Parameter	Units	Sample Type[6]	Minimum Sampling Frequency[7]	Required Analytical Test Method
Dichloromethane	µg/L	grab	semiannually	2
1,3-Dichloropropene	µg/L	grab	semiannually	2
Dieldrin	µg/L	24-hr composite	semiannually	2
2,4-dinitrotoluene	µg/L	24-hr composite	semiannually	2
1,2-diphenylhydrazine	µg/L	24-hr composite	semiannually	2
Halomethanes[12]	µg/L	grab	semiannually	2
Heptachlor	µg/L	24-hr composite	semiannually	2
Heptachlor Epoxide	µg/L	24-hr composite	semiannually	2
Hexachlorobenzene	µg/L	24-hr composite	semiannually	2
Hexachlorobutadiene	µg/L	24-hr composite	semiannually	2
Hexachloroethane	µg/L	24-hr composite	semiannually	2
Isophorone	µg/L	24-hr composite	semiannually	2
N-Nitrosodimethylamine	µg/L	24-hr composite	semiannually	2
N-Nitrosodi-n-propylamine	µg/L	24-hr composite	semiannually	2
N-Nitrosodiphenylamine	µg/L	24-hr composite	semiannually	2
PAHs[12]	µg/L	24-hr composite	semiannually	2
PCBs as Aroclors[12]	µg/L	24-hr composite	quarterly	2
PCBs as Congeners[12,14,15]	µg/L~~pg/L~~	24-hr composite	quarterly	2
TCDD Equivalents[12,16]	~~pg/L~~µg/L	24-hr composite	quarterly	2
1,1,2,2-Tetrachloroethane	µg/L	grab	semiannually	2
Tetrachloroethylene	µg/L	grab	semiannually	2
Toxaphene	µg/L	24-hr composite	semiannually	2

[14] PCBs as congeners shall be individually quantified (or quantified as mixtures of isomers of a single congener in co-elutions as appropriate) using USEPA proposed method 1668c. PCBs as congeners shall be analyzed using method EPA 1668c for three years and an alternate method may be used if none of the PCB congeners are detected for three years using method EPA 1668c.

USEPA recommends that until USEPA proposed method 1668c for PCBs is incorporated into 40 CFR § 136, Dischargers should use for discharge monitoring reports/State monitoring reports: (1) USEPA method 608 for monitoring data, reported as aroclor results, that will be used for assessing compliance with WQBELs (if applicable) and (2) USEPA proposed method 1668c for monitoring data, reported as 41 congener results, that will be used for informational purposes to help assess concentrations in the receiving water.

[15] To facilitate interpretation of sediment/fish tissue data and TMDL development, PCB congeners whose analytical characteristics resemble those of PCB-18, 28, 37, 44, 49, 52, 66, 70, 74, 77, 81, 87, 99, 101, 105, 110, 114, 118, 119, 123, 126, 128, 138, 149, 151, 153, 156, 157, 158, 167, 168, 169, 170, 177, 180, 183, 187, 189, 194, 201, and 206 shall be reported as a sum and individually quantified (or quantified as mixtures of isomers of a single congener in co-elutions as appropriate).

[16] USEPA Method 1613 shall be used to analyze TCDD equivalents.

ED_002551_00001333-00072

Parameter	Units	Sample Type[6]	Minimum Sampling Frequency[7]	Required Analytical Test Method
Trichloroethylene	µg/L	grab	semiannually	2
1,1,2-Trichloroethane	µg/L	grab	semiannually	2
2,4,6-Trichlorophenol	µg/L	24-hr composite	semiannually	2
Vinyl chloride	µg/L	grab	semiannually	2
Methyl-tert-butyl-ether	µg/L	grab	semiannually	2

V. WHOLE EFFLUENT TOXICITY (WET) TESTING REQUIREMENTS

A. Chronic Toxicity Testing

1. Discharge In-stream Waste Concentration (IWC) for Chronic Toxicity

   The chronic IWC is the concentration of a pollutant or the parameter toxicity in the receiving water after mixing. The chronic toxicity IWC for Discharge Point 001 is based on 1 part effluent to 108 parts seawater or 0.92 percent effluent.

2. Sample Volume and Holding Time

   The total sample volume shall be determined by the specific toxicity test method used. Sufficient sample volume shall be collected to perform the required toxicity test. For the receiving water, sufficient sample volume shall also be collected during accelerated monitoring for subsequent TIE studies, if necessary, at each sampling event. All toxicity tests shall be conducted as soon as possible following sample collection. No more than 36 hours shall elapse before the conclusion of sample collection and test initiation.

