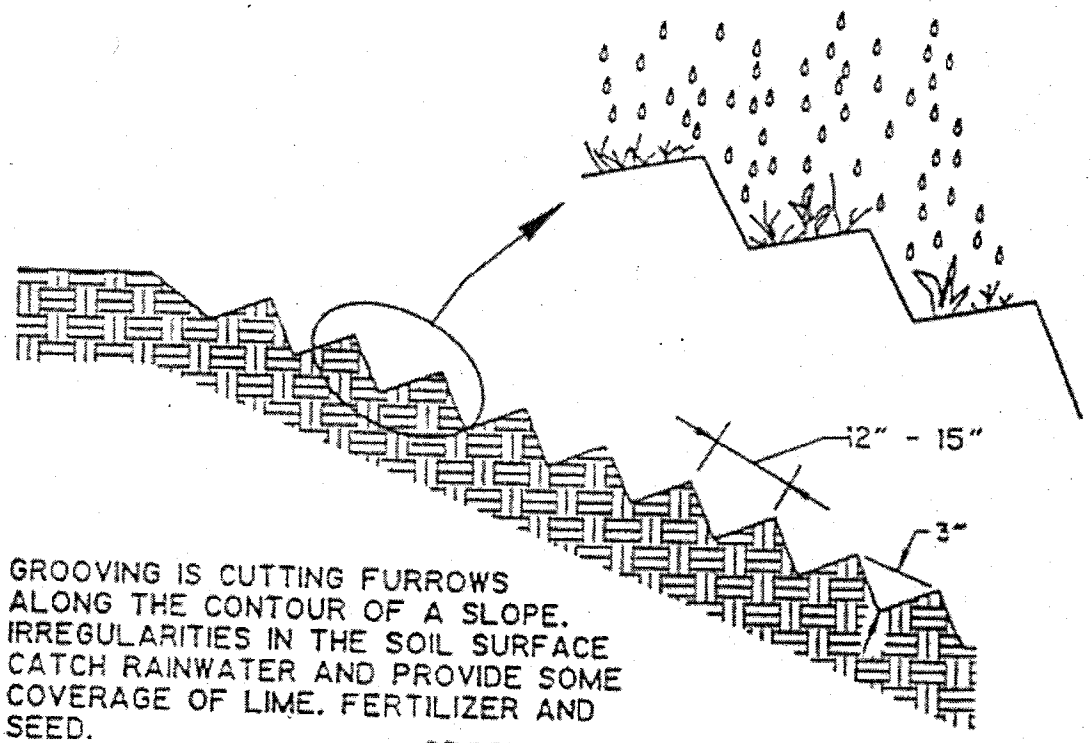
ESC42

Additional Information — Slope Roughening/Terracing



STAIR STEPPING CUT SLOPES



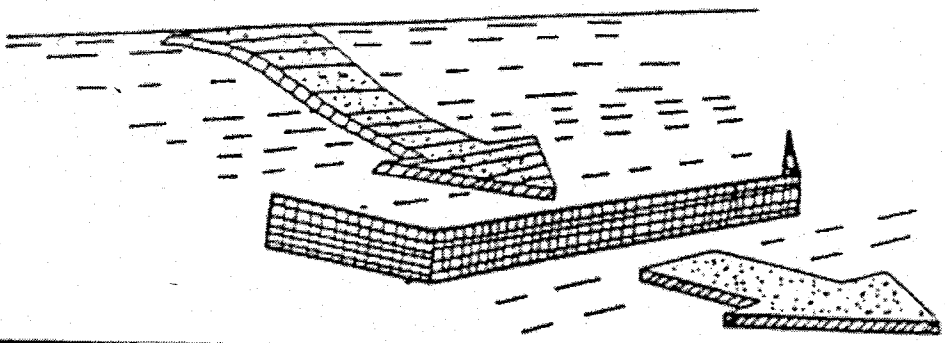
GROOVING IS CUTTING FURROWS ALONG THE CONTOUR OF A SLOPE. IRREGULARITIES IN THE SOIL SURFACE CATCH RAINWATER AND PROVIDE SOME COVERAGE OF LIME, FERTILIZER AND SEED.

GROOVING SLOPES

ESC42

STAIR-STEPPING CUT SLOPES AND GROOVING SLOPES

BMP: SILT FENCE



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- (Control Site Perimeter)
- (Control Internal Erosion)

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ◒ O&M Costs
- ◒ Maintenance
- ○ Training
- ○ Suitability for Slopes >5%

● High ○ Low

GENERAL DESCRIPTION

A silt fence is made of a filter fabric which has been entrenched, attached to supporting poles, and sometimes backed by a wire fence for support. The silt fence detains sediment-laden water, promoting sedimentation behind the fence.

SUITABLE APPLICATIONS

- Along the perimeter of the site.
- Below the toe of a cleared slope.
- Along streams and channels.
- Around temporary spoil areas.
- Across swales with catchments less than 1 acre.
- Below other small cleared areas.

INSTALLATION/APPLICATION

- Use principally in areas where sheet flow occurs.
- Install along a level contour, so water does not pond more than 1.5 feet at any point.
- No more than 1 acre, 100 ft., or 0.5 cfs of concentrated flow should drain to any point along the silt fence.
- Turn ends of fence uphill.
- Provide area behind the fence for runoff to pond and sediment to settle (approx. 1200 sq. ft. per acre draining to the silt fence).
- Select filter fabric which retains 85% of the soil, by weight, based on sieve analysis, but is not finer than an equivalent opening size of 70.

REQUIREMENTS

- Maintenance
  - Inspect weekly and after each rainfall.
  - Repair wherever fence is damaged.
  - Remove sediment when it reaches 1/3 the height of the fence.
- Cost (source: EPA, 1992)
  - Average annual cost for installation and maintenance (assumes 6 month useful life): $7 per lineal foot ($850 per drainage acre)

LIMITATIONS

- Do not use where 85% of the soil, by weight, passes through a No. 200 sieve because the filter fabric will clog.
- Do not place fence on a slope, or across any contour line.
- Do not use in streams, channels, or anywhere flow has concentrated.
- Do not use in locations where ponded water may cause flooding.

ESC50

Best Management Practices

Additional Information — Silt Fence

A silt fence is a temporary sediment barrier consisting of filter fabric stretched across and attached to supporting posts, entrenched, and, depending upon the strength of the fabric used, supported with wire fence. Silt fences trap sediment in two ways: (1) by intercepting and detaining small amounts of sediment from disturbed areas during construction operations in order to promote sedimentation behind the fence; and (2) by decreasing the velocity of low flows (up to 0.5 cfs) in swales.

Silt fences may be used for perimeter control, placed upstream of the point(s) of discharge of sheet flow from a site. They may also be used as interior controls below disturbed areas where runoff may occur in the form of sheet and rill erosion, and perpendicular to minor swales or ditch lines for up to one acre contributing drainage areas. Silt fences are generally ineffective in locations where the flow is concentrated and are only applicable for sheet or overland flows.

Installation/Application

Planning:

Silt fences are generally most effective when the following placement criteria are followed:

- Limit the upstream drainage area to 1 acre or less when used alone or in combination with sediment basin in a larger site.
- The maximum slope perpendicular to the fence line should be 1:1.
- Limit the maximum sheet or overland flow path length to any point along the fence to 100 feet.
- Limit the concentrated flows reaching the fence to 0.5 cfs.

Silt fences are preferable to straw barriers in many cases. Laboratory work at the Virginia Highway and Transportation Research Council has shown that silt fences can trap a much higher percentage of suspended sediments than can straw bales. While the failure rate of silt fences is lower than that of straw barriers, there are many instances where silt fences have been improperly installed. The following installation methods can improve performance and should be followed:

- Construct the silt fence along a level contour.
- Silt fences should remain in place until the disturbed area is permanently stabilized.
- Provide sufficient room for runoff to pond behind the fence and to allow sediment removal equipment to pass between the silt fence and toes of slopes or other obstructions. About 1200 sq. ft. of ponding area should be provided for every acre draining to the fence.
- Turn the ends of the filter fence uphill to prevent storm water from flowing around the fence.
- Leave an undisturbed or stabilized area immediately downslope from the fence.
- Do not place in live streams or intermittently flowing channels.

Design:

Selection of a filter fabric is based on soil conditions at the construction site (which affect the equivalent opening size (EOS) fabric specification) and characteristics of the support fence (which affect the choice of tensile strength). The designer should specify a filter fabric that retains the soil found on the construction site yet will have openings large enough to permit drainage and prevent clogging. The following criteria is recommended for selection of the equivalent opening size:

1. If 50 percent or less of the soil, by weight, will pass the U.S. standard sieve No. 200, select the EOS to retain 85 percent of the soil. The EOS should not be finer than EOS 70.
2. For all other soil types, the EOS should be no larger than the openings in the U.S. Standard Sieve No. 70 [0.0083 in. (0.21 mm.)] except where direct discharge to a stream, lake, or wetland will occur, then the EOS should be no larger than Standard Sieve No. 100.

ESC50

Additional Information — Silt Fence

To reduce the chance of clogging, it is preferable to specify a fabric with openings as large as allowed by the criteria. No fabric should be specified with an EOS smaller than U.S. Standard Sieve No. 100 [0.0059 in. (0.15 mm.)]. If 85 percent or more of a soil, by weight, passes through the openings in a No. 200 sieve [0.0029 in. (0.074 mm.)], filter fabric should not be used. Most of the particles in such a soil would not be retained if the EOS was too large, and they would clog the fabric quickly if the EOS was small enough to capture the soil.

The fence should be supported by a wire mesh if the fabric selected does not have sufficient strength and bursting strength characteristics for the planned application (as recommended by the fabric manufacturer). Filter fabric material should contain ultraviolet ray inhibitors and stabilizers to provide a minimum of six months of expected usable construction life at a temperature range of 0° F. to 120° F.

Installation Guidelines:
Filter fences are to be constructed on a level contour. Sufficient area should exist behind the fence for ponding to occur without flooding or overtopping the fence.

- Posts should be spaced a maximum of 6 feet apart and driven securely into the ground a minimum of 30 inches.
- A trench should be excavated approximately 8 inches wide and 12 inches deep along the line of posts and upslope from the barrier.
- When standard strength filter fabric is used, a wire mesh support fence should be fastened securely to the upslope side of the posts using heavy-duty wire staples at least 1 inch long, tie wires or hog rings. The wire should extend into the trench a minimum of 4 inches.
- The standard strength filter fabric should be stapled or wired to the fence, and 40 inches of the fabric should extend into the trench. When extra-strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated and the filter fabric stapled or wired directly to the posts.
- Avoid the use of joints. The filter fabric should be purchased in a continuous roll, then cut to the length of the barrier. When joints are necessary, filter cloth should be spliced together only at a support post, with a minimum 6 inch overlap, and both ends securely fastened to the post.
- The trench should be backfilled with compacted native material.

Requirements
Maintenance:

Inspect monthly during dry periods and immediately after each rainfall. Repair as necessary. Sediment must be removed when it reaches approximately one third the height of the fence, especially if heavy rains are expected.

Filter fences should not be removed until the upslope area has been permanently stabilized.

Limitations
- Filter fences will create a temporary sedimentation pond on the upstream side of the fence and may cause temporary flooding. Fences not constructed on a level contour will be overtopped by concentrated flow resulting in failure of the filter fence.
- Filter fences are not practical where large flows of water are involved, hence the need to restrict their use to drainage areas of one acre or less, and flow rates of less than 0.5 cfs.
- Problems may arise from incorrect selection of pore size and/or improper installation.
- Do not allow water depth to exceed 1.5 ft. at any point.
- Improperly installed fences are subject to failure from undercutting, overlapping, or collapsing.

ESC50

Additional Information — Silt Fence

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

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Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, Jun 1981.

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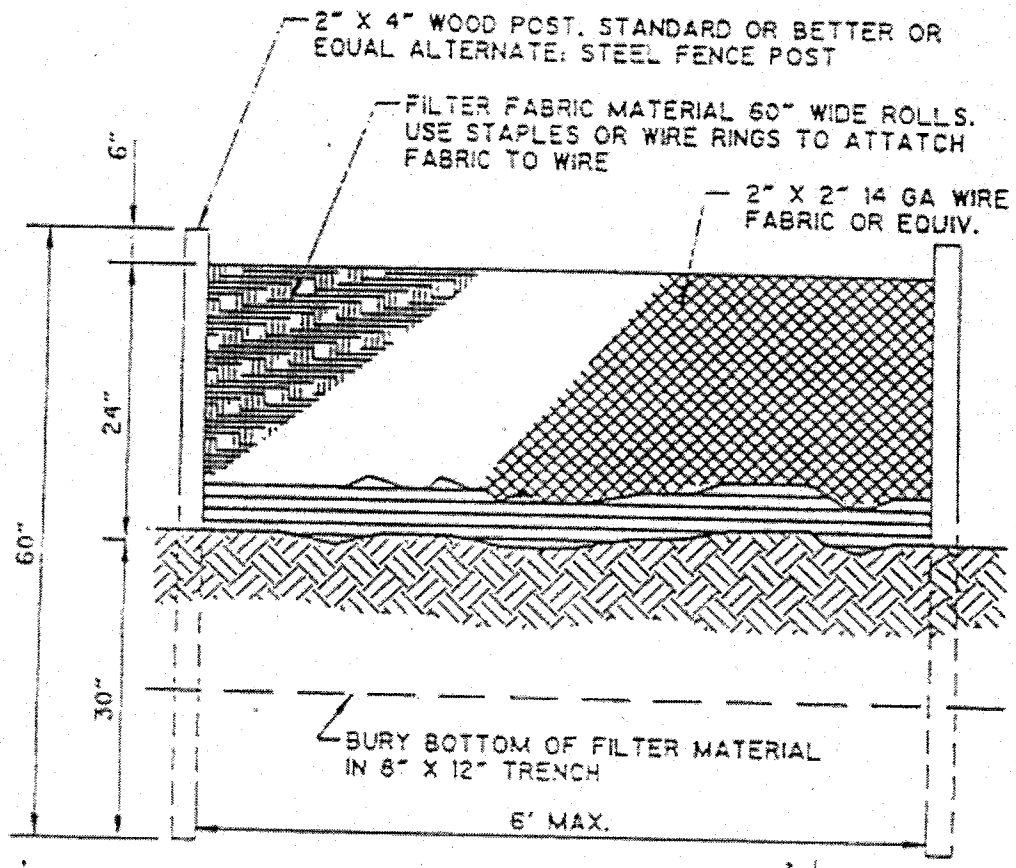
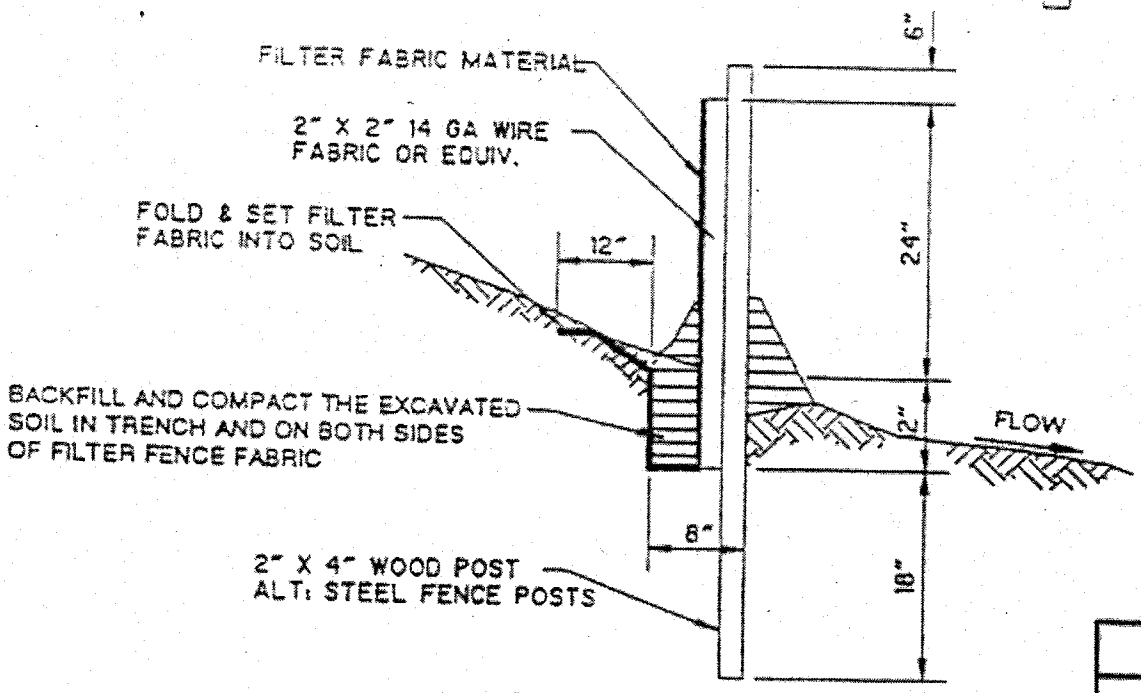
ESC50

Additional Information — Silt Fence

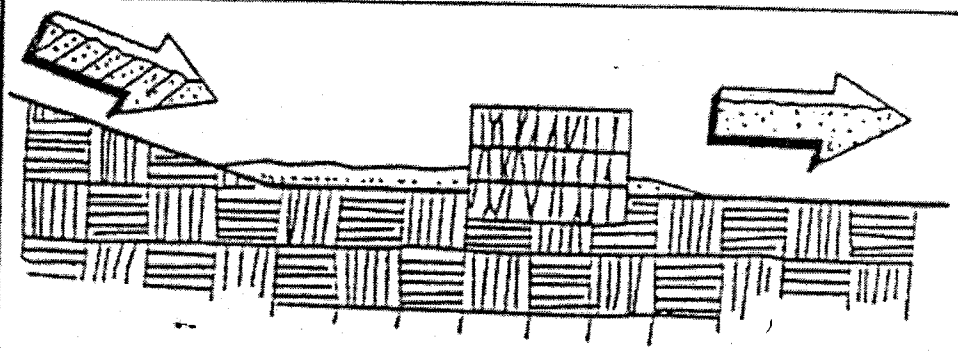




SILT FENCE

ESC50

BMP: STRAW BALE BARRIERS



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- (Control Site Perimeter)
- (Control Internal Erosion)

GENERAL DEFINITION

A straw bale barrier consists of straw bales placed end to end along a level contour in a shallow trench and staked to hold them in place. The barrier detains runoff, creating a pond behind the barrier where sedimentation occurs.

