

APPENDIX "A"

SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT

RULE 403

(Adopted May 7, 1976) (Amended November 6, 1992)
(Amended July 9, 1993) (Amended February 14, 1997)
(Amended December 11, 1998)(Amended April 2, 2004)
(Amended June 3, 2005)

RULE 403. FUGITIVE DUST

(a) Purpose

The purpose of this Rule is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions.

(b) Applicability

The provisions of this Rule shall apply to any activity or man-made condition capable of generating fugitive dust.

(c) Definitions

- (1) ACTIVE OPERATIONS means any source capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, disturbed surface area, or heavy- and light-duty vehicular movement.
- (2) AGGREGATE-RELATED PLANTS are defined as facilities that produce and / or mix sand and gravel and crushed stone.
- (3) AGRICULTURAL HANDBOOK means the region-specific guidance document that has been approved by the Governing Board or hereafter approved by the Executive Officer and the U.S. EPA. For the South Coast Air Basin, the Board-approved region-specific guidance document is the Rule 403 Agricultural Handbook dated December 1998. For the Coachella Valley, the Board-approved region-specific guidance document is the Rule 403 Coachella Valley Agricultural Handbook dated April 2, 2004.
- (4) ANEMOMETERS are devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria as contained in the most recent Rule 403 Implementation Handbook.
- (5) BEST AVAILABLE CONTROL MEASURES means fugitive dust control actions that are set forth in Table 1 of this Rule.

- (6) BULK MATERIAL is sand, gravel, soil, aggregate material less than two inches in length or diameter, and other organic or inorganic particulate matter.
- (7) CEMENT MANUFACTURING FACILITY is any facility that has a cement kiln at the facility.
- (8) CHEMICAL STABILIZERS are any non-toxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the California Air Resources Board, the U.S. Environmental Protection Agency (U.S. EPA), or any applicable law, rule or regulation. The chemical stabilizers shall meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a non-toxic chemical stabilizer shall be of sufficient concentration and application frequency to maintain a stabilized surface.
- (9) COMMERCIAL POULTRY RANCH means any building, structure, enclosure, or premises where more than 100 fowl are kept or maintained for the primary purpose of producing eggs or meat for sale or other distribution.
- (10) CONFINED ANIMAL FACILITY means a source or group of sources of air pollution at an agricultural source for the raising of 3,360 or more fowl or 50 or more animals, including but not limited to, any structure, building, installation, farm, corral, coop, feed storage area, milking parlor, or system for the collection, storage, or distribution of solid and liquid manure; if domesticated animals, including horses, sheep, goats, swine, beef cattle, rabbits, chickens, turkeys, or ducks are corralled, penned, or otherwise caused to remain in restricted areas for commercial agricultural purposes and feeding is by means other than grazing.
- (11) CONSTRUCTION/DEMOLITION ACTIVITIES means any on-site mechanical activities conducted in preparation of, or related to, the building, alteration, rehabilitation, demolition or improvement of property, including, but not limited to the following activities: grading, excavation, loading, crushing, cutting, planing, shaping or ground breaking.
- (12) CONTRACTOR means any person who has a contractual arrangement to conduct an active operation for another person.
- (13) DAIRY FARM is an operation on a property, or set of properties that are contiguous or separated only by a public right-of-way, that raises cows or

produces milk from cows for the purpose of making a profit or for a livelihood. Heifer and calf farms are dairy farms.

- (14) **DISTURBED SURFACE AREA** means a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have:
- (A) been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions;
 - (B) been paved or otherwise covered by a permanent structure; or
 - (C) sustained a vegetative ground cover of at least 70 percent of the native cover for a particular area for at least 30 days.
- (15) **DUST SUPPRESSANTS** are water, hygroscopic materials, or non-toxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions.
- (16) **EARTH-MOVING ACTIVITIES** means the use of any equipment for any activity where soil is being moved or uncovered, and shall include, but not be limited to the following: grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, weed abatement through disking, and soil mulching.
- (17) **DUST CONTROL SUPERVISOR** means a person with the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule 403 requirements at an active operation.
- (18) **FUGITIVE DUST** means any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of any person.
- (19) **HIGH WIND CONDITIONS** means that instantaneous wind speeds exceed 25 miles per hour.
- (20) **INACTIVE DISTURBED SURFACE AREA** means any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of 20 consecutive days.
- (21) **LARGE OPERATIONS** means any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic

meters (5,000 cubic yards) or more three times during the most recent 365-day period.

- (22) OPEN STORAGE PILE is any accumulation of bulk material, which is not fully enclosed, covered or chemically stabilized, and which attains a height of three feet or more and a total surface area of 150 or more square feet.
- (23) PARTICULATE MATTER means any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions.
- (24) PAVED ROAD means a public or private improved street, highway, alley, public way, or easement that is covered by typical roadway materials, but excluding access roadways that connect a facility with a public paved roadway and are not open to through traffic. Public paved roads are those open to public access and that are owned by any federal, state, county, municipal or any other governmental or quasi-governmental agencies. Private paved roads are any paved roads not defined as public.
- (25) PM₁₀ means particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods.
- (26) PROPERTY LINE means the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.
- (27) RULE 403 IMPLEMENTATION HANDBOOK means a guidance document that has been approved by the Governing Board on April 2, 2004 or hereafter approved by the Executive Officer and the U.S. EPA.
- (28) SERVICE ROADS are paved or unpaved roads that are used by one or more public agencies for inspection or maintenance of infrastructure and which are not typically used for construction-related activity.
- (29) SIMULTANEOUS SAMPLING means the operation of two PM₁₀ samplers in such a manner that one sampler is started within five minutes of the other, and each sampler is operated for a consecutive period which must be not less than 290 minutes and not more than 310 minutes.
- (30) SOUTH COAST AIR BASIN means the non-desert portions of Los Angeles, Riverside, and San Bernardino counties and all of Orange

County as defined in California Code of Regulations, Title 17, Section 60104. The area is bounded on the west by the Pacific Ocean, on the north and east by the San Gabriel, San Bernardino, and San Jacinto Mountains, and on the south by the San Diego county line.

- (31) STABILIZED SURFACE means any previously disturbed surface area or open storage pile which, through the application of dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust and is demonstrated to be stabilized. Stabilization can be demonstrated by one or more of the applicable test methods contained in the Rule 403 Implementation Handbook.
 - (32) TRACK-OUT means any bulk material that adheres to and agglomerates on the exterior surface of motor vehicles, haul trucks, and equipment (including tires) that have been released onto a paved road and can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
 - (33) TYPICAL ROADWAY MATERIALS means concrete, asphaltic concrete, recycled asphalt, asphalt, or any other material of equivalent performance as determined by the Executive Officer, and the U.S. EPA.
 - (34) UNPAVED ROADS means any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public.
 - (35) VISIBLE ROADWAY DUST means any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions.
 - (36) WIND-DRIVEN FUGITIVE DUST means visible emissions from any disturbed surface area which is generated by wind action alone.
 - (37) WIND GUST is the maximum instantaneous wind speed as measured by an anemometer.
- (d) Requirements
- (1) No person shall cause or allow the emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that:

- (A) the dust remains visible in the atmosphere beyond the property line of the emission source; or
 - (B) the dust emission exceeds 20 percent opacity (as determined by the appropriate test method included in the Rule 403 Implementation Handbook), if the dust emission is the result of movement of a motorized vehicle.
- (2) No person shall conduct active operations without utilizing the applicable best available control measures included in Table 1 of this Rule to minimize fugitive dust emissions from each fugitive dust source type within the active operation.
- (3) No person shall cause or allow PM₁₀ levels to exceed 50 micrograms per cubic meter when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other U.S. EPA-approved equivalent method for PM₁₀ monitoring. If sampling is conducted, samplers shall be:
- (A) Operated, maintained, and calibrated in accordance with 40 Code of Federal Regulations (CFR), Part 50, Appendix J, or appropriate U.S. EPA-published documents for U.S. EPA-approved equivalent method(s) for PM₁₀.
 - (B) Reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, such that other sources of fugitive dust between the sampler and the property line are minimized.
- (4) No person shall allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation. Notwithstanding the preceding, all track-out from an active operation shall be removed at the conclusion of each workday or evening shift.
- (5) No person shall conduct an active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk material without utilizing at least one of the measures listed in subparagraphs (d)(5)(A) through (d)(5)(E) at each vehicle egress from the site to a paved public road.
- (A) Install a pad consisting of washed gravel (minimum-size: one inch) maintained in a clean condition to a depth of at least six inches and extending at least 30 feet wide and at least 50 feet long.

- (B) Pave the surface extending at least 100 feet and at least 20 feet wide.
 - (C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
 - (D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
 - (E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the actions specified in subparagraphs (d)(5)(A) through (d)(5)(D).
- (6) Beginning January 1, 2006, any person who operates or authorizes the operation of a confined animal facility subject to this Rule shall implement the applicable conservation management practices specified in Table 4 of this Rule.
- (e) Additional Requirements for Large Operations
- (1) Any person who conducts or authorizes the conducting of a large operation subject to this Rule shall implement the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards can not be met through use of Table 2 actions; and shall:
 - (A) submit a fully executed Large Operation Notification (Form 403 N) to the Executive Officer within 7 days of qualifying as a large operation;
 - (B) include, as part of the notification, the name(s), address(es), and phone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;
 - (C) maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years; and make such records available to the Executive Officer upon request;

- (D) install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;
 - (E) identify a dust control supervisor that:
 - (i) is employed by or contracted with the property owner or developer;
 - (ii) is on the site or available on-site within 30 minutes during working hours;
 - (iii) has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements;
 - (iv) has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and
 - (F) notify the Executive Officer in writing within 30 days after the site no longer qualifies as a large operation as defined by paragraph (c)(18).
- (2) Any Large Operation Notification submitted to the Executive Officer or AQMD-approved dust control plan shall be valid for a period of one year from the date of written acceptance by the Executive Officer. Any Large Operation Notification accepted pursuant to paragraph (e)(1), excluding those submitted by aggregate-related plants and cement manufacturing facilities must be resubmitted annually by the person who conducts or authorizes the conducting of a large operation, at least 30 days prior to the expiration date, or the submittal shall no longer be valid as of the expiration date. If all fugitive dust sources and corresponding control measures or special circumstances remain identical to those identified in the previously accepted submittal or in an AQMD-approved dust control plan, the resubmittal may be a simple statement of no-change (Form 403NC).
- (f) **Compliance Schedule**
The newly amended provisions of this Rule shall become effective upon adoption. Pursuant to subdivision (e), any existing site that qualifies as a large operation will have 60 days from the date of Rule adoption to comply with the notification and recordkeeping requirements for large operations. Any Large Operation

Notification or AQMD-approved dust control plan which has been accepted prior to the date of adoption of these amendments shall remain in effect and the Large Operation Notification or AQMD-approved dust control plan annual resubmittal date shall be one year from adoption of this Rule amendment.

(g) Exemptions

- (1) The provisions of this Rule shall not apply to:
 - (A) Dairy farms.
 - (B) Confined animal facilities provided that the combined disturbed surface area within one continuous property line is one acre or less.
 - (C) Agricultural vegetative crop operations provided that the combined disturbed surface area within one continuous property line and not separated by a paved public road is 10 acres or less.
 - (D) Agricultural vegetative crop operations within the South Coast Air Basin, whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:
 - (i) voluntarily implements the conservation management practices contained in the Rule 403 Agricultural Handbook;
 - (ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Agricultural Handbook; and
 - (iii) makes the completed self-monitoring form available to the Executive Officer upon request.
 - (E) Agricultural vegetative crop operations outside the South Coast Air Basin whose combined disturbed surface area includes more than 10 acres provided that the person responsible for such operations:
 - (i) voluntarily implements the conservation management practices contained in the Rule 403 Coachella Valley Agricultural Handbook; and
 - (ii) completes and maintains the self-monitoring form documenting sufficient conservation management practices, as described in the Rule 403 Coachella Valley Agricultural Handbook; and
 - (iii) makes the completed self-monitoring form available to the Executive Officer upon request.

