CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

INVESTIGATION ORDER NO. R9-2006-076

OWNERS AND OPERATORS OF MUNICIPAL SEPARATE STORM SEWER SYSTEMS, CALIFORNIA DEPARTMENT OF TRANSPORTATION, HALE AVENUE RESOURCE RECOVERY FACILITY, AND NORTH COUNTY TRANSIT DISTRICT RESPONSIBLE FOR THE DISCHARGE OF BACTERIA, NUTRIENTS, SEDIMENT, AND TOTAL DISSOLVED SOLIDS INTO IMPAIRED LAGOONS, ADJACENT BEACHES, AND AGUA HEDIONDA CREEK

The California Regional Water Quality Control Board, San Diego Region (hereinafter San Diego Water Board) finds:

1. Condition of Impairment: The Clean Water Act (CWA) section 303(d) requires states to develop a list of waterbodies that do not or are not expected to meet water quality standards after implementing technology-based controls. The waterbodies in Table 1 have been listed by the State Water Resources Control Board as water quality limited segments for which Total Maximum Daily Loads (TMDLs) must be developed pursuant to section 303(d). The purpose of a TMDL is to attain water quality objectives and restore the waterbody's beneficial uses.

The eleven water quality limited segments are comprised of lagoons (in this Order "lagoons" refers to lagoons, sloughs, and creek mouths), adjacent beaches, and Agua Hedionda Creek. These waterbodies are impaired due to one or more of the following: indicator bacteria, nutrients, sediment/siltation, total dissolved solids (TDS), and/or eutrophic conditions. In order to meet water quality objectives and restore beneficial uses the San Diego Water Board is initiating development of TMDLs to address these water quality limited segments.

Table 1: List of Waterbodies addressed in TMDLs for Lagoons, Adjacent Beaches and Agua Hedionda Creek

	Hydrologic Descriptor	Waterbody	Water Quality Limited Segments	Pollutant / Stressor	Extent of Impairment
1	Lower Ysidora HSA (902.11)	Santa Margarita Lagoon	Entire lagoon	Eutrophic	1 acres
2a	Loma Alta HA (904.10)	Loma Alta Slough	Entire slough	Eutrophic	8.2 acres
2b			Entire slough	Indicator Bacteria	8.2 acres
3	Loma Alta HA (904.10)	Pacific Ocean Shoreline	At Loma Alta creek mouth	Indicator Bacteria	1.1 miles
4a	El Salto HSA (904.21)	Buena Vista Lagoon	Upper and lower portion of lagoon	Sedimentation / Siltation	202 acres
4b			Upper portion of lagoon	Nutrients	150 acres
4c			Upper and lower portion of lagoon	Indicator Bacteria	202 acres

	Hydrologic Descriptor	Waterbody	Water Quality Limited Segments	Pollutant / Stressor	Extent of Impairment
5	Buena Vista Creek HA (904.20)	Pacific Ocean Shoreline	At Buena Vista Creek	Indicator Bacteria	1.2 miles
6a	Los Monos HSA (904.31)	Agua Hedionda Lagoon	Upper and lower portion of lagoon	Sedimentation / Siltation	6.8 acres
6b			Upper and lower portion of lagoon	Indicator Bacteria	6.8 acres
7	Los Monos HSA (904.31)	Agua Hedionda Creek	Lower portion	TDS	7 miles
8a	San Elijo HSA (904.61)	San Elijo Lagoon	Upper and lower portion of lagoon	Eutrophic	330 acres
8b			Upper and lower portion of lagoon	Sedimentation / Siltation	150 acres
8c			Upper and lower portion of lagoon	Indicator Bacteria	150 acres
9	Escondido Creek HA (904.60)	Pacific Ocean Shoreline	At San Elijo Lagoon	Indicator Bacteria	0.44 mile
10	Miramar Reservoir HA (906.10)	Los Penasquitos Lagoon	Entire Lagoon	Sedimentation / Siltation	469 acres
11	Mission San Diego HSA (907.11)	Famosa Slough & Channel	Entire Lagoon	Eutrophic	32 acres

2. Discharge of Waste: Sediment, nutrients, TDS, and bacteria enter these water quality limited segments from point and nonpoint sources. Point sources typically discharge at a specific location from pipes, outfalls, and conveyance channels from urban runoff discharges. Nonpoint sources are diffused sources that reach receiving waters from different routes of entry and originate from multiple land uses. Pollution from these sources (point and nonpoint) is discharged to the water quality limited segments through municipal separate storm sewer systems (MS4s), which include State highways and military facilities. Other significant pollutant sources include a wastewater treatment plant and a dewatering operation that discharge into the water quality limited segments.