SUITABLE APPLICATIONS

- Along the perimeter of the site.
- Along streams and channels.
- Across swales with small catchments.
- Around temporary spoil areas.
- Below other small, cleared areas.

INSTALLATION/APPLICATION CRITERIA

- Use primarily in areas where sheet or rill flow occurs.
- No more than 1/4 acre per 100 feet of barrier should drain to the barrier.
- Install along a level contour.
- Place in a 4-inch deep trench.
- Backfill and compact the excavated soil on the upstream face of the barrier.
- Secure each bale with two stakes.
- Leave enough area (about 1200 sq. ft. per acre) behind the barrier for runoff to pond (no more than 1.5 ft. depth) and sediment to settle.

REQUIREMENTS

- Maintenance
  - Inspect weekly and after each rain.
  - Replace bales which have decomposed or whose bindings have broken.
  - Remove sediment behind the barrier when it reaches a depth of 6 inches.
- Costs (source: EPA, 1992)
  - Average annual cost for installation and maintenance (assumes 3 month useful life): $17 per lineal foot ($6,800 per drainage acre).

LIMITATIONS

- Straw bale barriers are not to be used for extended periods of time because they tend to rot and fall apart.
- Suitable only for sheet flow on slopes of 2% or flatter.
- Not appropriate for large drainage areas, limit to one acre or less.
- Straw bales lose their effectiveness rapidly due to rotting, thus constant maintenance is required.
- Not recommended for concentrated flow, inlet protection, channel flow, and live streams.
- Bale bindings of jute or cotton not recommended.

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ● Capital Costs
- ● O&M Costs
- ● Maintenance
- ○ Training
- ○ Suitability for Slopes >5%

● High ○ Low

ESC51

Best Management Practices

- Straw bale barriers have not been as effective as expected due to improper use. These barriers have been placed in streams and drainageways where runoff volumes and velocities have caused the barriers to wash out. In addition, failure to stake and entrench the straw bale has allowed undercutting and end flow.

ESC51

Additional Information — Straw Bale Barrier

A straw bale barrier consists of a series of secured anchored bales placed to intercept sediment-laden runoff from small drainage areas of disturbed soil. The barrier ponds runoff and allow sediment to settle. Straw bale dikes should not be used for extended periods of time because they tend to rot and fall apart.

The straw bale barrier is used where there are no concentrations of water in a channel or drainageway, and where erosion would occur from sheet flow. These barriers are typically constructed below disturbed areas subject to sheet flow of runoff.

Installation/Application

Straw bale barriers should be used for drainage areas no more than 1/4 acre per 100 feet of barrier length, with no more than 100 ft upstream of any point along the barrier. The barrier should be placed along a level contour no greater than 2:1. When installed and maintained according to the guidelines on this fact sheet, straw bale dikes remove approximately 67% of the sediment transported in construction site runoff. This optimum efficiency can only be achieved through careful maintenance, with special attention to replacing rotted or broken bales. The barrier should be constructed on a level contour to prevent concentration of flow against a small portion of the barrier.

An effective straw bale barrier should be installed in the following manner:

1. Bales should be placed on the contour and in a row with ends tightly abutting the adjacent bales.
2. Leave area for runoff to pond upstream of the barrier by locating barrier away from the toe of slopes. This also provides access for maintenance.
3. Each bale should be embedded in the soil a minimum of (4) inches and placed so the bindings are horizontal. Bindings placed on soil will soon disintegrate and cause the barrier to fail.
4. Bales should be securely anchored in place by either two stakes or re-bars driven through the bale. The first stake in each bale should be driven toward the previously laid bale at an angle to force the bales together. Stakes should be driven flush with the bale.
5. Backfill and compact the excavated soil along the upstream face of the barrier.
6. Remove the barrier when it has served its usefulness so as not to block or impede storm flow or drainage.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

"Draft - Sedimentation and Erosion Control, An Inventory of Current Practices", U.S.E.P.A., April, 1990.

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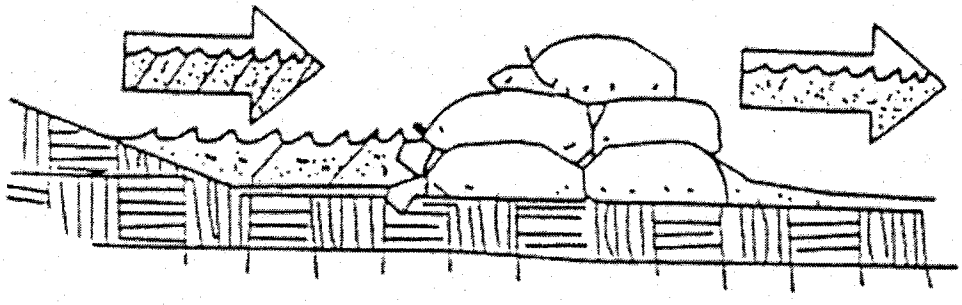
ESC51

BMP: SAND BAG BARRIER



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- (Protect Slopes/Channels)
- (Control Site Perimeter)
- (Control Internal Erosion)

GENERAL DEFINITION

Stacking sand bags along a level contour creates a barrier which detains sediment-laden water, ponding water upstream of the barrier and promoting sedimentation.

SUITABLE APPLICATIONS

- Along the perimeter of the site.
- Check dams across streams and channels.
- Along streams and channels.
- Barrier for utility trenches in a channel.
- Across swales with small catchments.
- Division dike or berm.
- Below the toe of a cleared slope.
- Create a temporary sediment trap.
- Around temporary spoil areas.
- Below other small cleared areas.

INSTALLATION/APPLICATION CRITERIA

- May be used in drainage areas up to 5 acres.
- Install along a level contour.
- Base of sand bag barrier should be at least 48 inches wide.
- Height of sand bag barrier should be at least 18 inches high.
- 4 inch PVC pipe may be installed between the top layer of sand bags to drain large flood flows.
- Provide area behind barrier for runoff to pond and sediment to settle, size according to sediment trap BMP criteria (ESC55).
- Place below the toe of a slope.
- Use sand bags large enough and sturdy enough to withstand major flooding.

REQUIREMENTS

- Maintenance
  - Inspect after each rain.
  - Reshape or replace damaged sand bags immediately.
  - Remove sediment when it reaches six inches in depth.
- Cost
  - Sand bag barriers are more costly, but typically have a longer useful life than other barriers.

LIMITATIONS

- Sand bags are more expensive than other barriers, but also more durable.
- Burlap should not be used for sand bags.

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

- ● Likely to Have Significant Impact
- ○ Probable Low or Unknown Impact

Implementation Requirements

- ● Capital Costs
- ○ O&M Costs
- ○ Maintenance
- ○ Training
- ◒ Suitability for Slopes >5%

● High ○ Low

ESC52

Best Management Practices

Additional Information — Sand Bag Barrier

Suitable Applications

Sand bag berms may be used during construction activities in stream beds and utility construction in channels, temporary channel crossing for construction equipment, etc. Sand bag berms may also be installed parallel to roadway construction. Sand bag berms may also be used to create temporary sediment traps, retention basins and in place of straw bales or silt fences. Examples of applications include:

- Check dams across stream channels.
- Barriers for utility trenches or other construction in a stream channel.
- At temporary channel crossings.
- May be used on a slope where straw bales and silt fences are not appropriate.
- As a diversion dike.
- Embankment for a temporary sediment basin or retention basin.
- Sediment barriers near the toe of slopes.
- At construction perimeter.

Advantages

- Provides a semi-permeable barrier in potentially wet areas.
- More permanent than silt fences or straw bales.
- Allows for easy relocation on site to meet changing needs during construction.

Installation/Application

Sand bag barriers may be used for sediment trapping in locations where silt fences and straw bale barriers are not strong enough. In addition, sand bag barriers are appropriate to use when construction of check dams or sumps in a stream is undesirable. The sand bag berms can provide the same function as a check dam without disturbing the stream or vegetation. The sand bag berm will also allow a small sediment retention area to be created prior to construction of final detention basins. For installation of a sand bag berm, the following criteria should be observed:

- Drainage Area - Up to five (5) acres.
- Height of Berm - 18 inches minimum height, measured from the top of the existing ground at the upslope toe to the top of the barrier.
- Width of Berm - 48 inches minimum width measured at the bottom of the barrier; 18 inches at the top.
- Sand bag Size - Length 24 to 30 inches, width 16 to 18 inches and thickness six (6) to eight (8) inches. Weight 90 to 125 pounds.
- Sand bag Material - Polypropylene, polyethylene or polyamide woven fabric, minimum unit weight four (4) ounces per square yard, mullen burst strength exceeding 300 psi and ultraviolet stability exceeding 70 percent. Use of burlap is discouraged since it rots and deteriorates easily.
- Grade of Sand - Coarse sand, gravel.
- Runoff water should be allowed to flow over the tops of the sand bags or through four (4) inch polyvinyl chloride pipes embedded below the top layer of bags.
- Area behind the sand bag barrier should be established according to sizing criteria for sediment trap BMP (ESC55).

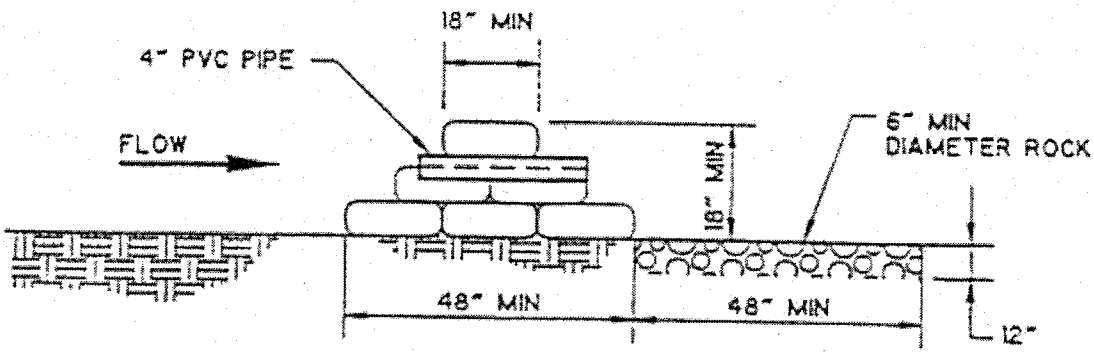
REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

Water Quality Management Plan for the Lake Tahoe Region, Volume II, Handbook of Management Practices, Tahoe Regional Planning Agency - November 1988.

ESC52

Additional Information — Sand Bag Barrier



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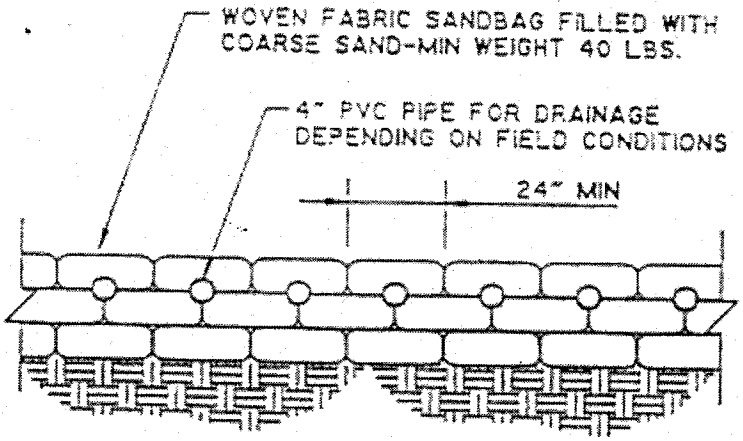
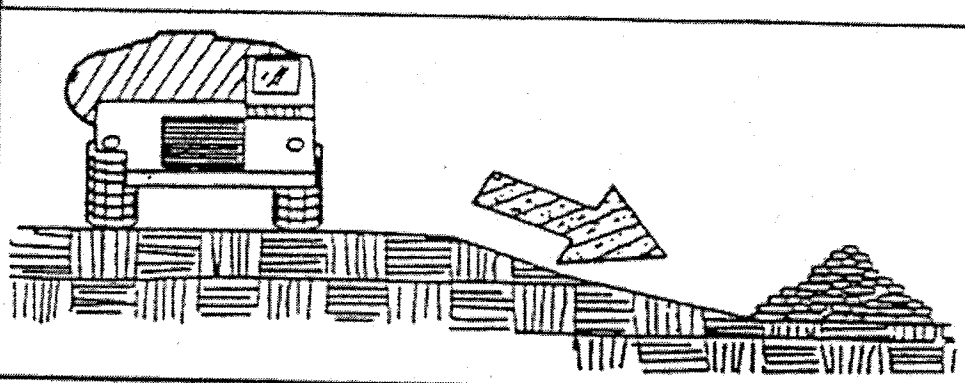


FRONT VIEW

SAND BAG BERM

ESC52

BMP: BRUSH OR ROCK FILTER



GENERAL DEFINITION

A rock filter berm is made of rock 3/4 to 3 inches in diameter and placed along a level contour where sheet flow may be detained and ponded, promoting sedimentation. A brush barrier is composed of brush (usually obtained during the site clearing) wrapped in filter cloth and anchored to the toe of the slope. If properly anchored brush or rock filters may be used for sediment trapping and velocity reduction. See Check Dam BMP (ESC41) for more information.

SUITABLE APPLICATIONS

- As check dams across mildly sloped construction roads.
- Below the toe of slopes.
- Along the site perimeter.
- Along streams and channels.
- Around temporary spoil areas.
- Below other small cleared areas.
- At sediment traps at culvert/pipe outlets.

INSTALLATION/APPLICATION CRITERIA

- Use principally in areas where sheet or rill flow occurs.
- For rock filter, use larger rock and place in a staked, woven wire sheathing if placed where concentrated flows occur.
- Install along a level contour.
- Leave area behind berm where runoff can pond and sediment can settle.
- Drainage area should not exceed 5 acres.

REQUIREMENTS

- Maintenance
  - Inspect monthly and after each rainfall.
  - If berm damaged, reshape and replace lost/dislodged rock.
  - Remove sediments when depth reaches 1/3 of berm height, or 1 ft.
- Cost
  - Brush filter: Low to moderate cost if debris from on-site clearing and grubbing is used.
  - Rock filter: Expensive, since off-site materials, hand construction and demolition/removal are usually required.

Objectives

- Housekeeping Practices
- Contain Wastes
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- (Protect Slopes/Channels)
- (Control Site Perimeter)
- (Control Internal Erosion)

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

● Likely to Have Significant Impact
○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ◒ O&M Costs
- ○ Maintenance
- ○ Training
- ◒ Suitability for Slopes >5%

● High ○ Low

ESC53

Best Management Practices

Additional Information — Brush or Rock Filter

Rock Filter

A rock filter consists of open graded rock installed at the toe of a slope, along the perimeter of a developing or disturbed area, and as a checkdam across construction roads. Their purpose is to intercept sediment laden runoff from disturbed areas of the site, allow the runoff to pond, promote sedimentation behind the filter, and slowly release the water as sheet flow.

Rock filters are appropriate where a temporary measure is needed to prevent sediments from entering right-of-ways of traffic areas such as near the toe of slopes, incorporated into temporary stabilized construction entrances (ESC 26), or at other locations along the construction site perimeter. Rock filters may also be used as check dams across one or more lanes of construction traffic temporary roads, or unsurfaced rights of way subject to construction traffic.

Advantages of the rock filters are that they may be less costly than other temporary barriers, and are relatively efficient at sediment removal.

Installation/Application:

Planning:

- Rock filters should be placed along a level contour to intercept sheet flow.
- Allow ample room for ponding, sedimentation, and access by sediment removal equipment between the berm and the toes of slopes.
- Flow through the filter should occur as sheet flow into an undisturbed or stabilized area.
- Installation in stream beds requires large rock, staking of woven wire sheathing, and daily inspection.

Design & Sizing Criteria:

The following design criteria are commonly used to construct filters:

- In Non-Traffic Areas:
  - Maximum flow-through rate per square foot of filter = 60 gpm
  - Height = 18 inches minimum
  - Top width = 24 inches minimum
  - Side slopes = 2:1 or flatter
  - Woven wire sheathing (poultry netting) is recommended in areas of concentrated flow. The wire should be 1 inch diameter hexagonal mesh, galvanized 20 gauge.
  - Build the filter along on a level contour.
  - Rock: 3/4 to 3 inches open graded for sheet flow, 3 to 5 inches open graded for concentrated flow.

- In Construction Traffic Areas:
  - Height = 12" maximum
  - Provide multiple filters in series, spaced as shown.
    - Every 300 ft on slopes less than 5 percent
    - Every 200 ft on slopes 5 to 10 percent
    - Every 100 ft on slopes greater than 10 percent.

Brush Filter

Brush filters trap and filter sediments in a manner similar to other barriers in this handbook (e.g., silt fence, straw bale barrier, rock filter), but have the advantage of being constructed from brush cleared from the site and usually disposed off-site at a cost.

