

**SECOND AMENDMENT TO AGREEMENT FOR PROFESSIONAL SERVICES**

This Second Amendment ("Second Amendment") to the Agreement for Professional Services ("Agreement") is made and entered into in the County of Ventura, State of California, this 16<sup>th</sup> day of June, 2009, by and between the City of Oxnard, a municipal corporation ("City"), and Aquatic Bioassay and Consulting Laboratories, Inc. ("Consultant"). This Second Amendment amends the Agreement entered into on June 19, 2007, by City and Consultant. The Agreement previously has been amended on June 24, 2008, by a First Amendment.

City and Consultant agree as follows:

1. In section 12 of the Agreement, the expiration date of "June 30, 2009" is deleted and replaced with the date "June 30, 2010".
2. In section 14a of the Agreement, the figure "\$558,480" is deleted and replaced with the figure "\$837,720".
3. Effective July 1, 2009, Exhibit A of the Agreement is deleted and replaced with Exhibit A-1, attached hereto and incorporated herein by reference.
4. Effective July 1, 2009, Exhibit B of the Agreement is deleted and replaced with Exhibit B-1, attached hereto and incorporated herein by reference.
5. As so amended, the Agreement remains in full force and effect.

CITY OF OXNARD

CONSULTANT

\_\_\_\_\_  
Dr. Thomas E. Holden, Mayor

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Thomas K. Mikel Jr., Laboratory Director  
Aquatic Bioassay and Consulting Laboratories, Inc.

ATTEST:

APPROVED AS TO INSURANCE:

\_\_\_\_\_  
Daniel Martinez, City Clerk

\_\_\_\_\_  
James Cameron, Risk Manager

APPROVED AS TO FORM:

APPROVED AS TO CONTENT:

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Alan Holmberg, City Attorney

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Ken Ortega, Public Works Director

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*Mark Moise*  
Mark Moise, Project Manager

EXHIBIT A-1

SCOPE OF WORK

All sampling, analyses and reporting performed by the Consultant shall be conducted in accordance with Attachment E – Monitoring and Reporting Program of the Oxnard Wastewater Treatment Plant’s NPDES Permit No. CA0054097, attached hereto and incorporated herein by reference as Exhibit C.

**Task 1 – Receiving Water Monitoring**

**(\$125,658)**

Task 1.1 - Consultant shall provide quarterly receiving water quality monitoring at receiving water column monitoring stations RWC-4101 to RWC-4706 for dissolved oxygen, water temperature, light transmittance, salinity, pH, Chlorophyll a and visual observations. Sampling techniques shall follow protocols described in the most current edition of the Field Operations Manual for Marine Water-Column, Benthic, and Trawl Monitoring in Southern California, SCCWRP. Data shall be analyzed to approximate the typical wastewater plume movement and data from 1998 and forward shall be analyzed to determine and map out the wastewater plume movement under different seasonal and weather conditions.

**Deliverables** Four (4) Quarterly Receiving Water Monitoring Reports.

Task 1.2 – Consultant shall provide quarterly receiving water quality monitoring for bacteria and ammonia at 18 receiving water column monitoring stations of RWC-4401 to RWC-4406, RWC-4301 to RWC- 4306, and RWC-4391 to RWC-4396 as follows:

<b>Parameter</b>	<b>Sample Type</b>
Total coliform	Grab, surface, mid-depth and near bottom
Fecal coliform	Grab, surface, mid-depth and near bottom
Enterococcus	Grab, surface, mid-depth and near bottom
Ammonia nitrogen	Grab, surface, mid-depth and near bottom

**Deliverables** Four (4) Quarterly Receiving Water Monitoring Report.

**Task 2 – Benthic Sediments Monitoring**

**(\$83,772)**

**Task 2.1 –Sediment Chemistry Monitoring**

Consultant shall annually, during late summer (August/September), monitor sediment at 7 receiving water sediment monitoring stations (RWS-001 to RWS-007) as follows:

All benthic sediment samples shall be taken at each station by means of a 0.1 m<sup>2</sup> (1.1 ft<sup>2</sup>) modified Van Veen sediment grab sampler. Sub-samples (upper two centimeters) of sediment from each sample shall be collected and analyzed separately for the following parameters at each station:

1. Total organic carbon (TOC) (mg/kg dry wt);
2. Dissolved sulfides (water soluble) (mg/kg dry wt);
3. Total Kjeldahl nitrogen (mg/kg dry wt);
4. Grain size (sufficiently detailed to calculate percent weight in relation to phi size); and
5. Arsenic; Cadmium; Chromium (total); Copper; Lead; Mercury; Nickel; Silver; Zinc; Cyanide; Phenolic compounds (non-chlorinated); Phenolic compounds (chlorinated); Total halogenated organic compounds; Aldrin and Dieldrin; Endrin; HCH; Chlordane and related compounds; Total DDT; DDT derivatives; Total PCB; PCB derivatives; Toxaphene; Total PAH; PAH derivatives. The data for these parameters shall be expressed in mg/kg dry weight.

Bottom samples for sediment chemistry analyses shall be taken at each benthic station prior to trawl sampling

Deliverables	Annual Receiving Water Monitoring Report.
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#### Task 2.2 – Benthic Infaunal Monitoring

Consultant shall annually, during late summer (August/September), collect bottom samples for infaunal analyses at benthic stations. Bottom samples for benthic infaunal analyses shall be taken at each benthic station (RWS-001 to RWS-007) prior to trawl sampling.

The following determinations shall be made at each station, where appropriate:

1. Identification of all organisms to lowest possible taxon (usually species); and,
2. Total biomass of:
  - a. Mollusks;
  - b. Echinoderms;
  - c. Annelids/polychaetes;
  - d. Crustaceans; and,
  - e. All other macroinvertebrates.
3. Community structure analysis for benthic infaunal for each station and each replicate; Mean, median, range, standard deviation, and 95% confidence limits, if appropriate, for values determined above. Additional “statistical analyses” may be required to conduct to determine temporal and spatial trends in the marine environment.

Deliverables	Annual Receiving Water Monitoring Report.
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#### Task 2.3 – Sediment Toxicity Monitoring

Consultant shall conduct sediment toxicity testing annually, during late summer (August/September), at two receiving water sediment monitoring stations (RWS-003 and RWS-007). Three replicate samples shall be collected for testing at each station. Sub-samples (upper two centimeters) shall be taken from each sediment sample and tested with amphipod *Eohaustorius* - survival end point; using standard protocols approved by the Executive Officer of the Los Angeles Regional Water Quality Control Board.

### Task 3 – Fish and Macroinvertebrate Monitoring

(\$55,848)

Task 3.1 – Population Monitoring. Consultant shall annually, during late summer (August/September), monitor fish and epibenthic macroinvertebrate at three receiving water trawling stations (RWT-001 to RWT-003) as follows:

Trawling methods shall follow the protocols described in the most current edition of the Field Operations Manual for Marine Water-Column, Benthic, and Trawl Monitoring in Southern California, SCCWRP. Fish and macroinvertebrates collected by trawls shall be identified to the lowest taxon possible. At all stations and for each replicate, community structure analysis for fish and macroinvertebrates shall be conducted for fish and macroinvertebrates for each station.

Mean, range, standard deviation, and 95% confidence limits, if appropriate, shall be reported for the values determined in the community analysis. The Discharger may be required to conduct additional “statistical analyses” to determine temporal and spatial trends in the marine environment.

Abnormalities and disease symptoms shall be described and recorded (e.g., fin erosion, external lesions, tumors, ectoparasites, and color anomalies). The frequency of abnormalities and incidence of disease shall be compared between the ZID boundary and the reference station, and trends in these values shall be measured over time. The results of this inspection shall be included in the monitoring report.

Deliverables	Annual Receiving Water Monitoring Report.
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Task 3.2 – Fish and Invertebrate Tissue Monitoring. Consultant shall annually at the trawling stations, collect by trawls tissue from one demersal fish and by trawls or SCUBA one macroinvertebrate for analysis.

The two species collected shall be of importance to commercial and/or sport fishers or of obvious ecological significance shall be analyzed for priority pollutants (i.e., for bioaccumulation of toxic pollutants). If possible, for the duration of this permit and order, the same species shall be used at all stations.

1. Fish Tissues, as applied to the analysis of priority pollutants, signifies separate analyses for muscle and liver. All tissue samples shall be analyzed for wet weight and percent lipid. Annual testing shall be required in late summer (August/September) and shall include analysis for: Arsenic; Cadmium; Chromium (total); Copper; Lead; Mercury; Nickel; Silver; Zinc; Cyanide; Phenolic compounds (non-chlorinated); Phenolic compounds (chlorinated); Total halogenated organic compounds; Aldrin and Dieldrin; Endrin; HCH; Chlordane and related compounds; Total DDT; DDT derivatives; Total PCB; PCB derivatives; Toxaphene; Total PAH; PAH derivatives. The data for these parameters shall be expressed in mg/kg dry weight.

For fish tissue analysis, individuals of the species of interest shall be combined from the trawls to form a single pooled sample at a station. Three composite samples shall be analyzed for each of the tissue types. Each composite sample shall consist of tissues taken from fish of one species and include at least six individuals. In order to obtain the required number of individuals, additional trawls may be necessary.

Reference specimens for tissue analysis may be collected at a different depth or area beyond the reference station (RWT-003), if necessary. If areas other than RWT-003 are sampled for reference material, data on the location and depth of the sampling point(s) shall be provided to the Los Angeles Regional Water Quality Control Board and the USEPA Region IX.