3. Persons Responsible for the Discharge: The California Department of Transportation (Caltrans)[1] and MS4 owners and operators in San Diego County,[2] Riverside County[3], Camp Pendleton and Fallbrook Naval Weapons Station (see Attachment 1) are responsible for these discharges. MS4 discharges from the non-military agencies are regulated under the terms and conditions of the Waste

[1] Order No. 99-06-DWQ, NPDES No. CAS000003, '*National Pollutant Discharge Elimination System (NPDES) Permit Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation (Caltrans).'*

[2] Order No. R9-2001-0001, NPDES No CAS0108758, '*Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer System (MS4s) Draining the Watersheds of the County of San Diego, the Incorporated Cities of San Diego County, and the San Diego Unified Port District.'*

[3] *Order No. R9-2004-001 (NPDES Permit No. CAS0108766), 'Waste Discharge Requirements for Discharges of Urban Runoff from the Municipal Separate Storm Sewer Systems (MS4s) Draining the County of Riverside, the City of Murrieta, the City of Temecula and the Riverside County Flood Control and Water Conservation District within the San Diego Region.'*

Discharge Requirements in the orders listed in footnotes 1 through 3. Camp Pendleton and Fallbrook Naval Weapons Station are designated as small MS4s pursuant to Order No. 2003-0005-DWQ[4] but have not yet been regulated by the San Diego Water Board under that order.

The City of Escondido Hale Avenue Resource Recovery Facility (Order No. 98-10), regulated by NPDES requirements, discharges nutrients into the Escondido Creek. The North County Transit District is responsible for nutrient discharges to the Santa Margarita River from the dewatering of its Stuart Mesa Maintenance Facility.

4. Need for Monitoring Data: Water quality monitoring data are needed to develop TMDLs, and load and wasteload allocations and reductions for the water quality limited segments for each impairing pollutant. The San Diego Water Board intends to develop TMDLs, allocations, and reductions through modeling studies of the watersheds and lagoons. Hydrodynamic and water quality data for the lagoons, flow and water quality data for the major tributaries, and flow and water quality data for storm drains discharging directly into lagoons are needed to calibrate and verify the lagoon models, and to verify the watershed models in order to develop TMDLs and allocations.

5. Regulatory Authority and Necessity: Water Code section 13267 authorize the San Diego Water Board to require the submission of monitoring program reports from any person discharging pollutants into waters of the State. The monitoring data reports will allow the San Diego Water Board to assess the conditions of pollution due to sedimentation, nutrients, bacteria, and TDS contributing to impairment in the lagoons, adjacent beaches, and creek. These actions will result in the restoration and protection of water quality necessary to support the designated beneficial uses of these waterbodies. The costs to produce the monitoring program reports were estimated by the Dischargers to range between $300,000 to $500,000 per lagoon and up to $6.5 million region-wide, which included the cost of the special studies listed in Directive A8. The associated costs bear a reasonable relationship to the need for the actions, specifically the protection of water quality and beneficial uses.

Water Code section 13383 authorizes the San Diego Water Board to establish monitoring and reporting requirements for discharges regulated under NPDES requirements.

6. California Environmental Quality Act: This action is an order to enforce the laws and regulations administered by the San Diego Water Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act pursuant to section 15308 of the California Public Resources Code.

IT IS HEREBY ORDERED, pursuant to Water Code section 13267 and 13383, that the Dischargers identified in Attachment 1 to this Order shall furnish the following reports

[4] *Order No. 2003-0005-DWQ (State General Permit No. CA000004). "Waste Discharge Requirements (WDRs) for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems".*

required by the San Diego Water Board in its investigation of the quality of waters of the State within the area of the discharge described in the above findings:

A. MONITORING PROGRAM REPORTS

A1. MONITORING PROGRAM WORKPLANS

The Dischargers shall develop and submit to the San Diego Water Board no later than August 1, 2007, one Monitoring Program Workplan for each watershed containing one or more water quality limited segments, or one Monitoring Program Workplan for each water quality limited segment, as shown in Table 1. If, within 30 days after submittal of the workplans, no comments have been received from the San Diego Water Board, the Dischargers shall implement the Monitoring Program Workplans according to the schedules in the workplans. Workplans shall not be implemented until an adequate Quality Assurance Project Plan has been submitted to the San Diego Water Board as required in Directive A9 of this Order.