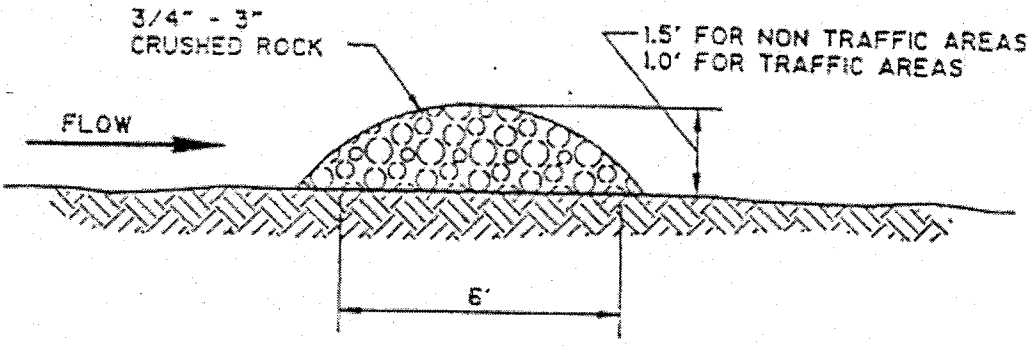
ESC53

LIMITATIONS

- Rock berms may be difficult to remove.
- Removal problems limit their usefulness in landscaped areas.
- Not appropriate for drainage areas greater than 5 acres.
- Runoff will pond upstream of the filter, possibly causing flooding if sufficient space does not exist.

ESC53

Additional Information — Brush or Rock Filter



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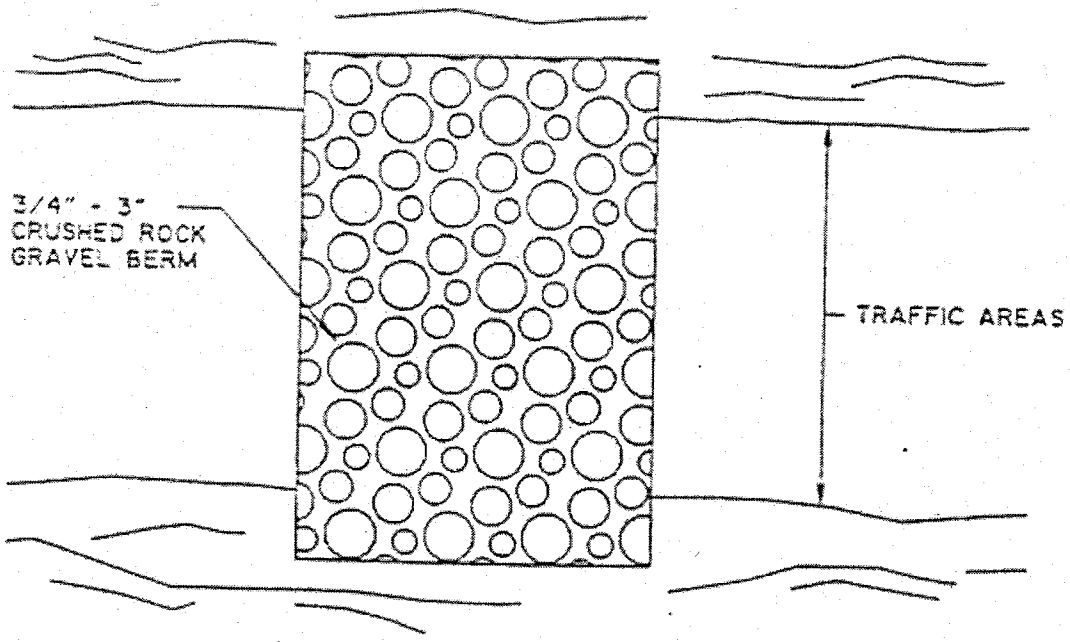


PLAN

GRAVEL FILTER BERM

ESC53

Additional Information — Brush or Rock Filter

Steps in Construction of a Brush Filter:

1. Stack the brush at the toe of a slope or along the perimeter of the site just outside the limits of clearing and grubbing. The brush may be stacked up to 15 ft. high and 15 ft. wide.
2. Construct a trench 1 to 3 ft. deep immediately upslope from the brush.
3. Place filter fabric over the brush filter and in the trench, extending 1 to 2 ft. upslope of the trench.
4. Backfill the trench with aggregate or compacted soil. The trench should be deep enough and backfill material sufficient to hold the barrier in place during a storm.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona. September1992.

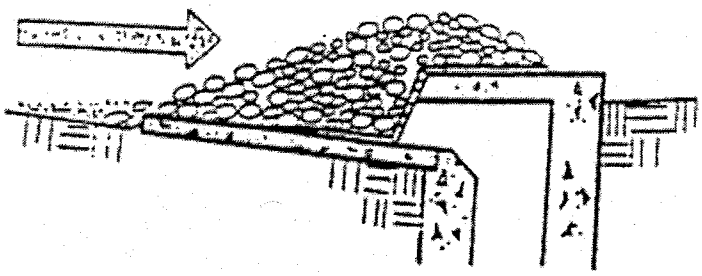
Handbook of Steel Drainage & Highway Construction, American Iron and Steel Institute, 1983.

Stormwater Management Water for the Puget Sound Basin, Washington State Department of Ecology, The Technical Manual - February 1992, Publication # 91-75.

Storm Water Pollution Plan Handbook, First Edition, State of California, Department of Transportation Division of New Technology, Materials and Research, October 1992.

ESC53

BMP: STORM DRAIN INLET PROTECTION



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabilize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- Control Internal Erosion

GENERAL DEFINITION

Devices of various designs which detain sediment-laden runoff and allow the sediment it to settle prior to discharge into a storm drain inlet or catch basin.

SUITABLE APPLICATIONS

- Every storm drain inlet receiving sediment-laden runoff should be protected, either by covering the inlet or promoting sedimentation upstream of the inlet.

INSTALLATION/APPLICATION

- Five types of inlet protection are presented below, however, it is recognized that other effective methods and proprietary device, exist and may be selected:
  - Filter Fabric Fence: Appropriate for drainage basins less than one acre with less than a 5 percent slope.
  - Block and Gravel Filter: Appropriate for flows greater than 0.5 cfs.
  - Gravel and Wire Mesh Filter: Used on curb or drop inlets where construction equipment may drive over the inlet.
  - Sand bag barrier: Used to create a small sediment trap upstream of inlets on sloped, paved streets.
  - Excavated Drop Inlet Sediment Trap: An excavated area around the inlet to trap sediment (see Sediment Trap ESC 55).
- Select the appropriate type of inlet protection and design as referred to or as described in this fact sheet.
- Use only for drainage areas smaller than one acre unless a sediment trap first intercepts the runoff.
- Provide area around the inlet for water to pond without flooding structures and property.

REQUIREMENTS

- Maintenance
  - Inspect weekly and after each rain.
  - Replace clogged filter fabric or stone filters immediately.
  - Remove sediment when depth exceeds half the height of the filter, or half the depth of the sediment trap.
  - Remove as soon as upstream soils are stabilized and streets are swept.
- Cost (source: EPA, 1992)
  - Average annual cost for installation and maintenance (1 year useful life) is $150 per inlet.

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ○ Toxic Materials
- ○ Oil & Grease
- ◒ Floatable Materials
- ○ Other Construction Waste

- ● Likely to Have Significant Impact
- ○ Probable Low or Unknown Impact

Implementation Requirements

- ◒ Capital Costs
- ○ O&M Costs
- ◒ Maintenance
- ○ Training
- ○ Suitability for Slopes >5%

● High ○ Low

ESC54

Best Management Practices

LIMITATIONS

- Drainage area should not exceed 1 acre.
- Runoff will bypass protected inlets on slopes.
- Ponding will occur at a protected inlet, with possible short-term flooding.
- Straw bales are not effective for inlet protection.

ESC54

Additional Information — Storm Drain Inlet Protection

Storm drain inlet protection consists of a sediment filter or an impounding area around or upstream of a storm drain, drop inlet, or curb inlet. This erosion and sedimentation control BMP prevents excessive sediment from entering storm drainage systems prior to permanent stabilization of the disturbed area.

All on-site storm drain inlets should be protected. Off-site, inlets should be protected in areas where construction activity tracks sediment onto paved areas or where inlets receive runoff from disturbed areas.

Installation/Application Criteria

Planning

Large amounts of sediment may enter the storm drain system when storm drains are installed before the upslope drainage area is stabilized, or where construction is adjacent to an existing storm drain. In cases of extreme sediment loading, the storm drain itself may clog and lose a major portion of its capacity. To avoid these problems, it is necessary to prevent sediment from entering the system at the inlets.

Inlet control measures presented in this handbook should not be used for inlets draining more than one acre. Runoff from larger disturbed areas should be first routed through a Temporary Sediment Trap (see ESC 56). Different types of inlet protection are appropriate for different applications depending on site conditions and the type of inlet. Inlet protection methods not presented in this handbook should be approved by the local storm water management agency.

General Design and sizing criteria:

- Grates and spaces around all inlets should be sealed to prevent seepage of sediment-laden water.
- Excavate sediment sumps (where needed)1 to 2 feet with 2:1 side slopes around the inlet.

Installation procedures for filter fabric fence:

a. Place 2 inch by 2 inch wooden stakes around the perimeter of the inlet a maximum of 3 feet apart and drive them at least 8 inches into the ground. The stakes must be at least 3 feet long.
b. Excavate a trench approximately 8 inches wide and 12 inches deep around the outside perimeter of the stakes.
c. Staple the filter fabric (for materials and specifications, see Silt Fence ESC 50) to wooden stakes so that 32 inches of the fabric extends out and can be formed into the trench. Use heavy-duty wire staples at least one inch in length.
d. Backfill the trench with 3/4 inch or less washed gravel all the way around.

Installation procedure for block and gravel filter:

a. Place hardware cloth or comparable wire mesh with one-half inch openings over the drop inlet so that the wire extends a minimum of 1 foot beyond each side of the inlet structure. If more than one strip is necessary, overlap the strips. Place filter fabric over the wire mesh.
b. Place concrete blocks lengthwise on their sides in a single row around the perimeter of the inlet, so that the open ends face outward, not upward. The ends of adjacent blocks should abut. The height of the barrier can be varied, depending on design needs, by stacking combinations of blocks that are 4 inches, 8 inches, and 12 inches wide. The row of blocks should be at least 12 inches but no greater than 24 inches high.
c. Place wire mesh over the outside vertical face (open end) of the concrete blocks to prevent stone from being washed through the blocks. Use hardware cloth or comparable wire mesh with one half inch openings.
d. Pile washed stone against the wire mesh to the top of the blocks. Use 3/4 to 3 inch gravel.

Installation procedure for gravel and wire mesh filters:

a. Place wire mesh over the drop inlet so that the wire extends a minimum of 1 foot beyond each side of the inlet structure. Use hardware cloth or comparable wire mesh with one-half inch openings. If more than one strip of mesh is necessary, overlap the strips. Place filter fabric over wire mesh.

ESC54

b. Place 3/4 to 3 inch gravel over the filter fabric/wire mesh. The depth of the gravel should be at least 12 inches over the entire inlet opening (see attached figure).

Installation procedure for sand bag barrier:

a. Use sand bag made of geotextile fabric (not burlap), and fill with 3/4 in. rock or 1/4 in. pea gravel.
b. Construct on gently sloping street.
c. Leave room upstream of barrier for water to pond and sediment to settle.
d. Place several layers of sand bags—overlapping the bags and packing them tightly together.
e. Leave gap of one bag on the top row to serve as a spillway. Flow from a severe storm (e.g., 10-year storm) should not overtop the curb.

Maintenance Requirements

- For filter fabric fences: Inspections should be made on a regular basis, especially after large storm events. If the fabric becomes clogged, it should be replaced. Sediment should be removed when it reaches approximately one-half the height of the fence. If a sump is used, sediment should be removed when it fills approximately one-half the depth of the hole.
- For gravel filters: If the gravel becomes clogged with sediment, it must be carefully removed from the inlet, and either cleaned or replaced. Since cleaning gravel at a construction site may be difficult, use the sediment-laden stone instead as fill and put fresh stone around the inlet.
- The inlet protection should be removed 30 days after the upslope area has been fully stabilized. Any sediment around the inlet must be carefully removed and disposed.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Arizona, September 1992.

"Draft - Sedimentation and Erosion Control, An Inventory of Current Practices", U.S.E.P.A., April, 1990.

Erosion and Sediment Control Handbook, S.J. Goldman, K. Jackson, T.A. Bursetynsky, P.E., McGraw Hill Book Company.

Manual of Standards of Erosion and Sediment Control Measures, Association of Bay Area Governments, June 1981.

Proposed Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters, Work Group Working Paper, USEPA, April, 1992.

Stormwater Management Water for the Puget Sound Basin, Washington State Department of Ecology, The Technical Manual - February 1992, Publication # 91-75.

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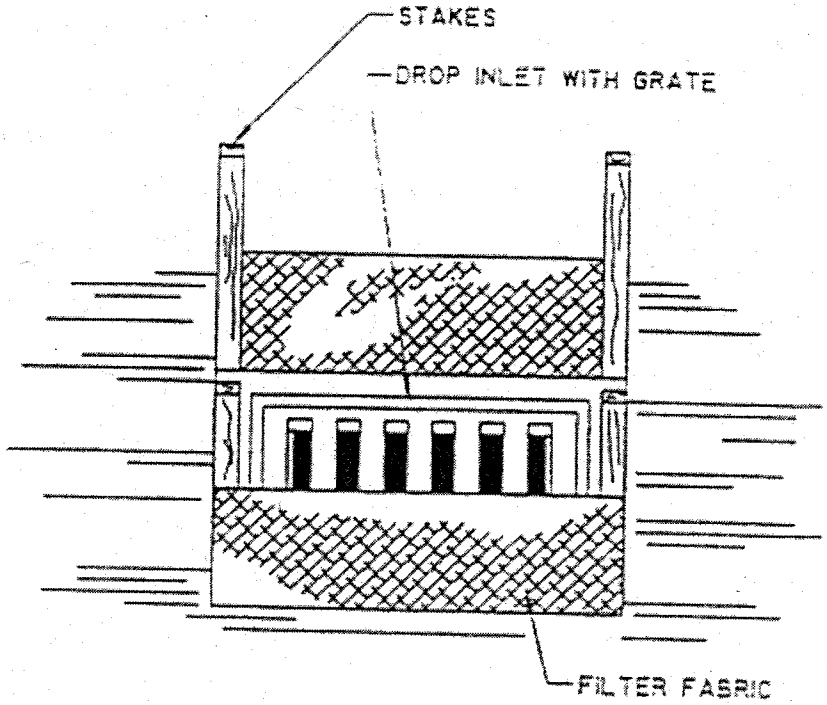
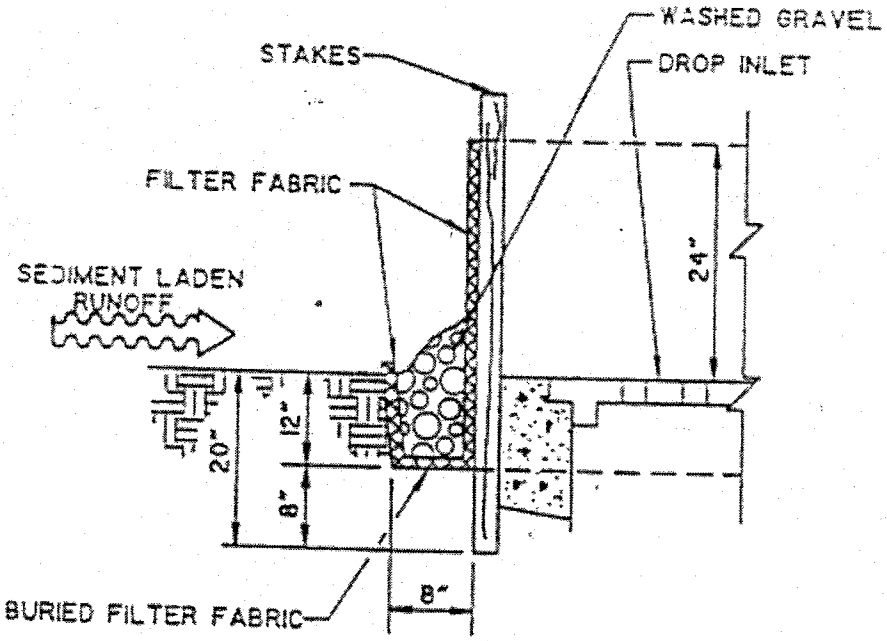
ESC54