The following fish species are recommended for the tissue analysis of priority pollutants:

White Croaker (*Genyonemus lineatus*) and Speckled sanddab (*Citharichthys stigmaeus*)

2. Macroinvertebrate tissues, as applied to the analysis of priority pollutants in macroinvertebrates, signifies analyses for muscle or other tissue, if muscle is impractical. All tissue samples shall be analyzed for wet weight and percent lipid.

Annual testing shall be required in late summer (August/September) and shall include analysis for:

Arsenic; Cadmium; Chromium (total); Copper; Lead; Mercury; Nickel; Silver; Zinc; Cyanide; Phenolic compounds (non-chlorinated); Phenolic compounds (chlorinated); Total halogenated organic compounds; Aldrin and Dieldrin; Endrin; HCH; Chlordane and related compounds; Total DDT; DDT derivatives; Total PCB; PCB derivatives; Toxaphene; Total PAH; PAH derivatives. The data for these parameters shall be expressed in mg/kg dry weight.

For macroinvertebrate tissue analysis, individuals of the species of interest shall be combined from the trawls to form a single pooled sample at a station. Three composite samples shall be analyzed for each of the tissue types. Each composite sample shall consist of sufficient tissue taken from at least three individual organisms of one species. In order to obtain the required number of individuals, additional trawls may be necessary. When feasible, tissues from organisms of the same species should be analyzed from year to year to facilitate comparability.

Reference specimens for tissue analysis may be collected at a different depth or area beyond the reference station (RWT-003), if necessary. If areas other than RWT-003 are sampled for reference material, data on the location and depth of the sampling point(s) shall be provided to the Los Angeles Regional Water Quality Control Board and USEPA Region IX.

The following macroinvertebrate species are recommended for the tissue analysis of priority pollutants:

Sandstar (*Astropecten* spp)

Shrimp (*Crangon* spp)

Crab (*Cancer* spp)

Deliverables	Annual Receiving Water Monitoring Report.
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**Task 4 – Annual Outfall And Diffuser Inspection**

**(\$13,962)**

Consultant shall conduct an outfall and diffuser survey in October or November. This inspection shall consist of:

1. An examination of the outfall and diffuser port system for plugs, leaks, rotation, and flow distribution. A detailed structural analysis of the pipes every five years submitted with the ROWD shall be conducted using underwater television/videotape and submarine visual inspection, where appropriate, to provide a comprehensive report on the discharge pipe systems from shallow water to their respective termini. The annual visual inspection shall be conducted on the external condition of the outfall, diffuser, and ballast systems.

2. A visual inspection at and in the vicinity of the outfall and diffuser port system to determine thickness of any “cloud” of unsettled solids, bottom flora and fauna, and any other biological and physical conditions. Inspections shall include general observations and photographic records of the outfall pipe and the surrounding ocean bottom. A report (including photographs) discussing the above information shall be submitted with the Annual Summary Report to this Regional Board.

<b>Deliverables</b>	Annual Outfall and Diffuser Inspection Report.
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Consultant shall submit deliverables according to the following schedule:

<b>Sampling Frequency</b>	<b>Monitoring Period</b>	<b>Receiving Water Monitoring Report Due Date</b>
Quarterly	January 1 – March 31	May 8
	April 1 – June 30	August 8
	July 1 – September 30	November 8
	October 1 – December 31	February 8
Semiannually	January 1 – June 30	August 8
	July 1 – December 31	February 8
Annually	January 1 – December 31	April 8

EXHIBIT B-1

SCHEDULE OF CHARGES

January 1, 2009

Personnel Compensation

Classification	Hourly Rate
Senior Scientist.....	\$140
Scientist .....	\$125
Senior Biologist.....	\$100
Biologist.....	\$ 90
Field Technician.....	\$ 70
Administrative Assistant.....	\$ 50

Exhibit C

**City of Oxnard  
Oxnard Wastewater Treatment Plant**

**NPDES PERMIT NO. CA0054097  
ORDER NO. R4-2008-0029**

**Attachment E – Monitoring and Reporting  
Program**

## ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations, title 40, part 122.48 requires that all NPDES permits specify monitoring and reporting requirements. California Water Code sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

### I. GENERAL MONITORING PROVISIONS

#### A. Principles, Framework, and Design of Monitoring Program

1. NPDES compliance monitoring focuses on the effects of a specific point source discharge. Generally, it is not designed to assess impacts from other sources of pollution (e.g., nonpoint source runoff, aerial fallout) or to evaluate the current status of important ecological resources in the waterbody. The scale of existing compliance monitoring programs does not match the spatial and, to some extent, temporal boundaries of the important physical and biological processes in the ocean. In addition, the spatial coverage provided by compliance monitoring programs is less than ten percent of the nearshore ocean environment. Better technical information is needed about status and trends in ocean waters to guide management and regulatory decisions, to verify the effectiveness of existing programs, and to shape policy on marine environmental protection.
2. The Regional Water Board and USEPA, working with other groups, have developed a comprehensive basis for effluent and receiving water monitoring appropriate to large publicly owned treatment works (POTWs) discharging to waters of the Southern California Bight. This effort has culminated in the publication by the Southern California Coastal Water Research Project (SCCWRP) of the Model Monitoring Program guidance document (Schiff, K.C., J.S. Brown and S.B. Weisberg. 2001. *Model Monitoring Program for Large Ocean Dischargers in Southern California*. SCCWRP Tech. Rep #357. Southern California Coastal Water Research Project, Westminster, CA. 101 pp.). This guidance provides the principles, framework and recommended design for effluent and receiving water monitoring elements that have guided development of the monitoring program described below.
3. The conceptual framework for the Model Monitoring Program has three components that comprise a range of spatial and temporal scales: (1) core monitoring; (2) regional monitoring; and (3) special studies.
  - a. Core monitoring is local in nature and focused on monitoring trends in quality and effects of the point source discharge. This includes effluent monitoring as well as some aspects of receiving water monitoring. In the monitoring program described below these core components are typically referred to as local monitoring.

- b. Regional monitoring is focused on questions that are best answered by a region-wide approach that incorporates coordinated survey design and sampling techniques. The major objective of regional monitoring is to collect information required to assess how safe it is to swim in the ocean, how safe it is to eat seafood from the ocean, and whether the marine ecosystem is being protected. Key components of regional monitoring include elements to address pollutant mass emission estimations, public health concerns, monitoring of trends in natural resources, assessment of regional impacts from all contaminant sources, and protection of beneficial uses. The final design of regional monitoring programs is developed by means of steering committees and technical committees comprised of participating agencies and organizations, and is not specified in this permit. Instead, for each regional component, the degree and nature of participation of the Discharger is specified. For this permit, these levels of effort are based upon past participation of the Los Angeles County Sanitation Districts (Discharger or Districts) in regional monitoring programs.

The Discharger shall participate in regional monitoring activities coordinated by the SCCWRP or any other appropriate agency approved by the Regional Water Board. The procedures and time lines for the Regional Water Board approval shall be the same as detailed for special studies, below.

- c. Special studies are focused on refined questions regarding specific effects or development of monitoring techniques and are anticipated to be of short duration and/or small scale, although multiyear studies also may be needed. Questions regarding effluent or receiving water quality, discharge impacts, ocean processes in the area of the discharge, or development of techniques for monitoring the same, arising out of the results of core or regional monitoring, may be pursued through special studies. These studies are by nature ad hoc and cannot be typically anticipated in advance of the five-year permit cycle.

The Discharger and the Regional Water Board shall consult annually to determine the need for special studies. Each year, the Discharger shall submit proposals for any proposed special studies to the Regional Water Board by December 15, for the following year's monitoring effort (July through June). The following year, detailed scopes of work for proposals, including reporting schedules, shall be presented by the Discharger at a Spring Regional Water Board meeting, to obtain the Regional Water Board approval and to inform the public. Upon approval by the Regional Water Board, the Discharger shall implement its special study or studies.

4. In an attempt to bridge the foregoing gap in information, this monitoring program for the City of Oxnard is comprised of requirements to demonstrate compliance with the conditions of the NPDES permit, ensure compliance with State water quality standards, and mandate participation in regional monitoring and/or area-wide studies.

5. Discharger participation in regional monitoring programs is required as a condition of this permit. The Discharger shall complete collection and analysis of samples in accordance with the schedule established by the Steering Committee directing the Bight-wide regional monitoring surveys. The level of participation shall be similar to that provided by the Discharger in previous regional surveys conducted in 1994, 1998 and 2003. The regional programs which must be conducted under this permit include:
  - a. Future Southern California Bight regional surveys, including benthic infauna, sediment chemistry, fish communities and fish predator risk;
  - b. Central Region Kelp Monitoring Program – coordinated by the Regional Water Board; and,
  - c. Central Bight Water Quality Cooperative Program – coordinated monitoring conducted by Orange County Sanitation District, County Sanitation Districts of Los Angeles County, City of Los Angeles and City of Oxnard through appropriate agencies for water quality monitoring.
6. Regular regional monitoring for the Southern California Bight has been established, occurring at four- to five-year intervals, and coordinated through SCCWRP with discharger agencies and numerous other entities. The third regional monitoring program (Bight'03) occurred during summer 2003 and winter 2003-4. The fourth regional monitoring program (Bight'08) is expected to take place during 2008. While participation in regional programs is required under this permit, revisions to the Discharger's monitoring program at the direction of the Regional Water Board may be necessary to accomplish the goals of regional monitoring or to allow the performance of special studies to investigate regional or site-specific water issues of concern. These revisions may include a reduction or increase in the number of parameters to be monitored, the frequency of monitoring, or the number and size of samples to be collected. Such changes may be authorized by the Executive Officer upon written notification to the Discharger.
7. The Regional Water Board has helped to establish the Central Region Kelp Survey Consortium to conduct regional kelp bed monitoring. This program is designed to require ocean dischargers in the Regional Water Board's jurisdiction to undertake a collaborative program (which may include participation by Orange County ocean dischargers) to monitor kelp beds in the Southern California Bight, patterned after the successful program implemented by the San Diego Regional Water Board since 1985. Data collected in this regional survey will be used to assess status and trends in kelp bed health and spatial extent. The regional nature of the survey will allow the status of beds local to specific dischargers to be compared to regional trends. The regional kelp monitoring survey was initiated during 2003.