3. Chronic Marine Species and Test Methods

   If effluent samples are collected from outfalls discharging to receiving waters with salinity >1 ppt, the Discharger shall conduct the following chronic toxicity tests on effluent samples, at the in-stream waste concentration for the discharge, in accordance with species and test methods in Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms (EPA/600/R-95/136, 1995). Artificial sea salts or hypersaline brine shall be used to increase sample salinity if needed. In no case shall these species be substituted with another test species unless written authorization from the Executive Officer is received.

   a. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.0).
   b. A static non-renewal toxicity test with the red abalone, *Haliotis rufescens* (Larval Shell Development Test Method).
   c. A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

4. Species Sensitivity Screening

   Species sensitivity screening shall be conducted during this permit's first required sample collection. The Discharger shall collect a single effluent sample to initiate and concurrently conduct three toxicity tests using the fish, an invertebrate, and the alga species previously referenced. This sample shall also be analyzed for the parameters required on a monthly frequency for the discharge, during that given month. As allowed

PRESENTATIVE

ED_002551_00001333-00073

under the test method for the Atherinops affinis, a second and third sample may be collected for use as test solution renewal water as the seven-day toxicity test progresses. If the result of all three species is "Pass" and "Percent Effect" are less than or equal to 10, at the discharge IWC, then the Dicharger may continue to test with the species chosen based on the most recent, previous species sensitivity rescreening, after consultation with and written direction from the Regional Waer Board staff. If only one species fails, then that species shall be used for routine monitoring during the permit cycle. Likewise, if two or more species result in "Fail", then the species that exhibits the highest "Percent Effect" at the discharge IWC during the suite of species sensitivity screening shall be used for routine monitoring during the permit cycle, until such time as a rescreening is required.

Species sensitivity rescreening is required every 24 months if there has been discharge during dry weather conditions. If the discharge is intermittent and occurs only during wet weather, rescreening is not required. If rescreening is necessary, the Discharger shall rescreen with the marine vertebrate species, a marine invertebrate species, and the alga species previously referenced, and continue to monitor with the most sensitive species. If the first suite of rescreening tests demonstrates that the same species is the most sensitive then the rescreening 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 may proceed with suites of screening tests for a minimum of three, but not to exceed five suites.

During the calendar month, toxicity tests used to determine the most sensitive test species shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

5. Quality Assurance and Additional Requirements

Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified below.

a. The discharge is subject to determination of "Pass" or "Fail" from a chronic toxicity test using the Test of Significant Toxicity statistical t-test approach described in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010), Appendix A, Figure A-1, and Table A-1, and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is: Mean discharge IWC response ≤0.75 × Mean control response. A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." The relative "Percent Effect" at the discharge IWC is defined and reported for each toxicity test as: ((Mean control response - Mean discharge IWC response) ÷ Mean control response)) × 100. This is a t-test (formally Student's t-Test), a statistical analysis comparing two sets of replicate observations – in the case of WET, only two test concentrations (i.e. a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e. if the IWC or receiving water concentration differs from the control (the test result is "Pass" or "Fail")). The Welch's t-test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances.

b. If the effluent toxicity test does not meet all test acceptability criteria (TAC) specified in the referenced test method Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine

PRELIMINARY

ED_002551_00001333-00074

Organisms (EPA/600/R-95/136, 1995) (see Table E-6, below), then the Discharger must re-sample and re-test within 14 days.

Table E-6. USEPA Test Methods and Test Acceptability Criteria

Species & USEPA Test Method Number	Test Acceptability Criteria (TAC)
Topsmelt, *Atherinops affinis*, Larval Survival and Growth Test Method 1006.01. (Table 3 of Test Method)	80% or greater survival in controls; average dry weight per surviving organism in control chambers equals or exceeds 0.85 mg. LC50 with copper must be ≤ 205 µg/L, <25% MSD for survival and <50% MSD for growth. If the test starts with 9 day old larvae, the mean weight per larva must exceed 0.85 milligrams in the reference and brine controls; the mean weight of preserved larvae must exceed 0.72 milligrams. (required)
Purple Sea Urchin, *Strongylocentrotus purpuratus*, and the Sand Dollar, *Dendraster excentricus,* Fertilization Test Method 1008.0 (Table 7 of Test Method)	70% or greater egg fertilization in controls, must achieve a MSD of <25%, and appropriate sperm counts. (required)
Red Abalone, *Haliotis rufescens*, Larval Shell Development Test Method (Table 3 of Test Method)	80% or greater normal shell development in the controls; must have statistical significant effect at 56 µg/L zinc and achieve a MSD of <20%. (required)
Giant Kelp, *Macrocystis pyrifera*, Germination and Growth Test Method 1009.0 (Table 3 of Test Method)	70% or greater germination in controls, ≥ 10 µm germ-tube length in controls, No Observed Effect Concentration (NOEC) must be below 35 µg/L in the reference toxicant test, and must achieve a MSD of <20% for both germination and germ-tube length in the reference toxicant. (required)

c. Dilution water and control water, including brine controls, shall be 1-µm-filtered uncontaminated natural seawater, hypersaline brine prepared using uncontaminated natural seawater, or laboratory water prepared and used as specified in the test methods manual. If dilution water and control water is different from test organism culture water, then a second control using culture water shall also be used.

d. Monthly reference toxicant testing is sufficient. All reference toxicant test results should be reviewed and reported using the EC25[17].

[17] EC25 is a point estimate of the toxicant concentration that would cause an observable adverse effect (e.g. death, immobilization, or serious incapacitation) in 25 percent of the test organisms.

REVISED TENTATIVE

ED_002551_00001333-00075

e. The Discharger shall perform toxicity tests on final effluent samples. Chlorine and ammonia shall not be removed from the effluent sample prior to toxicity testing, unless explicitly authorized under this section of the MRP and the rationale is explained in the Fact Sheet (Attachment F).