Additional Information — Storm Drain Inlet Protection



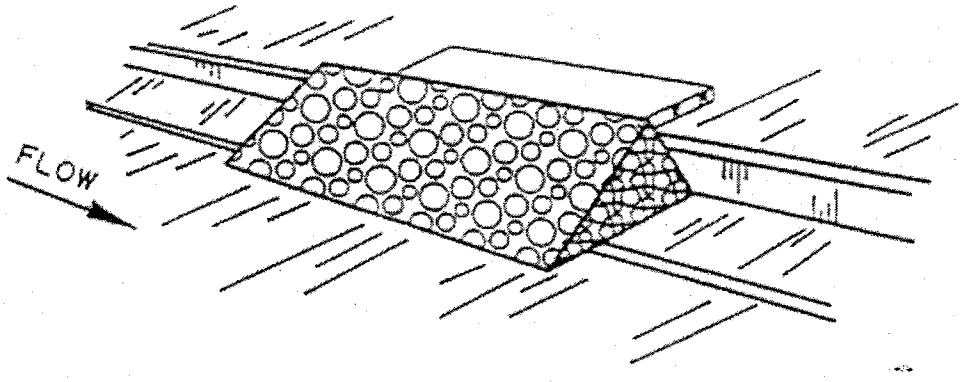
ELEVATION

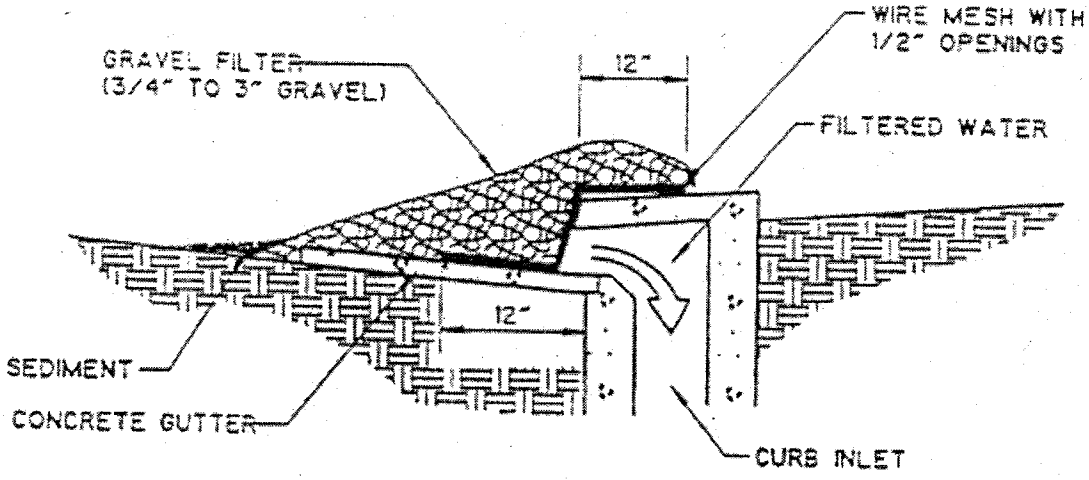


PROFILE

FILTER FABRIC FENCE DROP INLET FILTER

ESC54

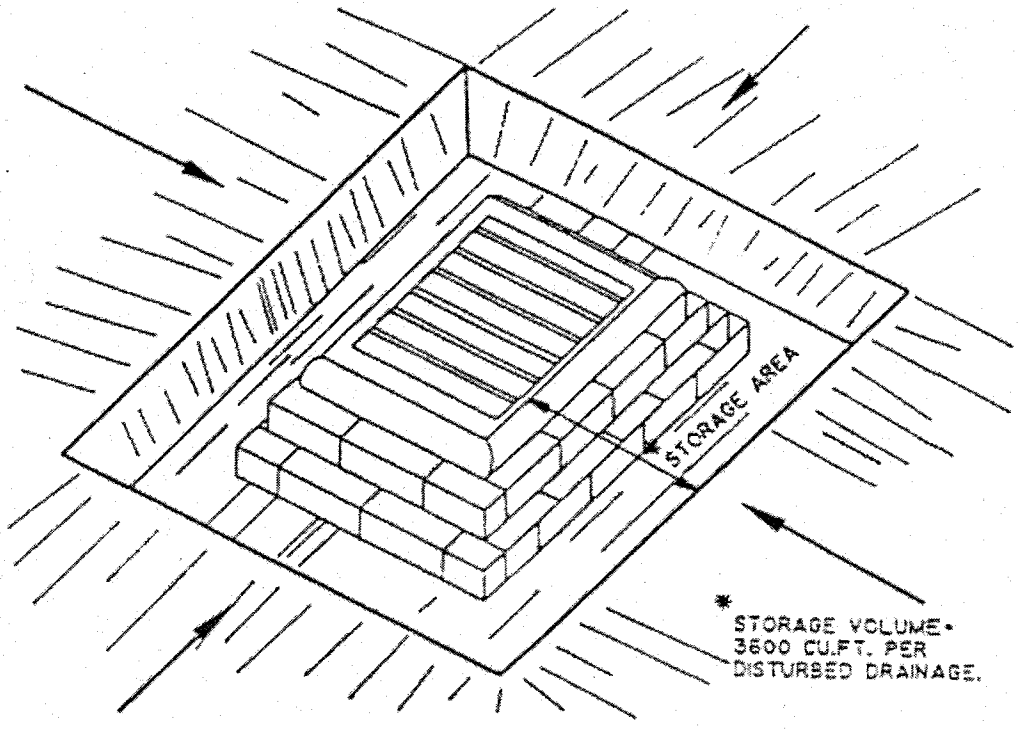


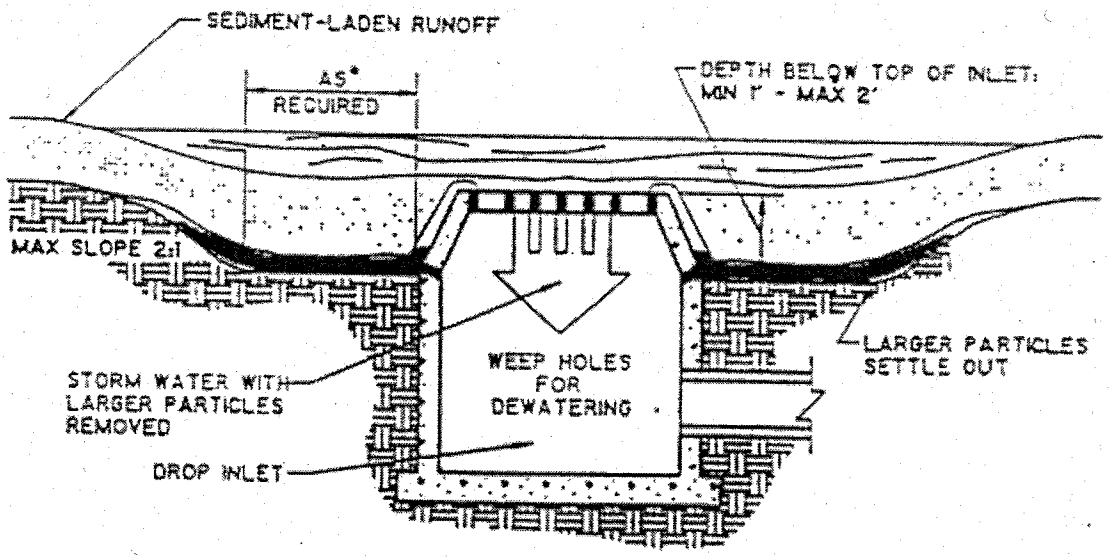


GRAVEL AND WIRE MESH FILTER FOR CURB INLET

ESC54

Additional Information — Storm Drain Inlet Protection





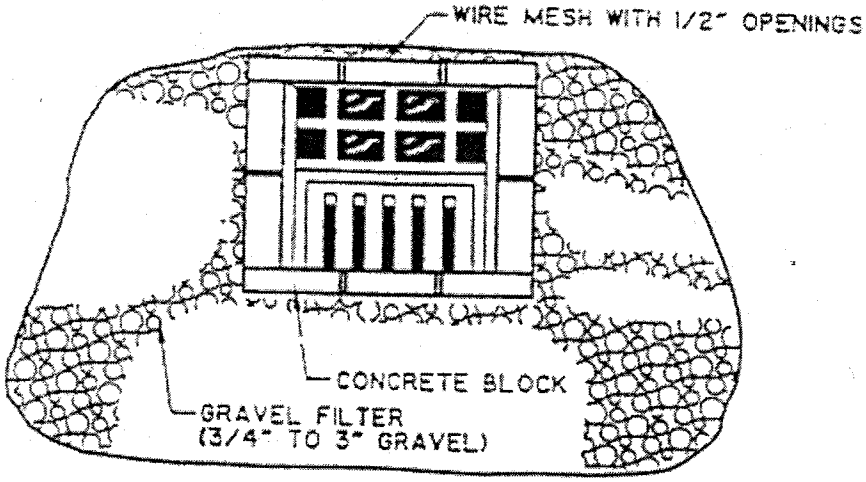
SPECIFIC APPLICATION

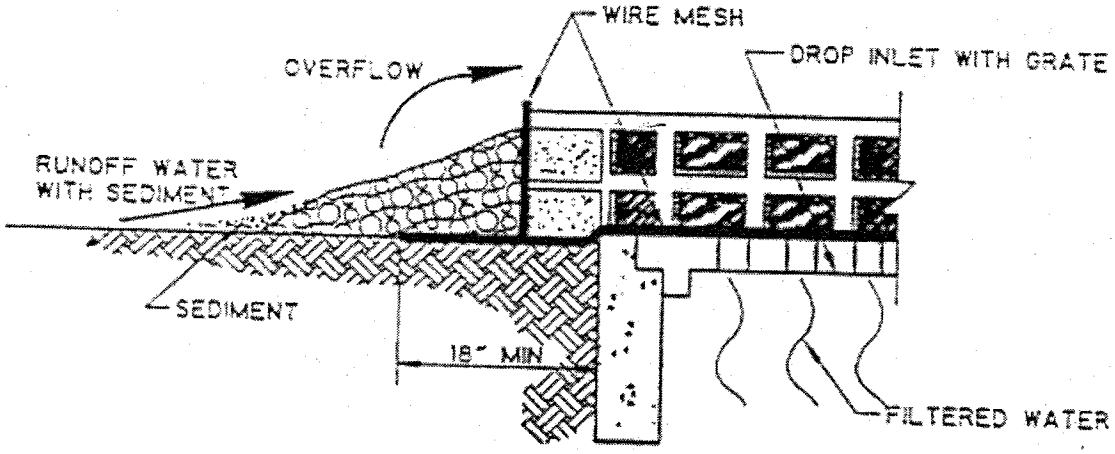
THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPABILITY AND EASE OF MAINTENANCE ARE DESIRABLE.

EXCAVATED DROP INLET SEDIMENT TRAP

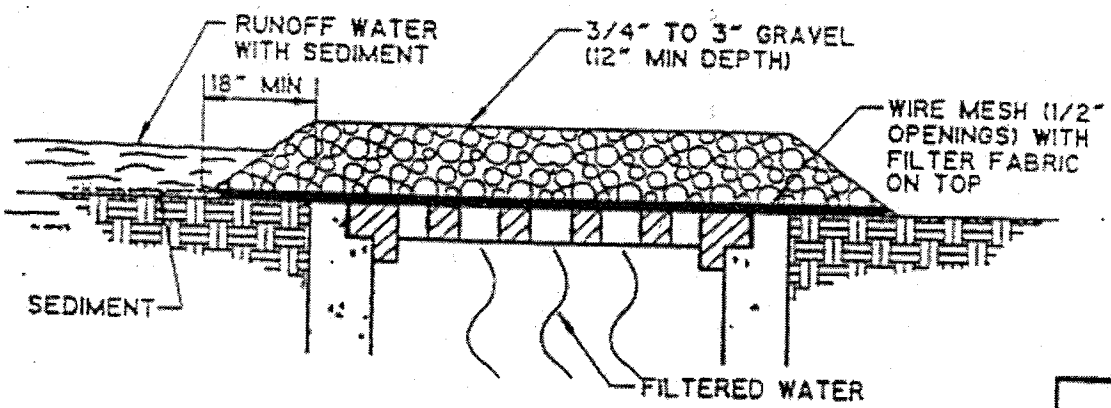
ESC54

Additional Information — Storm Drain Inlet Protection





BLOCK AND GRAVEL FILTER AT DROP INLET



GRAVEL AND WIRE MESH FILTER
FOR DROP INLET

ESC54

Additional Information — Sediment Trap

A sediment trap is a small temporary ponding area, usually with a gravel outlet, formed by excavation and/or by constructing an earthen embankment. Its purpose is to collect and store sediment from sites cleared and/or graded during construction. It is intended for use on small drainage areas, with no unusual drainage features, and projected for a quick build-out time. It should help in removing coarse sediment from runoff. The trap is a temporary measure with a design life of approximately 6 months, and is to be maintained until the site area is permanently protected against erosion by vegetation and/or structures.

Application Criteria

Planning:

Sediment traps should be used only for small drainage areas. If the contributing drainage area is greater than 5 acres, refer to Sediment Basins (ST8), or subdivide the catchment area into smaller drainage basins.

Sediment usually must be removed from the trap after each rainfall event. The SWPPP should detail how this sediment is to be disposed of, such as for in fill areas on-site, or removal to an approved off-site dump. Sediment traps used as a perimeter control should be installed before any land disturbance takes place in the drainage area.

Sediment traps are usually small enough that a failure of the structure would not result in a loss of life, damage to home or buildings, or interruption in the use of public roads or utilities. Also, sediment traps are attractive to children and can be dangerous. The following recommendations should be implemented to reduce risks.

1. Install continuous fencing around the sediment trap or pond. Consult local ordinances regarding requirements for maintaining health and safety.
2. Restrict basin side slopes to 3:1 or flatter.

Design:

Sediment trap size depends on the type of soil, size of the drainage area, and desired sediment removal efficiency (see Sedimentation Basin ESC56). As a rule of thumb, the larger the basin volume the greater the sediment removal efficiency Sizing criteria are typically established under the local grading ordinance or equivalent. The runoff volume from a two-year, 24-hour storm is a common design criteria for sedimentation trap. The sizing criteria below assume that this runoff volume is 0.042 ac-ft/ac (0.5 inches of runoff). While the climatic, topographic, and soil type extremes make it difficult to establish a statewide standard, the following criteria should trap moderate to high amounts of sediment in most areas of California.

- Trap settling volume at least 67 cu. yd. per acre.
- Trap sediment storage volume at least 33 cu. yd. per acre (note: the larger this volume, the less frequently the trap must be cleaned out).
- Trap length greater than twice the basin width.
- Flood volume large enough to contain a major flood without upstream damage and overtopping the embankment.

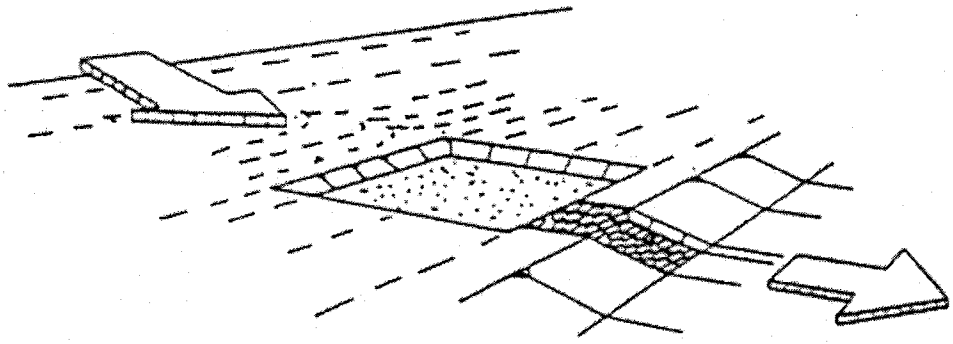
Installation

Sediment traps can be constructed by excavating a depression in the ground or creating an impoundment with a barrier or low-head dam. Sediment traps should be installed outside the area being graded and should be built prior to the start of the grading activities or removal of vegetation. To minimize the area disturbed by them, sediment traps should be installed in natural depressions or in small swales or drainageways. The following steps must be followed during installation.

1. The area under the embankment must be cleared, grubbed, and stripped of any vegetation and root mat. The pool area should be cleared.
2. The fill material for the embankment must be free of roots or other woody vegetation as well as oversized stones, rocks, organic material, or other objectionable material. The embankment may be compacted by traversing with equipment while it is being constructed.

ESC55

BMP: SEDIMENT TRAP



Objectives

- *Housekeeping Practices*
- *Contain Waste*
- *Minimize Disturbed Areas*
- *Stabilize Disturbed Areas*
- *Protect Slopes/Channels*
- *Control Site Perimeter*
- *Control Internal Erosion*

GENERAL DEFINITION

A sediment trap is a small, excavated or bermed area where runoff from small drainage areas is detained and sediment can settle.

SUITABLE APPLICATIONS

- Any disturbed area less than 5 acres. (Sediment Basins, ESC56, must be used for drainage areas greater than 5 acres).
- Along the perimeter of the site at locations where sediment-laden runoff is discharged off-site.
- Around and/or upslope from storm drain inlet protection measures.
- At any point within the site where sediment-laden runoff can enter stabilized or natural areas or waterways.

INSTALLATION/APPLICATION CRITERIA

- Build outside the area to be graded before clearing, grubbing, and grading begin.
- Locate where the trap can be easily cleared of sediment.
- Trap size depends on the type of soil, size of the drainage area, and desired sediment removal efficiency.
- The larger the trap, the less frequently sediment must be removed.
- The outlet of the trap must be stabilized with rock, vegetation, or another suitable material.
- A stable emergency spillway must be installed to safely convey major floods (see your local flood control agency).

REQUIREMENTS

- Maintenance
  - Remove sediment when the sediment storage zone is no more than 1 ft. from being full.
  - Inspect weekly and after each rain.
- Cost (source: EPA, 1992)
  - Average annual cost per installation and maintenance (18 month useful life) is $0.70 per ft.^{3} ($1,300 per drainage acre).

LIMITATIONS

- Only use for drainage areas up to 5 acres (see Sedimentation Basin BMP ST8 for larger areas).
- Only removes coarse sediment (medium silt size and larger) unless sized like a sedimentation basin.

Targeted Pollutants

- ● *Sediment*
- ○ *Nutrients*
- ◒ *Toxic Materials*
- ○ *Oil & Grease*
- ○ *Floatable Materials*
- ○ *Other Construction Waste*

- ● *Likely to Have Significant Impact*
- ○ *Probable Low or Unknown Impact*

Implementation Requirements

- ○ *Capital Costs*
- ◒ *O&M Costs*
- ○ *Maintenance*
- ○ *Training*
- ○ *Suitability for Slopes >5%*

● *High* ○ *Low*

ESC 55

Best Management Practices

Additional Information — Sediment Trap

3. The trap is removed and the area stabilized when the upslope drainage area has been properly stabilized.
4. All cut-and-fill slopes should be 3:1 or flatter.
5. When a riser is used, all pipe joints must be watertight.
6. When a riser is used, at least the top two-thirds of the riser shall be perforated with 1/2-inch diameter holes spaced 8 inches vertically and 10 to 12 inches horizontally. (See Sediment Basin, ESC56)
7. When an earth or stone outlet is used, the outlet crest elevation should be at least 1 foot below the top of the embankment.
8. When a crushed stone outlet is used, the crushed stone used in the outlet should meet AASHTO M43, size No. 2 or 24, or its equivalent such as MSHA No. 2. Gravel meeting the above gradation may be used if crushed stone is not available.