The regional survey will consist primarily of quarterly aerial overflights to assess the size and health of existing kelp beds. The Discharger shall participate in the management and technical committee's responsibility for the final survey design and shall provide appropriate financial support to help fund the survey (share base) on the number of participants in the study, but not to exceed a maximum of \$10,000 per year.

8. Laboratories analyzing monitoring samples shall be certified by the Department of Health Services, in accordance with the provision of Water Code section 13176, and must include quality assurance/quality control data with their reports.
- B. All samples shall be representative of the waste discharge under conditions of peak load. Quarterly effluent analyses shall be performed during the months of February, May, August, and November. Semiannual analyses shall be performed during the months of February and August. Annual analyses shall be performed during the month of August. Should there be instances when monitoring could not be done during these specified months, the Discharger must notify the Regional Water Board, state the reason why monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule. Results of quarterly, semiannual, and annual analyses shall be reported in the monthly monitoring report following the analysis.
- C. Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. parts 136.3, 136.4, 136.5 (revised March 12, 2007); or where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or the State Water Board. Laboratories analyzing effluent samples and receiving water samples shall be certified by the California Department of Public Health Environmental Laboratory Accreditation Program (ELAP) or approved by the Executive Officer and must include quality assurance/quality control (QA/QC) data in their reports. A copy of the laboratory certification shall be provided each time a new certification and/or renewal of the certification is obtained from ELAP.
- D. Water/wastewater samples must be analyzed within allowable holding time limits as specified in 40 C.F.R. part 136.3 (revised March 12, 2007). All QA/QC analyses must be run on the same dates that samples are actually analyzed. The Discharger shall retain the QA/QC documentation in its files and make available for inspection and/or submit them when requested by the Regional Water Board. Proper chain of custody procedures must be followed and a copy of that documentation shall be submitted with the monthly report.
- E. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and to insure accuracy of measurements, or shall insure that both equipment activities will be conducted.

- F. For any analyses performed for which no procedure is specified in the USEPA guidelines, or in the MRP, the constituent or parameter analyzed and the method or procedure used must be specified in the monitoring report.
- G. Each monitoring report must affirm in writing that "all analyses were conducted at a laboratory certified for such analyses by the Department of Public Health or approved by the Executive Officer and in accordance with current USEPA guideline procedures or as specified in this MRP."
- H. The monitoring report shall specify the USEPA analytical method used, the Method Detection Limit (MDL), and the Reporting Level (RL) [the applicable minimum level (ML) or reported Minimum Level (RML)] for each pollutant. The MLs are those published by the State Water Board in the 2005 Ocean Plan, Appendix II. The ML represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interference. When all specific analytical steps are followed and after appropriate application of method specific factors, the ML also represents the lowest standard in the calibration curve for that specific analytical technique. When there is deviation from the method analytical procedures, such as dilution or concentration of samples, other factors may be applied to the ML depending on the sample preparation. The resulting value is the reported Minimum Level.
- I. The Discharger shall select the analytical method that provides a ML lower than the permit limit established for a given parameter, unless the Discharger can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 C.F.R. part 136, and obtains approval for a higher ML from the Executive Officer, as provided for in section K. below. If the effluent limitation is lower than all the MLs in Appendix II of the 2005 Ocean Plan, the Discharge must select the method with the lowest ML for compliance purposes. The Discharger shall include in the Annual Summary Report a list of the analytical methods employed for each test.
- J. The Discharger shall instruct its laboratories to establish calibration standards so that the ML (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve. In accordance with section K. below, the Discharger's laboratory may employ a calibration standard lower than the ML in Appendix II of the 2005 Ocean Plan.
- K. In accordance with Section III.C.5.b of the 2005 Ocean Plan, the Regional Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program Manager, may establish an ML that is not contained in Appendix II of the 2005 Ocean Plan to be included in the discharger's permit in any of the following situations:

1. When a pollutant under consideration is not listed in Appendix II;

2. When the discharger and the Regional Water Board agree to include in the permit a test method that is more sensitive than those specified in 40 C.F.R., part 136 (revised as of March 12, 2007);
  3. When the discharger agrees to use an ML that is lower than those listed in Appendix II;
  4. When the discharger demonstrates that the calibration standard matrix is sufficiently different from that used to establish the ML in Appendix II and proposes an appropriate ML for the matrix; or,
  5. When the discharger uses a method, which quantification practices are not consistent with the definition of the ML. Examples of such methods are USEPA-approved method 1613 for dioxins, and furans, method 1624 for volatile organic substances, and method 1625 for semi-volatile organic substances. In such cases, the discharger, the Regional Water Board, and the State Water Resources Control Board shall agree on a lowest quantifiable limit and that limit will substitute for the ML for reporting and compliance determination purposes.
- L. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by this Program using approved analytical methods, the results of those analyses shall be included in the report. These results shall be reflected in the calculation of the average used in demonstrating compliance with average effluent, receiving water, etc., limitations.
- M. The Discharger shall develop and maintain a record of all spills or bypasses of raw or partially treated sewage from its collection system or treatment plant according to the requirements in the WDR section of this Order. This record shall be made available to the Regional Water Board upon request and a spill summary shall be included in the annual summary report.
- N. For all bacteriological analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for enterococcus). The detection methods used for each analysis shall be reported with the results of the analyses.
1. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 C.F.R., part 136 (revised March 12, 2007), unless alternate methods have been approved in advance by the United State Environmental Protection Agency (USEPA) pursuant to 40 C.F.R. part 136.
  2. Detection methods used for enterococcus shall be those presented in Table 1A of 40 C.F.R., part 136 (revised March 12, 2007) or in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water*

By Membrane Filter Procedure, or any improved method determined by the Regional Water Board to be appropriate.

**II. MONITORING LOCATIONS**

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

**Table 1. Monitoring Station Locations**

Influent and Effluent Monitoring Stations								
Discharge Point Name	Monitoring Location Name		Monitoring Location Description (Include Latitude and Longitude when available)					
--	INF-001		Sampling stations shall be established at each point of inflow to the sewage treatment plant and shall be located upstream of any in-plant return flows and where representative samples of the influent can be obtained.					
001	EFF-001		The effluent sampling station shall be located downstream of any in-plant return flows but before entering discharge tunnel where representative samples of the effluent can be obtained					
Receiving Water Column Monitoring Stations								
Station	RWC-4101	RWC-4201	RWC-4301	RWC-4391	RWC-4401	RWC-4501	RWC-4601	RWC-4701
	RWC-4102	RWC-4202	RWC-4302	RWC-4392	RWC-4402	RWC-4502	RWC-4602	RWC-4702
	RWC-4103	RWC-4203	RWC-4303	RWC-4393	RWC-4403	RWC-4503	RWC-4603	RWC-4703
	RWC-4104	RWC-4204	RWC-4304	RWC-4394	RWC-4404	RWC-4504	RWC-4604	RWC-4704
	RWC-4105	RWC-4205	RWC-4305	RWC-4395	RWC-4405	RWC-4505	RWC-4605	RWC-4705
	RWC-4106	RWC-4206	RWC-4306	RWC-4396	RWC-4406	RWC-4506	RWC-4606	RWC-4706
Latitude	34°03'54.4"	34°06'18.4"	34°09'35.8"	34°07'57.5"	34°13'50.6"	34°15'65.9"	34°23'06.5"	34°27'12.3"
	34°02'57.1"	34°05'43.9"	34°08'61.2"	34°07'29.8"	34°12'22.5"	34°15'16.7"	34°22'73.2"	34°26'35.0"
	34°01'68.8"	34°04'70.3"	34°06'62.8"	34°06'59.7"	34°10'87.1"	34°14'80.7"	34°22'16.6"	34°25'55.7"
	33°99'22.2"	34°02'75.6"	34°04'71.9"	34°06'02.8"	34°09'25.3"	34°13'99.2"	34°21'45.2"	34°24'85.3"
	33°97'15.4"	34°00'42.3"	34°03'02.1"	34°04'17.2"	34°07'94.1"	34°12'87.6"	34°20'63.7"	34°24'05.4"
	33°94'65.2"	33°97'66.7"	34°00'90.5"	34°03'10.2"	34°06'68.7"	34°11'83.9"	34°19'53.1"	34°23'30.3"
Longitude	118°90'77.3"	119°00'71.6"	119°09'77.4"	119°11'25.6"	119°19'02.0"	119°22'99.3"	119°26'73.0"	119°31'04.1"
	118°91'23.5"	119°01'03.5"	119°10'06.0"	119°11'53.6"	119°20'38.1"	119°24'17.8"	119°27'85.0"	119°32'90.9"
	118°91'68.5"	119°01'41.3"	119°11'03.1"	119°12'10.0"	119°21'82.7"	119°25'16.1"	119°29'41.3"	119°35'09.1"
	118°92'71.3"	119°02'27.3"	119°11'95.5"	119°12'44.9"	119°23'64.3"	119°27'19.9"	119°31'48.3"	119°37'05.8"
	118°93'64.5"	119°03'31.4"	119°12'65.9"	119°13'40.6"	119°25'04.3"	119°30'29.9"	119°33'99.7"	119°39'23.9"
	118°94'70.6"	119°04'53.2"	119°13'77.9"	119°14'10.3"	119°26'41.1"	119°32'96.8"	119°37'20.7"	119°41'25.7"
Station Depth (m)	10	12	28	11	12	10	10	10
	49	30	60	30	30	20	11	20
	60	60	149	30	60	20	30	20
	100	100	100	60	100	20	30	23
	450	100	325	134	205	30	30	30
	788	782	525	333	282	81	30	30
Dist. From Outfall Transect (km)	24.3	16.0	8.3	0.1	0.1	4.9	10.0	15.4