The Workplans must be adequate to guide the collection of monitoring data needed to characterize dry weather flow and storm flow influenced water quality in the segments listed in Table 1 in order to complete development of TMDLs, and load and waste load allocations and reductions. The workplan study design must address the following questions, or provide data necessary to calibrate/validate the computer models used to assist in answering the following questions:

a) What are the concentrations of bacteria, nutrients, and/or sediment at the base of each watershed before it enters an impaired lagoon/slough/creek mouth, in accordance with the impairments specified in the 303(d) list? What is the TDS concentration in Agua Hedionda Creek?

b1) What are the concentrations of bacteria, nutrients, and/or sediment in each impaired lagoon/slough/creek mouth, in accordance with the impairments specified in the 303(d) list. Do they exceed Water Quality Objectives?

b2) What are the dissolved oxygen concentrations in lagoons/sloughs/creek mouths impaired for nutrients/eutrophication?

c) What are the total annual (and daily) mass loads of bacteria, nutrients, and/or sediment from each watershed to each impaired lagoon/slough/creek mouth, in accordance with the impairments specified in the 303(d) list? What is the total annual (and daily) mass load of TDS to Agua Hedionda Creek?

d) What are the measured values and fluctuations for the physical factors that contribute to the concentrations of impairing pollutant within each lagoon/slough/creek mouth, in accordance with the impairments specified in the 303(d) list? Physical factors can include: condition of tidal channels (width, depth), stream flow velocities and volumes, bathymetry, seasonality, light availability, temperature, rainfall, etc.

d1) Under what inflow conditions (flow velocities, flow volumes) are the major loads deposited within each lagoon/slough/creek mouth, in accordance with the impairments specified in the 303(d) list?

d2) What percentage of the annual load from each constituent is deposited within the lagoons/sloughs/creek mouths, in accordance with the impairments specified in the 303(d) list, versus exiting the tidal channels?

e) For waterbodies impaired by nutrients/eutrophication additional questions are required to model the nutrient dynamics of each system. These factors will affect not only the nutrient concentrations found in the water column, but also the response of plants/algae to these concentrations.

e1) What are the sediment flux rates for nutrients in these waterbodies?

e2) What is the sediment oxygen demand in these waterbodies?

e3) What are the standing crop totals and primary productivity rates for plant/macroalgae biomass in these waterbodies?

f) What are the relative contributions for impairing pollutants(s) from each land use type or from regulated industrial/municipal facilities?

g) What is the total annual load reduction of nutrients needed so that beneficial uses and water quality objectives associated with eutrophication/ low dissolved oxygen and nuisance algae growth are met?

h1) What is the total annual load reduction of bacteria needed so that recreational beneficial uses and water quality objectives are met?

h2) What is the total annual load reduction of sediment needed so that sedimentation/siltation is reduced to meet water quality objectives and to prevent lagoon mouth closings, loss of lagoon depth, and loss of important habitats?

h3) What is the total annual load reduction of TDS needed in Agua Hedionda Creek so that water quality objectives that support the MUN beneficial uses are met?

Lagoons/watersheds shall be monitored for the constituents that correspond to the pollutants/stressors indicated for the segments listed in Table 1.

A2. IN SITU DATA COLLECTION (FIELD MEASUREMENTS)

The Monitoring Program Workplan shall include, at a minimum, the constituents, sampling locations, and frequency and duration of sampling as indicated below for water temperature, specific conductivity, pH, dissolved oxygen, and flow velocity measurements needed to calibrate and verify the models to be used to calculate TMDLs in the water quality limited segments. Site-specific changes to this

sampling specification may be proposed to the San Diego Water Board along with the scientific rationale for the changes. Any proposed changes may not be implemented until incorporated into this Order by amendment.