REFERENCES

Best Management Practices and Erosion Control Manual for Construction Sites, Flood Control District of Maricopa County, Rough Draft - July 1992.

"Draft - Sedimentation and Erosion Control, An Inventory of Current Practices", U.S.E.P.A., April, 1990.

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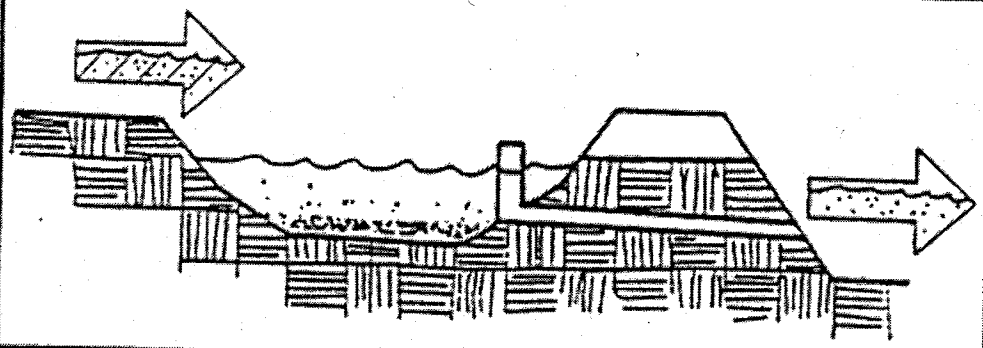
ESC55

BMP: SEDIMENT BASIN



Objectives

- Housekeeping Practices
- Contain Waste
- Minimize Disturbed Areas
- Stabalize Disturbed Areas
- Protect Slopes/Channels
- Control Site Perimeter
- (Control Internal Erosion)

GENERAL DEFINITION

A pond created by excavation or constructing an embankment, and designed to retain or detain runoff sufficiently to allow excessive sediment to settle.

SUITABLE APPLICATIONS

- At the outlet of all disturbed watershed 10 acres or larger.
- At the outlet of smaller disturbed watersheds, as necessary.
- Where post construction detention basins will be located.
- Should be used in association with dikes, temporary channels, and pipes used to divert disturbed areas into the basin and undisturbed areas around the basin.

INSTALLATION/APPLICATION

- Construct before clearing and grading work begins
- Do not locate in a stream.
- All basin sites should be located where failure of the embankment would not cause loss of life/property damage.
- Large basins are subject to state/local dam safety requirements.
- Securely anchor and install an anti-seep collar on the outlet pipe/riser, and provide an emergency spillway for passing major floods (see local flood control agency).
- The basin volume should be sized to capture runoff from a 2-year, 24-hour storm, or other appropriate design storms specified by the local agency. A detention time of 24 to 40 hours should allow 70 to 80 percent of sediment to settle.
- The basin volume consists of two zones:
  - A sediment storage zone at least 1 foot deep.
  - A settling zone at least 2 feet deep.
- The length to settling depth ratio (L/SD) should be less than 200.
- The length to width ratio should be greater than 6:1, or baffles are required to prevent short circuiting.

REQUIREMENTS

- Maintenance
  - Inspect weekly and after each rain.
  - Remove sediment where the sediment storage zone is half full.
- Cost: Average annual cost for installation and maintenance (2 year useful life, source: EPA, 1992)
  - Basin less than 50,000 $ft.^3$: \$0.40 per $ft.^3$ (\$700 per drainage acre)
  - Basin size greater than 50,000 $ft.^3$: \$0.20 per $ft.^3$ (\$350 per drainage acre)

Targeted Pollutants

- ● Sediment
- ○ Nutrients
- ◒ Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Waste

- ● Likely to Have Significant Impact
- ○ Probable Low or Unknown Impact

Implementation Requirements

- ○ Capital Costs
- ◒ O&M Costs
- ○ Maintenance
- ○ Training
- ○ Suitability for Slopes >5%

● High ○ Low

ESC56

Best Management Practices

Additional Information — Sediment Basin

A sediment basin is a controlled storm water release structure formed by excavation or by constructing an embankment of compacted soil across a drainageway, or other suitable location. Its purpose is to collect and store sediment from sites cleared and/or graded during construction or for extended periods of time before reestablishment of permanent vegetation and/or construction of permanent drainage structures. It is intended to trap sediment before it leaves the construction site. The basin is a temporary measure (with a design life of 12 to 18 months) and is to be maintained until the site area is permanently protected against erosion or a permanent detention basin is constructed.

Sedimentation basins are suitable for nearly all types of construction projects. Whenever possible, construct the sedimentation basins before clearing and grading work begins.
Basins should be located at the stormwater outlet from the site, but not in any natural or undisturbed stream. A typical application would include temporary dikes, pipes, and/or channels to divert runoff to the basin inlet.

Many development projects in California will be required by local ordinances to provide a storm water detention basin for post-construction flood control, desiltation, or storm water pollution control. A temporary sediment basin may be constructed by rough grading the post-construction control basins early in the project.

Sediment basins trap 70-80 percent of the sediment which flows into them if designed according to this handbook. Therefore, they should be used in conjunction with erosion control practices such as temporary seeding, mulching, diversion dikes, etc., to reduce the amount of sediment flowing into the basin.

Installation/Application Criteria
Planning:
To improve the effectiveness of the basin, it should be located to intercept runoff from the largest possible amount of disturbed area. The best locations are generally low areas below disturbed areas. Drainage into the basin can be improved by the use of diversion dikes and ditches. The basin must not be located in a stream but should be located to trap sediment-laden runoff before it enters the stream. The basin should not be located where its failure would result in the loss of life or interruption of the use or service of public utilities or roads.

Design:
- The sedimentation basin volume consists of two zones:
  - The sediment storage zone (at least 1 foot in depth).
  - A settling zone at least 2 feet in depth.
- The sedimentation basin may be formed by partial excavation and/or by construction of a compacted embankment. It may have one or more inflow points.
- A securely anchored riser pipe with an anti-seep collar is the principal outlet, along with an emergency overflow spillway. A solid riser pipe with two 1-inch diameter dewatering holes located at the top of the sediment storage volume on opposite sides of the riser pipe usually provides sufficient detention time for basins draining about 10 acres. Rock, rip-rap, or other suitable outlet protection is provided to reduce erosion at the riser pipe outlet.
- Settling Zone Volume

ESC56

LIMITATIONS

- The basin should have shallow side slopes (minimum 4:1) or be fenced to prevent drowning.
- Sites with very fine sediments (fine silt and clay) may require longer detention times for effective sediment removal.
- Basins in excess of 25 feet height and/or an impounding capacity of 50 ac. ft. must obtain approval from Division of Safety of Dams.
- Standing water may cause mosquitos or other pests to breed.
- Basins in excess of certain depth and storage volume criteria must meet State Division of Safety of Dams (DSOD) and local safety requirements.

ESC56

Additional Information — Sediment Basin

The settling zone volume is determined by the following equation:

$$(V) = 1.2(SD)Q / V_{SED}$$

Q = design inflow based on the peak discharge from a specified design storm (e.g., a 2-year, 24-hour duration design storm event) from the tributary drainage area as computed using the methods required by the local flood control agency. Provide a minimum of 67 cubic yards of settling volume per acre of drainage if a design storm is not specified.

V_{SED} = the settling velocity of the design soil particle. The design particle chosen is medium silt (0.02 mm). This has a settling velocity (V_{SED}) of 0.00096 ft/sec. As a general rule it will not be necessary to design for a particle of size less than 0.02 mm, especially since the surface area requirement increases dramatically for smaller particle sizes. For example, a design particle of 0.01 mm requires about three times the surface area of 0.02 mm. Note also that choosing V_{SED} of 0.00096 ft/sec equates to a surface area (SA) of 1250 sq. ft. per cfs of inflow.

SD = settling depth, which should be at least 2 ft., and no shallower than the average distance from the inlet to the outlet of the pond (L) divided by 200 (i.e., SD > L/200).

Total sediment basin volume and dimension are determined as outlined below:

a. The details shown in the attached figure may be useful in designing the sediment basin.
b. Determine basin geometry for the sediment storage volume calculated above using a minimum of 1 ft depth and 3:1 side slopes from the bottom of the basin. Note, the basin bottom is level.
c. Extend the basin side slopes (at 3:1 max.) as necessary to obtain the settling zone volume as determined above.
d. Adjust the geometry of the basin to effectively combine the settling zone volume and sediment storage volumes while preserving the depth and side slope criteria.
e. Provide an emergency spillway with a crest elevation one foot above the top of the riser pipe.
f. The ratio between the basin length and width of the pond should either be greater than 6:1, or baffles should be installed to prevent short-circuiting.

Limitations

Sediment traps and ponds must be installed only within the property limits. Failure of the structure must not result in loss of life, damage to homes or buildings, or interruption of use or service of public roads or utilities. Also, sediment traps and ponds are attractive to children and can be very dangerous. Local ordinances regarding health and safety must be adhered to. If fencing of the pond is required, the type of fence and its location shall be shown in the SWPPP and in the construction specifications.

- Generally, temporary sedimentation ponds are limited to drainage of 5 acres or more.
- Sediment ponds may be capable of trapping smaller sediment particles if additional detention time is provided. However, they are most effective when used in conjunction with other BMPs such as seeding or mulching.
- Ponds may become an "attractive nuisance" and care must be taken to adhere to all safety practices.
- Sediment ponds designed according to this handbook are only practically effective in removing sediment down to about the medium silt size fraction. Sediment-laden runoff with smaller size fractions (fine silt and clay) will pass through untreated emphasizing the need to stabilize the soil quickly.

ESC56

Additional Information — Sediment Basin

REFERENCES

A Current Assessment of Urban Best Management Practices: Techniques for Reducing Nonpoint Source Pollution in the Coastal Zones, Metropolitan Washington Council of Governments, March, 1992.

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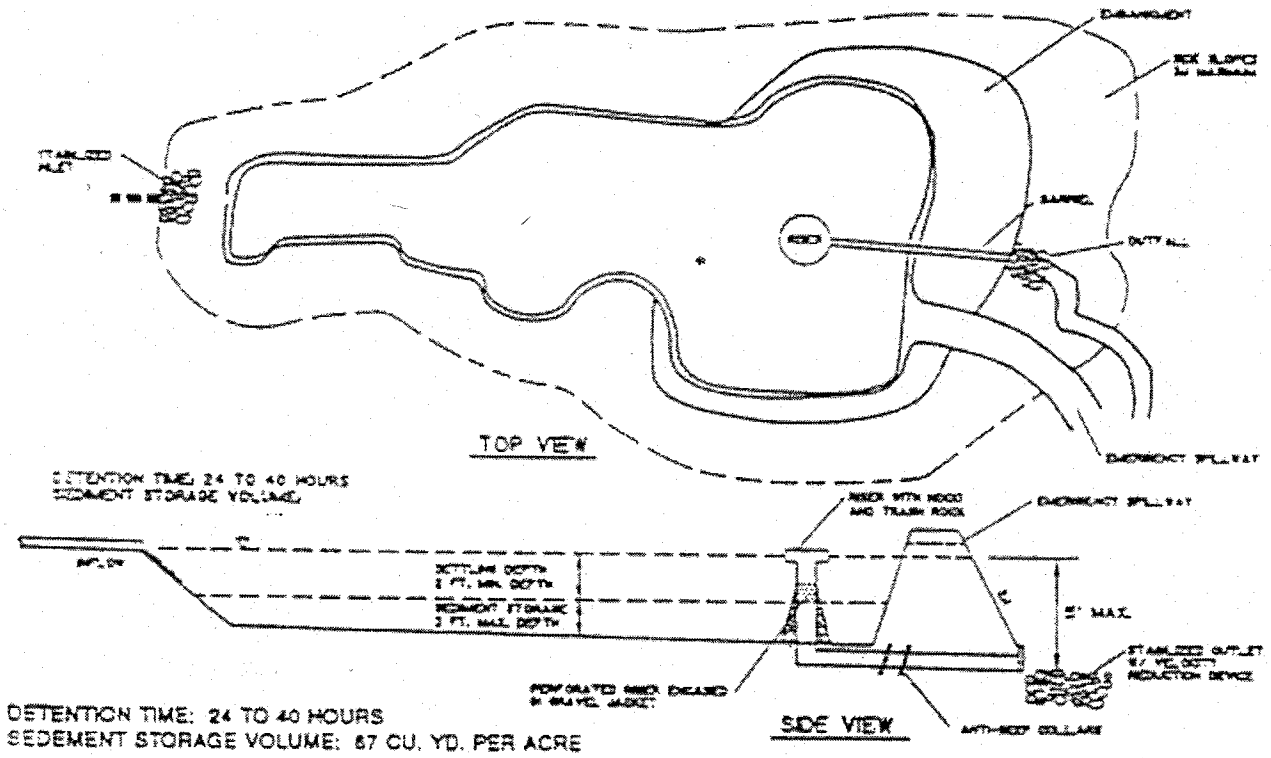
ESC56

Additional Information — Sediment Basin



DETENTION TIME: 24 TO 40 HOURS
SEDEMENT STORAGE VOLUME: 67 CU. YD. PER ACRE

TEMPORARY SEDIMENT BASIN

ESC06

Appendix I

Appendix I
Best Management Practices
Implemented Prior to 2008/2009
Lehigh Southwest Cement Company

Area	Sediment Control	Discussion and Benefits	Schedule
Former Overburden Stockpile	Installed a filter rock berm along the toe of the slope at the West end of the Former Overburden Stockpile.	Decrease overland flow of sediment off the slope into Creek.	Completed 2002/2003
Pond 13A	Replaced ½-open culvert with full culvert section to pond.	Improve drainage system to retention pond.	Completed 2002/2003
Former Overburden Stockpile	Hydroseeded approximately 42 acres along the south-facing slope over the Former Overburden Stockpile.	Decrease erosion from unvegetated hillsides and runoff of sediment into the Creek.	Completed 2002/2003
Facility-wide	Monitor all hydroseeded areas to observe vegetation development.	Monitor effectiveness of hydroseeding/re-vegetation. Re-hydroseed if necessary or evaluate other alternatives if hydroseeding is not effective.	Ongoing
Facility-wide	Hydroseeded approximately 5 acre along the North slope toe and East extension from the Ponds' 4A and 4B access road.	Decrease erosion from unvegetated hillside and runoff of sediment into the Creek.	Completed 2001/2002
Facility-wide	Monitored and maintained the sediment catchment rock berms along Middle Quarry Road and Rock Plant during the wet season, and clean as necessary.	Decrease runoff/capture sediment from Middle Quarry Road and Rock Plant Road.	Ongoing
Facility-wide	Monitored sediment load in off stream ponds and clean out as necessary.	Increase effectiveness of sediment removal.	Ongoing
Facility-wide	Inspected and cleaned as necessary, the open-grate culverts, catch basins and culvert leading to Pond-17 and Pond 9.	Increase flow and effectiveness of Pond 17 and Pond 9; Pond 17 and Pond 9 are effective at reducing TSS concentrations.	Ongoing
Facility-wide	Maintained the rock sediment catchment berms at Pond 9 and Pond 17 discharge.	Increase flow and effectiveness of Pond 17 and Pond 9.	Ongoing

Appendix I
Best Management Practices
Implemented Prior to 2008/2009
Lehigh Southwest Cement Company

Area	Sediment Control	Discussion and Benefits	Schedule
Facility-wide	Monitored sediment load in in-stream Ponds 13 and 22, and clean out if required (prior to rainy season). Note: Due to the effectiveness of sediment control measures implemented since 1999, annual clean outs are not required.	Increase sediment removal effectiveness of ponds. Ponds 13 and 22 are effective in reducing TSS discharges to the Creek.	Ongoing
Former Overburden Stockpile	Inspected bench road at the west end of the Former Overburden Stockpile north slope.	Decrease erosion runoff from Former Overburden Stockpile Area.	Completed 2001/2002
Former Overburden Stockpile	Monitored (Phase 1) the installed geotextile fabric and hydroseeding of the Former Overburden Stockpile slope.	Evaluate effectiveness of geotextile at decreasing erosion and long-term stabilization through re-vegetation.	Completed 2001/2002
Former Overburden Stockpile	Monitored the west end of the Former Overburden Stockpile north slope Expanded Phase 1 Re-vegetation Test Program.	Decrease erosion runoff from Former Overburden Stockpile Area.	Ongoing
Former Overburden Stockpile	Removed loose fill overhanging the top of the slope in the area at the west end of the Former Overburden Stockpile.	Decrease erosion runoff from Former Overburden Stockpile Area.	Completed 2001/2002
Former Overburden Stockpile	Installed drainage swales on mid-slope benches at the Former Overburden Stockpile.	Decrease erosion runoff from Former Overburden Stockpile Area.	Completed 2001/2002
Upper Quarry Road	Installed wall behind concrete drain boxes located at the Upper Quarry Road.	Direct runoff into the drain boxes and prevent storm water runoff bypass.	Completed 2001/2002
Pond 4A / Upper Quarry Road	Improved the access road to Pond 4A from the Upper Quarry Road.	Improve access for inspections during the wet season, and improve overland flow of sediment into Pond 4.	Completed 2001/2002

Appendix I
Best Management Practices
Implemented Prior to 2008/2009
Lehigh Southwest Cement Company