Receiving Water Sediment Monitoring Stations							
Station	RWS-001	RWS-002	RWS-003	RWS-004	RWS-005	RWS-006	RWS-007
Latitude	34°07'65.01"	34°07'39.59"	34°07'37.21"	34°07'36.52"	34°07'34.20"	34°07'28.00"	34°05'34.15"
Longitude	119°02'84.87"	119°11'45.75"	119°11'42.33"	119°11'41.34"	119°11'36.24"	119°11'25.20"	119°11'32.25"
Station Depth (m)	15.0	15.0	15.3	15.0	15.3	15.3	15.3
Dist. From Outfall Transect (m)	1000	150	18	18	150	500	4000
Receiving Water Trawl Stations							
Station	RWT-001		RWT-002		RWT-003		
Latitude	34°07'56.79"		34°07'26.96"		34°05'31.73"		
Longitude	119°11'40.42"		119°11'33.32"		119°09'35.22"		
Station Depth (m)	15.6		15.6		15.6		
Dist. From Outfall Transect (m)	380		380		4000		
Ventura County Shoreline Bacteriological Monitoring Stations							
Ventura County ID	Location		Latitude	Longitude			
35000	Hollywood Beach, Los Robles St		34°09'45"	119°13'48"			
37000	Channel Islands Harbor Beach		34°09'34"	119°13'19"			
38000	Silverstrand Beach, San Nicholas Ave		34°09'26"	119°13'31"			
39000	Silverstrand Beach, Santa Paula Ave		34°09'09"	119°13'11"			
40000	Silverstrand Beach, Sawtell, Ave		34°08'51"	119°12'59"			
41000	Port Hueneme Beach Park		34°08'30"	119°11'40"			
42000	Ormand Beach, J Street Drain		34°08'20"	119°11'20"			
43000	Ormand Beach, Industrial Drain		34°08'09"	119°11'03"			
44000	Ormand Beach, Arnold Rd		34°07'11"	119°09'36"			

## CORE MONITORING

### III. INFLUENT MONITORING REQUIREMENTS

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions.
- Assess treatment plant performance.
- Assess effectiveness of the Pretreatment Program

**A. Monitoring Location INF-001**

1. The Discharger shall monitor influent to the Facility at INF-001 as follows:

**Table 2. Influent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	MGD	Recorder/totalizer	Continuous <sup>1</sup>	<sup>2</sup>
pH	pH units	Grab	Daily	<sup>2</sup>
Suspended solids	mg/L	24-hr composite	Daily	<sup>2</sup>
BOD <sub>5</sub> 20°C	mg/L	24-hr composite	Daily	<sup>2</sup>
Oil and grease	mg/L	Grab <sup>3</sup>	Weekly	<sup>2</sup>
Benzidine <sup>4</sup>	µg/L	24-hr composite	Quarterly	<sup>2</sup>
Heptachlor epoxide <sup>4</sup>	µg/L	24-hr composite	Quarterly	<sup>2</sup>
PCBs <sup>4</sup>	µg/L	24-hr composite	Quarterly	<sup>2</sup>
TCDD equivalents <sup>4</sup>	ng/L	24-hr composite	Quarterly	<sup>2</sup>
Remaining pollutants in Table B of the 2005 Ocean Plan (excluding residual chlorine, acute and chronic toxicity, and ammonia) <sup>5</sup>	µg/L	24-hr composite, or grab, as applicable according to 40 C.F.R. part 136	Semiannually	<sup>2</sup>
Pesticides	µg/L	24-hr composite	Semiannually	<sup>2</sup>

**IV. EFFLUENT MONITORING REQUIREMENTS**

Effluent monitoring is required to:

- Determine compliance with NPDES permit conditions and water quality standards.
- Assess plant performance, identify operational problems and improve plant performance.
- Provide information on wastewater characteristics and flows for use in interpreting water quality and biological data.

<sup>\*\*</sup> See Attachment A for definition of terms.

<sup>1</sup> When continuous monitoring of flow is required, total daily flow and peak daily flow (24-hr basis) should be reported.

<sup>2</sup> Pollutants shall be analyzed using the analytical methods described in 40 C.F.R. part 136; where no methods are specified for a given pollutant, by methods approved by this Regional Water Board or State Water Resources Control Board. For any pollutant whose effluent limitation is lower than all the minimum levels (MLs) specified in Appendix II of the Ocean Plan, the analytical method with the lowest ML must be selected.

<sup>3</sup> Oil and grease monitoring in the influent and effluent shall consist of a single grab sample at peak flow over a 24-hour period.

<sup>4</sup> Reasonable potential analysis showed inconclusive. Therefore, the minimum frequency of the influent analysis remains "quarterly".

<sup>5</sup> This constituent did not show the reasonable potential. The minimum frequency of influent analysis remains as "semiannually" or is reduced from "quarterly" to "semiannually".

**A. Monitoring Location EFF-001**

1. The Discharger shall monitor effluent at EFF-001 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

**Table 3. Effluent Monitoring**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total waste flow	MGD	Continuous <sup>1</sup>	--	
Total residual chlorine	mg/L	Continuous <sup>1</sup>	---	2
Turbidity	NTU	Continuous <sup>1</sup>	---	2
Temperature	°C	Grab	---	2
pH	pH unit	Grab	Daily	2
Settleable solids	mL/L	Grab	Daily	2
Suspended solids	mg/L	24-hr composite	Daily	2
Oil and grease	mg/L	Grab <sup>3</sup>	Daily	2
BOD <sub>5</sub> 20°C	mg/L	24-hr composite	Daily	2
Total coliforms	MPN/10 0 mL	Grab	Daily	6
Fecal coliforms	MPN/10 0 mL	Grab	5 times/month	6
Enterococcus	MPN/10 0 mL	Grab	5 times/month	6
Ammonia nitrogen <sup>7</sup>	mg/L	24-hr composite	Monthly	2
Nitrate nitrogen	mg/L	24-hr composite	Monthly	2
Nitrite nitrogen	mg/L	24-hr composite	Monthly	2
Organic nitrogen	mg/L	24-hr composite	Monthly	2
Chronic toxicity <sup>8</sup>	TUc	24-hr composite	Monthly	9
Benzidine <sup>10</sup>	ng/L	24-hr composite	Quarterly	2
Heptachlor epoxide <sup>10</sup>	ng/L	24-hr composite	Quarterly	2
PCBs <sup>9, 10</sup>	µg/L	24-hr composite	Quarterly	2
TCDD equivalents <sup>9, 10</sup>	pg/L	24-hr composite	Quarterly	2
Remaining pollutants in Table	µg/L	24-hr composite, or	Semiannually	2

<sup>6</sup> Analytical methods used for total coliform, fecal coliform and enterococcus shall be those presented in Table 1A of 40 C.F.R. 136 (revised March 12, 2007) or any method approved in advance by USEPA, State Water Board, or Regional Water Board.

<sup>7</sup> This constituent did not show the reasonable potential. The minimum frequency of effluent analysis is reduced from "weekly" to "monthly".

<sup>8</sup> This constituent did not show reasonable potential. However, the minimum frequency of effluent analysis remains at "monthly", because the chronic toxicity tests will detect any constituent, or combination of constituents, that may be present and adversely effect marine biota, not detected by routine laboratory testing.

<sup>9</sup> Analytical method and requirements for chronic toxicity testing are described in Section V. Whole Effluent Toxicity Testing Requirements.

<sup>10</sup> Reasonable potential analysis showed inconclusive. Therefore, the minimum frequency of the influent analysis remains "quarterly".