6. Preparation of an Initial Investigation Toxicity Reduction Evaluation (TRE) Work Plan

The Discharger shall prepare and submit a copy of the Discharger's initial investigation TRE work plan 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 work plan within 60 days, the work plan shall become effective. The Discharger shall use USEPA manual EPA/833B-99/002 (municipal) as guidance, or the most current version. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum, the TRE Work Plan must contain the provisions in Attachment G. This work plan shall describe the steps that the Discharger intends to follow if toxicity is detected. At a minimum the work plan shall include:

a. 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.
b. 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,
c. If a TIE is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor).

7. Accelerated Monitoring Schedule for Maximum Daily Single Result: "Fail."

The Maximum Daily single result shall be used to determine if accelerated testing needs to be conducted.

Once the Discharger becomes aware of this result, the Discharger shall implement an accelerated monitoring schedule within 5 calendar days of the receipt of the result. However, if the sample is contracted out to a commercial laboratory, the Discharger shall ensure that the first of four accelerated monitoring tests is initiated within seven calendar days of the Discharger becoming aware of the result. The accelerated monitoring schedule shall consist of four toxicity tests (including the discharge IWC), conducted at approximately two-week intervals, over an eight-week period; in preparation for the TRE process and associated reporting, these results shall also be reported using the EC25. If each of the accelerated toxicity tests results in "Pass," the Discharger shall return to routine monitoring for the next monitoring period. If one of the accelerated toxicity tests results in "Fail," the Discharger shall immediately implement the TRE Process conditions set forth below. During accelerated monitoring schedules, only TST results ("Pass" or "Fail") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

8. Toxicity Reduction Evaluation (TRE) Process

During the TRE Process, monthly effluent monitoring shall resume and TST results ("Pass" or "Fail") for chronic toxicity tests shall be reported as effluent compliance monitoring results for the chronic toxicity MDEL.

a. Preparation and Implementation of Detailed TRE Work Plan. The Discharger shall immediately initiate a TRE using, according to the type of treatment facility, USEPA manual Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants (EPA/833/B-99/002, 1999) and, within 15 days, submit to the

PRELIMINARY TENTATIVE

ED_002551_00001333-00076

Executive Officer a Detailed TRE Work Plan, which shall follow the generic Initial Investigation TRE Work Plan revised as appropriate for this toxicity event. It shall include the following information, and comply with additional conditions set by the Executive Officer:

i. Further actions by the Discharger to investigate, identify, and correct the causes of toxicity.

ii. Actions the Discharger will take to mitigate the effects of the discharge and prevent the recurrence of toxicity.

iii. A schedule for these actions, progress reports, and the final report.

b. TIE Implementation. The Discharger may initiate a TIE as part of a TRE to identify the causes of toxicity using the same species and test method and, as guidance, USEPA manuals: Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures (EPA/600/6-91/003, 1991); Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/080, 1993); Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity (EPA/600/R-92/081, 1993); and Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document (EPA/600/R-96-054, 1996). The TIE should be conducted on the species demonstrating the most sensitive toxicity response.

c. Many recommended TRE elements parallel required or recommended efforts for source control, pollution prevention, and storm water control programs. TRE efforts should be coordinated with such efforts. As toxic substances are identified or characterized, the Discharger shall continue the TRE by determining the sources and evaluating alternative strategies for reducing or eliminating the substances from the discharge. All reasonable steps shall be taken to reduce toxicity to levels consistent with toxicity evaluation parameters.

d. The Discharger shall continue to conduct routine effluent monitoring for compliance determination purposes while the TIE and/or TRE is taking place. Additional accelerated monitoring and TRE work plans are not required once a TRE has begun.

e. The Regional Water Board recognizes that toxicity may be episodic and identification of causes and reduction of sources of toxicity may not be successful in all cases. The TRE may be ended at any stage if monitoring finds there is no longer toxicity.

9. Reporting

The Self-Monitoring Report (SMR) shall include a full laboratory report for each toxicity test. This report shall be prepared using the format and content of the test methods manual chapter called Report Preparation, and shall include:

a. The valid toxicity test results for the TST statistical approach, reported as “Pass” or “Fail” and “Percent Effect” at the chronic toxicity IWC for the discharge. All toxicity test results (whether identified as valid or otherwise) conducted during the calendar month shall be reported on the SMR due date specified in Table E-16.

b. Summary water quality measurements for each toxicity test (e.g. pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

REVISED TENTATIVE

ED_002551_00001333-00077

c. The statistical analysis used in National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document (EPA 833-R-10-003, 2010) Appendix A, Figure A-1 and Table A-1, and Appendix B, Table B-1.

d. TRE/TIE results. The Executive Officer shall be notified no later than 30 days from completion of each aspect of TRE/TIE analyses. Prior to completion of the final TIE/TRE report, the Discharger shall provide status updates in the monthly monitoring reports, indicating which TIE/TRE steps are underway and which steps have been completed.

e. Statistical program (e.g., TST calculator, Comprehensive Environmental Toxicity Information System, etc.) output results, including graphical plots, for each toxicity test.

f. Graphical plots and tabular data clearly showing the laboratory's performance of the reference toxicant, for each solution, for the previous 20 tests and the laboratory's performance of the control mean, control standard deviation, and control coefficient of variation, for each solution, for the previous 12-month period.

g. Any additional QA/QC documentation or any additional chronic toxicity-related information, upon written request of the Regional Water Board Chief Deputy Executive Officer or Executive Officer.

B. 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.

   a. The following may be steps to demonstrate that the toxicity is caused by ammonia and no other toxicants before the Executive Officer would allow for control of pH in the test. 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.