Area	Sediment Control	Discussion and Benefits	Schedule
Pond 4A and Pond 4B	Sealed the bottom and sides of Pond 4A and 4B with onsite soil determined to have effective hydraulic conductivity.	Increase retention time for improved sedimentation.	Ongoing
Upper Quarry Road, Pond 4A and Pond 4B	Maintained drain boxes and culverts east and west of Pond 4A and Pond 4B along Upper Quarry Road, and cleaned as necessary.	Direct runoff from Upper Quarry Road to Pond 4A and Pond 4B to reduce sediment before discharging to the Creek.	Ongoing
Upper Quarry Road, Pond 4A and 4B	Installed sheet pile walls along the North slope toe road East extension from the Ponds' 4A and 4B access road.	Provide slope stability and resistance to erosion.	Completed 2001/2002
Upper Quarry Road, Pond 4C	Installed off stream pond, designated 4C, at East end of the North slope toe road East extension from the Ponds' 4A and 4B access road.	To facilitate capture of runoff from Upper Quarry Road.	Completed 2001/2002
Upper Quarry Road, Pond 13A	Maintained drain boxes and culverts east of the Primary Crusher along Quarry Road and drainage pipes from Quarry Road to Pond 13A, and cleaned as necessary.	Direct runoff from Upper Quarry Road to Pond 13A to reduce sediment before discharging to the Creek.	Ongoing
Quarry Road	Continued improvements on Quarry Road including re-grading of low spots and repairing earthen berms.	Improve drainage and decrease erosion runoff from Quarry Road.	Ongoing
Primary Crusher	Extended the concrete catch basin A- and B-side walls to facilitate clean out.	Improve efficiency and retention time of the concrete catch basins.	Completed 2001/2002
Primary Crusher	Replaced the existing berm containment structure along the Primary Crusher discharge belt E with sheet piled wall.	Decrease overland flow of sediment into Creek from the lower Primary Crusher Area.	Completed 2001/2002

Appendix I
Best Management Practices
Implemented Prior to 2008/2009
Lehigh Southwest Cement Company

Area	Sediment Control	Discussion and Benefits	Schedule
Primary Crusher	Maintained the two concrete catch basins (Basins A and B) adjacent to and East of Primary Crusher ore dump hopper, and clean as necessary.	Capture overland runoff and direct runoff from upper Primary Crusher Area to Pond 13A to reduce sediment before discharging to the Creek.	Ongoing
Pond 5	Re-sealed the bottom and sides of Pond 5 with onsite soil determined to have effective hydraulic conductivity.	Increase retention time for improved sedimentation.	Ongoing
Pond 9	Sediment retention improvements—a rock wall was built around the drainpipe to filter the water.	Increase sediment retention.	Completed 2001/2002
Pond 13	Monitored performance of hydroseeded North slope upstream from Pond 13.	Ensure stabilization of North slope up stream of Pond 13 to prevent further erosion.	Ongoing
Screen Tower No. 4	Maintain material stockpiles away from containment wall adjacent to the Creek embankment at Screen Tower No. 4.	Reduce overland flow into Creek from Screen Tower No. 4 area.	Ongoing
Screen Tower No. 4	Installed sheet piled wall at western end of upper concrete containment wall.	Reduce overland flow into Creek from stockpiled materials.	Completed 2001/2002
Dinky Shed Catch Basin (Formerly Pond 16)	Maintained the concrete catch basin with lift pump at the Dinky Shed.	Divert runoff captured from the Lower Quarry Road and Rock Plant Road to Pond 9 to reduce sediment before discharging to the Creek.	Ongoing
Area 1	Installed sheet pile wall along rail line adjacent to Creek.	Reduce overland flow into Creek from stockpiled materials.	Completed 2001/2002
Quarry Pit Ground Water De-watering System	Relocated the Quarry pit groundwater de-watering pipe system to the pit side of the Quarry road, and from direct to indirect discharge to the Creek through retention Pond 4A.	Eliminate potential erosion due to pipe system failure.	Completed 2001/2002

Appendix I
Best Management Practices
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Lehigh Southwest Cement Company

Area	Sediment Control	Discussion and Benefits	Schedule
Settlement Ponds and Concrete Culvert	Annual sediment cleanout.	Increases performance of sediment control measures during wet season, decreasing sediment loading to Creek. Storms can cause ponds to silt up and drainage systems to be damaged, decreasing effectiveness.	Ongoing
Former Overburden Stockpile	Re-graded Upper Quarry Road and repaired earthen berms.	Reduce overland flow and erosion from the Former Overburden Stockpiles.	Completed March 2001
Former Overburden Stockpile	Removed loose fill overhanging the top of the slope in the area at the west end of the Former Overburden Stockpile.	Decrease erosion runoff from Former Overburden Stockpile.	Completed October 2000
Former Overburden Stockpile	Constructed drainage swale on top of the slope at the Former Overburden Stockpile.	Decrease erosion runoff from Former Overburden Stockpile.	Completed October 2000
Former Overburden Stockpile	Monitored vegetation on geotextile test locations for survival rate (Phase 1 Pilot Scale Geotextile Fabric Test).	Evaluate effectiveness of geotextile at decreasing erosion and long-term stabilization through re-vegetation.	Ongoing
Former Overburden Stockpile	Stabilized area adjacent to the geotextile test area at the overburden stockpile.	Decrease erosion runoff from Former Overburden Stockpile Area.	Currently Under Evaluation
Upper Quarry Road, Pond 4	Installed catch basins with drains and full culvert West of Pond-4 along Upper Quarry Road to collect runoff that is diverted to Pond-4.	Direct runoff into Pond 4 and minimize sediment load due to shorter overland flow travel time.	Completed November 2000
Upper Quarry Road, Pond 4	Installed culvert drainage system connecting the Upper Quarry Road West sediment catch basins to Pond 4.	Capture runoff from the Upper Quarry Road to treat/capture sediment before discharging to the Creek.	Completed November 2000
Upper Quarry Road, Pond 4	Installed catch basins with drains and half culvert East of Pond-4 along Upper Quarry Road to collect runoff that is diverted to Pond-4.	Direct runoff into Pond 4 and minimize sediment load due to shorter overland flow travel time.	Completed November 2000

Appendix I
Best Management Practices
Implemented Prior to 2008/2009
Lehigh Southwest Cement Company

Area	Sediment Control	Discussion and Benefits	Schedule
Upper Quarry Road, Pond 4	Installed culvert drainage system connecting the Upper Quarry Road East sediment catch basins to Pond 4.	Capture runoff from the Upper Quarry Road to treat/capture sediment before discharging to the Creek.	Completed November 2000
Upper Quarry Road, Pond 4A	Constructed a new sediment pond East of Pond 4, Pond 4A, to handle storm water runoff from the lower level of the Upper Quarry Road.	To facilitate capture of runoff from Upper Quarry Road.	Completed November 2000
Pond 4A/Quarry Road	Installed catch basins with drains and half-culvert East of Pond-4A along Upper Quarry Road to collect runoff that is diverted to Pond-4A.	Direct runoff from Quarry Road to Pond 4 to reduce sediment before discharging to the Creek.	Completed November 2000
Pond 4A/Quarry Road	Installed culvert drainage system connecting the Upper Quarry Road East sediment catch basins to Pond 4A.	Capture runoff from the Upper Quarry Road to treat/capture sediment before discharging to the Creek.	Completed November 2000
Primary Crusher	Extended K-rail containment structure located on the West side of the Primary Crusher feed hopper.	Capture runoff from Upper Quarry Road. Decrease overland flow of sediment into Creek from upper Primary Crusher Area and mass loading to the Creek.	Completed November 2000
Primary Crusher	Installed concrete containment wall West of the Primary Crusher at the lower level.	Decrease overland flow of sediment into Creek from Primary Crusher Area as well as erosion of embankment due to the overland flow.	Completed November 2000
Primary Crusher	Installed concrete sediment catch basin East of the Primary Crusher hopper level (Basin A) with drainage culvert to collect runoff that will be diverted to Pond 13A.	Direct runoff from upper Primary Crusher area to Pond 13A to reduce sediment before discharging to the Creek.	Completed November 2000
Primary Crusher	Installed concrete sediment catch basin East of the Primary Crusher (Basin B) with drainage culvert to collect runoff that will be diverted to Pond 13A.	Direct runoff from upper Primary Crusher area to Pond 13A to reduce sediment before discharging to the Creek.	Completed November 2000

Appendix I
Best Management Practices
Implemented Prior to 2008/2009
Lehigh Southwest Cement Company

Area	Sediment Control	Discussion and Benefits	Schedule
Primary Crusher	Installed concrete sediment catch basin adjacent to the wash-water basin (Pond 6) at the Primary Crusher lower level (Basin E) to capture overland runoff.	Decrease overland flow of sediment into Creek from Primary Crusher Area.	Completed November 2000
Primary Crusher	Installed new pump to transfer water from the new concrete sediment catch basin (Basin E) adjacent to the holding basin (Pond 6) to the culvert system to Pond 13A.	Divert runoff captured at the lower Primary Crusher level to Pond 13A to reduce sediment before discharging to the Creek.	Completed November 2000
Primary Crusher	Improved the holding basin (Pond 6) below the Primary Crusher oil/water separator performance by diverting storm water runoff to the new adjacent concrete basin (Basin E).	Holding basin handles Primary Crusher wash water only, increasing capture of any potential petroleum products in containment basin.	Completed November 2000
Ore Feeder, Primary Crusher	Installed culvert drainage system connecting the Primary Crusher concrete sediment catch basins (Basin A, B and E) to Pond 13A.	Capture runoff from the Primary Crusher Ore Feeder level and treat/capture sediment before discharging to the Creek.	Completed November 2000
Pond 13	Hydroseeded the North slope up stream from Pond 13.	Stabilize North slope up stream of Pond 13 to prevent further erosion.	Completed October 2000
Pond 13A	Constructed a new larger sediment pond North of Pond 13B and Pond 13.	Increase sediment capacity to facilitate capture and treatment of runoff from the Upper Quarry Road and Primary Crusher areas.	Completed November 2000
Quarry Lower Road (to Belt Yard and Primary Crusher lower level)	Filled and re-graded Quarry Lower Road to divert storm water runoff to culvert drainage system to Pond 13A.	Capture runoff from Quarry Lower Road and direct to Pond 13A for sediment removal prior to discharge to the Creek.	Completed October 2000
Rock Plant Road	Improved Rock Plant Road to Pond 13.	Decrease sediment runoff from this section of unpaved area along Rock Plant Road.	Completed October 2000

Appendix I
Best Management Practices
Implemented Prior to 2008/2009
Lehigh Southwest Cement Company

Area	Sediment Control	Discussion and Benefits	Schedule
Lower Quarry Haul Road / Rock Plant Road	Paved intersection of Lower Quarry Road & Rock Plant Road adjacent to Pond 9.	Decrease runoff from unpaved area and decrease sediment loading to Pond 9.	Completed October 2000
Pond 9	Installed rock diffuser at discharge of Lower Quarry Road cross road drain culvert to Pond 9.	To dissipate storm water flow velocities entering Pond 9.	Completed October 2000
Screen Tower No. 4	Constructed containment wall down slope from Screen Tower No. 4 and "Belt 61" and rebuild upper portion of embankment.	Capture sediment from conveyor belt and reduce overland flow into Creek from Screen Tower No. 4 area.	Completed December 2000
Dinky Shed Pond (Pond 16)	Replaced the Dinky Shed Pond (Pond 16) with concrete catch basin.	Improve storm water collection, treatment and removal from Lower Quarry Road and Rock Plant Road.	Completed September 2000
Dinky Shed Catch Basin (Formerly Pond 16)	Installed new pump to transfer water from the new concrete sediment catch basin to the Lower Quarry Road cross drain to Pond 9.	Divert runoff captured from the Lower Quarry Road and Rock Plant Road to Pond 9 to reduce sediment before discharging to the Creek.	Completed September 2000
Upper Quarry Road	Install Pre- Settlement Pond to Quarry Pond.	Capture Sediment runoff from Upper Quarry Road and Active Overburden Stockpile Area.	Completed May 1999
Upper Quarry Road	Install New Catch Basins.	Divert Sediment laden storm water in Quarry Settlement Pond (Pond 5).	Completed June 1999
Quarry Settlement Pond	Repair Drainage Culvert to Creek from Quarry Settlement Pond.	Carry treated storm water from Quarry Settlement Pond to Creek and avoid overland flow.	Completed April 1999
Ore Feeder to the Primary Crusher	Install a section of K-rail adjacent to the Ore Feeder to the Primary Crusher.	Contain sediment laden storm water and keep it from overflowing over embankment directly into Creek.	Completed April 1999
Middle Quarry Road	Install rock berms along Middle Quarry Road.	Install berms to capture sediment from storm water and reduce sediment mass entering Pond 9.	Completed Winter 1998/1999
Downstream of Pond 13	Replace ½ culvert and Grizzly downstream of Pond 13.	The culvert will reduce sediment erosion into Creek from embankment and the Grizzly will be redesigned to prevent debris from building up and flooding the rock pile area.	Completed October 1998
Downstream of Pond 13	Replace full culvert downstream of Pond 13.	Prevent sediment from entering the Creek from the rock storage area.	Completed October 1998
Creek Embankment	Replace earthen berms with K-Rail.	Prevent overland flow of storm water from entering the Creek and reduce erosion and sediment form the berms themselves.	Completed Winter 1998/1999

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Area	Sediment Control	Discussion and Benefits	Schedule
Aggregate Washing Plant	Pave area adjacent to the Aggregate Washing Plant.	Prevent erosion of unpaved surface.	Completed May 1999
Road from Aggregate Washing Plant	Install cross drains near truck scales.	Divert sediment runoff into Pond 17 and reduce mass into the Dinky Shed Pond.	Completed February 1999
Lower Quarry Road	Relocated sand stockpile next to Lower Quarry Road.	Reduce sediment runoff from erosion of sand pile and sediment mass flowing into the Dinky Shed Pond.	Completed June 1999
Creek Embankment Across from Dinky Shed Pond	Remove discharge point.	The storm water that discharges at this point was observed to contain elevated levels of sediment. As part of the Storm Water Consolidation Program this water will be diverted into Pond 9 for treatment or recycled within the facility.	Completed March 1999
Dinky Shed Pond	Install filtration system.	Due to the limited capacity of the Dinky Shed Pond, the effluent from this Pond contains elevated levels of sediment. A particulate filtration system will be installed to treat the Dinky Shed storm water before it is discharged to the Creek.	Completed March 1999
Pond 14	Upgrade Pond 14.	Re-install fabric over outlet during low flows to increase sediment removal. Consider installing baffles or coffer dams to increase sediment removal. Consider raising discharge weir up by a foot to increase capacity.	September 1997
Pond 18	Consider enlarging truck wash overflow sump (by railroad tracks).	Increase settling capacity prior to Ponds 18, 19, 20, and 21.	Completed 1998
Concrete Culvert	Upgrade Channeled Creek at Railroad Tracks.	Remove berm on roadside of channeled Creek and replace with K-rail or guardrail.	Berm removed and replaced with K-rail (March 1996)
Concrete Culvert	Upgrade Channeled Creek at Railroad Tracks.	We will investigate the planting of a 100-foot section of the Creek with cattails to help control high flows.	Completed but unsuccessful
Pond 9-3	Upgrade Pond 9.	Absorbent booms will be placed around the pipe during clean out. Flow will be rerouted to the downstream side of the pond. K-rail will be installed along Pond 9.	September 1996

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Area	Sediment Control	Discussion and Benefits	Schedule
Aggregate Washing Plant	Installation of a new drain.	The installation of a new drain at the Aggregate Washing Plant should eliminate additional sediment to Permanente Creek. The drain will drain directly to Pond 17, prior to being released to Permanente Creek.	1998/1999
Pond 5	Repair of pipe from Pond 5 and addition of sampling door for storm water sampling.	The repair of the pipe from Pond 5 should allow clean water from Pond 5 to flow directly to Permanente Creek. The addition of a sampling door to the pipe should allow for easier sampling of water leaving Pond 5.	1998/1999
Pond 5	Installation of Pond 5 pre-settlement catch basins.	The installation of the catch basins at Pond 5 should continue to limit the amount of sediment allowed to Permanente Creek from Upper Quarry Road and the Active Overburden Stockpile.	1998/1999
Drainage Area A	Installation of Pre-Quarry Settlement Pond and sand bag runoff diverted from Upper Quarry Road.	The addition of the Pre-Quarry Settlement Pond and the sand bag runoff diverted should limit further runoff from Upper Quarry Road into both Pond 5 and Permanente Creek.	1998/1999
Upper Quarry Road	Installation of Upper Quarry Road catch basins.	The catch basins should continue to limit the amount of sediment allowed to enter Permanente Creek from Upper Quarry Road.	1998/1999
Pond 22	Construction of Pond 22 Weir.	Allows for additional accumulation of sediments during storm events.	1998/1999
Screen Tower No. 4	Extension of four-foot concrete wall.	The extension of the four-foot concrete wall at screen tower four should allow additional sediments to bypass Permanente Creek and settle in Pond 17 prior to discharge.	1998/1999
Storm Water Catch Basin	Partial removal of sand pile located in Drainage Area F.	By partially removing the sand pile from Drainage Area F the amount of sediment accumulated in the storm water catch basins will be limited.	19998/1999
Rock Plant-7	Install K-rail/concrete and rock on Rock Plant hillside south of Pond 9 (across road) and above Creek.	Protect bank from erosion due to storm water from Rock Plant drainage area.	September 1997
Pond 13	Install water stops and raise sides of culvert downstream from Pond 13.	Fix previous season's flood damage and lessen likelihood of future damage due to washout by decreasing opportunity for water to overflow/bypass culvert.	September 1997