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
B of the 2005 Ocean Plan (excluding acute toxicity) <sup>11</sup>		grab, as applicable according to 40 C.F.R. part 136		
Radioactivity <sup>12</sup>	pCi/L	24-hr composite	Semiannually	2
Pesticides <sup>13</sup>	µg/L	24-hr composite	Semiannually	2

## V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

### A. Chronic Toxicity Testing

1. **Methods and test species.** The Discharger shall conduct critical life stage chronic toxicity tests on 24-hour composite, 100 percent effluent samples in accordance with USEPA's *Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms*, 1995, (EPA/600/R-95/136). Pursuant to the 2005 California Ocean Plan, upon the approval of the Executive Officer of the Regional Water Board, the Discharger may use a second tier organism (e.g., silverside) if first tier organisms (e.g., topsmelt) are not available. However, the Discharger is required to immediately resume the chronic toxicity test using the original testing organism as soon as this organism becomes available.
2. **Frequency**
  - a. **Screening** - The Discharger shall conduct the first chronic toxicity test screening for three consecutive months in 2008. Re-screening is required every 24 months. The Discharger shall re-screen with a marine vertebrate species, a marine invertebrate species, and a marine alga species and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrate that the same species is the most sensitive, then the re-screening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five, suites.
  - b. **Regular toxicity tests** - After the screening period, monitoring shall be conducted monthly using the most sensitive species.

<sup>11</sup> This constituent did not show the reasonable potential. The minimum frequency of effluent analysis remains as "semiannually" or is reduced from "quarterly" to "semiannually".

<sup>12</sup> Analysis for combined Radium-226 & 228 shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L or beta greater than 50 pCi/L. If Radium-226 & 228 exceeds the stipulated criteria, analyze for Tritium, Strontium-90 and uranium.

<sup>13</sup> Pesticides are, for purposes of this order, those six constituents referred to in 40 C.F.R., Part 125.58 (p) (methoxychlor, demeton, guthion, malathion, mirex, and parathion).

3. **Toxicity Units.** The chronic toxicity of the effluent shall be expressed and reported in Chronic Toxic Units, TUC, where,

$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

#### B. Quality Assurance

1. Concurrent testing with a reference toxicant shall be conducted. Reference toxicant tests shall be conducted using the same test conditions as the effluent toxicity tests (e.g., same test duration, etc).
2. If either the reference toxicant test or effluent test does not meet all test acceptability criteria (TAC) as specified in the test methods manual (EPA-821-R-02-012 and/or EPA/600/R-95/136), then the Discharger must re-sample and re-test within 14 days.
3. Control and dilution water should be receiving water or laboratory water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control using culture water shall be used.
4. A series of at least five dilutions and a control shall be tested. The dilution series shall include the instream waste concentration (IWC), and two dilutions above and two below the IWC. The chronic IWC for Discharge Serial No. 001 is 0.01%<sup>14</sup> effluent.
5. Because this permit requires sublethal hypothesis testing endpoints from the 1995 West Coast marine and estuarine WET test methods manual and the 2002 East Coast marine and estuarine WET test methods manual, with-in test variability must be reviewed and variability criteria [e.g., Minimum Significance Difference (MSD) bound, Percent, Minimum Significance Difference (PMSD) bounds] must be applied, as specified in the test methods manuals. The calculated MSD (or PMSDs) for both reference toxicant test and effluent toxicity test results must meet the MDS bound (or PMSD bounds) variability criteria specified in the test methods manuals.

#### C. Accelerated Monitoring

If the effluent toxicity test result exceeds the limitation, then the Discharger shall immediately implement accelerated toxicity testing that consists of six additional tests, approximately every two weeks, over a 12-week period. Effluent sampling for the first

<sup>14</sup> 0.01% is the result of 1 divided by 99, which is sum of dilution credit 98 plus 1.

test of the six additional tests shall commence within 5 working days of receipt of the test results exceeding the toxicity limitation.

1. If all the results of the six additional tests are in compliance with the toxicity limitation, the Discharger may resume regular monthly testing.
2. If the result of any of the six additional tests exceeds the limitation, then the Discharger shall continue to monitor once every two weeks until six consecutive biweekly tests are in compliance. At that time, the Discharger may resume regular monthly testing.
3. If the results of any two of the six tests (any two tests in a 12-week period) exceed the limitation, the Discharger shall initiate a Toxicity Identification Evaluation (TIE) and implement the initial investigation Toxicity Reduction Evaluation (TRE) Workplan.
4. If implementation of the initial investigation TRE workplan (see item E below) indicates the source of toxicity (e.g., a temporary plant upset, etc.), then the Discharger shall return to the regular testing frequency.

#### **D. Preparation of an Initial Investigation TRE Workplan**

The Discharger shall prepare and submit a copy of the Discharger's initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Water Board for approval within 90 days of the effective date of this permit. If the Executive Officer does not disapprove the workplan within 60 days, the workplan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or most current version. At a minimum, the TRE Workplan must contain the provisions in Attachment G. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

1. A description of the investigation and evaluation techniques that will be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency.
2. A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in the operation of the facility; and,
3. If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor). See MRP Section V.F.3 for guidance manuals.

#### **E. Steps in Toxicity Reduction Evaluation (TRE) and Toxicity Identification Evaluation (TIE)**

1. If results of the implementation of the facility's initial investigation TRE workplan indicate the need to continue the TRE/TIE, the Discharger shall expeditiously develop a more detailed TRE workplan for submittal to the Executive Officer within 15 days of completion of the initial investigation TRE. The detailed workplan shall include, but not be limited to:
  - a. Further actions to investigate and identify the cause of toxicity;
  - b. Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and,
  - c. A schedule for these actions.
2. The following section summarizes the stepwise approach used in conducting the TRE:
  - a. Step 1 includes basic data collection.
  - b. Step 2 evaluates optimization of the treatment system operation, facility housekeeping, and selection and use of in-plant process chemicals.
  - c. If Steps 1 and 2 are unsuccessful, Step 3 implements a Toxicity Identification Evaluation (TIE) and employment of all reasonable efforts using currently available TIE methodologies. The objective of the TIE shall be to identify the substance or combination of substances causing the observed toxicity.
  - d. Assuming successful identification or characterization of the toxicant(s), Step 4 evaluates final effluent treatment options.
  - e. Step 5 evaluates in-plant treatment options.
  - f. Step 6 consists of confirmation once a toxicity control method has been implemented.

Many recommended TRE elements parallel source control, pollution prevention, and storm water control program best management practices (BMPs). To prevent duplication of efforts, evidence of compliance with those requirements may be sufficient to comply with TRE requirements. By requiring the first steps of a TRE to be accelerated testing and review of the facility's TRE workplan, a TRE may be ended in its early stages. All reasonable steps shall be taken to reduce toxicity to the required level. The TRE may be ended at any stage if monitoring indicates there are no longer toxicity violations.

3. The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the USEPA acute manual, chronic

manual, EPA/600/R-96-054 (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III), as guidance.

4. If a TRE/TIE is initiated prior to completion of the accelerated testing required in Section V.D. of this program, then the accelerated testing schedule may be terminated, or used as necessary in performing the TRE/TIE, as determined by the Executive Officer .
5. The Regional Water Board recognizes that toxicity may be episodic and identification of causes of and reduction of sources of toxicity may not be successful in all cases. Consideration of enforcement action by the Board will be based, in part, on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

#### F. Ammonia Removal

1. Except with prior approval from the Executive Officer of the Regional Water Board, ammonia shall not be removed from bioassay samples. The Discharger must demonstrate the effluent toxicity is caused by ammonia *because of increasing test pH* when conducting the toxicity test. It is important to distinguish the potential toxic effects of ammonia from other pH sensitive chemicals, such as certain heavy metals, sulfide, and cyanide. The following may be steps to demonstrate that the toxicity is caused by ammonia and not other toxicants before the Executive Officer would allow for control of pH in the test.
  - a. There is consistent toxicity in the effluent and the maximum pH in the toxicity test is in the range to cause toxicity due to increased pH.
  - b. Chronic ammonia concentrations in the effluent are greater than 4 mg/L total ammonia.
  - c. Conduct graduated pH tests as specified in the toxicity identification evaluation methods. For example, mortality should be higher at pH 8 and lower at pH 6.
  - d. Treat the effluent with a zeolite column to remove ammonia. Mortality in the zeolite treated effluent should be lower than the non-zeolite treated effluent. Then add ammonia back to the zeolite-treated samples to confirm toxicity due to ammonia.
2. When it has been demonstrated that toxicity is due to ammonia because of increasing test pH, pH may be controlled using appropriate procedures which do not significantly alter the nature of the effluent, after submitting a written request to the Regional Water Board , and receiving written permission expressing approval from the Executive Officer of the Regional Water Board .

### G. Reporting

The Discharger shall submit a full report of the toxicity test results, including any accelerated testing conducted during the month, as required by this permit. Test results shall be reported in Chronic Toxicity Units (TUC), as required, with the self-monitoring report (SMR) for the month in which the test is conducted.

If an initial investigation indicates the source of toxicity and accelerated testing is unnecessary, pursuant to Section V.D.4, then those results also shall be submitted with the SMR for the period in which the investigation occurred.

1. The full report shall be received by the Regional Water Board by the 15<sup>th</sup> day of the second month following sampling.
2. The full report shall consist of (1) the results; (2) the dates of sample collection and initiation of each toxicity test; (3) the toxicity limit.
3. Test results for toxicity tests also shall be reported according to the appropriate manual chapter on Report Preparation and shall be attached to the SMR. Routine reporting shall include, at a minimum, as applicable, for each test, as appropriate:
  - a. sample date(s)
  - b. test initiation date
  - c. test species
  - d. end point values for each dilution (e.g. number of young, growth rate, percent survival)
  - e. LC<sub>50</sub> value(s) in percent effluent
  - f. TUA value(s)  $\left( TU_a = \frac{100}{LC50} \right)$
  - g. NOEC value(s) in percent effluent
  - h. TUC values  $\left( TU_c = \frac{100}{NOEC} \right)$
  - i. Mean percent mortality (+standard deviation) after 96 hours in 100% effluent (if applicable)
  - j. IC/EC<sub>25</sub> values(s) in percent effluent

Inhibition Concentration ( $IC_p$ ) is a point estimate of the toxicant concentration that causes a given percent reduction ( $p$ ) in a non-quantal biological endpoint (e.g., reproduction, growth) calculated from a continuous model (e.g., EPA Interpolation Model).