- (F) Active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency.
 - (G) Active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water and sewer during periods of service outages and emergency disruptions.
 - (H) Any contractor subsequent to the time the contract ends, provided that such contractor implemented the required control measures during the contractual period.
 - (I) Any grading contractor, for a phase of active operations, subsequent to the contractual completion of that phase of earth-moving activities, provided that the required control measures have been implemented during the entire phase of earth-moving activities, through and including five days after the final grading inspection.
 - (J) Weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided that:
 - (i) mowing, cutting or other similar process is used which maintains weed stubble at least three inches above the soil; and
 - (ii) any discing or similar operation which cuts into and disturbs the soil, where watering is used prior to initiation of these activities, and a determination is made by the agency issuing the weed abatement order that, due to fire hazard conditions, rocks, or other physical obstructions, it is not practical to meet the conditions specified in clause (g)(1)(H)(i). The provisions this clause shall not exempt the owner of any property from stabilizing, in accordance with paragraph (d)(2), disturbed surface areas which have been created as a result of the weed abatement actions.
 - (K) sandblasting operations.
- (2) The provisions of paragraphs (d)(1) and (d)(3) shall not apply:
- (A) When wind gusts exceed 25 miles per hour, provided that:

- (i) The required Table 3 contingency measures in this Rule are implemented for each applicable fugitive dust source type, and;
 - (ii) records are maintained in accordance with subparagraph (e)(1)(C).
 - (B) To unpaved roads, provided such roads:
 - (i) are used solely for the maintenance of wind-generating equipment; or
 - (ii) are unpaved public alleys as defined in Rule 1186; or
 - (iii) are service roads that meet all of the following criteria:
 - (a) are less than 50 feet in width at all points along the road;
 - (b) are within 25 feet of the property line; and
 - (c) have a traffic volume less than 20 vehicle-trips per day.
 - (C) To any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act, as determined in writing by the State or federal agency responsible for making such determinations.
- (3) The provisions of (d)(2) shall not apply to any aggregate-related plant or cement manufacturing facility that implements the applicable actions specified in Table 2 of this Rule at all times and shall implement the applicable actions specified in Table 3 of this Rule when the applicable performance standards of paragraphs (d)(1) and (d)(3) can not be met through use of Table 2 actions.
- (4) The provisions of paragraphs (d)(1), (d)(2), and (d)(3) shall not apply to:
- (A) Blasting operations which have been permitted by the California Division of Industrial Safety; and
 - (B) Motion picture, television, and video production activities when dust emissions are required for visual effects. In order to obtain this exemption, the Executive Officer must receive notification in writing at least 72 hours in advance of any such activity and no nuisance results from such activity.
- (5) The provisions of paragraph (d)(3) shall not apply if the dust control actions, as specified in Table 2, are implemented on a routine basis for

each applicable fugitive dust source type. To qualify for this exemption, a person must maintain records in accordance with subparagraph (e)(1)(C).

- (6) The provisions of paragraph (d)(4) shall not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles provided that such roadway is closed to through traffic and visible roadway dust is removed within one day following the cessation of activities.
- (7) The provisions of subdivision (e) shall not apply to:
 - (A) officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks.
 - (B) any large operation which is required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance.
 - (C) any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided that all sources of fugitive dust are included in the Rule 1158 plan.
- (8) The provisions of subparagraph (e)(1)(A) through (e)(1)(C) shall not apply to any large operation with an AQMD-approved fugitive dust control plan provided that there is no change to the sources and controls as identified in the AQMD-approved fugitive dust control plan.

(h) Fees

Any person conducting active operations for which the Executive Officer conducts upwind/downwind monitoring for PM₁₀ pursuant to paragraph (d)(3) shall be assessed applicable Ambient Air Analysis Fees pursuant to Rule 304.1. Applicable fees shall be waived for any facility which is exempted from paragraph (d)(3) or meets the requirements of paragraph (d)(3).

TABLE 1
BEST AVAILABLE CONTROL MEASURES
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling; and 01-2 Stabilize backfill material during handling; and 01-3 Stabilize soil at completion of activity.	<ul style="list-style-type: none"> ✓ Mix backfill soil with water prior to moving ✓ Dedicate water truck or high capacity hose to backfilling equipment ✓ Empty loader bucket slowly so that no dust plumes are generated ✓ Minimize drop height from loader bucket
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing; and 02-2 Stabilize soil during clearing and grubbing activities; and 02-3 Stabilize soil immediately after clearing and grubbing activities.	<ul style="list-style-type: none"> ✓ Maintain live perennial vegetation where possible ✓ Apply water in sufficient quantity to prevent generation of dust plumes
Clearing forms	03-1 Use water spray to clear forms; or 03-2 Use sweeping and water spray to clear forms; or 03-3 Use vacuum system to clear forms.	<ul style="list-style-type: none"> ✓ Use of high pressure air to clear forms may cause exceedance of Rule requirements
Crushing	04-1 Stabilize surface soils prior to operation of support equipment; and 04-2 Stabilize material after crushing.	<ul style="list-style-type: none"> ✓ Follow permit conditions for crushing equipment ✓ Pre-water material prior to loading into crusher ✓ Monitor crusher emissions opacity ✓ Apply water to crushed material to prevent dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Cut and fill	05-1 Pre-water soils prior to cut and fill activities; and	✓ For large sites, pre-water with sprinklers or water trucks and allow time for penetration
	05-2 Stabilize soil during and after cut and fill activities.	✓ Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust; and	✓ Apply water in sufficient quantities to prevent the generation of visible dust plumes
	06-2 Stabilize surface soil where support equipment and vehicles will operate; and	
	06-3 Stabilize loose soil and demolition debris; and	
	06-4 Comply with AQMD Rule 1403.	
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site; and	✓ Limit vehicular traffic and disturbances on soils where possible
	07-2 Stabilize disturbed soil between structures	✓ If interior block walls are planned, install as early as possible ✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts; and	✓ Grade each project phase separately, timed to coincide with construction phase
	08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction; and	✓ Upwind fencing can prevent material movement on site
	08-3 Stabilize soils once earth-moving activities are complete.	✓ Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes

TABLE 1
BEST AVAILABLE CONTROL MEASURES
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions; and	✓ Use tarps or other suitable enclosures on haul trucks
	09-2 Maintain at least six inches of freeboard on haul vehicles; and	✓ Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage
	09-3 Stabilize material while transporting to reduce fugitive dust emissions; and	✓ Comply with track-out prevention/mitigation requirements
	09-4 Stabilize material while unloading to reduce fugitive dust emissions; and	✓ Provide water while loading and unloading to reduce visible dust plumes
	09-5 Comply with Vehicle Code Section 23114.	
Landscaping	10-1 Stabilize soils, materials, slopes	✓ Apply water to materials to stabilize ✓ Maintain materials in a crusted condition ✓ Maintain effective cover over materials ✓ Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes ✓ Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing; and	✓ Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs
	11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance.	✓ Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs

TABLE 1
BEST AVAILABLE CONTROL MEASURES
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Screening	12-1 Pre-water material prior to screening; and 12-2 Limit fugitive dust emissions to opacity and plume length standards; and 12-3 Stabilize material immediately after screening.	<ul style="list-style-type: none"> ✓ Dedicate water truck or high capacity hose to screening operation ✓ Drop material through the screen slowly and minimize drop height ✓ Install wind barrier with a porosity of no more than 50% upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use; and 13-2 Stabilize staging area soils at project completion.	<ul style="list-style-type: none"> ✓ Limit size of staging area ✓ Limit vehicle speeds to 15 miles per hour ✓ Limit number and size of staging area entrances/exists
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials. 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage.	<ul style="list-style-type: none"> ✓ Add or remove material from the downwind portion of the storage pile ✓ Maintain storage piles to avoid steep sides or faces

TABLE 1
BEST AVAILABLE CONTROL MEASURES
(Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas; and 15-2 Stabilize all haul routes; and 15-3 Direct construction traffic over established haul routes.	<ul style="list-style-type: none"> ✓ Apply gravel/paving to all haul routes as soon as possible to all future roadway areas ✓ Barriers can be used to ensure vehicles are only used on established parking areas/haul routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate; and 16-2 Stabilize soils at the completion of trenching activities.	<ul style="list-style-type: none"> ✓ Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches soak soils via the pre-trench and resuming trenching ✓ Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
Truck loading	17-1 Pre-water material prior to loading; and 17-2 Ensure that freeboard exceeds six inches (CVC 231114)	<ul style="list-style-type: none"> ✓ Empty loader bucket such that no visible dust plumes are created ✓ Ensure that the loader bucket is close to the truck to minimize drop height while loading
Turf Overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards; and 18-2 Cover haul vehicles prior to exiting the site.	<ul style="list-style-type: none"> ✓ Haul waste material immediately off-site

TABLE 1
BEST AVAILABLE CONTROL MEASURES
 (Applicable to All Construction Activity Sources)

Source Category	Control Measure	Guidance
Unpaved roads/parking lots	19-1 Stabilize soils to meet the applicable performance standards; and 19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots.	✓ Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
Vacant land	20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

Table 2
DUST CONTROL MEASURES FOR LARGE OPERATIONS

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Earth-moving (except construction cutting and filling areas, and mining operations)	<p>(1a) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR</p> <p>(1a-1) For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.</p>
Earth-moving: Construction fill areas:	<p>(1b) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.</p>

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Earth-moving: Construction cut areas and mining operations:	(1c) Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed surface areas (except completed grading areas)	(2a/b) Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
Disturbed surface areas: Completed grading areas	(2c) Apply chemical stabilizers within five working days of grading completion; OR (2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas.
Inactive disturbed surface areas	(3a) Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR (3b) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (3c) Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR (3d) Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas.

Table 2 (Continued)

FUGITIVE DUST SOURCE CATEGORY	CONTROL ACTIONS
Unpaved Roads	<p>(4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations [3 times per normal 8 hour work day]; OR</p> <p>(4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR</p> <p>(4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.</p>
Open storage piles	<p>(5a) Apply chemical stabilizers; OR</p> <p>(5b) Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR</p> <p>(5c) Install temporary coverings; OR</p> <p>(5d) Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.</p>
All Categories	<p>(6a) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.</p>

**TABLE 3
CONTINGENCY CONTROL MEASURES FOR LARGE OPERATIONS**

FUGITIVE DUST SOURCE CATEGORY	CONTROL MEASURES
Earth-moving	(1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.
Disturbed surface areas	(0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.
Unpaved roads	(1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.
Open storage piles	(1D) Apply water twice per hour; OR (2D) Install temporary coverings.
Paved road track-out	(1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.
All Categories	(1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

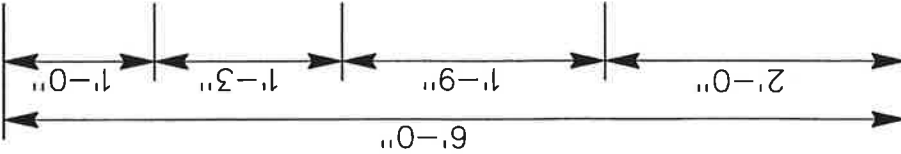
Table 4
(Conservation Management Practices for Confined Animal Facilities)

SOURCE CATEGORY	CONSERVATION MANAGEMENT PRACTICES
Manure Handling (Only applicable to Commercial Poultry Ranches)	(1a) Cover manure prior to removing material off-site; AND (1b) Spread the manure before 11:00 AM and when wind conditions are less than 25 miles per hour; AND (1c) Utilize coning and drying manure management by removing manure at laying hen houses at least twice per year and maintain a base of no less than 6 inches of dry manure after clean out; or in lieu of complying with conservation management practice (1c), comply with conservation management practice (1d). (1d) Utilize frequent manure removal by removing the manure from laying hen houses at least every seven days and immediately thin bed dry the material.
Feedstock Handling	(2a) Utilize a sock or boot on the feed truck auger when filling feed storage bins.
Disturbed Surfaces	(3a) Maintain at least 70 percent vegetative cover on vacant portions of the facility; OR (3b) Utilize conservation tillage practices to manage the amount, orientation and distribution of crop and other plant residues on the soil surface year-round, while growing crops (if applicable) in narrow slots or tilled strips; OR (3c) Apply dust suppressants in sufficient concentrations and frequencies to maintain a stabilized surface.
Unpaved Roads	(4a) Restrict access to private unpaved roads either through signage or physical access restrictions and control vehicular speeds to no more than 15 miles per hour through worker notifications, signage, or any other necessary means; OR (4b) Cover frequently traveled unpaved roads with low silt content material (i.e., asphalt, concrete, recycled road base, or gravel to a minimum depth of four inches); OR (4c) Treat unpaved roads with water, mulch, chemical dust suppressants or other cover to maintain a stabilized surface.
Equipment Parking Areas	(5a) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (5b) Apply material with low silt content (i.e., asphalt, concrete, recycled road base, or gravel to a depth of four inches).