Hourly field measurements are required to document the influence of tides and/or daily fluctuations of dissolved oxygen. The daily fluctuations of dissolved oxygen are amplified in waterbodies with nutrient/ eutrophic impairments. All the lagoons listed in this Order are subject to tidal influence and/or impaired for nutrients/eutrophication (which can lead to low dissolved oxygen concentrations). Therefore all lagoons, sloughs, creek mouths must have the following data collected:

i. Constituents

- Specific conductivity
- Water temperature
- Surface water depth (if no bathymetry data exist)
- Velocity (optional)
- Dissolved oxygen (DO) and pH (only required in lagoons impaired for eutrophic conditions/nutrients)

ii. Location

A minimum of one sample site in each segment or portion of a segment shall be selected. The sampling site shall represent ambient water conditions and shall not be influenced by storm drains or other effluent discharges.

iii. Frequency/Duration

Two two-week periods[5] of hourly monitoring for the constituents listed above.

One two-week period shall be selected between October 1, 2007, through April 30, 2008 and another two-week period between May 1, 2008, through September 30, 2008.

A3. WATERSHED POLLUTAGRAPHS AND LAGOON WATER QUALITY (STORM EVENT)

The Monitoring Program Workplan shall include, at a minimum, the constituents, sampling locations, and frequency and duration of sampling as indicated below for generation of two separate storm pollutagraphs. When planning for monitoring, forecasted storm events of 0.2 or more inches of rainfall should be considered. Site-specific changes to this sampling specification may be proposed to the San Diego Water Board along with the scientific rationale for the changes. Any proposed changes may not be implemented until incorporated into this Order by amendment.

When water depth is sufficient to submerge a probe to collect the measurement, field measurements of water temperature, pH, conductivity, and dissolved oxygen shall be collected when water quality samples listed below are collected.

[5] The two-week sampling periods shall be during the same time for all sections (A2, A3, and A4) monitoring.

i. Constituents

Waters impaired due to Indicator Bacteria (Loma Alta Slough, Buena Vista Lagoon, Agua Hedionda Lagoon, San Elijo Lagoon)

- Fecal coliform
- Total coliform
- *Enterococcus*
- Flow rate

Waters impaired due to Sedimentation/Siltation (Buena Vista Lagoon, Agua Hedionda Lagoon, San Elijo Lagoon, Los Penasquitos Lagoon)

- Total Suspended Solids
- Turbidity
- Flow rate

Waters impaired due to TDS (Agua Hedionda Creek)

- Total dissolved solids
- Flow rate

Waters impaired due to Eutrophic Condition/Nutrients (Santa Margarita Lagoon, Loma Alta Slough, Buena Vista Lagoon, San Elijo Lagoon, Famosa Slough and Channel)

- Total nitrogen
- Total phosphorus
- Flow rate

ii. Location

Watersheds:

A minimum of one sample site shall be selected in the main tributary to the water quality limited segment, upstream of the tidal prism. The sampling site shall represent ambient water conditions and shall not be directly influenced by storm drains or other effluent discharges. If a tributary has an established mass loading station, this site should be used for the pollutagraph monitoring.

Lagoons:

A minimum of one sample site in each lagoon segment or portion of a segment shall be selected. The sampling site shall represent ambient water conditions and shall not be influenced by storm drain flow or other effluent discharges.

iii. Frequency/Duration

Watersheds:

Hourly grab samples shall be collected during the storm event. From those hourly samples collected, a minimum of eight grab samples representative of the storm event shall be analyzed. Any remaining samples may be disposed. The samples shall be collected to

represent at least the first flush and peak flow to the extent that is practicable.
At a minimum, sampling shall occur during two storm events, between October 1, 2007 and April 30, 2008. Sampling of at least one early season storm is preferred.

Lagoons:
A minimum of one grab sample shall be collected in each lagoon segment during each storm event corresponding to the storm events described above for Watershed Frequency/Duration in this section. Samples should be collected as close to the peak flow of the storm event as practicable.

A4. WATERSHED MODEL (DRY WEATHER)

The Monitoring Program Workplans shall include a study to conduct a one-day survey during each two-week period of hourly sensor data collection to measure the flow rate and water quality of all storm drain discharges of visible flow into a lagoon. At a minimum, the constituents, sampling locations, and frequency and duration of sampling as indicated below for the pollutants impairing a water quality limited segment shall be included in the Workplan. Site-specific changes to this sampling specification may be proposed to the San Diego Water Board along with the scientific rationale for the changes. Any proposed changes may not be implemented until incorporated into this Order by amendment.

i. Constituents
When water depth is sufficient to submerge a probe to collect a measurement, field measurements of water temperature, pH, conductivity, and dissolved oxygen shall be collected when water quality samples listed below are collected. If water depths in the lagoon/slough/creek mouth are sufficient to collect field measurements, but not at the storm drain outfall, then a measurement may be collected in the lagoon/slough/creek mouth near the storm drain.