Effective Concentration ( $EC_p$ ) is a point estimate of the toxicant concentration that causes a given percent reduction ( $p$ ) in a quantal biological measurement (e.g., development, survival) calculated from a continuous model (e.g., Probit).

- k. NOEC and LOEC (Lowest Observable Effect Concentration) values for reference toxicant test(s)
  - l. Available water quality measurements for each test (e.g., pH, D.O., temperature, conductivity, hardness, salinity, ammonia).
4. The Discharger shall provide a compliance summary that includes a summary table of toxicity data from at least eleven of the most recent samples.
  5. The Discharger shall notify this Regional Water Board immediately of any toxicity exceedance and in writing 14 days after the receipt of the results of an effluent limit. The notification will describe actions the Discharger has taken or will take to investigate and correct the cause(s) of toxicity. It may also include a status report on any actions required by the permit, with a schedule for actions not yet completed. If no actions have been taken, the reasons shall be given.

## VI. RECEIVING WATER MONITORING REQUIREMENTS

### A. Monitoring for Receiving Water Quality

This survey addresses the compliance questions: "Are Ocean Plan and Basin Plan objectives for parameters listed in Tables 7a and 7b being met?" Data collected provide the information necessary to demonstrate compliance with the standards for local monitoring. In addition, data collected by the Discharger contribute to the Central Bight Cooperative Water Quality Survey. This regionally coordinated survey provides integrated water quality surveys on a quarterly basis. These surveys cover 200 kilometers of coast in Ventura, Los Angeles, and Orange Counties, from the nearshore to approximately 10 kilometers offshore. This cooperative program contributes to a regional understanding of seasonal patterns in nearshore water column structure. The regional view provides context for determining the significance and causes of locally observed patterns in the area of wastewater outfalls.

1. The Discharger shall monitor receiving water quality at Receiving Water Column Monitoring Stations from RWC-4101 to RWC-4706 (See Table 1) as follows:

**Table 4a. Receiving Water Monitoring Requirements – 1**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved oxygen	mg/L	continuous profile	quarterly	
Water temperature	°C	continuous profile	quarterly	
Light transmittance	% transmittance	continuous profile	quarterly	<sup>15</sup>
Salinity	ppt	continuous profile	quarterly	
pH	pH units	continuous profile	quarterly	
Chlorophyll a	µg/L	continuous profile	quarterly	
Visual observations	---	---	quarterly	<sup>16</sup>

Sampling techniques shall follow protocols described in the most current edition of the Field Operations Manual for Marine Water-Column, Benthic, and Trawl Monitoring in Southern California, SCCWRP. Data shall be analyzed to approximate the typical wastewater plume movement and data from 1998 and forward shall be analyzed to determine and map out the wastewater plume movement under different seasonal and weather conditions.

- The Discharger shall monitor bacteria and ammonia at 18 receiving water column monitoring stations of RWC-4401 to RWC-4406, RWC-4301 to RWC-4306, and RWC-4391 to RWC-4396 as follows:

**Table 4b. Receiving Water Monitoring Requirements – 2**

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total coliform	MPN or CFU/100 mL	grab, surface and mid-depth and near bottom <sup>17</sup>	quarterly	<sup>5</sup>
Fecal coliform	MPN or CFU/100 mL	grab, surface and mid-depth and near bottom <sup>17</sup>	quarterly	<sup>5</sup>
Enterococcus	MPN or CFU/100 mL	grab, surface and mid-depth and near bottom <sup>17</sup>	quarterly	<sup>5</sup>
Ammonia nitrogen	mg/L	grab, surface and mid-depth and near bottom <sup>17</sup>	quarterly	<sup>2</sup>

<sup>15</sup> Light transmittance (transmissivity) shall be measured with a transmissometer, using equipment and procedure similar to that described by L.V. Whitney [Transmission of Solar Energy and the Scattering Produced by Suspensoids in Lake Waters," Transactions of the Wisconsin Academy of Sciences, Arts, and Letters, Vol. 31 (1938)]. Results shall be expressed as the percent of light transmittance. Path length of transmissometer should be noted.

<sup>16</sup> Observations of wind (direction and speed), weather (e.g., cloudy, sunny, or rainy), current (e.g., direction), and tidal conditions (e.g., high or low tide) shall be made and recorded (every four hours during offshore sampling) at the time samples of the waters of the Pacific Ocean (shore, nearshore, and all offshore stations) are collected.

Observations of water color, discoloration, oil and grease, turbidity, odor, materials of sewage origin in the water or on the beach, and unusual or abnormal amounts of floating or suspended matter in the water or on the beach, rocks and jetties, or beach structures shall also be made and recorded at stations or while in transit. The character and extent of such matter shall be described. The dates, times and depths of sampling and these observations shall also be reported.

<sup>17</sup> Bottom sampling shall be done 2.0 m (6.6 ft) above the seabed.

## B. Monitoring for Benthic Sediments

This survey addresses the question: "Are benthic conditions under the influence of the discharge changing over time?" The data collected are used for regular assessment of trends in sediment contamination and biological response along a fixed grid of sites within the influence of the discharge.

1. The Discharger shall monitor sediment at 7 receiving water sediment monitoring stations of RWS-001 to RWS-007 as follows:

- a. **Sediment Chemistry Monitoring Program**

All benthic sediment samples shall be taken at each station by means of a 0.1 m<sup>2</sup> (1.1 ft<sup>2</sup>) modified Van Veen sediment grab sampler.

Sub-samples (upper two centimeters) of sediment from each sample shall be collected and analyzed separately for the following parameters at each station:

- i. Total organic carbon (TOC) (mg/kg dry wt);
- ii. Dissolved sulfides (water soluble) (mg/kg dry wt);
- iii. Total Kjeldahl nitrogen (mg/kg dry wt);
- iv. Grain size (sufficiently detailed to calculate percent weight in relation to phi size); and,
- v. Arsenic; Cadmium; Chromium (total); Copper; Lead; Mercury; Nickel; Silver; Zinc; Cyanide; Phenolic compounds (non-chlorinated); Phenolic compounds (chlorinated); Total halogenated organic compounds; Aldrin and Dieldrin; Endrin; HCH; Chlordane and related compounds; Total DDT; DDT derivatives<sup>\*\*</sup>; Total PCB; PCB derivatives<sup>\*\*</sup>; Toxaphene; Total PAH; PAH derivatives<sup>\*\*</sup>. The data for these parameters shall be expressed in µg/kg dry weight.

Annual testing shall be required for these parameters during late summer (August/ September). Bottom samples for sediment chemistry analyses shall be taken at each benthic station prior to trawl sampling.

In August/September of the third year of the permit, full priority pollutant scans shall be performed on sediment samples from all stations.

<sup>\*\*</sup> See Attachment A for definition of terms.  
Attachment E – MRP  
February 28, 2008; Revised April 16, 2008

**b. Benthic Infaunal Monitoring Program**

The benthic stations shall be conducted annually for benthic infaunal sampling<sup>18</sup>. These stations shall be sampled during late summer (August/September). Bottom samples for benthic infaunal analyses shall be taken at each benthic station prior to trawl sampling.

The following determinations shall be made at each station, where appropriate:

- i. Identification of all organisms to lowest possible taxon (usually species); and,
- ii. Total biomass of:
  - Mollusks;
  - Echinoderms;
  - Annelids/polychaetes;
  - Crustaceans; and,
  - All other macroinvertebrates.
- iii. Community structure analysis for benthic infaunal<sup>19</sup> for each station and each replicate;

Mean, median, range, standard deviation, and 95% confidence limits, if appropriate, for values determined above in iii. The Discharger may be required to conduct additional "statistical analyses" to determine temporal and spatial trends in the marine environment.

<sup>18</sup> These bottom samples shall be taken by means of a 0.1 m<sup>2</sup> (1.1 ft<sup>2</sup>) modified Van Veen sediment grab sampler. The entire contents of each sample shall be passed through a 1.0 mm (0.039 in.) mesh screen to retrieve the benthic organisms. These organisms shall be fixed in 10% buffered formalin and transferred to 70% ethanol within two to seven days for storage. Organisms can be strained with Rose Bengal to facilitate sorting. All specimens retrieved shall be archived.