REVISED TENTATIVE

ED_002551_00001333-00078

C. Chlorine Removal

Chlorine may be removed from the OWTP effluent bioassay sampled from EFF-001B because there are no appropriate sampling locations that reflect dechlorinated conditions at the outfall.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECYCLING REQUIREMENTS

The reuse of the reclaimed water is regulated under a separate WDRs and Water Recycling Requirements (WRRs) for City of Oxnard Groundwater Recovery, Enhancement, and Treatment Program – Non-Potable Reuse Phase 1 Project (GREAT Program – Phase 1 Project), Order No. R4-2008-0083 as amended by Order No. R4-2011-0079, Order No. R4-2011-0079-A01, and Order No. R4-2011-0079-A02, File No. 64-104 and File No. 08-070, CI-9456.

VIII. RECEIVING WATER MONITORING REQUIREMENTS

The City of Oxnard has been monitoring receiving water at Discharge Point 001 since 1999. Local receiving water trends over the 10-kilometer sample grid have generally remained steady and the 20-year record of data shows the Oxnard discharge plume is not sufficiently large to impact regional trends. Based on the most recent information from the federally-funded Southern California Coastal Ocean Observing System (SCCOOS), the Central Bight Cooperative Water Quality Survey is complete and no additional water quality monitoring is required at this time. Due to this reduction in regional water quality monitoring, this Order reduces the area sampled to improve information on the impact of the outfall and more accurately characterize the dilution which takes place at the outfall. However, the City of Oxnard shall continue to participate on the Central Bight Cooperative Water Quality Survey steering committee and provide assistance should this cooperative program undertake analysis of the collected data to contribute to a regional understanding of seasonal patterns in water column structure.

Receiving water shall continue to be monitored for local offshore water quality, shoreline bacteria, infaunal benthic community, sediment chemistry and toxicity, regional benthic health, local fish and macroinvertebrate population and tissue, regional fish and macroinvertebrate health, local seafood safety, regional seafood safety, and kelp bed health. If annual reporting and comparative studies identify unanticipated water quality trends at the smaller one-kilometer grid size, the wider sample grid may be reinstated. All receiving water stations shall be located by state-of-the-art navigational methods (e.g. Differential Global Positioning System or DGPS); other means (e.g. visual triangulation, fathometer readings) may be used to improve the accuracy of locating stations. Water quality measurements are made with a Conductivity, Temperature and Depth Instrument (CTD), which also measures other parameters such as pH and light transmissivity.

Table E-7. Schedule for Receiving Water Monitoring Requirements

Monitoring	Number	Type	R4-2013-0094 Frequency	R4-2018-xxx Frequency	Reporting
Local offshore water quality	25	CTD, ammonia, bacteria	--	Quarterly	Annually
Regional offshore water quality	48	CTD and SCCWRP support	Quarterly	---	--
Bacteria/ammonia offshore water quality	18/ three depths	Bacteria, ammonia	Quarterly	--	--
Shoreline	9	Bacteria	Quarterly	Quarterly	Annually

ED_002551_00001333-00079

Monitoring	Number	Type	R4-2013-0094 Frequency	R4-2018-xxx Frequency	Reporting
Local Benthic Infaunal community	7	Community and population	Annually	Year two	Year three four~~Year two~~
Local Sediment chemistry	7	Chemistry	Annually	Year two	Year two
Sediment toxicity	2	Amphipod	Annually	Year two	Year two
Regional Benthic	SCCWRP support only		2013	2018, 2023	SCCWRP
Local fish macroinvertebrate	3	Population	Annually	Year two	Year two
Local fish macroinvertebrate	3	Tissue	Annually	Year two	Year two
Local bagged mussels	3	Tissue	Special Study	Year four	Year four
Regional fish and macroinvertebrate	SCCWRP support only		2013	2018, 2023	SCCWRP
Local seafood safety	5 species in 3 zones	Test against consumption advisories	Year one, three and five	Year four	Year four
Regional seafood safety	SCCWRP support only		2013	2018, 2023	SCCWRP
Kelp bed monitoring	SCCWRP support only		2013	2018, 2023	SCCWRP

A. Water Quality Monitoring

Water quality monitoring is designed to determine if Ocean Plan and Basin Plan objectives for physical and chemical parameters and bacteria are being met. Water quality data will be collected to provide the information necessary to demonstrate compliance with the water quality standards and to contribute to the Bight'18 and Bight'23 regional monitoring programs, led by SCCWRP. Sample collection for water quality monitoring 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*. Water quality data shall be analyzed to estimate spatial extent and movement of the wastewater plume over time. Changes in monitoring measurements shall be quantified each year, contrasted with the previous five years, and summarized annually.

1. Inshore/Offshore Monitoring - The Discharger shall monitor receiving water quality quarterly at 25 new core Receiving Water Column Monitoring Stations from A001 to E005 (Table E-2 and Attachment B-4) as follows.

Table E-8. Offshore Receiving Water Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Dissolved oxygen	mg/L	continuous profile	quarterly	2
Water temperature	°C	continuous profile	quarterly	2~~3~~
Light transmittance	% transmittance	continuous profile	quarterly	18

[18] 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.