APPENDIX "B"

PROJECT SIGNS

8'-0"



RIVERSIDE COUNTY FLOOD CONTROL ^①
AND
WATER CONSERVATION DISTRICT

CORONA DRAINS - EAST
ONTARIO AVE. SD
STAGES 1 AND 2

CORONA DRAINS
LINE 1G
STAGE 2 ^②

TOTAL CONSTRUCTION COST: \$ ^③ ✖
FUNDED BY RIVERSIDE COUNTY FLOOD CONTROL AND
WATER CONSERVATION DISTRICT ^④

START DATE: ✖ ^④ APPROX. COMPLETION DATE: ✖

ENGINEER:
WARREN D. WILLIAMS
GENERAL MANAGER-CHIEF ENGINEER ^⑤
RIVERSIDE COUNTY FLOOD CONTROL
AND WATER CONSERVATION DISTRICT
RIVERSIDE, CALIFORNIA
(951) 955-1200

^④ CONTRACTOR: ✖

^⑤ 3/4" CDX GRADE
PLYWOOD

LETTER SCHEDULE

	<u>SIZE</u>	<u>COLOR</u>
①	2"	BLACK
②	4"	ROYAL
③	3"	ROYAL
④	2"	ROYAL
⑤	2"	BLACK



NOTES:

1. MINIMUM SPACING BETWEEN LINES 1".
2. ✖ -INFO. FURNISHED BY ENGINEER
3. ALL LETTERS FILLED AND CENTERED
4. THE STRIPES ARE GOLD AND BLACK ON WHITE BACKGROUND.

APPENDIX "B" PROJECT SIGN

APPENDIX "C"

LOG OF SOIL BORINGS

**CORONA DRAINS – EAST ONTARIO AVENUE
STORM DRAIN, STAGES 1 AND 2**

LOG OF BORING B-01

Elevation:	902.0	Date(s) Drilled:	1/27/09	Logged by:	FWC
Drilling Method:	Rotary Auger	Hammer Type:	Auto-Trip		
Drilling Rig:	CME-75	Hammer Weight:	140 lb.		
Boring Diameter:	8-inches	Hammer Drop:	30-inches		

DEPTH (ft)	GRAPHIC	USCS	SUMMARY OF SUBSURFACE CONDITIONS			SAMPLES			BLOWS/6"	MOISTURE (%)	DRY UNIT WT. (pcf)	RELATIVE COMPACTION (%)
			This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered and is representative of interpretations made during drilling. Contrasting data derived from laboratory analysis may not be reflected in these representations.	DRIVE SAMPLE	BULK SAMPLE	SAMPLE TYPE						
			ASPHALT CONCRETE over AGGREGATE BASE, (7 inches over 9 inches)									
5			ARTIFICIAL FILL, SILTY SAND, fine to coarse grained with trace clay, red brown, very moist, medium dense.			SS			12 18	9	121	
			ARTIFICIAL FILL, CLAYEY SAND, fine to coarse grained, dark gray brown, very moist, medium dense.									
		SC SM CL	SILTY, CLAYEY SAND, fine to medium grained, orange brown, moist, medium dense to dense, laminated.			SS			24 25	7	126	
10			SANDY CLAY, very fine to fine grained, dark gray, moist, hard, trace organics.									
		GS	SANDY GRAVEL with SILT, fine to coarse grained, gray brown, moist, dense.			SS			24 28	14	124	
15		SC	CLAYEY SAND, very fine to fine grained, dark yellow brown, moist, dense, moderately cemented.			SS			27	17	108	
			End of boring at 17 feet. No groundwater or mottling encountered.						50			

LOG OF BORING B-02

Elevation:	914.0	Date(s) Drilled:	1/27/09	Logged by:	FWC
Drilling Method:	Rotary Auger	Hammer Type:	Auto-Trip	Hammer Weight:	140 lb.
Drilling Rig:	CME-75	Hammer Drop:	30-inches		
Boring Diameter:	8-inches				

DEPTH (ft)	GRAPHIC	USCS	SUMMARY OF SUBSURFACE CONDITIONS <small>This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered and is representative of interpretations made during drilling. Contrasting data derived from laboratory analysis may not be reflected in these representations.</small>	SAMPLES			BLOWS/6"	MOISTURE (%)	DRY UNIT WT. (pcf)	RELATIVE COMPACTION (%)	
				DRIVE SAMPLE	BULK SAMPLE	SAMPLE TYPE					
			ASPHALT CONCRETE over AGGREGATE BASE, (6 inches over 8 inches)								
5		CL	SANDY CLAY, very fine grained, brown, slightly moist, very hard, moderately cemented.				32	7	119		
		SC	CLAYEY SAND with GRAVEL, very fine grained, brown, slightly moist, very dense, strongly cemented.		SS		37				
					SS		26	12	129		
					SS		50				
10		SC	CLAYEY SAND with GRAVEL, very fine to fine grained, dark gray brown, slightly moist, very dense, weakly cemented.				31	6	122		
					SS		50/5"				
15		CL	SANDY CLAY, very fine grained with trace gravel, orange brown, moist, very hard, strongly cemented.				40	8	122		
					SS		40				
20		MH	ELASTIC SILT with SAND, very fine to fine grained, orange brown to light olive, moist, hard, moderately cemented.				29	24	100		
					SS		50/4"				
25			SILTSTONE, very fine grained, mottled olive, very moist, very hard, strongly cemented, oxidized rootlets.				16	48	77		
					SS		25				
30			SILTSTONE, very fine grained, mottled blue gray, very moist, very hard, strongly cemented.				21	30	95		
					SS		50/4"				
			End of boring at 32.8 feet. No groundwater encountered. Mottling encountered at 23.5 feet.								
INLAND FOUNDATION ENGINEERING, INC.				Geotechnical Exploration Ontario Ave. Corona Area, CA Project No. R206-011				Figure No. A-4			

LOG OF BORING : B-04

Elevation:	894.5	Date(s) Drilled:	1/27/09	Logged by:	FWC
Drilling Method:	Rotary Auger	Hammer Type:	Auto-Trip		
Drilling Rig:	CME-75	Hammer Weight:	140 lb.		
Boring Diameter:	8-inches	Hammer Drop:	30-inches		

DEPTH (ft)	GRAPHIC	USCS	SUMMARY OF SUBSURFACE CONDITIONS			SAMPLES		BLOWS/6"	MOISTURE (%)	DRY UNIT WT. (pcf)	RELATIVE COMPACTION (%)
			This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered and is representative of interpretations made during drilling. Contrasting data derived from laboratory analysis may not be reflected in these representations.	DRIVE SAMPLE	BULK SAMPLE	SAMPLE TYPE					
			ASPHALT CONCRETE over AGGREGATE BASE, (6 inches over 17 inches)								
5			SANDY GRAVEL with CLAY, very fine grained, dark red brown, slightly moist, loose to medium dense.					4			
			5 N.R.								
10		SM	SILTY SAND, fine to coarse grained, dark gray brown, moist, medium dense.					17	6	134	
		SC	CLAYEY SAND, very fine to fine grained with trace gravel, dark gray brown, moist, medium dense.					29			
		GC	CLAYEY GRAVEL with SAND, very fine to fine grained, dark gray brown, moist, dense.					16	15	137	
15		SC	CLAYEY SAND, fine to medium grained, orange brown, moist, very dense					50			
20			SANDSTONE, very fine to fine grained with trace clay, orange brown, moist, very dense, moderately cemented.					31	7	103	
								50/3"			
25								50/4"	5	110	
30								50/5"	4	98	
35								50/5"	7	94	
40								50/5"	8	130	
			End of boring at 40.42 feet. No groundwater encountered. Mottling encountered at 30 feet.								

LOG OF BORING B-06

Elevation:	879.5	Date(s) Drilled:	1/26/09	Logged by:	FWC
Drilling Method:	Rotary Auger	Hammer Type:	Auto-Trip	Hammer Weight:	140 lb.
Drilling Rig:	CME-75	Hammer Drop:	30-inches		
Boring Diameter:	8-inches				

DEPTH (ft)	GRAPHIC	USCS	SUMMARY OF SUBSURFACE CONDITIONS			SAMPLES			BLOWS/6"	MOISTURE (%)	DRY UNIT WT. (pcf)	RELATIVE COMPACTION (%)
			This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered and is representative of interpretations made during drilling. Contrasting data derived from laboratory analysis may not be reflected in these representations.	DRIVE SAMPLE	BULK SAMPLE	SAMPLE TYPE						
			ASPHALT CONCRETE, (7 inches)									
5	GC		ARTIFICIAL FILL, SANDY GRAVEL with SILT, fine to coarse grained, gray brown, slightly moist, dense. CLAYEY GRAVEL with SAND , very fine grained, red brown, moist, hard.	SS		19 20	2	137				
10	CL		SANDY CLAY , very fine grained, dark red brown, moist, very hard, strongly cemented.	SS		27 25	9	117				
15	SM		SILTY SAND , very fine to fine grained with trace clay, red brown, moist, very dense.	SS		35 50/4"	15	121				
20			SANDSTONE , very fine to fine grained with trace clay, light olive, moist, dense, high weathered, slightly cemented.	SS		25 50/4"	10	97				
25				SS		15 50/4"	10	101				
30				SS		31 50/3"	13	97				
			End of boring at 31.75 feet. No groundwater encountered. Mottling encountered at 25 feet.	SS		44 50/3"	12	95				
INLAND FOUNDATION ENGINEERING, INC.						Geotechnical Exploration Ontario Ave. Corona Area, CA Project No. R206-011				Figure No. A-8		

LOG OF BORING B-07

Elevation:	874.3	Date(s) Drilled:	1/27/09	Logged by:	FWC
Drilling Method:	Rotary Auger	Hammer Type:	Auto-Trip	Hammer Weight:	140 lb.
Drilling Rig:	CME-75	Hammer Drop:	30-inches		
Boring Diameter:	8-inches				

DEPTH (ft)	GRAPHIC	USCS	SUMMARY OF SUBSURFACE CONDITIONS			SAMPLES			BLOWS/6"	MOISTURE (%)	DRY UNIT WT. (pcf)	RELATIVE COMPACTION (%)
			This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered and is representative of interpretations made during drilling. Contrasting data derived from laboratory analysis may not be reflected in these representations.	DRIVE SAMPLE	BULK SAMPLE	SAMPLE TYPE						
			ASPHALT CONCRETE, (7 inches)									
5			ARTIFICIAL FILL, CLAYEY GRAVEL with SAND, fine to medium grained, dark gray brown, moist, medium dense. - thin interbedded layers clay throughout -					SS	10 8	9	115	
10		GP GC	GRAVEL with CLAY and SAND, fine to coarse grained, dark gray brown, moist, medium dense.					SS	8 10	5 15	115 118	
15		CL	SANDY CLAY, very fine to fine grained, dark gray brown, moist, very hard.					SS	23 34	12	124	
20			SANDSTONE, very fine to fine grained, olive gray, moist, very dense, highly weathered, weakly cemented.					SS	34 49	12	106	
25			- mottled olive gray -					SS	42 50/4"	21	107	
			End of boring at 29.33 feet. No groundwater encountered. Mottling encountered at 23 feet.					SS	41	24	105	
									50/4"			