Waters impaired due to Indicator Bacteria (Loma Alta Slough, Buena Vista Lagoon, Agua Hedionda Lagoon, San Elijo Lagoon)
- Fecal coliform
- Total coliform
- *Enterococcus*
- Flow rate

Waters impaired due to Eutrophic Conditions/ Nutrients (Santa Margarita Lagoon, Loma Alta Slough, Buena Vista Lagoon, San Elijo Lagoon, Famosa Slough and Channel)
- Ammonia
- Total kjeldahl nitrogen
- Nitrite as N
- Nitrate as N

- Total nitrogen
- Ortho phosphate as P
- Total phosphorus
- Chlorophyll *a*
- Biochemical oxygen demand (BOD_5)
- Flow rate

ii. Location
All storm drain flow, as it exits the outfall, discharging within the confines of each lagoon or estuary.

iii. Frequency/Duration
Time-composite samples shall be collected once during the two-week period of hourly sensor data collection from all storm drain outfalls with visible flow that directly discharge into a lagoon. A time composite sample consists of a sample collected every 15 minutes at the same location (at 0 min., 15 min. and 30 min.). These three samples are then composited into one sample to take to the lab for analysis.

A5. LAGOON AND TRIBUTARY WATER QUALITY MONITORING FOR TWO-WEEK PERIODS.

The Monitoring Program Workplans shall include at a minimum the constituents, sampling locations, and frequency and duration of sampling as indicated below for the pollutants impairing a water quality limited segment. Site-specific changes to this sampling specification may be proposed to the San Diego Water Board along with the scientific rationale for the changes. Any proposed changes may not be implemented until incorporated into this Order by amendment.

i. Constituents
Field measurements of water temperature, pH, conductivity, and dissolved oxygen shall be collected when water quality samples listed below are collected.

Waters impaired due to Indicator Bacteria (Loma Alta Slough, Buena Vista Lagoon, Agua Hedionda Lagoon, San Elijo Lagoon)
- Fecal coliform
- Total coliform
- *Enterococcus*
- Tributary flow rate

Waters impaired due to Sediment/Siltation (Buena Vista Lagoon, Agua Hedionda Lagoon, Agua Hedionda Creek, San Elijo Lagoon, Los Penasquitos Lagoon)
- Turbidity
- Total Suspended Solids
- Tributary flow rate

Waters impaired due to TDS (Agua Hedionda Creek)
- Total dissolved solids
- Tributary flow rate

Waters impaired due to Eutrophic Conditions/Nutrients (Santa Margarita Lagoon, Loma Alta Slough, Buena Vista Lagoon, San Elijo Lagoon, Famosa Slough and Channel)
- Ammonia as N
- Total kjeldahl nitrogen
- Nitrite as N
- Nitrate as N
- Total nitrogen
- Ortho phosphate as P
- Total phosphorus
- Chlorophyll *a*
- Biochemical oxygen demand (BOD_5)
- Tributary flow rate

ii. Location

Lagoons:

A minimum of one sample site in each segment or portion of a segment shall be selected. The sampling site shall represent ambient water conditions and shall not be influenced by storm drain flow or other effluent discharges.

Tributaries:

A minimum of one sample site shall be selected in the tributary to the water quality limited segment, upstream of the tidal prism. The sampling site shall represent ambient water conditions and shall not be influenced by storm drain flow or other effluent discharges.

iii. Frequency/Duration

Time composite samples will consist of one sample collected every 15 minutes at the same location (at 0 min., 15 min., and 30 min.). These three samples are then composited into one sample to take to the lab for analysis.

Lagoons:

For tidally influenced lagoons, at a minimum, time composite samples shall be collected twice daily for the two two-week periods corresponding to the two-week periods of hourly sensor data collection. One sample shall be collected during high tide, the other sample during low tide.

Tidally influenced lagoons include Santa Margarita Lagoon, Loma Alta Slough, Agua Hedionda Lagoon, San Elijo Lagoon, Los Penasquitos Lagoon, and Famosa Slough and Channel. The mouth opening can

be maintained by dredging and still be considered a tidally influenced lagoon.
For non-tidally influenced lagoons, at a minimum, time composite samples shall be collected once daily for two two-week periods.