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Area	Sediment Control	Discussion and Benefits	Schedule
Pond 22	Increase pond capacity.	Excavate and enlarge pond substantially, by a factor of 10, to significantly increase detention time. Add a dam and weirs at the discharge point to control flow and increase sedimentation. Add a bypass pipe at the pond entrance to bypass flows during pond cleanout.	September 1997
Quarry	Add Turbidity Meter to the Quarry Pit Dewatering System.	Adding a turbidity meter to the quarry pumping system will provide a system to signal when sediment levels exceed specified levels. This will minimize sediment pumping from the quarry pit that could enter the Creek.	September 1997
Pond 22	Enlarge and upgrade Pre-Settlement Pond (renamed Pond 22).	The fabric under the hay bales will be re-installed over the top of the bales and secured both at the base and on top.	Hay bales installed April 1996
Primary Crusher	Upgrade Sump System at Primary Crusher.	Upgrade the earthen sump at the Primary Crusher with a new concrete sump. This will allow for more effective management of wash down water, i.e., sediment can be more easily removed, resulting in more sump capacity and less chance of overflow. Consideration will be given to pumping this water to the quarry.	November 1996
Pond 13	Enlarge Pond 13.	Increases retention time in Pond 13, increasing sediment removal. Excessive sedimentation noted during prior wet season.	Completed in 1995
Pond 13	Upgrade Pond 13.	A fabric curtain has been re-installed around the outlet during low flows. Clean up loose dirt in area prior to wet season.	October 1996
Pond 13	Upgrade Pond 13 and downstream culvert.	Install concrete barrier and grate at lower end of Pond 13 to control flow. Install additional concrete basin and grate in culvert just downstream from Pond 13, again to control flow and prevent washout.	Spring 1996
Pond 12	Removal of pipe from Pond 12 to Dinky Shed Pond, installation of new line to Pond 9.	The elimination of the discharge pipe from Pond 12 should remove a significant source of sediment from Permanente Creek.	1998/1999
Pond 11	Enlarge Pond 11.	Pond 11 is the "lake" shown on Figure 1. Increasing the capacity of this pond increased the capacity of Hanson's overall water recycle system, as Pond 11 is a key element of the recycle system. Increased water recycling decreased amount of water discharged to the Creek.	Completed in 1995

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Area	Sediment Control	Discussion and Benefits	Schedule
Middle Quarry Road	Re-grade Middle Quarry Road. Install 2 or 3 culverts. Slope road towards Pond 9.	Directs more runoff to Pond 9, rather than directly discharging to the Creek, decreasing sediment loading.	Completed in 1995
Lower Quarry Road	Perform additional roadwork along Lower Quarry Road to ensure all runoff enters culvert for transport to Pond 9.	Increased capture of runoff that was diverted to Pond 9 for sedimentation. Past system allowed escape of some runoff around culvert, which discharged directly to Creek.	Completed in 1995
Upper Quarry Road	Re-grade Upper Quarry Road to drain storm water into quarry pit.	Reduce sediment entering the Creek. TSS levels from this area were very high during past sampling.	Completed in 1994.
Roads	Continue program to pave roadways throughout plant (16,000 cubic yards of identified paving projects).	Increasing amount of paved areas decreased heavy equipment contact with dirt roads, which decreased sediment runoff.	Completed in 1995
Plant	Complete paving of tracks near cement bulk load out.	Reduced sediment loading to Creek caused by heavy truck traffic.	Completed in 1995
Pond 18, 19, 20, 21	Construct new settlement pond(s) in the ditch north of the railroad tracks.	• Removes sediment in the runoff from the Cement Plant and area surrounding the railroad tracks before entering the Creek. • Provides storm water treatment/measures prior to discharge to the Creek and prevents sediment from entering the Creek.	Completed in 1994
Plant	Hydroseed 40-50 acres on the lower slope of the Upper Quarry Road construction area.	• Improve the aesthetics of this area. • Prevent sediment from this area from entering the Creek. • Limits the area of exposed soil.	Completed in 1994
Plant	Install K-rail along Creek adjacent to railroad tracks and other appropriate areas.	• Improve the aesthetics of this area. • Replaces the earthen berms and does not leach sediment into the Creek.	Completed in 1994
Pond 20	Install Third Settlement Pond by Railroad Tracks (These three ponds have been renamed Ponds 19, 20, and 21).	The capacity of the two current settlement ponds by the tracks is limited by space concerns. The addition of a third settlement pond between the existing ponds should increase overall sediment removal. Consider a channel blanket or vegetation in exposed areas in this ditch to reduce erosion rates and slow down water flow.	October 1996

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Area	Sediment Control	Discussion and Benefits	Schedule
Settlement Ponds	Performed annual dry season pond cleanouts of Ponds 9, 13, 14, settlement pond along railroad tracks, and pond upgradient from Pond 13. Followed written "Pond Cleanout Procedures" to ensure minimal release of sediments during cleanouts.	• Removed collected sediment from ponds so that it could not be washed out during the wet season. • Restored design capacity of the ponds so that increased retention time maximized sediment removal.	Pond 9-November 1995, Pond 13-November 1995, Pond 14-July 1995, Railroad Track Settlement Pond-November 1995, Pond upgradient from Pond 13-November 1995
Pond 19	Construct a second settlement pond in the ditch north of the railroad tracks.	The first pond, installed in 1994, was effective, but filled up with sediment quickly, as space was limited along the tracks. The second pond, installed in series with the first one, increased overall retention time and sediment removal effectiveness.	Completed in 1995
Pond 9	Improve discharge into Pond 9 from Lower Creek Road culvert.	Vertical discharge pipe causes "waterfall effect" on side of Pond 9, washing sediment into Pond 9. Lengthened pipe and "cushioned" discharge reduced sediment loading to Pond 9.	Completed in 1995
Pond 9	Install a new culvert at the bottom of Lower Quarry Road to direct runoff from the road into Pond 9. Enlarge Pond 9 as necessary.	• Reduce sediment entering the Creek from Lower Quarry road. In the past, this runoff discharged directly into the Creek. • Provides storm water treatment/measures prior to discharge to the Creek and prevents sediment from entering the Creek.	Completed in 1994
Pond 13B	Install new settlement pond above Rock Plant 1 (just upgradient from Pond 13) and reconstruct area to direct runoff into pond before entering Creek.	• Reduce sediment entering the Creek from Lower Quarry Road. Currently, this runoff runs directly into the Creek. • Provides storm water treatment/measures prior to discharge to the Creek and prevents sediment from entering the Creek.	Completed in 1994
Pond 13B	Enlarge new settlement pond above Rock Plant 1 (just upgradient from Pond 13).	Provides additional retention time for this pond, which silted up over past rainy seasons.	Completed in 1995

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Area	Sediment Control	Discussion and Benefits	Schedule
Pond 13B	Upgrade New Pond Upgradient from Pond 13 (renamed Pond 13B).	Excavate pond to a greater depth to increase capacity. Clean out and excavate pond. Hydroseed slopes around pond.	October 1996
Rock Plant	Contour the area around the Rock Plant 3 conveyor such that runoff from this area is directed into the sump pump and does not enter the Creek directly. Establish vegetation between this area and the Creek using seed erosion control matting.	• Improve the aesthetics of this area. • Prevent sediment from this area from entering the Creek. • Limits the area of exposed soil.	Completed in 1994
Rock Plant	Remove Rock and Soil at Berm on road leading down to Rock Plant.	Dirt has been pushed up against the vegetation on the berm. A rake or backhoe has been used to remove this dirt from between the vegetation. Loose dirt on the banks has been removed and slopes stabilized where appropriate.	October 1996
Rock Plant	Clean up piles along roadway between Rock Plant 1 and Rock Plant 3 and hydroseed.	• Improve the aesthetics of this area. • Limits the area of exposed soil. • Reduce sediment entering the Creek.	Completed in 1994
Rock Plant	Re-grade the entrance to Rock Plant 3 before paving such that the road slopes to the new settlement pond, or install a permanent berm such that process water is prevented from entering the Creek directly.	• Reduce the amount of sediment from Rock Plant 3 entering the Creek. • Prevents future breaching of process water from this area. • Paving should improve the aesthetics of this area.	Completed in 1994

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Area	Sediment Control	Discussion and Benefits	Schedule
Rock Plant	Upgrade Sump System at Rock Plant. Extend green overflow pipe down to Creek or use gunite to stabilize slope.	Construct a new sump adjacent to the existing sump that recycles water at the Rock Plant. This new sump will provide backup capacity to minimize the mount of sediment getting into the main, existing sump. This will reduce the chance of sediment overflow from the sump system. Additionally, electrical warning systems have been added to automatically detect and respond to high flows. Additional paving will also be added to this area to enhance water management. Gunniting the slope has been selected as a more effective alternative than a pipe extension, to help minimize potential bank erosion should overflow occur.	Sump completed August 1996; gunniting of slope, completed October 1996.
Rock Plant	Remove piles by channeled Creek at railroad tracks (where road crosses tracks below Rock Plant) and stabilize Creek slope.	• Eliminate chance of soils sloughing into Creek from piles and sides of channeled Creek.	November 1995
Rock Plant	Clean inlet to settling pond at Rock Plant.	Increased probability that all runoff from Rock Plant reached settling pond, decreasing sediment loading to Creek.	Completed in 1995
Rock Plant	Install new sedimentation pond (Pond 15) along Rock Plant Road, off the Creek, between Ponds 9 and 13.	Increases the sediment removal rates from drainage area D prior to Creek discharge, and reduces the sediment load in water entering Pond 9.	October 1996
Pond 16	Enlarge Dinky Shed Pond (renamed Pond 16).	Enlargement of this pond, located near the railroad shed at the base of Lower Quarry Road, will increase detention time of runoff in this area, reducing sediment loading to the Creek.	October 1996

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Area	Sediment Control	Discussion and Benefits	Schedule
Pond 14	Implement design improvements at Pond 14, including fabric curtain around outlet, removal of dirt berms/piles, and K-rail/fabric installation at pond perimeter. Maintain pond performance through on-going soils stabilization, pipe cleanout, and curtain cleaning.	• Removal of dirt berms and piles will decrease sediment loading to Pond 14. • K-rail/fabric will further decrease loading through stabilization of pond perimeter.	November 1995

EROSION CONTROL PLAN REPORT

FOR

PERMANENTE QUARRY

EAST MATERIALS STORAGE AREA

April 16, 2009

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FOR REVIEW ONLY

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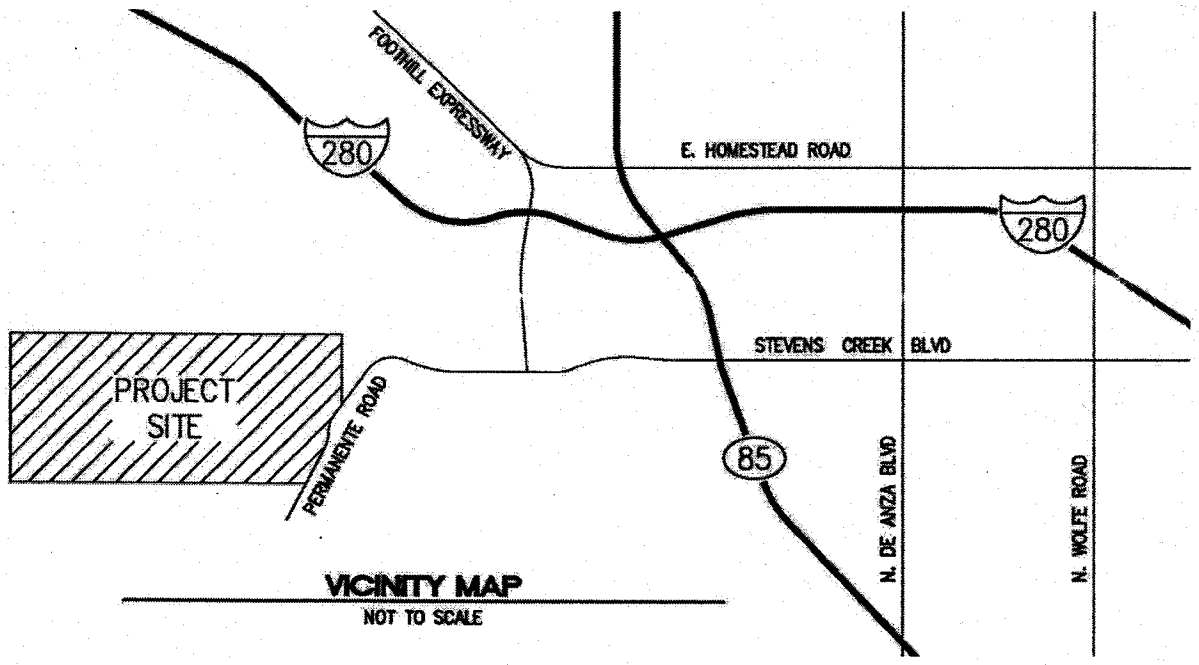
INTRODUCTION

Lehigh Southwest Cement Company operates the Permanente Quarry, which is located west of the city of Cupertino in Santa Clara County (see the Vicinity Map). Quarrying operations have occurred at the site since the early 1900's. This report is for a portion of the site known as the East Materials Storage Area (EMSA). This report has been prepared for the proposed activities in the EMSA. The EMSA is a large fill area primarily used for storing overburden material. The EMSA will generally be reclaimed with 2 to 1 (horizontal to vertical) inter-bench slopes (approximately 2.6 to 1 slope overall), and be constructed from an elevation of just over 550 feet to just over 900 feet. Benches will lie at approximately 40-foot vertical intervals, and a perimeter road will be graded around the EMSA. A series of drainage ditches and swales will serve the EMSA. The EMSA slopes will be reclaimed with native grasses and shrubs. The north and east facing benches will also contain trees (oaks), while the south facing benches will contain some pines. The uppermost pad area will be planted with grasses, shrubs, and some trees (pines).



This report contains the erosion control plan for the EMSA. The State Water Resources Control Board (SWRCB), Regional Water Quality Control Board (RWQCB), Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP), and Surface Mining and Reclamation Act (SMARA) require best management practices to control erosion. This erosion control plan has been prepared to meet the requirements of these agencies. Initially, temporary erosion control measures will be installed during the course of reclamation activities. The measures will include hydroseeding, desiltation basins, silt fencing, and drainage conveyance facilities. The temporary measures will be installed as reclamation occurs and are anticipated to remain in place until approximately one year following completion of reclamation. After this point, the revegetation throughout the EMSA will begin to establish. Approximately three years after reclamation, the final revegetation is anticipated to be completely

established and the temporary erosion control measures will no longer be necessary. The desiltation basins, silt fencing, and other temporary measures will be removed, and only the permanent revegetation and drainage controls will remain. The following discusses the temporary and permanent measures that form the erosion control plan for the EMSA.

TEMPORARY EROSION CONTROL MEASURES

During the course of and immediately following reclamation, temporary erosion control measures will be used at the site. The primary water quality pollutant generated from the EMSA will be sediment. Consequently, the temporary measures must focus on sediment control. The measures are illustrated on the "Erosion Control Measures 1-Year Following Reclamation Completion" exhibit in the map pocket, and include hydroseeding, desiltation basins, silt fencing, and drainage ditches.

Hydroseeding will be used on the reclaimed slopes, benches, and pads. The seed mix has been specified in the April 2009 Reclamation Plan. The preliminary erosion control stage incorporated prior to the revegetation tasks will consist of the native seed mix shown in Table 1. The mix includes species that have proven successful in other revegetation efforts in the quarry, and are recommended to provide erosion control and initial establishment of native grasses and herbaceous species until a more specific revegetation plan is developed based on test plot data and plant and seed availability.

Table 1. Proposed erosion control seed mix.

SCIENTIFIC NAME	COMMON NAME	PURE LIVE SEED (lb /acre)
Bromus carinatus	California brome	16.00
Elymus glaucus	blue wildrye	10.00
Lupinus nanus	sky lupine (innoc.)	5.00
Nassella pulchra	purple needlegrass	8.00
Plantago erecta	California plantain	3.00
Trifolium wildenovii	tomcat clover (innoc.)	3.00
Vulpia microstachys	three weeks fescue	8.00
	TOTAL	**53.00**

A series of desiltation basins and silt fencing will also be installed around the perimeter of the EMSA. The silt fencing is shown in light blue and the desiltation basins are highlighted in yellow on the "1-Year" exhibit in the map pocket. Silt fencing and desiltation basin details are included on the exhibit. The silt fencing will generally be placed at the toe of the perimeter 2 to 1 (horizontal to vertical) slopes to prevent sediment from being conveyed beyond the EMSA. Straw waddles can be used as an alternative to silt fences on slopes that are 3 to 1 or flatter. The straw waddles should be installed along the toe of the slopes as well as at vertical intervals of 25 feet maximum. The waddles on slope faces shall be installed along contours of equal elevation and can be secured with wood stakes, as needed. The desiltation basins have been sized based on SCVURPPP's volume-based treatment control requirements from their *C.3. Stormwater Handbook* as well as the criteria in the State Water Resources Control Board's (SWRCB) *Water Quality Order 99-08-DWQ*. The sizing calculations are contained in Chang Consultants' April 14, 2009, *Drainage Report for Permanente Quarry East Materials Storage Area*. The

report also contains engineering analyses for the outlet works and emergency spillway at each desiltation basin.

The majority of the EMSA runoff will be conveyed to one of the perimeter desiltation basins by a series of ditches and downdrains. These drainage facilities have been sized to convey the tributary 100-year flow. The hydrologic and hydraulic analyses used to design the facilities are contained in Chang Consultants' *Drainage Report.* Portions of the ditches within the perimeter road and the downdrains will have a steep gradient. As a result, these will be lined with riprap or other erosion-resistant material to prevent erosion.

Inspections and maintenance of the temporary erosion control measures will be performed, as needed. Silt fencing and straw waddles can either be repaired or replaced depending on their condition. Sediment and debris that accumulates in the desiltation basins and their outlet works will be removed. Similarly, sediment and debris will be removed from the ditches and downdrains and these drainage facilities will be inspected for erosion. The inspections and maintenance will ensure that the temporary measures provide adequate erosion control for the EMSA until the permanent measures are established.

PERMANENT EROSION CONTROL MEASURES

The permanent erosion control measures will include the drainage ditches and downdrains described in the previous section as well as revegetation. The temporary desiltation basins and silt fencing will be removed as revegetation allows. The "Erosion Control Measures Following Final Revegetation Exhibit" in the map pocket of this report illustrates the permanent erosion control measures including the permanent revegetation plan.