LOG OF BORING B-08

Elevation:	867.5	Date(s) Drilled:	1/26/09	Logged by:	FWC
Drilling Method:	Rotary Auger	Hammer Type:	Auto-Trip		
Drilling Rig:	CME-75	Hammer Weight:	140 lb.		
Boring Diameter:	8-inches	Hammer Drop:	30-inches		

DEPTH (ft)	GRAPHIC	USCS	SUMMARY OF SUBSURFACE CONDITIONS <small>This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered and is representative of interpretations made during drilling. Contrasting data derived from laboratory analysis may not be reflected in these representations.</small>	SAMPLES			BLOWS/6"	MOISTURE (%)	DRY UNIT WT. (pcf)	RELATIVE COMPACTION (%)
				DRIVE SAMPLE	BULK SAMPLE	SAMPLE TYPE				
			ASPHALT CONCRETE over AGGREGATE BASE, (4.5 inches over 8 inches)							
5	GC SC		SANDY GRAVEL with CLAY, fine to coarse grained, gray brown, slightly moist, medium dense.	SS		21 50	6	119		
			CLAYEY SAND with GRAVEL, fine to coarse grained, gray brown, slightly moist, medium dense.							
10	GP GC		SANDY GRAVEL with CLAY, fine to coarse grained, dark gray brown, slightly moist, very dense.	SS		34 50	9	128		
15	GS		SANDY GRAVEL with SILT, fine to coarse grained, dark gray brown, slightly moist, very dense.	SS		26 50	6	121		
20	GC		SANDY GRAVEL with SILT, fine to coarse grained, dark gray brown, slightly moist, very dense.	SS		44 50/4"	5	127		
			CLAYEY GRAVEL with SAND, fine to coarse grained, dark gray brown, very moist to wet, very hard.							
			SANDSTONE, very fine to fine grained, light olive, very moist, dense, severely weathered.	SS		30 33	8	131		
			End of boring at 23.5 feet. Groundwater encountered at 22 feet.							

INLAND FOUNDATION ENGINEERING, INC.

Geotechnical Exploration
Ontario Ave.
Corona Area, CA
Project No. R206-011

Figure No.
A-10

LOG OF BORING B-09

Elevation:	857.0	Date(s) Drilled:	1/26/09	Logged by:	FWC
Drilling Method:	Rotary Auger	Hammer Type:	Auto-Trip		
Drilling Rig:	CME-75	Hammer Weight:	140 lb.		
Boring Diameter:	8-inches	Hammer Drop:	30-inches		

DEPTH (ft)	GRAPHIC	USCS	SUMMARY OF SUBSURFACE CONDITIONS			SAMPLES			BLOWS/6"	MOISTURE (%)	DRY UNIT WT. (pcf)	RELATIVE COMPACTION (%)
			This summary applies only at the location of the boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered and is representative of interpretations made during drilling. Contrasting data derived from laboratory analysis may not be reflected in these representations.	DRIVE SAMPLE	BULK SAMPLE	SAMPLE TYPE						
5		SC	ARTIFICIAL FILL, SANDY GRAVEL with SILT, fine to coarse grained, gray brown, slightly moist, dense.									
		SC	CLAYEY SAND with GRAVEL , fine to medium grained, orange brown, slightly moist, dense.		SS	50/5"	5	117				
		CL	CLAYEY SAND , very fine to fine grained, dark brown, moist, dense.		SS	12	18	109				
			CLAY with SAND , very fine grained, dark gray brown, very moist, stiff.		SS	43	21	108				
10			SANDSTONE , very fine to fine grained, light olive, very moist, dense, relatively soft, calcium deposits.		SS	50/4"	25	103				
15					SS	39	25	103				
			End of boring at 17.42 feet. No groundwater encountered. Mottling encountered at 11 feet.			50/5"						

CORONA DRAINS – LINE 1G, STAGE 2

TEST DATA

LOG OF BORING B-1

Line 1G

Station 12+00

DEPTH IN FEET	ESTIMATED SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY	U.S.C.S	DESCRIPTION
0								ASPHALT CONCRETE: approximately 3.5" in thickness.
								@ 0.29 feet AGGREGATE BASE: approximately 8" in thickness.
14	14	7, 11	4.3	111.9	SM			@ 1 foot ALLUVIUM: SILTY SAND with gravel, approximately 20% mostly fine angular gravel, 10% coarse grained sand, 20% medium grained sand, 25% fine grained sand, 25% silty fines; reddish brown, moist, medium dense.
5	19		11.0	120.8				@ 6 +/- feet, becomes slightly finer grained; less gravel.
10	30		4.0	126.8				@ 10 feet, increase in gravel, approximately 30% angular gravel, 10% coarse grained sand, 20% medium grained sand, 20% fine grained sand, 20% silty fines; dense to very dense, trace to minor amounts of clay, weakly cemented, yellowish-brown to reddish brown.
15	46	3	6.6	128.7				
20	41	11	5.7	122.1				@ 20 feet, sandier, approximately 20% fine gravel, 20% coarse grained sand, 25% medium grained sand, 20% fine grained sand, 15% silty fines.
25	29		12.8	121.8			SC	@ 23 feet, CLAYEY SAND with gravel, approximately 15% fine gravel, 10% coarse grained sand, 20% medium grained sand, 20% fine grained sand, 35% silty to clayey fines; reddish brown, moist, non-porous, dense to very dense.
30	27-6"		6.7	117.6			SM	@ 28 +/- feet, SILTY SAND with gravel, approximately 25% fine angular gravel, 15% coarse grained sand, 15% medium grained sand, 20% fine grained sand, 25% silty fines; reddish brown, moist, very dense.
35	32		18.9	109.6				@ 32 +/- feet, occasional clayey sand to sandy clay layers and lenses included.
								END OF BORING
								No fill No groundwater No bedrock

PROJECT:	Corona Drain Lines 1G, 1H, & 1J	PROJECT NUMBER:	62266.9
CLIENT:	Riverside County Flood Control & Water District	DATE DRILLED:	May 16, 2006
LOR GEOTECHNICAL GROUP INC.		EQUIPMENT:	CME 55
		HOLE DIA.:	ENCLOSURE: B-3

TEST DATA

LOG OF BORING B-2

Line 1G

Station 19+50

DEPTH IN FEET	TEST DATA				SAMPLE TYPE	LITHOLOGY	U.S.C.S	DESCRIPTION
	ESTIMATED SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)				
0								ASPHALT CONCRETE: approximately 3" in thickness.
14	14		10.8	124.0	SM			@ 0.25 feet AGGREGATE BASE: approximately 6" in thickness.
5	27	9, 10	9.4	123.4				@ 0.75 feet ALLUVIUM: SILTY SAND with gravel, approximately 30% mostly fine angular gravel, 10% coarse grained sand, 20% medium grained sand, 20% fine grained sand, 20% silty fines.
10	14	9	15.6	114.3				@ 4 feet approximately 25% gravel, 10% coarse grained sand, 5% medium grained sand, 15% fine grained sand, 45% silty fines.
15	29		6.8	133.5				@ 5 feet, local clayey sand, lenses included.
20	53		5.8	130.2				@ 8 +/- feet, approximately 20% fine angular gravel, 10% coarse grained sand, 15% medium grained sand, 25% fine grained sand, 30% silty to clayey fines.
25	33		6.1	122.9				@ 13 +/- feet, CLAYEY SAND with gravel, approximately 20% fine angular gravel, 10% coarse grained sand, 20% medium grained sand, 25% fine grained sand, 25% clayey to silty fines; brown, moist, non-porous, dense to very dense.
30								@ 20 feet, slightly more fines, very dense.
35								@ 25 feet, increase in sand and gravel, decrease in fines.
								END OF BORING
								No fill No groundwater No bedrock

PROJECT:	Corona Drain Lines 1G, 1H, & 1J	PROJECT NUMBER:	62266.9
CLIENT:	Riverside County Flood Control & Water District	DATE DRILLED:	May 16, 2006
LOR GEOTECHNICAL GROUP INC.		EQUIPMENT:	CME 55
		HOLE DIA.:	ENCLOSURE: B-4

TEST DATA

LOG OF BORING B-3

Line 1G

Station 26+60

DEPTH IN FEET	ESTIMATED SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY	U.S.C.S	DESCRIPTION
0								
	24		3.9	123.2	█		SM	ASPHALT CONCRETE: approximately 5" in thickness. @ 0.42 feet AGGREGATE BASE: approximately 4" in thickness covered by a 3" thick layer of angular rocks.
5	9	9	5.3	119.7	█			@ 1 foot ALLUVIUM: SILTY SAND with gravel, approximately 30% mostly fine angular gravel, 15% coarse grained sand, 15% medium grained sand, 15% fine grained sand, 25% silty fines, brown, moist, medium dense.
10	12	3	4.6	113.8	█			@ 10 feet, contains local minor clay (lenses, thin layers).
15	29-4"				█			@ 14 to 16 +/- feet, increase in gravel content, likely minor cobbles.
20	15		12.9	119.1	█		SC	@ 18 +/- feet, CLAYEY SAND with gravel, approximately 25% gravel, 10% coarse grained sand, 20% medium grained sand, 20% fine grained sand, 25% clayey to silty fines; brown, moist, non-porous, medium dense.
25	29		14.3	120.1	█			@ 25 +/- feet, increase in fines, dense to very dense.
30								END OF BORING No fill No groundwater No bedrock
35								

PROJECT:	Corona Drain Lines 1G, 1H, & 1J	PROJECT NUMBER:	62266.9
CLIENT:	Verside County Flood Control & Water District	DATE DRILLED:	May 16, 2006
LOR GEOTECHNICAL GROUP INC.		EQUIPMENT:	CME 55
		HOLE DIA.:	ENCLOSURE: B-5

LOG OF BORING B-4

Line 1H
Station 41+00

TEST DATA						
DEPTH IN FEET	ESTIMATED SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY
0						
23			10.6	126.9		SM
5	47		10.4	127.4		
10	26	7, 11 9	7.2	126.1		
15	55-11"		6.4	130.8		
20	29-6"		6.3	121.9		
25	54-11"		10.7	120.8		
30	21		15.4	116.3		CL
35						

DESCRIPTION

ASPHALT CONCRETE: approximately 4" in thickness.
 @ 0.33 feet AGGREGATE BASE: approximately 5" in thickness.
 @ 0.75 +/- feet, ALLUVIUM: SILTY SAND with clay, approximately 5% mostly fine gravel, 10% coarse grained sand, 25% medium grained sand, 30% fine grained sand, 30% silty to clayey fines; brown, moist, non-porous, medium dense to dense.

@ 5 feet, contains minor to abundant gravel.

@ 7 +/- feet, SILTY SAND with gravel, approximately 35% gravel, 5% coarse grained sand, 10% medium grained sand, 20% fine grained and, 30% silty to clayey fines; brown, moist, dense.

Below 15 +/- feet, very dense.

@ 28 +/- feet, SANDY LEAN CLAY, approximately 5% medium grained sand, 35% fine grained sand, 60% clayey to silty fines; brown, non-porous, stiff to hard.