Tributaries:
For tributaries (and non-tidal lagoons), at a minimum, time composite samples shall be collected once daily for two two-week periods corresponding to the two-week periods of hourly sensor data collection.

A6. RAINFALL DATA REPRESENTATIVE OF THE WATERSHED

The Monitoring Program Workplans shall include precipitation monitoring and describe at a minimum the rainfall sampling device to be used, location of the gage, and frequency and duration of sampling as indicated below for the watersheds with impaired water quality limited segments. If an established and ongoing rainfall gage can be identified that is representative of the watershed, then the data from that gage may be used in place of a newly established gage specific to this project. If the rain monitoring equipment becomes inoperative, it must be repaired or replaced within 7 days. The San Diego Water Board must be notified within 24 hours of the failure of any of the rain monitoring equipment. If an established gage is used, the Workplan must specify who is responsible for maintaining and collecting data from this gage. The gage shall collect the following information:

i. Constituents
Rainfall measured in 1/100th inches per hour.

ii. Location
The rainfall gage shall be placed in a location that is representative of each watershed with an impaired waterbody.

iii. Frequency/Duration
The rainfall gage shall be operational to collect measurements continuously during every rainfall event commencing with the first storm after October 1, 2007, until the cessation of the monitoring program described in the workplans.

A7. LAGOON SEDIMENT SAMPLE

The Monitoring Program Workplans shall include at a minimum the constituents, sampling locations, and frequency and duration of sediment sampling as indicated below for the pollutants impairing a water quality limited segment. Site-specific changes to this sampling specification may be proposed to the San Diego Water Board along with the scientific rationale for the changes. Any proposed changes may not be implemented until incorporated into this Order by amendment.

i. Constituents
All lagoons impaired for nutrient/eutrophication and/or sedimentation/siltation:

Grain size distribution

ii. Location
A minimum of one sample site in each lagoon segment or portion of a segment shall be selected.

iii. Frequency/Duration
- A minimum of one sample shall be collected using surficial sampling tubes during each two-week period of hourly sensor data collection.
- A minimum of one sample shall be collected within 72 hours after the beginning of each storm event monitored for pollutagraph data described in Section 3.

A8. SPECIAL STUDIES
The Monitoring Program Workplans shall include, at a minimum, the following one-time surveys of waters impaired for eutrophic conditions/nutrients:
- Macrophyte and periphyton (estimation of biomass)
- Sediment oxygen demand
- Nutrient flux from sediments

A9. QUALITY ASSURANCE PROJECT PLAN AND IMPLEMENTATION OF MONITORING PROGRAM
The Dischargers shall submit an adequate Quality Assurance Project Plan (QAPP) for field and laboratory operations by **September 1, 2007**, as described below. If, within 30 days after submittal of the QAPP, no comments have been received from the San Diego Water Board, the Dischargers shall implement the QAPP and Workplans.

a. The QAPP for field operations shall include, at a minimum, the following:
   - Quality assurance objectives;
   - Sample container preparation, labeling and storage;
   - Chain-of-custody tracking;
   - Field setup;
   - Sampler equipment check and setup;
   - Sample collection;
   - Use of field blanks to assess field contamination;
   - Use of field duplicate samples;
   - Transportation to the laboratory;
   - Training of field personnel; and
   - Evaluation and enhancement if needed of the QA/QC plan.

b. The QAPP for laboratory operations shall include, at a minimum, the following:
   - Quality assurance objectives;
   - Organization of laboratory personnel, their education, experience, and duties;
   - Sample procedures;

- Sample custody;
- Calibration procedures and frequency;
- Analytical procedures;
- Data reduction, validation, and reporting;
- Internal quality control procedures;
- Performance and system audits;
- Preventive maintenance;
- Assessment of accuracy and precision;
- Correction actions; and a
- Quality assurance report.

Furthermore, the QAPP shall meet the standards as set forth in the Quality Assurance Project Plan for the State of California's Surface Water Ambient Monitoring Program (SWAMP). The SWAMP QAPP can be found on the World Wide Web at: *http://www.swrcb.ca.gov/swamp/index.html*.

A10. DATA REPORTS

Data Reports containing monitoring results from implementation of the Monitoring Program Workplan shall be submitted within 90 days after each distinct period of data collection has been completed. Data reports shall consist of electronic copies of laboratory results in either WORD or PDF format, and data compilations in Microsoft Excel spreadsheet format.