ED_002551_00001333-00080

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Salinity	ppt	continuous profile	quarterly	[2]
pH	pH units	continuous profile	quarterly	[2]
Chlorophyll a	µg/L	continuous profile	quarterly	[2]
Visual observations	---	---	quarterly	[19]
Total coliform	MPN or CFU/100 mL	grab, surface and mid-depth and near bottom[20]	quarterly	[2]
Fecal coliform	MPN or CFU/100 mL	grab, surface and mid-depth and near bottom[20 24]	quarterly	[2]
Enterococcus	MPN or CFU/100 mL	grab, surface and mid-depth and near bottom[20 24]	quarterly	[2]
Ammonia nitrogen	mg/L	grab, surface and mid-depth and near bottom[20 24]	quarterly	[2]

Concurrent with the CTD profiling survey, discrete samples shall be collected quarterly for ammonia and fecal coliform, total coliform and *Enterococcus* at the surface, mid depth and near the bottom (or as deep as practicable for those stations located in depths less than 45 m). Sampling for bacteria is necessary to ensure the bacteria discharged at the outfall do not survive marine conditions and do not contribute to the bacteria identified by shoreline monitoring.

2. Shoreline Monitoring - The Discharger shall monitor receiving water quality at nine Ventura County Shoreline Bacteriological Monitoring Stations listed in Attachment B-8 for the constituents that follow:

Table E-9. Shoreline Receiving Water Monitoring Requirements for Bacteria

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total coliform	MPN or CFU/100 mL	grab	quarterly	[2]
Fecal coliform	MPN or CFU/100 mL	grab	quarterly	[2]
Enterococcus	MPN or CFU/100 mL	grab	quarterly	[2]

[19] 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.

[20] Bottom sampling shall be done 2.0 m (6.6 ft) above the seabed.

ED_002551_00001333-00081

Visual observations shall be recorded when bacteriological samples are collected. Monitoring at these nine stations is conducted for the purposes of public health assessment and to ensure protection for public recreational use of coastal ocean waters, and the results are not intended for use as compliance sites for OWTP, unless offshore bacteria monitoring demonstrates the outfall bacteria persist to the shoreline. In the event of stormy weather that makes sampling hazardous or impractical, these samples can be rescheduled.

B. Benthic Monitoring

Benthic monitoring includes infauna and sediment sampling. The data collected are used for the regular assessment of trends in sediment contamination and biological response along a fixed grid of sites within the influence of the discharge.

1. Local Benthic Monitoring - This survey is designed to determine if benthic conditions under the influence of the discharge are changing over time.

   The Discharger shall monitor infauna, sediment chemistry and sediment toxicity at 7 receiving water benthic monitoring stations of RWS-001 to RWS-007 in year two of the permit and report changes in the conditions as compared to the historic and the most recent receiving water reports (See Table E-3 and Attachment B-5) in the year three annual report.

   a. Infaunal Community Survey - These stations shall be sampled for benthic infauna[21] 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. Identificiation of all organisms to lowest possible taxon (usualy species); and,

      ii. Total biomass of:

         (a) Mollusks;

         (b) Echinoderms;

         (c) Annelids/polychaetes;

         (d) Curstaceans; and,

         (e) All other macroinvertebrates.

      iii. Community structure[22] analysis for benthic influana for each station and each replicate. Mean, median, range, standard deviation, and 95% confidence limits, if appropriate, for values determined above. The Discharger may use other statistical tools sufficient to determine temporal and spatial trends in the marine environment.

[21] These bottom samples shall be taken by means of a 0.1 m^2 (1.1 ft^2) 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. All specimens retrieved shall be archived.

[22] 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 Water Board and the Infaunal Index.

REVISED TENTATIVE

b. Sediment Chemistry Survey -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. All benthic sediment samples shall be taken at each station by means of a 0.1 m^2 (1.1 ft^2) 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; Total PCB; PCB derivatives; Toxaphene; Total PAH; PAH derivatives. The data for these parameters shall be expressed in µg/kg dry weight. Additional testing shall be conducted such that a full priority pollutant scans is performed on the sediment samples.

c. Chronic Sediment Toxicity Survey - Sediment toxicity testing shall be conducted in August/September at the 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 for chronic toxicty. Testing shall be conducted using one of the three amphipod species *Eohaustorius estuarius, Leptocheirus plumulosus, and Rhepoxynius abronius* in accordance with EPA 600/R-94/0925 (USEPA, 1994), *Methods for Assessing the Toxicity of Sediment-associated Contaminants with Estuarine and Marine Amphipods*, and *the Southern California Bight Project sediment toxicity testing guidelines (*Bight '18 Toxicology Committee, 2018). Test results shall be reported in percent survival, assessed for the presence of persistent toxicity, and included in the annual monitoring report. If persistent toxicity is observed at a sediment sampling location, a Phase I Toxicity Identification Evaluation (TIE) shall be conducted as defined in the *Sediment Toxicity Identification (TIE) Phase I, II, and III Guidance Document* (EPA/R-07/080). The Discharger shall submit a Sediment Toxicity TIE Work Plan within 90 days of the effective date of this Order. The work plan shall define persistent toxicity and outline the procedures that will take place if persistent toxicity is observed.

2. Regional Benthic Monitoring - This regional survey is designed to determine the extent, distribution, magnitude and trend of ecological change in soft-bottom benthic habitats within the Southern California Bight and the relationship between biological response and contaminant exposure. The data collected will be used to assess the condition of the sea-floor environment and the health of the biological resources within the Bight.