END OF BORING
 No fill
 No groundwater
 No bedrock

PROJECT:	Corona Drain Lines 1G, 1H, & 1J	PROJECT NUMBER:	62266.9
CLIENT:	Riverside County Flood Control & Water District	DATE DRILLED:	May 16, 2006
LOR GEOTECHNICAL GROUP INC.		EQUIPMENT:	CME 55
		HOLE DIA.:	ENCLOSURE: B-6

TEST DATA

LOG OF BORING B-5

Line 1H

Station 49+25

DEPTH IN FEET	TEST DATA					LITHOLOGY	U.S.C.S	DESCRIPTION
	ESTIMATED SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE			
0								ASPHALT CONCRETE: approximately 6" in thickness. @ 0.5 feet AGGREGATE BASE: approximately 6" in thickness.
25	25		2.5	128.9	█	SM		@ 1 foot, ALLUVIUM: SILTY SAND with gravel, approximately 30% angular gravel, 15% coarse grained sand, 15% medium grained sand, 20% fine grained sand, 20% silty fines; brown, damp, non-porous, medium dense.
5	20	3 9, 10	2.9	101.4	█			@ 4 feet approximately 35% gravel, 10% coarse grained sand, 20% medium grained sand, 15% fine grained sand, 20% silty fines.
10	25	11	8.5	121.8	█			@ 5 +/- feet, local sandier layers/lenses.
15	53-10"		4.5	125.3	█			@ 11 +/- feet, clayey sand lense (tip of sampler). Below 12 +/- feet, increase in fines, approximately 30% silt and clay.
20	29-6"		7.7	126.0	█	CL		@ 20 +/- feet, SANDY LEAN CLAY, approximately 10% angular gravel, 5% coarse grained sand, 10% medium grained sand, 15% fine grained sand, 60% clayey to silty fines; yellowish-brown, moist, non-porous, hard.
25	40		5.7	125.2	█			
30								END OF BORING No fill No groundwater No bedrock
35								

PROJECT:	Corona Drain Lines 1G, 1H, & 1J	PROJECT NUMBER:	62266.9
CLIENT:	Perside County Flood Control & Water District	DATE DRILLED:	May 17, 2006
LOR GEOTECHNICAL GROUP INC.		EQUIPMENT:	CME 55
		HOLE DIA.:	ENCLOSURE: B-7

TEST DATA

LOG OF BORING B-6

Line 1J

Station 61+50

DEPTH IN FEET	TEST DATA				SAMPLE TYPE	LITHOLOGY	U.S.C.S	DESCRIPTION
	ESTIMATED SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)				
0								ASPHALT CONCRETE: approximately 4.5" in thickness. @ 0.38 feet AGGREGATE BASE: approximately 1.5" in thickness.
18	18	9, 10	9.7	122.1	█	SM		@ 0.5 +/- feet, ALLUVIUM: SILTY SAND with gravel, approximately 20% angular gravel, 10% coarse grained sand, 15% medium grained sand, 25% fine grained sand, 30% silty fines; brown, moist, non-porous, medium dense to dense.
5	51	3, 11	5.9	128.1	█			@ 2 feet approximately 25% gravel, 15% coarse grained sand, 10% medium grained sand, 15% fine grained sand, 35% silty fines. @ 5 +/- feet, contains minor clay, slight increase in gravel content.
10	31		5.8	125.2	█			@ 10 +/- feet, slightly sandier, approximately 20% fine angular gravel, 15% coarse grained sand, 25% medium grained sand, 25% fine grained sand, 15% silty fines.
15	19		9.3	116.8	█	SP SM		@ 15 +/- feet, POORLY GRADED SAND, increase in moisture content, less gravel (10 +/-% fine gravel), fewer fines (approximately 10%).
20	6		17.5	108.7	█	ML		@ 18 +/- feet, SANDY SILT, approximately 10% medium grained sand, 20% fine grained sand, 70% silty fines; yellowish-brown, moist, non-porous, medium to stiff.
25	11		17.7	109.2	█	CL		@ 22 +/- feet, SANDY LEAN CLAY, approximately 25% fine grained sand, 75% clayey to silty fines; yellowish-brown, moist, non-porous, slightly to moderately cohesive, slightly plastic, stiff.
30								END OF BORING No fill No groundwater No bedrock
35								

PROJECT:	Corona Drain Lines 1G, 1H, & 1J	PROJECT NUMBER:	62266.9
CLIENT:	iverside County Flood Control & Water District	DATE DRILLED:	May 17, 2006
LOR GEOTECHNICAL GROUP INC.		EQUIPMENT:	CME 55
		HOLE DIA.:	ENCLOSURE: B-8

TEST DATA

LOG OF BORING B-7

Line 1J

Station 68+00

DEPTH IN FEET	ESTIMATED SPT BLOW COUNTS	LABORATORY TESTS	MOISTURE CONTENT (%)	DRY DENSITY (PCF)	SAMPLE TYPE	LITHOLOGY	U.S.C.S	DESCRIPTION
0								
13	13	8, 9, 10	8.7	123.3			ML	ASPHALT CONCRETE: approximately 3" in thickness. @ 0.25 feet AGGREGATE BASE: approximately 3" in thickness. @ 0.5 feet, ALLUVIUM: SANDY SILT with gravel, approximately 15% mostly fine angular gravel, 10% coarse grained sand, 10% medium grained sand, 10% fine grained sand, 55% silty to clayey fines; brown, moist, non-porous, loose to medium dense.
5	8		6.9	117.7			SM	Below 5 +/- feet, becomes sandier, SILTY SAND with gravel, approximately 20% mostly fine gravel, 10% coarse grained sand, 15% medium grained sand, 15% fine grained sand, 40% silty to clayey fines, brown, moist, non-porous, loose to medium dense.
10	26	11	8.3	117.9				@ 10 feet, increase in gravel to approximately 30%, dense.
15	51		4.5	120.0				@ 15 feet, dense to very dense, locally sandier.
20	18		12.3	120.4			CL	@ 18 +/- feet, SANDY LEAN CLAY, approximately 5% medium grained sand, 25% fine grained sand, 70% clayey to silty fines; yellowish-brown, moist, non-porous, firm to stiff.
25	39		10.9	127.2				END OF BORING No fill No groundwater No bedrock
30								
35								

PROJECT:	Corona Drain Lines 1G, 1H, & 1J	PROJECT NUMBER:	62266.9
CLIENT:	Riverside County Flood Control & Water District	DATE DRILLED:	May 17, 2006
LOR GEOTECHNICAL GROUP INC.		EQUIPMENT:	CME 55
		HOLE DIA.:	ENCLOSURE: B-9

APPENDIX "D"

SWPPP CERTIFICATION

SWPPP Certification

Project Name: _____

Project Number: _____

"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 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, to the best of my knowledge and belief, the information submitted is 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."

Contractor's Signature

Date

Contractor's Name and Title

Telephone Number

APPENDIX "E"

RAIN EVENT ACTION PLAN (REAP)

Rain Event Action Plan (REAP)

Date:		WDID Number:	
Date Rain Predicted to Occur:		Predicted % chance of rain:	

Site Information:

Site Name, City and Zip Code _____ Project Risk Level: Risk Level 2 Risk Level 3

Site Stormwater Manager Information:

Name, Company, Emergency Phone Number (24/7) _____

Erosion and Sediment Control Contractor – Labor Force contracted for the site:

Name, Company, Emergency Phone Number (24/7) _____

Stormwater Sampling Agent:

Name, Company, Emergency Phone Number (24/7) _____

Current Phase of Construction

Check ALL the boxes below that apply to your site.

- | | | |
|---|---|--|
| <input type="checkbox"/> Grading and Land Development | <input type="checkbox"/> Vertical Construction | <input type="checkbox"/> Inactive Site |
| <input type="checkbox"/> Streets and Utilities | <input type="checkbox"/> Final Landscaping and Site Stabilization | <input type="checkbox"/> Other: |

Activities Associated with Current Phase(s)

Check ALL the boxes below that apply to your site (some apply to all Phases).

Grading and Land Development:

- | | | |
|---|--|---|
| <input type="checkbox"/> Demolition | <input type="checkbox"/> Vegetation Removal | <input type="checkbox"/> Vegetation Salvage-Harvest |
| <input type="checkbox"/> Rough Grade | <input type="checkbox"/> Finish Grade | <input type="checkbox"/> Blasting |
| <input type="checkbox"/> Soil Amendment(s): | <input type="checkbox"/> Excavation (_____ ft) | <input type="checkbox"/> Soils Testing |
| <input type="checkbox"/> Rock Crushing | <input type="checkbox"/> Erosion and Sediment Control | <input type="checkbox"/> Surveying |
| <input type="checkbox"/> Equip. Maintenance/Fueling | <input type="checkbox"/> Material Delivery and Storage | <input type="checkbox"/> Other: |

Streets and Utilities:

- | | | |
|--|---|--|
| <input type="checkbox"/> Finish Grade | <input type="checkbox"/> Utility Install: water-sewer-gas | <input type="checkbox"/> Paving Operations |
| <input type="checkbox"/> Equip. Maintenance/Fueling | <input type="checkbox"/> Storm Drain Installation | <input type="checkbox"/> Material Delivery & Storage |
| <input type="checkbox"/> Curb and Gutter/Concrete Pour | <input type="checkbox"/> Masonry | <input type="checkbox"/> Other: |

Vertical Construction:

- | | | |
|---|-------------------------------------|--|
| <input type="checkbox"/> Framing | <input type="checkbox"/> Carpentry | <input type="checkbox"/> Concrete/Forms/Foundation |
| <input type="checkbox"/> Masonry | <input type="checkbox"/> Electrical | <input type="checkbox"/> Painting |
| <input type="checkbox"/> Drywall/Interior Walls | <input type="checkbox"/> Plumbing | <input type="checkbox"/> Stucco |
| <input type="checkbox"/> Equip. Maintenance/Fueling | <input type="checkbox"/> HVAC | <input type="checkbox"/> Tile |
| <input type="checkbox"/> Exterior Siding | <input type="checkbox"/> Insulation | <input type="checkbox"/> Landscaping & Irrigation |
| <input type="checkbox"/> Flooring | <input type="checkbox"/> Roofing | <input type="checkbox"/> Other: |

Final Landscaping & Site Stabilization:

- | | | |
|--|---|--|
| <input type="checkbox"/> Stabilization | <input type="checkbox"/> Vegetation Establishment | <input type="checkbox"/> E&S Control BMP Removal |
| <input type="checkbox"/> Finish Grade | <input type="checkbox"/> Storage Yard/ Material Removal | <input type="checkbox"/> Landscape Installation |
| <input type="checkbox"/> Painting and Touch-Up | <input type="checkbox"/> Irrigation System Testing | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Drainage Inlet Stencils | <input type="checkbox"/> Inlet Filtration | <input type="checkbox"/> Perm. Water Quality Ponds |
| <input type="checkbox"/> Other: | <input type="checkbox"/> Other: | <input type="checkbox"/> Other: |

Inactive Construction Site:

- | | | |
|--|--|--|
| <input type="checkbox"/> E & S Control Device Installation | <input type="checkbox"/> Routine Site Inspection | <input type="checkbox"/> Trash Removal |
| <input type="checkbox"/> E & S Control Device Maintenance | <input type="checkbox"/> Street Sweeping | <input type="checkbox"/> Other: |

Rain Event Action Plan (REAP)

Date:			WDID Number:	
Trades Active on Site during Current Phase(s)				
<i>Check ALL the boxes below that apply to your site</i>				
<input type="checkbox"/>	Storm Drain Improvement	<input type="checkbox"/>	Grading Contractor	<input type="checkbox"/> Surveyor- Soil Technician
<input type="checkbox"/>	Street Improvements	<input type="checkbox"/>	Water Pipe Installation	<input type="checkbox"/> Sanitary Station Provider
<input type="checkbox"/>	Material Delivery	<input type="checkbox"/>	Sewer Pipe Installation	<input type="checkbox"/> Electrical
<input type="checkbox"/>	Trenching	<input type="checkbox"/>	Gas Pipe Installation	<input type="checkbox"/> Carpentry
<input type="checkbox"/>	Concrete Pouring	<input type="checkbox"/>	Electrical Installation	<input type="checkbox"/> Plumbing
<input type="checkbox"/>	Foundation	<input type="checkbox"/>	Communication Installation	<input type="checkbox"/> Masonry
<input type="checkbox"/>	Demolition	<input type="checkbox"/>	Erosion and Sediment Control	<input type="checkbox"/> Water, Sewer, Electric Utilities
<input type="checkbox"/>	Material Delivery	<input type="checkbox"/>	Equipment Fueling/Maintenance	<input type="checkbox"/> Rock Products
<input type="checkbox"/>	Tile Work- Flooring	<input type="checkbox"/>	Utilities, e.g., Sewer, Electric	<input type="checkbox"/> Painters
<input type="checkbox"/>	Drywall	<input type="checkbox"/>	Roofers	<input type="checkbox"/> Carpenters
<input type="checkbox"/>	HVAC installers	<input type="checkbox"/>	Stucco	<input type="checkbox"/> Pest Control: e.g., termite prevention
<input type="checkbox"/>	Exterior Siding	<input type="checkbox"/>	Masons	<input type="checkbox"/> Water Feature Installation
<input type="checkbox"/>	Insulation	<input type="checkbox"/>	Landscapers	<input type="checkbox"/> Utility Line Testers
<input type="checkbox"/>	Fireproofing	<input type="checkbox"/>	Riggers	<input type="checkbox"/> Irrigation System Installation
<input type="checkbox"/>	Steel Systems	<input type="checkbox"/>	Utility Line Testers	<input type="checkbox"/> Other:
Trade Contractor Information Provided				
<i>Check ALL the boxes below that apply to your site.</i>				
<input type="checkbox"/>	Educational Material Handout	<input type="checkbox"/>	Tailgate Meetings	<input type="checkbox"/> Training Workshop
<input type="checkbox"/>	Contractual Language	<input type="checkbox"/>	Fines and Penalties	<input type="checkbox"/> Signage
<input type="checkbox"/>	Other:	<input type="checkbox"/>	Other:	<input type="checkbox"/> Other:

Continued on next page.

