

CALIFORNIA REGIONAL WATER QUALITY CONTROL REGIONAL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2002-0226

WASTE DISCHARGE REQUIREMENTS
FOR
FORD CONSTRUCTION COMPANY, INC.
FOOTHILL MATERIALS, INC.
HOGAN QUARRY
CALAVERAS COUNTY

The California Regional Water Quality Control Regional Board, Central Valley Region (hereafter Regional Board), finds that:

1. Ford Construction, Inc. and Foothill Materials, Inc. (hereafter Discharger) submitted a Report of Waste Discharge (RWD) dated 1 August 2002 to apply for Waste Discharge Requirements (WDRs) for land disposal of industrial wastewater generated at its Hogan Quarry aggregate processing facility. Supplemental information was submitted on 25 September 2002.
2. The Discharger's Hogan Quarry is at 3650 Hogan Dam Road, near the town of Valley Springs in Section 1, T3NS, R10E, MDB&M as shown on Attachment A, which is attached hereto and made part of the Order by reference. The facility is on Assessor's Parcel Number 50-003-1.
3. The land and facility is owned by Ford Construction Company, Inc., and the aggregate processing facility is operated by Foothills Materials Inc.
4. The Hogan Quarry has been in operation since 1965; however, the facility has not previously been regulated by WDRs.

Existing Facility and Discharge

5. The Hogan Quarry is an existing aggregate mining and processing facility on approximately 75 acres of land. The processing facility discharges a monthly average of 38,000 gallons of wastewater from the aggregate washing operations to a wash water settling/recycling pond.
6. Hard rock is mined from a quarry pit southwest of the aggregate process and washing areas. The Discharger anticipates mining this pit for the next 30 to 50 years. The quarry pit, aggregate processing areas, and settling/recycling pond are shown on Attachment B, which is attached hereto and made part of the Order by reference.
7. Hogan Quarry produces rip rap, gabion rock, railroad ballast, drain rock, concrete aggregate, road base, and crusher fines. Hard rock is first excavated with heavy equipment from the quarry pit. The material is then placed into a Jaw Crusher where the rock is broken down. The rock is then sorted over a screen where the 6-inch and larger rock is stockpiled for rip rap. The 6-inch and smaller rock is sent to secondary cone crusher that breaks the rock down further. After the secondary cone crusher, the rock is sorted over

another screen and sent to stockpile. Concrete aggregate is selectively sorted off the second screen, and is sent to another screen deck where it is rinsed with recirculated (recycled) water.

8. Water is pumped from the Calaveras River for use in dust control and makeup water for washing the rock. Washwater is recirculated by pumping from the settling/recycled pond to the processing plant where it is sprayed over the concrete aggregate then collected by a piping system that returns the water back to the settling/recycling pond.
9. A monthly average of 38,000 gallons of recirculated wastewater is used at the Hogan Quarry. Peak flows are approximately 1,200 gallons per day. Peak flows are based on 200 gallons per hour, with the average operation time of six hours per day. There is no variation in discharge rates from the dry season to the wet season.
10. The water balance provided in the RWD indicates that the settling/recycling pond does not have sufficient storage and disposal capacity to meet average annual precipitation conditions, and still maintain the two foot of freeboard required by this Order. Although requested, the Discharger did not prepare an adequate water balance for 100 year annual precipitation conditions. The water balance was not prepared by a California Registered Engineer. This Order requires the Discharger to submit a revised water balance, prepared by a California Register Engineer, that evaluates the storage and disposal capacity of the wash water settling/recycling pond for a 100 year annual precipitation event.
11. Sediment is removed from the settling/recycling pond approximately every three weeks, and is blended with the process aggregate and sold as a viable product.
12. No flocculants, additives, or other chemicals are added to the process or recirculated water at the Hogan Quarry. Based on analytical data provided in the RWD, the chemical character of the wastewater is summarized below.

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Analytical Result</u>
Total Dissolved Solids	mg/L	353
Specific Conductance	umhos/cm	318-470
pH	--	7.8-8.4
Total Organic Carbon	mg/l	3.2
Total Alkalinity	mg/L	86
Total Hardness	mg/L	187
Sodium	mg/L	15.6
Potassium	mg/L	3.2
Chloride	mg/L	5.0
Sulfate	mg/L	113
Total Nitrogen	mg/l	6.6

13. Fuels, and hydraulic and engine oils, are used and stored at the facility. Diesel fuel is stored near the process plant in a 10,000-gallon aboveground storage tank that has secondary containment. Hydraulic and engine oils are stored in 55-gallon drums within the equipment yard.
14. Surface water drainage within the facility boundary flows away from the mining activity areas. Storm water runoff around the mining areas is channelized into a stormwater pond in the northeastern portion of the site. The stormwater pond is divided into two cells in an effort to settle out solids and aid in cleaning of the pond. Storm water runoff does not flow into the washwater settling/recycling pond.