A regional survey of sediment chemistry and benthic infauna within the Southern California Bight took place in 2013 (Bight'13). The final survey design was determined cooperatively by the participants represented on the Regional Steering Committee. The Discharger provided support to the Bight'13 benthic surveys in the following ways:

ED_002551_00001333-00083

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

The Discharger's level of participation in previous Bight surveys has been consistent. The same level of participation is expected in Bight'18 and Bight'23 surveys.

C. Fish and Invertebrate Monitoring

1. Local Fish and Macroinvertebrate Survey – This survey is designed to determine how the health of demersal fish and epibenthic invertebrate communities near the discharge point is changing over time. The data collected will be used for regular assessment of temporal trends in community structure and bioaccumulation along an array of sites within the influence of the discharge. Trash and debris data will also be collected to contribute to the Santa Monica Bay Restoration Project's (SMBRP's) Sources and Loadings Program. The Discharger shall monitor fish and macroinvertebrate at three receiving water trawling stations RWT-001, RWT-002 and RWT-003 in year two (See Table E-3). Mussels will be deployed for three months (September to December) at three fixed locations for bioaccumulation (see Attachment B-7) in year four. The monitoring requirements are as follows:

a. Local Fish and Macroinvertebrate Population Survey

i. Offshore trawling will occur in year two during August/September for demersal fish and epibenthic macroinvertebrates with trawl locations along sample lines A001 to A005 through E001 to E005 (see Table E-2 and Attachment B-7).

ii. 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*.

iii. 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[23] shall be conducted for each station.

iv. Mean, range, standard deviation, and 95% confidence limits, if appropriate, shall be reported for the values determined in the community structure analysis. The Discharger may use other statistical tools to determine temporal and spatial trends in the fish and macroinvertebrate population in the marine environment.

[23] 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 Regional Water Board..

REVISED TENTATIVE

ED_002551_00001333-00084

v. 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 Zone of Initial Dilution (ZID) boundary and the reference station, and trends in these values shall be measured over time. The results of this comparison shall be included in the monitoring report.

b. Bagged Mussel Tissue

i. Bags of mussels will be deployed on anchored arrays, in replicate, at three locations (SS1, SS2 and SS3) in the vicinity of the outfall for a period of three months, from July to December in year four of the permit. A set of control mussels will be frozen at the beginning of the three month deployment, held for three months and then analyzed along with the field deployed mussels. The field deployed mussels will be retrieved after three months, dissected and analyzed for contaminants.

ii. All mussle tissue samples shall be analyzed for wet weight and percent lipid.

iii. Testing 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; and PAH derivatives and all priority pollutants.

iv. The data for these parameters shall be expressed in µg/kg dry weight.

2. Regional Fish and Macroinvertebrate Survey

This regional survey is designed to determine the extent, distribution, magnitude and trend of ecological change in demersal fish and epibenthic invertebrate communities within the Southern California Bight and the relationship between biological response and contaminant exposure. The data collected will be used to assess the condition of the seafloor environment and health of biological resources within the Bight.

A regional survey of trawl-caught demersal fish and megabenthic invertebrates within the Southern California Bight took place in 2013 (Bight'13). The final survey design was determined cooperatively by the participants as represented on the Regional Steering Committee. The Discharger provided support to the Bight'13 surveys in the following ways:

a. Participation on the Steering Committee;
b. Participation on the relevant Technical Committees (e.g., Information Management, Field Methods and Logistics, Fish and Invertebrates);
c. Field sampling at sea;
d. Trawl sample analysis; and,
e. Data management

The Discharger's level of participation in previous Bight surveys has been consistent. The same level of participation is expected in the Bight '18 and Bight '23 surveys.

D. Seafood Safety Monitoring

1. Local Seafood Safety Survey

PRELIMINARY DRAFT

This survey is designed to determine if tissue concentrations of contaminants exceed the Advisory Tissue Concentration (ATC) where seafood consumption advisories exist locally, and tissue contaminant trends relative to the ATC in other species and for other contaminants not currently subject to local consumption advisories. The data collected will be used to provide information necessary for the management of local seafood consumption advisories.

a. One species from each of five groups of fish (rockfish, kelpbass, sandbass, surfperches and croakers) shall be sampled from each of the three zones, no later than year four of the permit. For rockfishes, scorpionfish (Scorpaena guttata) is the preferred species, followed by bocaccio (Sebastes paucispinis) and then by any other abundant and preferably benthic rockfish species. For surfperches, black surfperch (Embiotoca jacksoni) is the preferred species, followed by white surfperch (Phanerodon furcatus) and then by walleye surfperch (Hyperprosopon argenteum). For croakers, white croaker is the preferred species, followed by black croaker, and then by white seabass. If an insufficient number of croakers are collected and a significant effort has been made to collect the appropriate number of croakers, one of the following alternative species may be substituted: ocean whitefish (Caulolatilus princeps), opaleye (Girella nigricans), blacksmith (Chromis punctipinnis), or pacific mackerel (Scomber japonicus).

b. For fish tissue analysis, one composite sample of ten individuals of each target shall be collected within each of the three zones. Sampling should take place in late summer/early fall and should focus upon a consistent size class of fish. All tissue samples shall be analyzed for:

Table E-10. Seafood Safety Monitoring Requirements

Parameter	Units	Sample Type	Minimum Sampling Frequency
% moisture	%	composite of muscle tissue from 10 individuals of each of 5 species	No later than year 4
% lipid	%	composite of muscle tissue from 10 individuals of each of 5 species	No later than year 4
Arsenic	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	No later than year 4
Mercury	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	No later than year 4
Selenium	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	No later than year 4
DDT	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	No later than year 4
PCB as aroclors	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	No later than year 4
PCB as congeners	µg/kg	composite of muscle tissue from 10 individuals of each of 5 species	No later than year 4

2. Regional Seafood Safety Survey

This regional survey is designed to determine if seafood tissue levels within the Southern California Bight are below levels that ensure public safety. The data collected will be

ED_002551_00001333-00086

used to assess levels of contaminants in the edible tissue of commercial or recreationally important fish within the Bight relative to Advisory Tissue Concentrations.