<sup>19</sup> Community structure analysis of benthic infauna shall include number of species, number of individuals per species, total numerical abundance, species abundance per grab, species richness, species diversity (e.g., Shannon-Wiener), species evenness and dominance per station and replicate, similarity analyses (e.g., Bray-Curtis, Jaccard or Sorensen), cluster analyses (using unweighted pair-group method) or other appropriate multivariate statistical techniques approved by the Executive Officer of this Regional Board and USEPA Region IX, and the Infaunal Index.

c. **Sediment Toxicity Monitoring Program**

Sediment toxicity testing shall be conducted annually (August/September) at **two** receiving water sediment monitoring stations of RWS-003 and RWS-007. Three replicate samples shall be collected for testing at each station. Sub-samples (upper two centimeters) shall be taken from each sediment sample and tested with amphipod Eohaustorius - survival end point; using standard protocols approved by the Executive Officer of this Regional Board.

d. **Regional Sediment Monitoring Program**

A regional survey of benthic conditions within the Southern California Bight will take place in 2008 (Bight'08). The final survey design will be determined cooperatively by the participants as represented on the Regional Steering Committee. The City of Oxnard shall provide support to the Bight'08 benthic survey by participating in or performing, but not limited to, the following activities:

Participation on the Steering Committee  
Participation on the relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, Benthos, and Chemistry)  
Field sampling at sea  
Infaunal sample analysis  
Sediment chemistry analysis  
Data management

The level of participation shall be consistent with that provided by the City of Oxnard to the 2003 Regional Benthic Survey.

**C. Monitoring for Fish and Macroinvertebrate**

This survey addresses two questions: "Are 1) the health of demersal fish and epibenthic invertebrate communities and 2) fish tissue contamination levels in the vicinity of the discharge changing over time?" The data collected are used for regular assessment of temporal trends in community structure and bioaccumulation along an array of sites within the influence of the discharge. Data will also be collected on trash and debris to contribute to the SMBRP's Sources and Loadings program.

1. The Discharger shall monitor fish and macroinvertebrate at 3 receiving water trawling stations of RWT-001 to RWT-003 as follows:

a. **Population Monitoring Program**

The offshore trawling stations shall be sampled annually (August/September) for demersal fish and epibenthic macroinvertebrates. Trawling methods shall follow the protocols described in the most current

edition of the Field Operations Manual for Marine Water-Column, Benthic, and Trawl Monitoring in Southern California, SCCWRP.

Fish and macroinvertebrates collected by trawls shall be identified to the lowest taxon possible. At all stations and for each replicate, community structure analysis for fish and macroinvertebrates<sup>20</sup> shall be conducted for fish and macroinvertebrates for each station.

Mean, range, standard deviation, and 95% confidence limits, if appropriate, shall be reported for the values determined in the community analysis. The Discharger may be required to conduct additional "statistical analyses" to determine temporal and spatial trends in the marine environment.

Abnormalities and disease symptoms shall be described and recorded (e.g., fin erosion, external lesions, tumors, ectoparasites, and color anomalies). The frequency of abnormalities and incidence of disease shall be compared between the ZID boundary and the reference station, and trends in these values shall be measured over time. The results of this inspection shall be included in the monitoring report.

**b. Fish and Invertebrate Tissue Monitoring Program**

Fish and macroinvertebrate tissues shall be obtained from fish collected by trawls and from invertebrates collected by trawls or SCUBA at the trawling stations.

Annually, tissues of two species (one demersal fish and one macroinvertebrate) of importance to commercial and/or sport fishers or of obvious ecological significance shall be analyzed for priority pollutants (i.e., for bioaccumulation of toxic pollutants). If possible, for the duration of this permits and order, the same species shall be used at all stations.

**i. Fish Tissues**

Tissue, as applied to the analysis of priority pollutants, signifies separate analyses for muscle and liver. All tissue samples shall be analyzed for **wet weight and percent lipid**.

<sup>20</sup> Community structure analysis of fish and macroinvertebrates shall include wet weight of fish and macroinvertebrate species (when combined weight of individuals of one species exceeds 0.2 kg), standard length of each individual, number of species, number of individuals per species, total numerical abundance per station, number of individuals in each 1-cm size class for each species of fish, species abundance per trawl and per station, species richness, species diversity (e.g., Shannon-Wiener), species evenness, similarity analyses (e.g., Bray-Curtis, Jaccard or Sorensen), cluster analyses (using unweighted pair-group method) or other appropriate multivariate statistical techniques approved by the Executive Officer of the LA Regional Board and USEPA Region IX.

Annual testing shall be required in late summer (August/September) and shall include analysis for:

Arsenic; Cadmium; Chromium (total); Copper; Lead; Mercury; Nickel; Silver; Zinc; Cyanide; Phenolic compounds (non-chlorinated); Phenolic compounds (chlorinated); Total halogenated organic compounds; Aldrin and Dieldrin; Endrin; HCH; Chlordane and related compounds; Total DDT; DDT derivatives; Total PCB; PCB derivatives; Toxaphene; Total PAH; PAH derivatives.

The data for these parameters shall be expressed in  $\mu\text{g}/\text{kg}$  dry weight.

In August/September of the third year of the permit, full priority pollutant scans shall be performed on fish tissue samples from all offshore trawling stations.

For fish tissue analysis, individuals of the species of interest shall be combined from the trawls to form a single pooled sample at a station<sup>21</sup>. Three composite samples shall be analyzed for each of the tissue types. Each composite sample shall consist of tissues<sup>22</sup> taken from fish of one species and include at least six individuals. In order to obtain the required number of individuals, additional trawls may be necessary.

Reference specimens for tissue analysis may be collected at a different depth or area beyond the reference station (RWT-003), if necessary. If areas other than RWT-003 are sampled for reference material, data on the location and depth of the sampling point(s) shall be provided to this Regional Board and the USEPA Region IX.

The following fish species are recommended for the tissue analysis of priority pollutants: White Croaker (Genyonemus lineatus) and Speckled sanddab (Citharichthys stigmaeus)

ii. Macroinvertebrate Tissues

Tissue, as applied to the analysis of priority pollutants in macroinvertebrates, signifies analyses for muscle or other tissue, if muscle is impractical. All tissue samples shall be analyzed for **wet weight and percent lipid**.

<sup>20</sup> See Attachment A for definition of terms.

<sup>21</sup> Where appropriate, individuals (from trawls) comprising the smallest 10 percent by weight shall not be used as part of the composite sample. Individuals for tissue analysis shall be randomly selected from the remaining organisms.

<sup>22</sup> Tissue samples removed from individuals shall be of uniform weight. To the extent feasible, individual fish selected for analysis should be of the same sex.

Annual testing shall be required in late summer (August/September) and shall include analysis for:

Arsenic; Cadmium; Chromium (total); Copper; Lead; Mercury; Nickel; Silver; Zinc; Cyanide; Phenolic compounds (non-chlorinated); Phenolic compounds (chlorinated); Total halogenated organic compounds; Aldrin and Dieldrin; Endrin; HCH; Chlordane and related compounds; Total DDT; DDT derivatives; Total PCB; PCB derivatives; Toxaphene; Total PAH; PAH derivatives.

The data for these parameters shall be expressed in  $\mu\text{g}/\text{kg}$  dry weight.

In August/September of the third year of the permit, full priority pollutant scans shall be performed on macroinvertebrate tissue samples from all offshore trawling stations.

For macroinvertebrate tissue analysis, individuals of the species of interest shall be combined from the trawls to form a single pooled sample at a station<sup>17</sup>. Three composite samples shall be analyzed for each of the tissue types. Each composite sample shall consist of sufficient tissue<sup>18</sup> taken from at least three individual organisms of one species. In order to obtain the required number of individuals, additional trawls may be necessary. When feasible, tissues from organisms of the same species should be analyzed from year to year to facilitate comparability.

Reference specimens for tissue analysis may be collected at a different depth or area beyond the reference station (RWT-003), if necessary. If areas other than RWT-003 are sampled for reference material, data on the location and depth of the sampling point(s) shall be provided to the LA Regional Board and USEPA Region IX.

The following macroinvertebrate species are recommended for the tissue analysis of priority pollutants:

Sandstar (Astropecten spp)  
Shrimp (Crangon spp)  
Crab (Cancer spp)

**c. Regional Demersal Fish and Invertebrate Monitoring Program**

A regional survey of trawl-caught demersal fish and epibenthic invertebrates within the Southern California Bight will take place in 2008 (Bight'08). The final survey design will be determined cooperatively by the

<sup>17</sup> See Attachment A for definition of terms.

participants as represented on the Regional Steering Committee. The City of Oxnard will provide support to the Bight'08 benthic survey by participating in or performing the following activities:

Participation on the Steering Committee  
Participation on the relevant Technical Committees (e.g., Information Management, Field Methods & Logistics, Fish and Invertebrates)  
Field sampling at sea  
Tissue chemical analysis  
Data management

The level of participation shall be consistent with that provided by the City of Oxnard to the 2003 Regional Survey.

**D. Sampling, Analysis, and Reporting Notes for Receiving Water Monitoring:**

1. Receiving water monitoring shall be performed during daylight hours.
2. In addition to reporting the actual concentration of bacterial organisms obtained in each sample collected from shoreline, nearshore, and offshore stations, the running median of the latest 6-month period shall also be determined and reported each month. Bacterial data obtained at shoreline stations during or within 48 hours following a major storm event shall not be used in determining medians.
3. Reports regarding receiving water monitoring shall be transmitted with the corresponding effluent monitoring reports. Ocean water quality monitoring (shoreline, nearshore, and offshore components) reports shall be submitted with the effluent reports by the fifteenth day of the second month following the sampling period. The offshore sediment and biological monitoring data shall be submitted with the annual report.
4. Currently, Ventura County monitors nine shoreline stations for bacteriological indicators in the area of Oxnard's previous shoreline monitoring program (see Table 1 in Section II).
5. Ventura County shoreline bacteriological monitoring data from these stations shall be included with the bacteriological data from Oxnard's water quality sampling in monthly reports and the annual assessment report.
6. If Ventura County reduces the shoreline bacteriological monitoring program in frequency (less often than weekly) or seasonally, or reduces the number of stations in the area defined by these stations, then the Discharger shall initiate a weekly shoreline bacteriological monitoring program to replace the Ventura County's effort. This program shall be submitted to this Regional Board for approval by the Executive Officer.