The objective of the revegetation plan is to provide native vegetative cover for final contours, thus controlling erosion and stabilizing slopes, using plant materials capable of self-regeneration without continued dependence on irrigation, soil amendments, or fertilizer in accordance with the reclamation standards. Revegetation will be sufficient to stabilize the surface against the effects of long-term erosion and is designed to meet the post-extractive land use objectives of the site. Hydroseeding of the finished slopes with a mixture of native grasses, herbaceous plants, and shrubs will provide surface cover and erosion control for the new slopes. Tree and shrub planting areas will be located on benches of the revegetation areas to encourage the long-term development of an oak savannah on north-facing slopes, or native scrub community on south-facing slopes. These communities will provide visual integration of the EMSA with the surrounding hillsides. The following sections outline the revegetation. The revegetation pursuant to the Reclamation Plan will include a test plot program, soil treatment and plant installation, maintenance and adaptive management guidelines, and verifiable monitoring standards to assure success of revegetation.

Hydroseeding

Contoured surfaces will be covered with native grass, herbaceous, and shrub species via hydroseeding homogenous slurry of mulch, fertilizer, seed, and a binding agent over the areas to be revegetated. Drainage ditches and access roads will be left bare until the completion of the stockpiling at which time the roads will be revegetated. Local seed suppliers have been working with Lehigh staff to develop an appropriate native seed mix for reclamation, and are testing several mixes in the test plots. Adaptive

management will continue to be used in the future to determine what seed mixes and slurry amendments are most effective for achieving revegetation goals. A preliminary hydroseed mix of shrubs and grasses is shown in Table 2, which includes species known to thrive in undisturbed quarry areas or known to perform well in previous revegetation areas. These species should be used, pending availability, for the earliest stages of the proposed reclamation project, until test plot results can be used to further refine and expand the species selection.

Trees and Shrubs

The interslope benches will have deeper soils and will be planted with tree and shrub species. The north and east facing benches will support the greatest diversity of trees and shrubs since they have less solar radiation and less intense temperatures. South-facing benches will generally be planted with shrubs, however, grey pine (*Pinus sabiniana*), a native tree species that is tolerant of very dry conditions, will also be used in these areas.

Table 2. Preliminary species for general slope hydroseeding.

SCIENTIFIC NAME	COMMON NAME	Suitable aspect (different mixes may be utilized on north-facing [N] vs. south-facing [S] areas)
SHRUBS		
Adenostoma fasciculatum	chamise	S
Artemisia californica	California sagebrush	N and S
Baccharis pilularis	coyote brush	N and S
Ceanothus cuneatus	buckbrush	N and S
Eriogonum fasciculatum	California buckwheat	S
Heteromeles arbutifolia	toyon	N
Mimulus aurantiacus	sticky monkeyflower	N
Salvia leucophylla	purple sage	S
Salvia mellifera	black sage	S
GRASSES AND HERBS		
Elymus glaucus	blue wildrye	N and S
Eschscholzia californica	California poppy	N and S
Heterotheca grandiflora	telegraph weed	N and S
Lotus scoparius	deerweed	N and S
Lupinus nanus	sky lupine (innoc.)	N and S
Nassella pulchra	purple needlegrass	N and S
Plantago erecta	California plantain	N and S
Vulpia microstachys	three weeks fescue	N and S

Trees and shrubs will be planted as container plants or acorns in the revegetation areas to encourage re-establishment of a vegetative community similar in structure to that of the surrounding areas. Plantings will occur on the benches where a deeper layer of soil treatment materials is applied to ensure adequate space for root development. These deeper soils with container plantings will be prepared on contoured benches, while slopes will be covered with shallower soils and hydroseeded. To the extent practicable,

trees and shrubs to be planted will be obtained from seeds collected on-site or from local sources. At least 10% of the total restoration area will be planted in tree and/or shrub planting areas. Shrubs will be planted at approximately 4.5-foot spacing (680 shrubs per acre) and trees at 9-foot spacing (up to 170 trees per acre) in the designated areas.

As with hydroseeding, adaptive management will be used to determine which tree and shrub species will be planted, the most effective spacing and location, and species to use in replacement plantings if necessary. A preliminary list of trees and shrubs to be planted on benches of the RPA Area is provided in Table 3. Species selection and numbers will depend on propagule collection and availability, as well as on test plot results.

Table 3. Preliminary list of trees and shrubs for planting on RPA Area benches.

SCIENTIFIC NAME	COMMON NAME	Potential *P. ramorum* host?
TREES (may use acorns instead of container planting for some oaks)		
Arbutus menziesii	Pacific madrone	yes
Pinus sabiniana	grey pine	no
Quercus agrifolia	coast live oak	yes
Quercus chrysolepis	canyon live oak	yes
Quercus douglasii	blue oak	no
Quercus lobata	Valley oak	no
Quercus wislizenii	interior live oak	no
SHRUBS*		
Cercocarpus betuloides	mountain mahogany	no
Heteromeles arbutifolia	toyon	yes
Quercus berberidifolia	scrub oak	no
Rhamnus californica	California coffeeberry	yes
Rhamnus crocea	redberry	no
Ribes californicum	hillside gooseberry	no
Ribes malvaceum	chaparral currant	no

* Shrub species selection may change based on the success of seeded shrubs in test plots. Seeding of coyote brush, chamise, California sagebrush, buckbrush, and sticky monkeyflower will be evaluated in test plots in 2009-2010, and if seed germination and establishment success is poor, these species will be tested as container plants. These species are expected to perform well in Quarry revegetation areas once an effective establishment method is identified.

Timing

All hydroseeding should be performed and completed between October 1 and December 1 to take advantage of warm soil temperatures and winter rains for successful germination and establishment. Container planting should be performed during the winter season and completed by approximately the end of January to improve successful establishment.

CONCLUSION

This erosion control plan has been developed for the East Materials Storage Area proposed at the Permanente Quarry. The EMSA will be used to store overburden material and will ultimately be planted with native materials. There are no impervious areas proposed at the EMSA. As a result, the proposed reclamation will have a low runoff potential. Temporary best management practices will be used at the site until the revegetation is established. The temporary erosion control measures include desiltation basins, which have been sized with a greater capacity than required by the SCVURPPP and SWRCB guidelines, hydroseeding, silt fencing, and drainage facilities. The permanent erosion control measures will include the drainage facilities and a detailed revegetation plan in accordance with the Reclamation Plan. This combination of temporary and permanent erosion control best management practices will be used to treat the primary pollutant of concern from the EMSA, which is sediment. The level of treatment has been established to meet or exceed the erosion control criteria of SMARA, SWRCB, and SCVURPPP.

Table 4. Qualitative descriptions of soil surface status	
CLASS 1:	No soil loss or erosion; topsoil layer intact; well-dispersed accumulation of litter from past year's growth plus smaller amounts of older litter.
CLASS 2:	Soil movement slight and difficult to recognize; small deposits of soil in form of fans or cones at end of small gullies or fills, or as accumulations upslope of plant crowns or behind litter; litter not well dispersed or no accumulation from past year's growth.
CLASS 3:	Soil movement or loss more noticeable; topsoil loss evident, with some plants on pedestals or in hummocks; rill marks evident, poorly dispersed litter and bare spots not protected by litter.
CLASS 4:	Soil movement and loss readily recognizable; topsoil remnants with vertical sides and exposed plant roots; roots frequently exposed; litter in relatively small amounts and washed into erosion protected patches.

Prior to the release of financial assurances, disturbed slopes in the EMSA must meet revegetation and erosion control performance standards. These standards have been designed to minimize the potential for stormwater runoff and erosion. Maintenance and monitoring will include identification and repair of erosion damage in order to maintain the standards. Performance criteria and additional slope treatment for erosion control are based on the qualitative descriptions and remedial measures described in Tables 4 and 5, respectively. The need for remedial measures will be determined by field observations. In general, areas receiving an average score of Class 3 or 4 will receive additional slope treatment. Any observable reason for failure will be noted and the appropriate remedial measure stated as part of the annual monitoring report.

Table 5. Remedial measures for erosion control	
CLASS 1:	No action necessary.
CLASS 2:	Monitor to see if any further deterioration and action is required.
CLASS 3:	Any rills or gullies in excess of 8 square inches in cross-sectional area and more than 10 linear feet located on finished slopes shall be arrested using straw mulch or equivalent.
CLASS 4:	Replant and cover with straw mulch and install silt fences. If necessary, regrade and compact with equipment.

EROSION CONTROL LEGEND

- PERIMETER ROAD DITCH
- BENCH DITCH
- DOWNDRAIN
- SILT FENCE
- SLOPES
- PADS/BENCHES
- DESILTATION BASINS

NOTE: DOWNDRAINS AND PERIMETER ROAD DITCHES SHALL BE LINED TO PREVENT EROSION

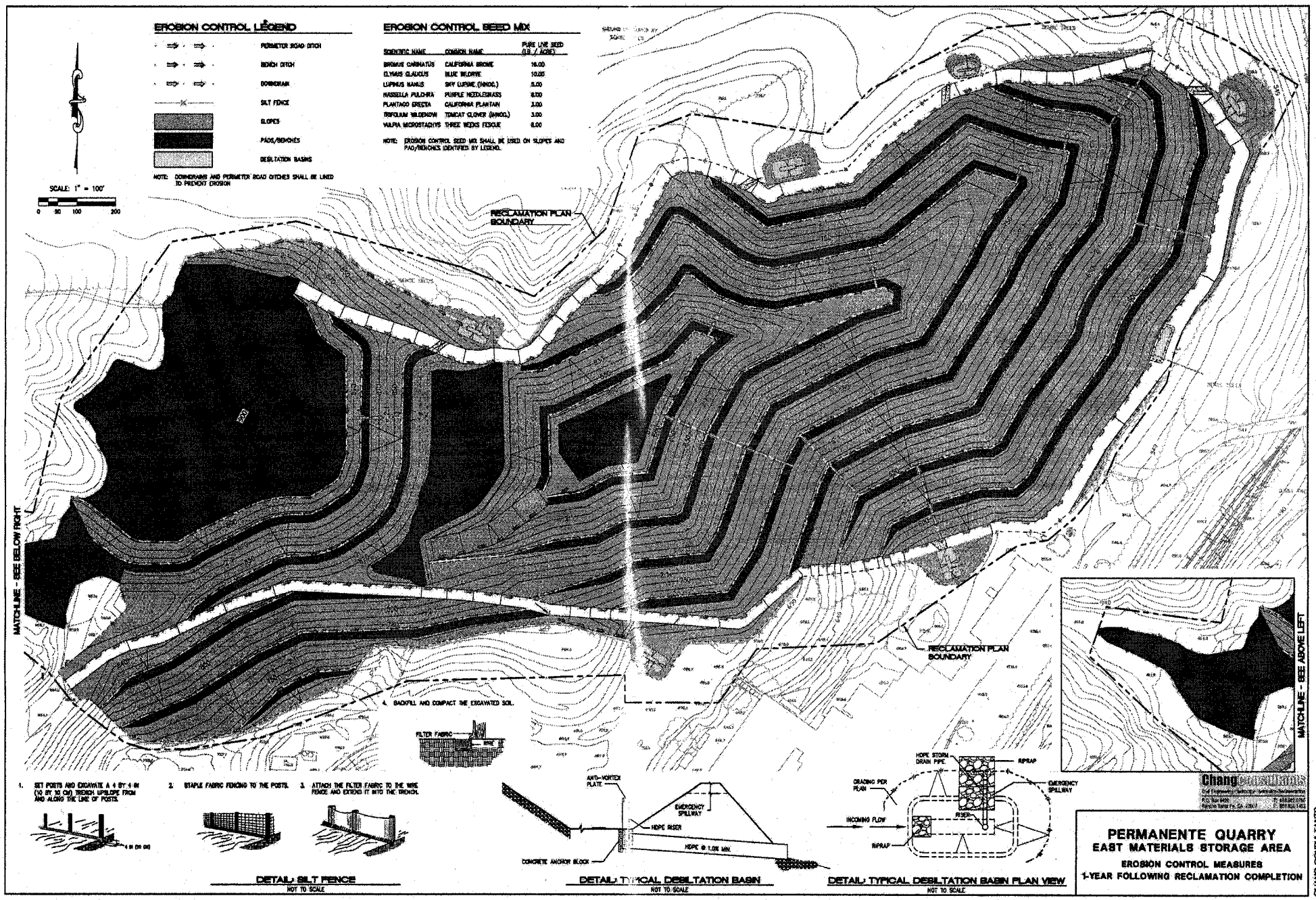
EROSION CONTROL SEED MIX

SCIENTIFIC NAME	COMMON NAME	PURE LIVE SEED (LB. / ACRE)
BROMUS CARINATUS	CALIFORNIA BROME	16.00
ELYMUS GLAUCUS	BLUE WILDRYE	10.00
LUPINUS NANUS	SKY LUPINE (INNOC.)	5.00
NASSELLA PULCHRA	PURPLE NEEDLEGRASS	6.00
PLANTAGO ERECTA	CALIFORNIA PLANTAIN	3.00
TRIFOLIUM WILDENOW	TOMCAT CLOVER (INNOC.)	3.00
VULPIA MICROSTACHYS	THREE WEEKS FESCUE	6.00

NOTE: EROSION CONTROL SEED MIX SHALL BE USED ON SLOPES AND PAD/BENCHES IDENTIFIED BY LEGEND.

SCALE: 1" = 100'

0 50 100 200



DETAIL: SILT FENCE
NOT TO SCALE

DETAIL: TYPICAL DESILTATION BASIN
NOT TO SCALE

DETAIL: TYPICAL DESILTATION BASIN PLAN VIEW
NOT TO SCALE

PERMANENTE QUARRY
EAST MATERIALS STORAGE AREA
EROSION CONTROL MEASURES
1-YEAR FOLLOWING RECLAMATION COMPLETION

APRIL 2008

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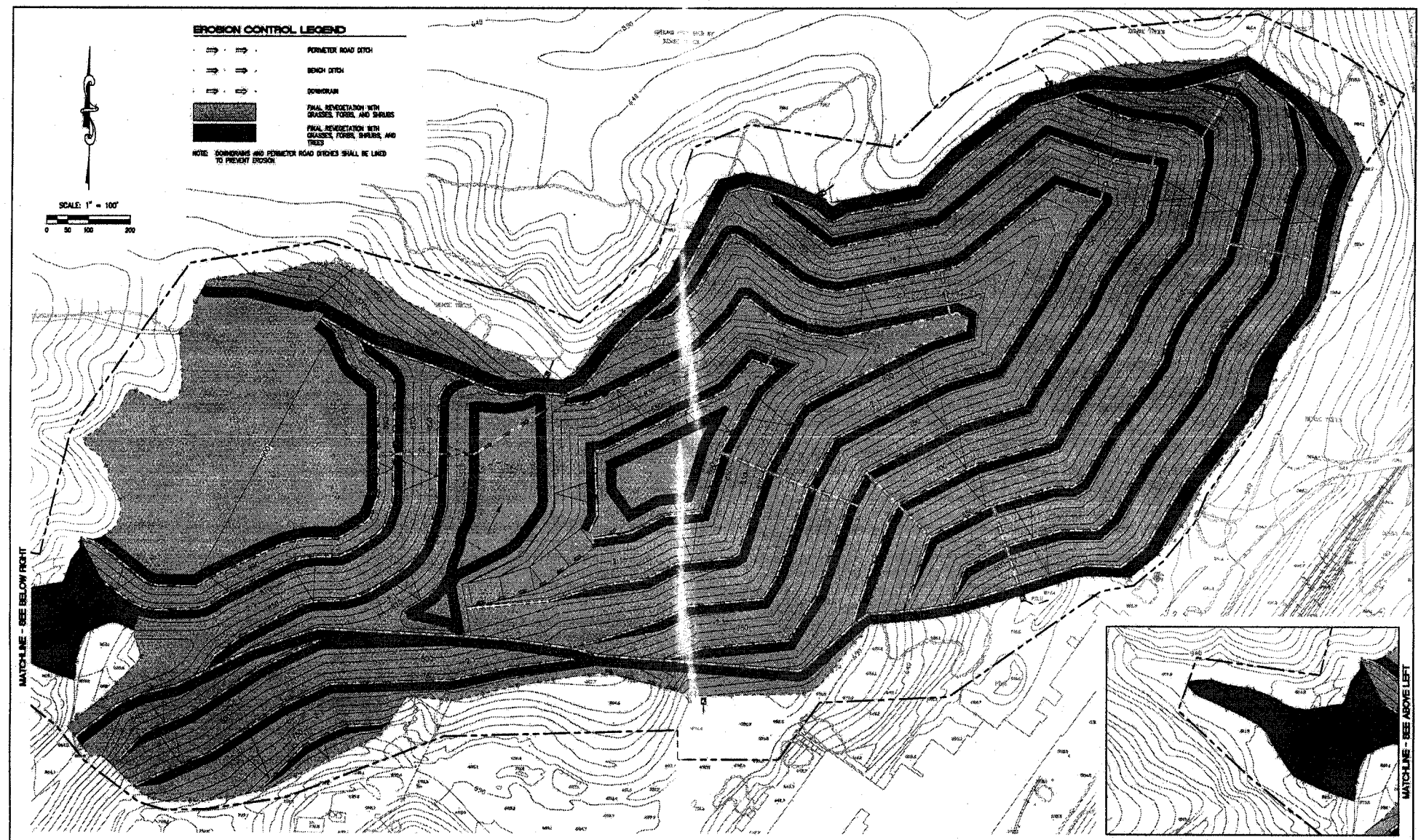

PERMANENTE QUARRY
EAST MATERIALS STORAGE AREA
EROSION CONTROL MEASURES
FOLLOWING FINAL REVEGETATION

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