Rain Event Action Plan (REAP)

Date of REAP		WDID Number:	
Date Rain Predicted to Occur:		Predicted % chance of rain:	

Predicted Rain Event Triggered Actions

Below is a list of suggested actions and items to review for this project. Each active Trade should check all material storage areas, stockpiles, waste management areas, vehicle and equipment storage and maintenance, areas of active soil disturbance, and areas of active work to ensure the proper implementation of BMPs. Project-wide BMPs should be checked and cross-referenced to the BMP progress map.

Trade or Activity	Suggested action(s) to perform / item(s) to review prior to rain event
<input type="checkbox"/> Information & Scheduling	<input type="checkbox"/> Inform trade supervisors of predicted rain <input type="checkbox"/> Check scheduled activities and reschedule as needed <input type="checkbox"/> Alert erosion/sediment control provider <input type="checkbox"/> Alert sample collection contractor (if applicable) <input type="checkbox"/> Schedule staff for extended rain inspections (including weekends & holidays) <input type="checkbox"/> Check Erosion and Sediment Control (ESC) material stock <input type="checkbox"/> Review BMP progress map <input type="checkbox"/> Other: _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> Material storage areas	<input type="checkbox"/> Material under cover or in sheds (ex: treated woods and metals) <input type="checkbox"/> Perimeter control around stockpiles <input type="checkbox"/> Other: _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> Waste management areas	<input type="checkbox"/> Dumpsters closed <input type="checkbox"/> Drain holes plugged <input type="checkbox"/> Recycling bins covered <input type="checkbox"/> Sanitary stations bermed and protected from tipping <input type="checkbox"/> Other: _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> Trade operations	<input type="checkbox"/> Exterior operations shut down for event (e.g., no concrete pours or paving) <input type="checkbox"/> Soil treatments (e.g., fertilizer) ceased within 24 hours of event <input type="checkbox"/> Materials and equipment (ex: tools) properly stored and covered <input type="checkbox"/> Waste and debris disposed in covered dumpsters or removed from site <input type="checkbox"/> Trenches and excavations protected <input type="checkbox"/> Perimeter controls around disturbed areas <input type="checkbox"/> Fueling and repair areas covered and bermed <input type="checkbox"/> Other: _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> Site ESC BMPs	<input type="checkbox"/> Adequate capacity in sediment basins and traps <input type="checkbox"/> Site perimeter controls in place <input type="checkbox"/> Catch basin and drop inlet protection in place and cleaned <input type="checkbox"/> Temporary erosion controls deployed <input type="checkbox"/> Temporary perimeter controls deployed around disturbed areas and stockpiles <input type="checkbox"/> Roads swept; site ingress and egress points stabilized <input type="checkbox"/> Other: _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> Concrete rinse out area	<input type="checkbox"/> Adequate capacity for rain <input type="checkbox"/> Wash-out bins covered <input type="checkbox"/> Other: _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____
<input type="checkbox"/> Spill and drips	<input type="checkbox"/> All incident spills and drips, including paint, stucco, fuel, and oil cleaned <input type="checkbox"/> Drip pans emptied <input type="checkbox"/> Other: _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____

APPENDIX "F"

RISK LEVEL 1 AND 2
VISUAL INSPECTION FIELD LOG SHEET

**Risk Level 1 and 2
Visual Inspection Field Log Sheet**

Date and Time of Inspection: _____ Report Date: _____

Inspection Type: Weekly Before predicted rain During rain event Following qualifying rain event Contained stormwater release Quarterly non-stormwater

Site Information

Construction Site Name: _____

Construction stage and completed activities: _____ Approximate area of exposed site: _____

Weather and Observations

Date Rain Predicted to Occur: _____ Predicted % chance of rain: _____

Estimate storm beginning: _____ (date and time)	Estimate storm duration: _____ (hours)	Estimate time since last storm: _____ (days or hours)	Rain gauge reading: _____ (inches)
--	--	---	------------------------------------

Observations: If yes identify location

Odors	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Floating material	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Suspended Material	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Sheen	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Discolorations	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Turbidity	Yes <input type="checkbox"/>	No <input type="checkbox"/>

Site Inspections

Outfalls or BMPs Evaluated	Deficiencies Noted
(add additional sheets or attached detailed BMP Inspection Checklists)	

Photos Taken: Yes No Photo Reference IDs: _____

Corrective Actions Identified (note if SWPPP/REAP change is needed)

Inspector Information

Inspector Name: _____ Inspector Title: _____

Signature: _____ Date: _____

Summary of Risk Level 1 and 2 Monitoring Requirements for Visual Inspections

Type of Monitoring	When
Non-stormwater inspection	Quarterly for each drainage area.
Qualifying rain event: Pre-rain inspection	All drainage areas, BMPs, and stormwater containments within two business days of each qualifying rain event.
Qualifying rain event: Post-rain inspection	All discharge locations within two business days after each qualifying rain event. Visually observe discharge of contained stormwater when discharged.
During rain inspection	See BMP inspection below.
BMP	Weekly and every 24 hours during extended storm events.

APPENDIX "G"

RISK LEVEL 2
EFFLUENT SAMPLING FIELD LOG SHEETS

**Risk Level 2
Effluent Sampling Field Log Sheets**

Construction Site Name:	Date:	Time Start:
-------------------------	-------	-------------

Sampler:

Sampling Event Type:	<input type="checkbox"/> Stormwater	<input type="checkbox"/> Non-stormwater	<input type="checkbox"/> Non-visible pollutant
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Field Meter Calibration

pH Meter ID No./Desc.:	Turbidity Meter ID No./Desc.:
Calibration Date/Time:	Calibration Date/Time:

Field pH and Turbidity Measurements

Discharge Location Description	pH	Turbidity	Time

Grab Samples Collected

Discharge Location Description	Sample Type	Time

Additional Sampling Notes:

Time End:

Summary of Risk Level 2 Monitoring Requirements

Type of Monitoring	When
Effluent sampling: Turbidity	<p>Collect a minimum of three samples per day.</p> <p>Collect runoff samples representative of site discharges.</p>
Effluent sampling: pH	<p>During construction phases with high risk of high pH discharge.</p> <p>Collect a minimum of three samples per day.</p> <p>Collect runoff samples representative of site discharges.</p>
Non-visible pollutants: spill/BMP failure based on pollutant source assessment	<p>Within first two hours of discharge from site.</p> <p>Collect samples of runoff affected by the spilled or released material(s) and runoff unaffected by the spilled or released material(s).</p>
Contained rain water	At time of discharge.
Non-stormwater	At locations where discharged off the site.
Particle size	<p>When sediment basins are used.</p> <p>If needed to justify site specific sediment risk using RUSLE.</p>
Other	Other

APPENDIX "H"

MONITORING REPORT TEMPLATE
FOR
ORDER NO. R8-2009-0003
(DE MINIMUS PERMIT)

**MONITORING REPORT FOR
ORDER NO. R8-2009-0003
GENERAL WASTE DISCHARGE REQUIREMENTS FOR
DISCHARGES TO SURFACE WATERS THAT POSE AN
INSIGNIFICANT THREAT TO WATER QUALITY
(DE MINIMUS PERMIT)**

PROJECT NAME
PROJECT ADDRESS

Submitted to:
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3348

Prepared by:
Contractor's Name
Contractor's Address
Contractor's Address
Contractor's Contact Person
Contractor's Contact Phone Number

Prepared for:
Riverside County Flood Control and Water Conservation District
1995 Market Street
Riverside, California 92501
Contact Person
Contact Phone Number

Date

CONTRACTOR'S 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 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 for knowing violations" [40 CFR Section 122.22(d)].

Contractor's Name

Contractor's Title

Name: _____

Title: _____

Signature: _____

Date: _____

OWNER'S 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 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 for knowing violations" [40 CFR Section 122.22(d)].

Signed: _____

Jason E. Uhley
Chief of Watershed Protection Division
Riverside County Flood Control
and Water Conservation District

MONITORING RESULTS:

Monitoring results are reported at the intervals specified in the Monitoring and Reporting Program of the De Minimus Permit. Seven days prior to discharging, contact your contract manager at the District, so they can call the RWQCB with the following information:

1. Specific type of the proposed wastewater discharge
2. The estimated average and maximum daily flow rates
3. The frequency and duration of the discharge
4. The affected receiving water
5. A description of the path from the point of the initial discharge to the ultimate location of discharge (fax map if possible)

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions and to allow ongoing characterization of discharges to determine potential adverse impacts and to determine continued suitability for coverage under the General Permit.

Contractor conducting work for the District must be familiar with the De Minimus Permit and its monitoring requirements and comply with them. **Please be aware that there are different Monitoring Reporting Requirements which are dependent on the amount of flow that is being discharged per day.**

Calculations for all limitations, which require averaging of measurements, utilize an arithmetic mean unless otherwise specified in the De Minimus Permit.

Contractor, acknowledge that samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity [40 CFR §122.41(j)(1)]. Also, Monitoring results must be conducted according to test procedures under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in the General Permit [40 CFR §122.41(j)(4)] [40 CFR §122.44(i)(1)(iv)]. You also acknowledge that records shall be retained for a period of at least five years. Sample results are hereby reported per the requirements of the General Permit.

SUMMARY OF MONITORING RESULTS:

Samples are collected for the following constituents and measured against the following maximum limits. All laboratory analyses are performed in accordance with test procedures under 40 CFR 136 (revised April 11, 2007) "Guidelines Establishing Test Procedures for the Analysis of Pollutants", promulgated by the United States Environmental Protection Agency. In the case of sludge use or disposal, will have used test procedures approved under 40 CFR Part 136 unless otherwise specified in 40 CFR Part 503 unless other test procedures have been specified in this Order [40 CFR §122.41(j)(4)] [40 CFR §122.44(i)(1)(iv)].

Chemical, bacteriological, and bioassay analyses are conducted at a laboratory certified for such analyses by the California Department of Public Health in accordance with the provision of Water Code Section 13176, or conducted at a laboratory certified for such analyses by the EPA or at laboratories approved by the Regional Water Board's Executive Officer.

In conformance with federal regulations 40 CFR 122.45(c), analyses to determine compliance with the effluent limitations for metals are conducted using the total recoverable method. For Chromium (VI), the dissolved method in conformance with 40 CFR 136 may be used to measure compliance with the Chromium (VI) limitation.

Organic pollutants are analyzed using EPA Method 8260, as appropriate, and results are reported with ML or PQL and MDL. A chain of custody and sample information record are included in Appendix B of this report. The complete monitoring results are included in Appendix C of this report. Monitoring results are summarized in attached Tables.