Sampling Design - A regional survey of edible tissue contaminant levels in fish within the Southern California Bight shall be conducted at least once every ten years, encompassing a broader set of sampling sites and target species than those addressed in the local seafood survey. The objective is to determine whether any unexpected increases or decreases in contaminant levels have occurred in non-target species and/or at unsampled sites. The final survey design may be determined cooperatively by participants represented on a Regional Steering Committee or by the State of California's Office of Environmental Health and Hazard Assessment. The Discharger shall provide support to a Regional Seafood Safety Survey by participating in or performing the following the following activities:

a. Participation on the Steering Committee;
b. Participation on the relevant Technical Committees (e.g., Information Management, Field Methods and Logistics, Fish and Invertebrates, Chemistry);
c. Tissue chemical analysis; and,
d. Data management

This level of participation in the Bight'08 survey was consistent with that provided by the Discharger to the previous surveys. The next regional survey is expected to occur in 2018 and 2023, and the Discharger's level of participation shall be consistent with that provided in previous surveys.

E. Kelp Bed Monitoring

This regional survey is designed to determine if the extent of kelp beds in the Southern California Bight is changing over time and if some beds are changing at rates different than others. The data collected in this regional survey will be used to assess the status and trends in kelp bed health and spatial extent.

The Discharger shall participate in the Central Region Kelp Survey Consortium (CRKSC) to conduct regional kelp bed monitoring in Southern California coastal waters. The CRKSC design is based upon quarterly measures of kelp canopy extent using aerial imaging. The Discharger shall participate in the management and technical committee's responsibility for the final survey design and shall provide financial support to help fund the survey based upon the number of participants in the study in an amount not to exceed a maximum of $10,000 per year. ~~The Discharger 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. However, the support may be less than that required by R4-2013-0094, in recognition of the City's physical location, and the absence of hard substrate to support kelp growth at the outfall.~~ The information gained by the City through participation may be used to evaluate whether the discharge impacts kelp beds near the outfall.

IX. OTHER MONITORING REQUIREMENTS

A. Outfall and Diffuser Inspection

This survey is designed to ensure that the outfall structures are in serviceable condition and that they can continue to be operated safely. The data collected will be used for a periodic assessment of the integrity of the outfall pipe and ballasting system.

The ocean outfall (001) shall be inspected externally a minimum of once per year. Inspections shall include general observations and photographic/videographic records of the outfall pipe and adjacent ballast ocean bottom. The pipe shall be visually inspected by a diver, manned submarine, or remotely operated vehicle. A summary report shall be

TENTATIVE

ED_002551_00001333-00087

submitted by August 1 of each year for the previous year. This written report, augmented with videographic and/or photographic images, will provide a description of the observed condition of the outfall structure from shallow water to the termini.

B. Biosolids and Sludge Management

The Discharger must comply with all Clean Water Act and regulatory requirements of 40 CFR § 257, 258, 501, and 503, including all applicable monitoring, record keeping, and reporting requirements.

X. 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. If there is no discharge during any reporting period, the report shall so state.
3. Each monitoring report shall contain a separate section titled "Summary of Non-compliance" which discusses the compliance record and the corrective actions taken or planned that may be needed to bring the discharge into full compliance with waste discharge requirements. This section shall clearly list all non-compliance with discharge requirements as well as all excursions of effluent limitations.
4. The Discharger shall inform the Regional Water Board well in advance of any proposed construction or maintenance activity, or modification to the POTW that could potentially affect compliance with applicable requirements.
5. The date and time of sampling (as appropriate) shall be reported with the analytical values determined.
6. The laboratory conducting analyses shall be certified by the State Water Resources Control Board, Division of Drinking Water, Environmental Laboratory Accreditation Program (ELAP), in accordance with CWC section 13176, or approved by the Regional Water Board Executive Officer, in consultation with the State Water Board's Quality Assurance Program, and USEPA for that particular parameter 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/renewal certification is obtained from ELAP and must be submitted with the annual summary report. Each monitoring report must affirm in writing that: "All analyses were conducted at a laboratory certified for such analyses by the the State Water Resources Control Board, Division of Drinking Water, Environmental Laboratory Accreditation Program (ELAP), or approved by the Regional Water Board Executive Officer (in consultation with the State Water Board's Quality Assurance Program), and in accordance with current USEPA guideline procedures or as specified in this MRP."
7. Non-detect levels reported for the Oxnard Wastewater Treatment Plant effluent are generally higher than effluent limitations or water quality objectives for DDT, chlordane, PCBs and PAHs. Therefore, the Discharger shall strive for lower analytical detection levels than those specified in Appendix II of the 2015 Ocean Plan.
8. Upon request by the Discharger, the Regional Water Board, in consultation with the State Water Board's Quality Assurance Program and/or USEPA, may establish an ML that is not contained in Appendix II of the 2015 Ocean Plan, to be included in the Discharger's NPDES permit, in any of the following situations:
    a. When the pollutant under consideration is not included in Appendix II;