Site Specific Conditions

15. The topography of the area, exclusive of the excavation areas, is rolling foothills with elevation ranging from approximately 570 to 820 feet above mean sea level.
16. The geology within the site consists of Massive Jura-Trias Metavolcanic and Meta-Igneous Rock.
17. Supplemental water supply for aggregate washing is supplied via pumping of water from the Calaveras River.
18. One groundwater supply well is located within the facility boundary. The well, which was drilled in June of 1999, is in the northwestern portion of the site. At the time the well was drilled, groundwater was encountered at approximately 260 feet below ground surface and the well produced 12 gallons per minute (gpm). After six months of the use, the production rate of the well dropped to approximately 2 gpm. The Discharger stopped using the well in June 2001.
19. A portion of the facility is within the 100 year flood zone of the Calaveras River.
20. The average annual precipitation is approximately 33.0 inches, while the average annual evaporation is 59.0 inches
21. Surrounding land uses are primarily grazing lands and government property, which is part of the New Hogan Dam right-of-way.

Basin Plan, Beneficial Uses, and Regulatory Considerations

22. The Water Quality Control Plan for the Sacramento River and San Joaquin River Basins, Fourth Edition, (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, contains implementation plans and policies for protecting waters of the basin, and incorporates by reference plans and policies adopted by the State Water Resources Control Board (State Board). Pursuant to Section 13263(a) of the California Water Code, waste discharge requirements must implement the Basin Plan.

23. Surface water drainage is to the Calaveras River. The beneficial uses of Calaveras River are municipal and domestic supply; agricultural supply for irrigation and stock watering; industrial process and service supply; contact and non-contact recreation; warm and cold freshwater habitat; warm and cold water migration; warm and cold water spawning; and wildlife habitat.
24. The beneficial uses of underlying groundwater are municipal, industrial, and agricultural supply.
25. State Board Resolution No. 68-16 prohibits degradation of groundwater quality unless it has been shown that:
 - a. The degradation is consistent with the maximum benefit to the people of the State
 - b. The degradation will not unreasonably affect present and anticipated future beneficial uses;
 - c. The degradation does not cause exceedance of one or more water quality objectives; and
 - d. The discharger employs best practicable treatment and control to minimize degradation.

The Regional Board has considered antidegradation pursuant to State Board Resolution No. 68-16, and finds that the Discharger has not provided the required demonstration to be allowed to cause groundwater degradation, and therefore none is authorized.

26. Because no chemicals are used in processing the aggregate, the land disposal of wastewater as proposed should not degrade groundwater quality. Therefore, it is appropriate not to require groundwater monitoring at this time. If staff determines that the discharge has caused, or has the potential to cause, groundwater degradation, then the Discharger will be required to monitor groundwater quality, cease the discharge, change the method of disposal, and/or take other actions as necessary to comply with Resolution No. 68-16.
27. Section 13267(b) of California Water Code states that: "In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of discharging, or who proposes to discharge within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of discharging, or who proposes to discharge waste outside of its region that could affect the quality of the waters of the state within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Regional Board requires. The burden, including costs of these reports, shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring those reports, the Regional Board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports the requiring that person to provide the reports."

The monitoring and reporting program required by this Order is necessary to assure compliance with these waste discharge requirements. The Discharger operates the facility that discharges the waste subject to this Order.

28. The action to adopt waste discharge requirements for the facility is exempt from the provisions of the California Environmental Quality Act (CEQA), in accordance with Title 14, California Code of Regulations (CCR), Section 15301.
29. The Discharger has filed a Notice of Intent to comply with the State Board Water Quality Order No. 97-03-DWQ National Pollutant Discharge Elimination System (NPDES), General Permit No. CAS 000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities.
30. This discharge is exempt from the requirements of *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq., (hereafter Title 27). The exemption pursuant to Section 20090(b), is based on the following:
 - a. The Regional Board is issuing waste discharge requirements,
 - b. The discharge complies with the Basin Plan, and
 - c. The wastewater does not need to be managed according to Title 22 CCR, Division 4.5, and Chapter 11, as a hazardous waste.

Public Notice

31. All the above and the supplemental information and details in the attached Information Sheet, which is incorporated by reference herein, have been considered in establishing the following conditions of discharge.
32. The Discharger and interested agencies and persons have been notified of the Regional Board's intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
33. All comments pertaining to the discharge have been heard and considered in a public meeting.

IT IS HEREBY ORDERED that, pursuant to Sections 13263 and 13267 of the California Water Code, Ford Construction, Inc. and Foothills Materials, Inc., its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

[Note: Other prohibitions, conditions, definitions, and some methods of determining compliance are contained in the attached "Standard Provisions and Reporting Requirements for Waste Discharge Requirements" dated 1 March 1991.]