A11. CHANGES TO ORDER

The Dischargers may propose changes or alternatives to the directives in this Order if a valid rationale for the changes is shown. The Dischargers shall implement proposed changes upon amendment of this Order by the San Diego Water Board.

B. PROVISIONS

1. Duty to Comply - The Discharger(s) shall obtain all permits and access agreements needed to implement the Directives of this Order. The Discharger(s) shall properly manage, treat, and/or dispose of contaminated water samples in accordance with applicable federal, state, and local laws and regulations.

2. Request to Provide Information - The Discharger(s) may present characterization data, preliminary interpretations and conclusions as they become available, rather than waiting until a report is prepared. This type of on-going reporting can facilitate a consensus being reached between the Discharger(s) and the San Diego Water Board and may result in overall reduction of the time necessary to meet data needs.

3. Waste Constituent Analysis - All analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. Specific methods of analysis must be identified. If the Discharger(s) proposes to use methods or test procedures other than those included in the most current version of 40 CFR 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants;*

Procedures for Detection and Quantification, the exact methodology must be submitted for review by the San Diego Water Board prior to use. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and shall sign all reports submitted to the San Diego Water Board.

4. *Signatory Requirements* - [40 CFR 122.41(k)(1) and 40 CFR 122.22] All applications, reports, or information submitted to the San Diego Water Board shall be signed and certified.

a. All reports required by this Order shall be signed as follows:

(1) Responsible Corporate Officer(s) - For the purposes of this provision, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy - or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities, if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
(3) For a municipality, State, Federal or other public agency: by either a principal executive office or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (a) the chief executive officer of the agency; or (b) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of U.S. EPA).

b. All reports required by this Order and other information requested by the San Diego Water Board shall be signed by a person described in paragraph a. of this reporting requirement, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph a. of this report requirement;

(2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and

(3) The written authorization is submitted to the San Diego Water Board.

c. *Changes to Authorization* - If an authorization under paragraph (b) of this provision is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this provision must be submitted to the San Diego Water Board prior to or together with any reports or information to be signed by an authorized representative.

d. *Certification Statement* - Any person signing a document under paragraph a. or b. of this provision shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to 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."

5. All reports/workplans required under this Order shall be submitted to:

Executive Officer
Attn: Water Quality Standards Unit
California Regional Water Quality Control Board
San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340

6. *Inspection and Entry* - [40 CFR 122.41(i)] [California Water Code section 13267 and 13383]
The discharger shall allow the San Diego Water Board, or an authorized San Diego Water Board representative, or an authorized representative of the U.S. EPA (including an authorized contractor acting as a representative of the San Diego Water Board or U.S. EPA), upon presentation of credentials and other documents as may be required by law, to:

a. Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
d. Sample or monitoring at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the

Clean Water Act or California Water Code, any substances or parameters at any location.

Ordered by:

John H. Robertus

EXECUTIVE OFFICER

Date Issued:

Attachment 1. Responsible Dischargers Within the Watershed of a Water Quality Limited Segment.

Water Quality Limited Segments	HUC	Municipalities and Military Facilities	Counties, State Agencies, and Other Facilities
Santa Margarita Lagoon	902.1	Camp Pendleton Fallbrook Naval Weapons Station Murrieta Temecula	1. San Diego County 2. Riverside County Flood Control and Water Conservation District 3. Caltrans 4. North County Transit District
Loma Alta Slough and Ocean Shoreline	904.1	Oceanside Vista	1. San Diego County 2. Caltrans
Buena Vista Lagoon and Ocean Shoreline	904.2	Carlsbad Oceanside Vista San Marcos	1. San Diego County 2. Caltrans
Agua Hedionda Lagoon and lower Agua Hedionda Creek	904.3	Carlsbad Oceanside San Marcos Vista	1. San Diego County 2. Caltrans
San Elijo Lagoon and Ocean Shoreline	904.6	Encinitas Escondido San Marcos Solana Beach	1. San Diego County 2. Caltrans 3. City of Escondido Hale Avenue Resource Recovery Facility
Los Penasquitos	906.1	Del Mar Poway San Diego	1. San Diego County 2. Caltrans
Famosa Slough and Channel	907.1	San Diego	1. Caltrans