Monitoring results are reported at the intervals specified in the Monitoring and Reporting Program (MRP).

Results are reported of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- Must use ML minimum levels for sample results as specified in Attachment H of the General Permit. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).
- Sample results less than the reported ML, but greater than or equal to the laboratory's current Method Detection Limit (MDL), shall be reported as "Detected, but Not Quantified," or "DNQ." The estimated chemical concentration of the sample shall also be reported.
- Sample results not detected above the laboratory's MDL shall be reported as "not detected" or "ND."

For every item of monitoring data where the requirements are not met, this monitoring report shall include a statement discussing the reasons for noncompliance, the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time, and an estimate of the date when you will be in compliance. The Contractor shall notify the Regional Water Board by letter when compliance with the time schedule has been achieved.

Effluent Limitations and Discharge Specifications

The Contractor will maintain compliance with the following effluent limitations at approved compliance point monitoring locations:

Table 1 - Effluent Limitations Applicable to All Receiving Waters

Constituent	Maximum Daily Concentration Limit in milligrams per liter (mg/L)
Total Dissolved Solids (TDS)	See Sections 4 and 5 below
Total Inorganic Nitrogen (TIN)	See Sections 4 and 5 below
Total Petroleum Hydrocarbons	0.1 mg/L
Total Residual Chlorine <i>(If chlorine is used for treatment or disinfection of wastes)</i>	0.1 mg/L
Suspended Solids	75 mg/L
Sulfides	0.4 mg/L
Oil and Grease	15 mg/L

1. The pH of the discharge shall be within 6.5 and 8.5 pH units (see also Receiving Water Limitations B.2.g.).
2. There shall be no visible oil and grease in the discharge.
3. The discharge of decanted filter backwash wastewater and/or sludge dewatering filtrate water from water treatment facilities shall not contain a total suspended solids maximum daily concentration in excess of 30 mg/L.
4. For discharges to surface waters where groundwater will not be affected by the discharge, the TDS and/or TIN of the effluent shall not exceed the water quality objectives for the receiving surface water where the effluent is discharged, as specified in Table 4-1 of the Basin Plan for the Santa Ana Region.
5. For discharges to surface waters where the groundwater will be affected by the discharge, the TDS and/or TIN concentrations of the effluent shall not exceed the water quality objectives for the surface water where the effluent is discharged nor the affected groundwater management zone, as specified in Table 4-1 of the Basin Plan for the Santa Ana Region. The more restrictive water quality objectives shall govern. However, treated effluent exceeding the groundwater management zone water quality objectives may be returned to the same management zone from which it was extracted without reduction of the TDS or TIN concentrations so long as the concentrations of those constituents are no greater than when the groundwater was first extracted. Incidental increases in the TDS and TIN concentrations (such as may occur during air stripping) of treated effluent will not be considered increases for the purposes of determining compliance with this discharge specification.

6. Should any of the weekly, bi-monthly, monthly, quarterly or annual monitoring for a specific constituent show effluent concentrations above the effluent limit, the frequency of monitoring for that constituent shall be increased to weekly or as directed by the Executive Officer. To return to the monitoring frequency specified, the Discharger shall request and receive approval from the Regional Water Board's Executive Officer or designee. (See also Provision VII.C.6.a. of the Order regarding conditions that necessitate termination of the discharge.)
7. Should the annual monitoring for a specific constituent show effluent concentrations above the values specified in Attachment I, the monitoring frequency for that constituent shall be increased to weekly for one quarter or as directed by the Executive Officer. To return to the monitoring frequency specified, the Discharger shall request and receive approval from the Regional Water Board's Executive Officer or designee. (See also Provision VII.C.6.a. of the Order regarding conditions that necessitate termination of the discharge.)
8. Should two consecutive annual monitoring results for all the constituents specified in Attachment I show values below those listed in Attachment "I", the Discharger may stop monitoring for the pollutants listed in Attachment I.
9. If the discharge does not last for more than a day, one composite sample shall be taken for the duration of the discharge and shall be analyzed.

Records of monitoring information shall include:

- a. **The date, exact place, and time of sampling or measurements;**
- b. **The individual(s) who performed the sampling or measurements;**
- c. **The date(s) analyses were performed;**
- d. **The laboratory and individual(s) who performed the analyses;**
- e. **The analytical techniques or methods used, including any modification(s) to analytical techniques or methods used;**
- f. **The results of such analyses, including measurement used and the minimum level for the analysis, results less than the reporting level but above the method detection limit (MDL), data qualifiers and a description of the qualifiers, quality control test results (and a written copy of the laboratory quality assurance plan), dilution factors, if used, and sample matrix type; and**
- g. **Other requirements as specified in the De Minimus Order's Monitoring and Reporting Program.**

Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by your District Contract Manager for reporting results of monitoring of sludge use or disposal practices.

Noncompliance Reporting

The discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided to the Executive Officer (951.782.4130) and the Office of Emergency Services (1.800.852.7550) orally within 24 hours from the time the discharger becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause, 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 steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

Any unanticipated bypass that exceeds effluent limitations, or any upset that exceeds any effluent limitation, or any violation of a maximum daily discharge limitation for any of the pollutants listed in the General Permit shall be reported within 24 hours to the RWQCB.

PROJECT INFORMATION:

Type of discharge (place check):

- Construction Groundwater Dewatering**
- Other Non-stormwater Dewatering**

Date of initial discharge(s):

Duration/Frequency of discharge(s) (for example daily during working hours):

Estimated maximum daily flow:

Estimated average daily flow:

Sampling Point Location(s): (Identify on exhibit in Appendix A)

Receiving Water:

Summary of the month's activities including a report detailing compliance or noncompliance with the task for the specific schedule date:

Treatment System (if a constituent exceeded an allowable maximum describe additional BMPs that will be deployed to mitigate contaminant and the dates the BMPs are expected to be operational). **BMPs used to mitigate discharged pollutants, if applicable:**
Description, as applicable

Report for (month, year):

The Contractor shall collect samples within 30 minutes of the initiation of a discharge to determine potential constituents. The Contractor will then sample once a month for reporting purposes for the duration of the discharge.

This is the first report for this project

This is the _____ report for this project

This is the final report for this project

If no discharge occurs during the monthly monitoring period, the contractor shall check the line below.

There was no discharge during this reporting period

SUMMARY OF FLOW DATA AND VOLUME OF DISCHARGE

SAMPLE STATION # _____

	Date	Flow rate (gpd)	Volume of Daily Discharge
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			
31			

gpd = gallons per day

Project Name

SUMMARY OF MONITORING RESULTS

A. For intermittent (less than daily) discharge flow of less than 25,000 gallons per day (gpd), effluent monitoring is as follows:

Date and Time of Sample: _____

Parameter	Unit	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and Minimum Level, Units, Respectively	Sample Results
Flow	GPD	Measured	Each discharge event	See Section I.A.2. of the MRP	
Total Petroleum Hydrocarbons	µg/L	Grab	Once monthly or as directed by the Executive Officer thereafter; see also Section IV.A.3.	EPA Method 8015 Modified	
Oil and Grease	mg/L	Grab	Once monthly or as directed by the Executive Officer thereafter; see also Section IV.A.3.	See Section I.A.2. of the MRP	
Total Residual Chlorine (unless it is known that chlorine is not in the discharge)	mg/L	Grab	Once monthly or as directed by the Executive Officer thereafter; see also Section IV.A.3.	See Section I.A.2. of the MRP	
Total Suspended Solids (not applicable if all wastewater will percolate prior to reaching receiving waters)	mg/L	Grab	Once monthly or as directed by the Executive Officer thereafter; see also Section IV.A.3.	See Section I.A.2. of the MRP	
Total Inorganic Nitrogen (TIN)	mg/L	Grab	Once monthly or as directed by the Executive Officer thereafter; see also Section IV.A.3.	See Section I.A.2. of the MRP	
Sulfate	mg/L	Grab	Once monthly or as directed by the Executive Officer thereafter; see also Section IV.A.3.	See Section I.A.2. of the MRP	
pH	Std. Units	Grab	Once monthly or as directed by the Executive Officer thereafter; see also Section IV.A.3.	See Section I.A.2. of the MRP	
Total Dissolved Solids	Mg/L	Grab	Annually see also Section IV.A.3.	See Section I.A.2. of the MRP	
Hardness	µg/L	Grab	Annually see also Section IV.A.3.	See Section I.A.2. of the MRP	

For discharge flow of less than 25,000 gpd the following pollutants also were sampled:

Date and Time of Sample: _____

CONSTITUENT	SAMPLE RESULT (ug/L)
Antimony	
Arsenic	
Cadmium	
Chromium III (only necessary to sample if the discharge is going to freshwater that is not designated at MUN)	
Chromium VI	
Copper	
Lead	
Mercury	
Nickel	
Selenium	
Silver	
Thallium	
Zinc	
Cyanide	
1,1,2-Trichloroethane	
1,1-Dichloroethane	
1,1-Dichloroethylene	
1,2-Dichloroethane	
1,2-Dichloroethylene(cis)	
1,2-Dichloroethylene(trans)	
1,4-Dioxane	
Benzene	

CONSTITUENT	SAMPLE RESULT (ug/L)
Carbon Tetrachloride	
Dibromochloropropane (DBCP)	
Dichlorobromomethane	
Ethylbenzene	
Methyl Isobutyl Ketone	
Methyl Tertiary Butyl Ether (MTBE)	
Naphthalene	
Perchlorate	
Tert Butyl Alcohol (TBA)	
Tetrachloroethylene (PCE)	
Toluene	
Trichloroethylene (TCE)	
Vinyl Chloride	
1,2,3-Trichloropropane (1,2,3- TCP)	
1,3-Dichloropropylene	
1,1,2,2-Tetrachloroethane	
1,2-Dichlorobenzene 600	
1,4-Dichlorobenzene	
1,2,4 -Trichlorobenzene	

B. For discharge flow of 25,000 gpd or more, effluent monitoring is as follows:

Date and Time of Sample: _____

Parameter	Unit	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and Minimum Level, Units, Respectively	Sample Results
Flow	GPD	Measured	Daily	See Section I.A.3. of the MRP	
Total Petroleum Hydrocarbons	µg/L	Grab	During the first 30 minutes of the discharge, then monthly see also Section IV.A.3.	EPA Method 8015 Modified	
Oil and Grease	mg/L	Grab	During the first 30 minutes of the discharge, then monthly see also Section IV.A.3.	See Section I.A.3. of the MRP	
Total Residual Chlorine (unless it is known that chlorine is not in the discharge)	mg/L	Grab	During the first 30 minutes of the discharge, then monthly see also Section IV.A.3.	See Section I.A.3. of the MRP	
Total Suspended Solids (not applicable if all wastewater will percolate prior to reaching receiving waters)	mg/L	Grab	During the first 30 minutes of the discharge, then monthly see also Section IV.A.3.	See Section I.A.3. of the MRP	
Total Inorganic Nitrogen (TIN)	mg/L	Grab	During the first 30 minutes of the discharge, then monthly see also Section IV.A.3.	See Section I.A.3. of the MRP	
Sulfate	mg/L	Grab	During the first 30 minutes of the discharge, then monthly see also Section IV.A.3.	See Section I.A.3. of the MRP	
pH	Std. Units	Grab	During the first 30 minutes of the discharge, then monthly see also Section IV.A.3.	See Section I.A.3. of the MRP	
Temperature	Degrees F	Grab	During the first 30 minutes of the discharge, then monthly see also Section IV.A.3.	See Section I.A.3. of the MRP	
Total Dissolved Solids	Mg/L	Grab	During the first 30 minutes of the discharge, then monthly see also Section IV.A.3.	See Section I.A.3. of the MRP	
Hardness	µg/L	Grab	During the first 30 minutes of the discharge, then monthly see also Section IV.A.3.	See Section I.A.3. of the MRP	

For discharge flow of 25,000 gpd or more, the following pollutants also were sampled:

Date and Time of Sample: _____

CONSTITUENT	SAMPLE RESULT (ug/L)
Antimony	
Arsenic	
Cadmium	
Chromium III (only necessary to sample if the discharge is going to freshwater that is not designated at MUN)	
Chromium VI	
Copper	
Lead	
Mercury	
Nickel	
Selenium	
Silver	
Thallium	
Zinc	
Cyanide	
1,1,2-Trichloroethane	
1,1-Dichloroethane	
1,1-Dichloroethylene	
1,2-Dichloroethane	
1,2-Dichloroethylene(cis)	
1,2-Dichloroethylene(trans)	
1,4-Dioxane	
Benzene	

CONSTITUENT	SAMPLE RESULT (ug/L)
Carbon Tetrachloride	
Dibromochloropropane (DBCP)	
Dichlorobromomethane	
Ethylbenzene	
Methyl Isobutyl Ketone	
Methyl Tertiary Butyl Ether (MTBE)	
Naphthalene	
Perchlorate	
Tert Butyl Alcohol (TBA)	
Tetrachloroethylene (PCE)	
Toluene	
Trichloroethylene (TCE)	
Vinyl Chloride	
1,2,3-Trichloropropane (1,2,3-TCP)	
1,3-Dichloropropylene	
1,1,2,2-Tetrachloroethane	
1,2-Dichlorobenzene 600	
1,4-Dichlorobenzene	
1,2,4 -Trichlorobenzene	

C. The following shall constitute the effluent monitoring program for discharges from water treatment plants of decant filter backwash wastewater and/or sludge dewatering filtrate water:

Date and Time of Sample: _____

Parameter Unit Sample	Type	Minimum Sampling	Frequency	Required Analytical Test	
Flow	gpd	Measured	Daily	See Section I.A.3. above, of MRP	
Total Residual Chlorine (unless it is known that chlorine is not in the discharge)	mg/L	Grab	During the first 30 minutes of each discharge event	See Section I.A.3. above, of MRP	
Total Suspended Solids (not applicable if all wastewater will percolate prior to reaching receiving waters)	mg/L	Grab	During the first 30 minutes of each discharge event	See Section I.A.3. above, of MRP	
Aluminum	µg/L	Grab	During the first 30 minutes of each discharge event	See Section I.A. 3. above, of this MRP; RL is 50 µg/L	
Iron	µg/L	Grab	During the first 30 minutes of each discharge event	See Section I.A.3. above, of this MRP; RL is 100 µg/L	
Manganese	µg/L	Grab	During the first 30 minutes of each discharge event	See Section I.A.3. above, of this MRP; RL is 20 µg/L	

D. For Dischargers discharging at a volume equal to or greater than 150,000 gallons per day, the Discharger shall submit semi-annual reports that tabulate all measured flows and measured parameters within the most recent six month period. Where discharges associated with these projects last less than 6 months, a report covering the period of discharges shall be submitted.

Copies of these monitoring reports shall be submitted to the Regional Water Board and to the Water Quality Director of the Orange County Water District at Post Office Box 8300, Fountain Valley, CA 92728-8300.

OTHER PERTINENT INFORMATION:

APPENDIX A

PROJECT MAP

Project Map shall include the following:

- Sampling point location;
- Initial discharge point;
- Ultimate discharge location;
- Path from the point of initial discharge to the ultimate receiving water;
- Treatment system location (as applicable); and
- Any other pertinent information.

Please try to limit your maps to a size of 8.5" x 11".

APPENDIX B

**CHAIN OF CUSTODY AND SAMPLE INFORMATION
RECORD**

APPENDIX C

MONITORING DATA

APPENDIX D

**NOTICE OF INTENT
TO ACCOMPANY
INITIAL MONITORING REPORT**



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

SANTA ANA REGION

NOTICE OF INTENT

TO COMPLY WITH THE TERMS AND CONDITIONS OF THE

- Riverside County MS4 Permit San Bernardino County MS4 Permit
- ORDER NO. R8-2010-0033 ORDER NO. R8-2010-0036
- NPDES NO. CAS 618033 NPDES NO. CAS618036

GENERAL WASTE DISCHARGE REQUIREMENTS FOR DISCHARGE TO SURFACE WATERS

THAT POSE INSIGNIFICANT (DE MINIMUS) THREAT TO WATER QUALITY

I. PERMITTEE (Person/Agency Responsible for the Discharge)

Agency/Company _____

Name: _____

Address/Street _____

City _____ State _____ ZIP _____ Contact Person: _____

Phone: (_____) _____; Email: _____

II. FACILITY

Name: _____

Address/Street _____

City _____ State _____ ZIP _____ Contact Person: _____

Phone: (_____) _____; Email: _____

- a. Projected Flow Rate (gpd): _____
- b. Receiving Water (identify): _____

III. INDICATE EXISTING PERMIT NUMBER: (if applicable)

- a. Individual Permit Order No. _____ NPDES No. _____
- b. General Permit Order No. R8-2010-003- _____
- c. Others (specify) _____

IV. CERTIFICATION:

I certify under penalty of law that I am an authorized representative of the permittee and that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe the information is 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 permittee will comply with the terms and conditions stipulated in Orders No. R8-2009-0003 and (R8-2010-0033 or R8-2010-0036, as applicable) including the monitoring and reporting program issued by the Executive Officer of the Regional Board.

Name: _____ Title: _____
(type or print)

Signature: _____ Date: _____

Email: _____

Remarks: If changes to facility ownership and/or treatment processes were made after the issuance of the existing permit, please provide a description of such changes on another sheet and submit it with this Notice of Intent.

V. OTHER REQUIRED INFORMATION - FOR NEW DISCHARGERS AND FOR NEW DISCHARGES AND LOCATIONS NOT PREVIOUSLY REPORTED BY EXISTING DISCHARGERS.

Please provide a COMPLETE characterization of your discharge. A complete characterization includes, but is not limited to:

- a. A list of constituents and the discharge concentration of each constituent;
- b. The estimated average and maximum daily flow rates at unit of gallons per day(gpd); the frequency and duration of the discharge and the date(s) when discharge will start;
- c. The proposed discharge location(s) as latitude and longitude for each discharge point;
- d. A description of the proposed treatment system (if appropriate);
- e. The affected receiving water; the receiving water(s) shall be
 - 1) receiving storm drain/creek, and/or
 - 2) the ultimate receiving water, such as Santa Ana River, San Jacinto River, Lake Elsinore, Prado Park Lake, etc.;
- f. A map showing the path from the point of initial discharge to the ultimate receiving water. Please try to limit your maps to size of 8.5" x 11".
- g. A list of known or suspected leaking underground tanks and other facilities or operations that have, or may have impacted the quality of the underlying groundwater within 200 feet of the site property lines for projects with expected discharge flow rates of less than 100,000 gallons per day and within 500 feet of the site property lines for projects with expected discharge flow rates of greater than 100,000 gallons per day.
- h. Any other information deemed necessary by the Executive Officer.

VI. OTHER

Attach additional sheets to explain any responses which need clarification. List attachments with titles and dates below:

You will be notified by a representative of the RWQCB within 30 days of receipt of your application. The notice will state if your application is complete or if there is additional information you must submit to complete your application, pursuant to Division 7, Section 13260 of the California Water Code.

De Minimus Permit Discharge Characterization Summary
Construction Groundwater Dewatering Projects

District Project Name: _____

District Project No: _____

Date: _____

- a. A list of constituents and the discharge concentration of each constituent;

Source of water (groundwater, potable water, raw water): _____

Is the project discharging groundwater that is known to be contaminated (y/n): _____

If yes, what pollutants are contaminating the water: _____

Is there a known or suspected leaking underground storage tank, or other facilities or operations within 200 feet of rising groundwater that will be discharged?

If yes, what pollutants are associated with these facilities and/or operations?

Are there any other pollutants that may be discharged? _____

For each identified pollutant, collect a groundwater sample and attach monitoring results for those pollutant(s) consistent with the requirements of the monitoring section of the District's De Minimus Template Guidance Document. If an unexpected dewatering activity has occurred, this De Minimus NOI should be submitted immediately without the data. The data shall be provided in a follow up report as soon as possible.

- b. The estimated average and maximum daily flow rates at unit of gallons per day(gpd); the frequency and duration of the discharge and the date(s) when discharge will start;

Discharge Start Date: _____

Average Flow Rate (gpd): _____

Maximum Flow Rate (gpd): _____

Frequency and Duration of Discharge: _____

- c. The proposed discharge location(s) as latitude and longitude for each discharge point;

Discharge Location Name	Latitude	Longitude

- d. A description of the proposed treatment system or applicable BMPs (if appropriate);

**De Minimus Permit Discharge Characterization Summary
Construction Groundwater Dewatering Projects**

District Project Name: _____

District Project No: _____

Date: _____

- e. The affected receiving water;
 - 1) Direct receiving storm drain/creek: _____
 - 2) Circle the ultimate receiving water, (Reach 3 of Santa Ana River, Lake Elsinore);
- f. Please attach a map showing the path from the point of initial discharge to the ultimate receiving water. Please try to limit your maps to size of 8.5" X 11".
- g. A list of known or suspected leaking underground tanks and other facilities or operations that have, or may have impacted the quality of the underlying groundwater within 200 feet of the site property lines for projects with expected discharge flow rates of less than 100,000 gallons per day and within 500 feet of the site property lines for projects with expected discharge flow rates of greater than 100,000 gallons per day.

Tank / Facility or Operation within 200/500 feet of the project, as appropriate	Approximate location relative to the discharge point (project station, address, other) and relative distance to dewatering activity.

- h. Any other information deemed necessary by the Executive Officer.

APPENDIX "I"

ANNUAL REPORT TEMPLATE
FOR
ORDER NO. 2009-0009-DWQ

**ANNUAL REPORT FOR
ORDER NO. 2009-0009-DWQ
GENERAL PERMIT FOR STORMWATER DISCHARGES
ASSOCIATED WITH CONSTRUCTION AND LAND
DISTURBANCE ACTIVITIES**

PROJECT NAME
PROJECT ADDRESS

Submitted to:
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, California 92501-3348

Prepared by:
Contractor's Name
Contractor's Address
Contractor's Address
Contractor's Contact Person
Contractor's Contact Phone Number

Prepared for:
Riverside County Flood Control and Water Conservation District
1995 Market Street
Riverside, California 92501

Contact Person
Contact Phone Number

July 1, 20__ to June 30, 20__

CONTRACTOR'S CERTIFICATION

“I certify under a penalty of law that this document and all attachments were prepared under my direction or 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, to the best of my knowledge and belief, the information submitted is, 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.”

Contractor's Name _____ Contractor's Title _____

Name: _____ Title: _____

Signature: _____ Date: _____

OWNER'S CERTIFICATION

“I certify under a penalty of law that this document and all attachments were prepared under my direction or 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, to the best of my knowledge and belief, the information submitted is, 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.”

Signed: _____

Jason E. Uhley
Chief of Watershed Protection Division
Riverside County Flood Control
and Water Conservation District

SUMMARY OF SAMPLING AND ANALYSIS RESULTS

Include a summary and evaluation of all sampling and analysis results, including copies of laboratory reports.

ANALYTICAL METHOD RESULTS

Include the analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter (analytical results that are less than the method detection limit shall be reported as "less than the method detection limit").

CORRECTIVE ACTIONS

Summarize all corrective actions taken during the compliance year. Also identify any compliance activities or corrective action that were not implemented.

VIOLATIONS

Summarize all violations of the General Permit.

INSPECTIONS

Provide:

1. The names of individual(s) who performed the facility inspections, sampling, visual observation (inspections), and/or measurements;
2. The date, place, time of facility inspections, sampling, visual observation (inspections), and/or measurements, including precipitation (rain gauge); and
3. The visual observation and sample collection exception records and reports

TRAINING

Provide training information consisting of:

1. Documentation of all training for individuals responsible for all activities associated with compliance with this General Permit;
2. Documentation of all training for individuals responsible for BMP installation, inspection, maintenance, and repair; and
3. Documentation of all training for individuals responsible for overseeing, revising, and amending the SWPPP.