A. Discharge Prohibitions:

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. Discharge of waste classified as hazardous, as defined in Sections 2521(a) of Title 23, CCR, Section 2510, et seq., (hereafter Chapter 15), or 'designated', as defined in Section 13173 of the California Water Code, is prohibited.
3. The discharge or deposition of waste from sources other than the aggregate processing and recycling operations described herein is prohibited.
4. The addition of chemicals to the aggregate processing operation is prohibited.

B. Discharge Specifications:

1. The average monthly discharge flow to the settling/recycling pond shall not exceed 38,000 gallons.
2. The discharge shall remain within the designated settling/recycling pond at all times. Wastewater shall not be discharged to areas not specifically defined as such in this Order.
3. The settling/recycling pond shall not have a pH of less than 6.5 or greater than 8.5.
4. No waste constituent shall be released or discharged, or placed where it will be released or discharged, in a concentration or a mass that causes violation of the Groundwater Limitations.
5. The Discharger shall operate all systems and equipment to maximize treatment of the wastewater and optimize the quality of the discharge.
6. All ponds shall be managed to prevent breeding of mosquitoes. In particular,
 - a. An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.
 - b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
 - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.
7. The Discharger's wastewater system shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
8. All stockpiled products and wastes shall be managed to prevent erosion of sediment to surface water drainage courses.
9. The freeboard in the settling/recycling pond shall never be less than two feet as measured vertically from the water surface to the lowest point of overflow.

10. The settling/recycling pond shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with the historical rainfall patterns.
11. On or about **1 November** of each year, available pond storage capacity shall at least equal the volume necessary to comply with Discharge Specifications B.9 and B.10.
12. Newly constructed or rehabilitated levees or berms designed to hold back water shall be designed and constructed under the direct supervision of a California Registered Civil Engineer.
13. Neither the treatment nor the discharge shall cause a nuisance or condition of pollution as defined by the California Water Code, Section 13050.
14. **The discharge shall not cause the degradation of any water supply.**
15. The Discharger shall comply with all applicable sections of the Aboveground Petroleum Storage Tank Regulations (Section 25270, Health and Safety Code).

C. Solids Disposal Requirements:

1. Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer, and consistent with *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq.
2. Any proposed change in sludge use or disposal practice from a previously approved practice shall be reported to the Executive Officer in the next monthly monitoring report.

D. Groundwater Limitations:

The discharge, in combination with other site-derived sources, shall not cause underlying groundwater to contain waste constituents in concentration statistically greater than background water quality.

E. Provisions:

1. All technical reports required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. To demonstrate compliance with sections 415 and 3065 of Title 16, CCR, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical

reports must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.

2. The following reports shall be submitted pursuant to Section 13267 of the California Water Code, and shall be prepared as described in Provision E.1:
 - a. By **1 February 2003**, the Discharger shall submit certification that a flow meter has been installed to measure flows from the processing plant to the settling/recycling pond. The report shall state the type and location of the flow meter. If a Parshall Flume is installed to meter flows, the report shall describe the operation and maintenance procedures to ensure that accurate flow measurements are being taken.
 - b. By **1 March 2003**, the Discharger shall submit a revised water balance, prepared and signed by a California Registered Engineer. The water balance shall evaluate the ponds' ability to provide sufficient capacity on a monthly basis, and shall consider evaporation, direct precipitation, storm water runoff contribution, percolation, and estimated rate of sedimentation. Rainfall amounts shall be based on the total annual precipitation based on a return period of 100 years, distributed monthly in accordance with historical rainfall patterns. If it is determined that the settling/recycling pond does not have sufficient storage and disposal capacity to meet the two foot freeboard requirements based on the 100 year precipitation conditions, then by **1 May 2003**, the Discharger shall submit a report describing what upgrades and/or improvements will be made to the wastewater system to comply with Discharge Specifications B.9 and B.10. The report shall also include anticipated timelines for completing the upgrades/improvements.
 - c. By **1 May 2003**, the Discharger shall submit a workplan describing how it will modify its settling/recycling pond such that it is designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency. Alternatively, the Discharger may submit documentation from FEMA or other recognized sources showing that the wastewater pond is outside the 100-year flood plain.
 - d. By **1 September 2003**, the Discharger shall submit a report describing how it has modified its settling/recycling pond such that it is designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency. This report is not necessary if appropriate floodplain documentation was submitted per Provision E.2.c.
3. The Discharger shall comply with Monitoring and Reporting Program No. R5-2002-0226, which is a part of this Order, and any revisions thereto as ordered by the Executive Officer.
4. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements", dated 1 March 1991, which are attached hereto and by reference a part of this Order. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."