7. If Ventura County restores the shoreline bacteriological monitoring program, the Discharger shall inform this Regional Board for authorization to rescind the shoreline bacteriological monitoring program conducted by the Discharger.

## VII. OTHER MONITORING REQUIREMENTS

### A. Outfall and Diffuser Inspection

An annual survey shall be made in October or November. This shall consist of:

1. An examination of the outfall and diffuser port system for plugs, leaks, rotation, and flow distribution. A detailed structural analysis of the pipes every five years submitted with the ROWD shall be conducted using underwater television/videotape and submarine visual inspection, where appropriate, to provide a comprehensive report on the discharge pipe systems from shallow water to their respective termini. The annual visual inspection shall be conducted on the external condition of the outfall, diffuser, and ballast systems. A written report documenting conditions shall be prepared and submitted with the Annual Summary Report to this Regional Board.
2. A visual inspection at and in the vicinity of the outfall and diffuser port system to determine thickness of any "cloud" of unsettled solids, bottom flora and fauna, and any other biological and physical conditions. Inspections shall include general observations and photographic records of the outfall pipe and the surrounding ocean bottom. A report (including photographs) discussing the above information shall be submitted with the Annual Summary Report to this Regional Board.

### B. Sludge Monitoring and Reporting

1. The Discharger must comply with all requirements of 40 C.F.R. parts 257, 258, 501, and 503, including all applicable monitoring, record keeping, and reporting requirements.
2. The Discharger must comply with the monitoring and reporting requirements outlined in Attachment I in this Order, [*Biosolids/Sludge Management*].
3. A monthly report shall be provided, noting the moisture content, weight, and volume of screenings, sludges, grit, and other solids removed from the wastewater. The point(s) from which these wastes were obtained and the disposal sites to which waste solids are transported shall be specified in the monthly reports.

## VIII. REPORTING REQUIREMENTS

### A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. Weekly effluent analyses shall be performed on different weekdays during each month. Quarterly influent and effluent analyses shall be performed during the months of February, May, August, and November. Semiannual influent and effluent analyses shall be performed during the months of May and November. Annual influent and effluent analyses shall be performed during the month of August. Should there be instances when monitoring could not be done during these specified months, the Discharger must notify the Regional Water Board, state the reason why the monitoring could not be conducted, and obtain approval from the Executive Officer for an alternate schedule. Results of quarterly, semiannual, and annual analyses shall be reported in the monthly monitoring report following the analysis.
3. If the Discharger samples and performs analyses (other than for process/operational control, startup, research, or equipment testing) on any influent, effluent, or receiving water constituent more frequently than required by this monitoring program using approved analytical methods, the results of those analyses shall be reported. These results shall be reflected in the calculation of the average used in demonstrating compliance with average effluent, receiving water, etc., limitations.
4. For bacterial analyses, sample dilutions should be performed so the expected range of values is bracketed (for example, with multiple tube fermentation method or membrane filtration method, 2 to 16,000 per 100 ml for total and fecal coliform, at a minimum, and 1 to 1000 per 100 ml for enterococcus). The detection methods used for each analysis shall be reported with the results of the analyses.
  - a. Detection methods used for coliforms (total and fecal) shall be those presented in Table 1A of 40 C.F.R. 136 (revised May 14, 1999), unless alternate methods have been approved by USEPA pursuant to 40 C.F.R. 136, or improved methods have been determined by the Executive Officer and/or USEPA.
  - b. Detection methods used for enterococcus shall be those presented in the USEPA publication EPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water By Membrane Filter Procedure* or any improved method determined by the Executive Officer and/or USEPA to be appropriate.

**B. Self Monitoring Reports (SMRs)**

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (<http://www.waterboards.ca.gov/ciwqs/index.html>). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.
2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under sections III through VIII. The Discharger shall submit monthly, quarterly, semiannual, annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.
3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

**Table 5. Monitoring Periods and Reporting Schedule**

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	Submit with monthly SMR
Hourly	Permit effective date	Hourly	Submit with monthly SMR
Daily	Permit effective date	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	Sunday following permit effective date or on permit effective date if on a Sunday	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following permit effective date or on permit effective date if that date is first day of the month	1 <sup>st</sup> day of calendar month through last day of calendar month	By the 15 <sup>th</sup> day of the second month after the month of sampling
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) permit effective date	January 1 through March 31 April 1 through June 30 July 1 through September 30 October 1 through December 31	May 15 August 15 November 15 February 15
Semiannually	Closest of January 1 or July 1 following (or on) permit effective date	January 1 through June 30 July 1 through December 31	August 15 February 15
Annually	January 1 following (or on) permit effective date	January 1 through December 31	April 1

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4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in 40 C.F.R. part 136.

For each numeric effluent limitation identified in Table B of the 2005 Ocean Plan, the Discharger shall select one or more Minimum Levels (ML) and their associated analytical methods from Appendix II of the 2005 Ocean Plan (Appendix II). Any deviation from MLs in Appendix II must be approved by the Regional Water Board and/or the State Water Board. The "reported" ML is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from Appendix II.

The Discharger must select all MLs from Appendix II that are below the effluent limitation. If the effluent limitation is lower than all the MLs in Appendix II, the Discharger must select the lowest ML from Appendix II.

The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

- a. 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).
- b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy ( $\pm$  a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

- c. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.
- d. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from *extrapolation* beyond the lowest point of the calibration curve.

5. The Discharger shall submit SMRs in accordance with the following requirements:
  - a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations. The Discharger is not required to duplicate the submittal of data that is entered in a tabular format within CIWQS. When electronic submittal of data is required and CIWQS does not provide for entry into a tabular format within the system, the Discharger shall electronically submit the data in a tabular format as an attachment.
  - b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.
  - c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

California Regional Water Quality Control Board  
Los Angeles Region  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013  
Attention: Information Technology Unit

**C. Discharge Monitoring Reports (DMRs)**

1. As described in Section X.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.
2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to the address listed below:

Standard Mail	FedEx/UPS/ Other Private Carriers
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15 <sup>th</sup> Floor Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated will not be accepted unless they follow the exact same format of EPA Form 3320-1.

**D. Other Reports**

1. The Discharger shall report the results of any special studies, acute and chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan, etc. required by Special Provisions – VI.C.2. of this Order. The Discharger shall submit reports in compliance with reporting schedules described in each section.

**2. Annual Summary Report**

By April 15 of each year, the Discharger shall submit an annual summary report containing a discussion of the previous year's influent/effluent analytical results, as well as graphical and tabular summaries of the monitoring analytical data. The data shall be submitted to the Regional Board on hard copy and a CD-Rom disk or other appropriate electronic medium. The submitted data must be IBM compatible, preferably using Microsoft Excel software. In addition, the Discharger shall discuss the compliance record and any corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge and permit requirements.

**3. Receiving Water Monitoring Report**

An annual summary of the receiving water monitoring data collected during each sampling year (January-December) shall be prepared and submitted so that it is received by the Regional Board by August 1 of the following year.

A detailed receiving water monitoring biennial assessment report of the data collected during the two previous calendar sampling years (January-December) shall be prepared and submitted so that it is received by the Regional Board by August 1 of every other year. This report shall include an annual data summary and shall also include an in-depth analysis of the biological and chemical data following recommendations in the Model Monitoring Program guidance document (Schiff, K.C., J.S. Brown and S.B. Weisberg. 2001. *Model Monitoring Program for Large Ocean Dischargers in Southern California*. SCCWRP Tech. Rep #357. SCCWRP, Westminster, CA. 101 pp.). Data shall be tabulated, summarized, and graphed where appropriate, analyzed, interpreted, and

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generally presented in such a way as to facilitate ready understanding of its significance. Spatial and temporal trends shall be examined and compared. The relation of physical and chemical parameters to biological parameters shall be evaluated. See, also, Section IV.H. of this Monitoring and Reporting Program. All receiving water monitoring data shall be submitted in accordance with the data submittal formats developed for the Southern California Bight Regional Monitoring Surveys.

The first assessment report shall be due August 1, 2007, and cover the sampling periods of January-December 2005 and January-December 2006. Subsequent reports shall be due August 1, 2009, and August 1, 2011, to cover sampling periods of January 2007-December 2008 and January 2009-December 2010, respectively.

**4. Outfall Inspection Report**

A summary report of the Outfall Inspection findings shall be provided annually. This written report, augmented with videographic and/or photographic images, shall provide a description of the observed external condition of the discharge pipes from shallow water to their respective termini. This report shall be submitted so that it is received by August 1 of the following year.

5. All monthly monitoring reports, annual summary reports, and biennial assessment reports shall be delivered to the Regional Board as follows. Reference the reports to Compliance File No. CI-2022 to facilitate routing to the appropriate staff and file.

California Regional Water Quality Control Board  
Los Angeles Region  
320 West 4<sup>th</sup> Street, Suite 200  
Los Angeles, CA 90013  
Attention: Information Technology Unit

6. Database Management System: The Regional Board and State Water Resources Control Board (State Board) are developing a database compliance monitoring management system. The Discharger may be required to submit all monitoring and annual summary reports electronically in a specified format when this system becomes fully operational.