5. The Discharger shall submit to the Regional Board on or before each compliance report due date the specified document, or if appropriate, a written report detailing compliance or noncompliance with the specific schedule date and task. If noncompliance is reported, then the Discharger shall state the reasons for noncompliance and shall provide a schedule to come into compliance.
6. The Discharger shall report promptly to the Regional Board any material change or proposed change in the character, location, or volume of the discharge.
7. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, then the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to this office.
8. The Discharger shall comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
9. A copy of this Order shall be kept at the discharge facility for reference by operating personnel. Key operating personnel shall be familiar with its contents.
10. The Regional Board will review this Order periodically and will revise requirements when necessary.

I, THOMAS R. PINKOS, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Regional Board, Central Valley Region, on 6 December 2002.

THOMAS R. PINKOS, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2002-0226

FOR
FORD CONSTRUCTION COMPANY, INC.
FOOTHILL MATERIALS, INC
HOGAN QUARRY
CALAVERAS COUNTY

This Monitoring and Reporting Program (MRP) describes requirements for monitoring industrial wastewater at the Hogan Quarry. This MRP is issued pursuant to Water Code Section 13267. The Discharger shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

All samples shall be representative of the volume and nature of the discharge or matrix of material sampled. The time, date, and location of each grab sample shall be recorded on the sample chain of custody form. Field test instruments (such as those used to measure pH) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are calibrated prior to each monitoring event;
3. The instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the “Reporting” section of the MRP.

SETTLING/RECYCLING POND MONITORING

The settling/recycling pond shall be inspected weekly and monitored as follows:

<u>Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Freeboard	0.1 Feet	Measurement	Weekly	Monthly

EFFLUENT MONITORING

Wastewater effluent samples shall be collected at the inlet to the settling/recycling pond. Grab samples are considered adequately composited to represent the effluent. At a minimum, the Discharger shall monitor the effluent wastewater as follows:

<u>Constituent/Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>	<u>Reporting Frequency</u>
Flow	gpd	Meter	Daily	Monthly

REPORTING

In reporting monitoring data, the Discharger shall arrange the data in tabular form so that the date, sample type (e.g., effluent, pond, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with waste discharge requirements and spatial or temporal trends, as applicable. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported in the next scheduled monitoring report.

A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Regional Board on the **1st day of the second month following sampling** (i.e. the January Report is due by 1 March). At a minimum, the reports shall include:

1. Results of pond and effluent monitoring.
2. Information pertaining to the removal of sediments from the settling/recycling pond. Information at a minimum shall include, dates in which sediments were removed, the amount of sediment removed each time, and the total depth of the pond after sediment has been removed.
3. A comparison of monitoring data to the discharge specifications and an explanation of any violation of those requirements. Data shall be presented in tabular format.
4. If requested by staff, copies of laboratory analytical report(s).
5. A calibration log verifying calibration of all monitoring instruments and devices used to comply with the prescribed monitoring program.

B. Annual Monitoring Reports

An Annual Report shall be prepared as the December monthly monitoring report. The Annual Report shall include all monitoring data required in the monthly schedule. The Annual Report shall be submitted to the Regional Board by **1 February** each year. In addition to the data normally presented, the Annual Report shall include the following:

1. If requested by staff, tabular and graphical summaries of all data collected during the year;

2. An evaluation of the performance of the wastewater treatment system, as well as a forecast of the flows anticipated in the next year;
3. A discussion of compliance and the corrective actions taken, as well as any planned or proposed actions needed to bring the discharge into full compliance with the waste discharge requirements;
4. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program; and
5. A Water Balance and Capacity Calculation Report that demonstrates adequate storage and disposal capacity to ensure full compliance with the WDRs. The water balance shall evaluate the ponds' ability to provide sufficient capacity on a monthly basis, and shall consider evaporation, direct precipitation, storm water runoff contribution, percolation, and estimated rate of sedimentation. Rainfall amounts shall be based on the total annual precipitation based on a return period of 100 years, distributed monthly in accordance with historical rainfall patterns. Note that the established maximum daily percolation rate cannot exceed ten percent of the minimum saturated hydraulic conductivity and the evaporation rate cannot exceed 80 percent of the established pan evaporation rate for the area. For the purpose of this analysis, "full compliance" means maintaining two feet of freeboard in all ponds.

A transmittal letter shall accompany each self-monitoring report. The letter shall discuss any violations during the reporting period and all actions taken or planned for correcting violations, such as operation or facility modifications. If the Discharger has previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain a statement by the Discharger or the Discharger's authorized agent, under penalty of perjury, that to the best of the signer's knowledge the report is true, accurate, and complete.

The Discharger shall implement the above monitoring program as of the date of this Order.

THOMAS R. PINKOS, Executive Officer

6 December 2002

(Date)