REVISED TENTATIVE

ED_002551_00001333-00088

b. When the Discharger agrees to use a test method that is more sensitive than those specified in 40 CFR § 136 (most recent revision);

c. When the Discharger agrees to use an ML lower than those listed in Appendix II;

d. 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 their matrix; or

e. When the Discharger uses a method whose quantification practices are not consistent with the definition of an ML. Examples of such methods are the 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, Regional Water Board, State Water Board and USEPA shall agree on a lowest quantifiable limit, and that limit will substitute for the ML for reporting and compliance determination purposes.

9. Records and reports of marine monitoring surveys conducted to meet receiving water monitoring requirements shall include, at a minimum, the following information:

a. A description of climatic and receiving water characteristics at the time of sampling (weather observations, unusual or abnormal amounts of floating debris, discoloration, wind speed and direction, swell or wave action, time of sampling or measurements, tidal stage and height, etc.).

b. The date, exact place and description of sampling stations, including differences unique to each station (e.g., date, time, station location, depth, and sample type).

c. A list of the individuals participating in field collection of samples or data and description of the sample collection and preservation procedures used in the various surveys.

d. A description of the specific method used for laboratory analysis, the date(s) the analyses were performed and the individuals participating in these analyses.

e. An in-depth discussion of the results of the survey. All tabulations and computations shall be explained.

10. 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 this Order.

11. The Discharger shall attach a cover letter to the monitoring reports. The information contained in the cover letter shall clearly identify violations of the Order; 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.

B. Self-Monitoring Reports (SMRs)

1. The Discharger shall electronically submit SMRs using the State Water Board's California Integrated Water Quality System (CIWQS) Program website (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/). The CIWQS website will provide additional information for SMR submittal in the event there will be a planned service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this Order. The Discharger shall submit monthly, quarterly, semiannual, and annual SMRs including the results of all required monitoring using USEPA-approved test methods or

PROPOSED TENTATIVE

ED_002551_00001333-00089

other test methods specified in this Order. SMRs are to include all new monitoring results obtained since the last SMR was submitted. 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, except where specific monitoring periods and reporting dates are required elsewhere in the Order.

Table E-11. Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins	Monitoring Period	SMR Due Date
Continuous	Permit effective date	All	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	1st day of calendar month through last day of calendar month	Submit with monthly SMR
Quarterly	Closest of January 1, April 1, July 1, or October 1 following (or on) Permit effective date	January 1 to March 31 April 1 to June 30 July 1 to September 30 October 1 to December 31	By the 15th day of the second month after the month of sampling
Semiannually	Closest of January 1 or July 1 following (or on) Permit effective date	January 1 to June 30 July 1 to December 31	May 15 November 15
Annually	January 1 following (or on) Permit effective date	January 1 through December 31	August 15

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (reported ML, also known as the Reporting Level, or RL) and the current Method Detection Limit (MDL), as determined by the procedure in 40 CFR §136.

   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. 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 (± a percentage of the reported

REVISED TENTATIVE

ED_002551_00001333-00090

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. Compliance Determination. Compliance with effluent limitations for reportable pollutants shall be determined using sample reporting protocols defined above and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional Water Board and State Water Board, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the reportable pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (ML).

6. Multiple Sample Data. When determining compliance with a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses and the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND), the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

   a. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

   b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

7. The Discharger shall submit SMRs in accordance with the following requirements:

   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.

8. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the waste discharge requirements; 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. Discharge Monitoring Reports (DMRs)

DMRs are USEPA reporting requirements. The Discharger shall electronically certify and submit DMRs together with SMRs using Electronic Self-Monitoring Reports module eSMR 2.5 or any upgraded version. Electronic DMR submittal shall be in addition to electronic SMR

ED_002551_00001333-00091

submittal. Information about electronic DMR submittal is available at the DMR website at: <http://www.waterboards.ca.gov/water_issues/programs/discharge_monitoring>.

D. Other Reports

1. Pretreatment Report

   The Discharger shall submit annual pretreatment reports to the Regional Water Board, with copies to the State Water Board, and USEPA Region 9, describing the Discharger's pretreatment activities over the period. The annual reports shall contain, but not be limited to, the information required in the attached Pretreatment Reporting Requirements (Attachment I), or an approved revised version thereof. If the Discharger is not in compliance with any conditions or requirements of this Order, the Discharger shall include the reasons for noncompliance and shall state how and when the Discharger will comply with such conditions and requirements.

   An Enhanced Source Control study was completed in 2017 and the results will be used to improve the pretreatment program when modifications to the recycled water program include Indirect Potable Reuse (IPR). Resulting modifications to the pretreatment program shall be reported in the annual report.

2. The Discharger shall report the results of any special studies, chronic toxicity testing, TRE/TIE, Pollutant Minimization Program (PMP), and Pollution Prevention Plan required by Special Provisions – section VIII.B. The Discharger shall submit reports in compliance with SMR reporting requirements described in subsection X.B. above.

3. Annual Summary Report

   By August 15 of each year, the Discharger shall submit an annual report containing a discussion of the previous year's influent/effluent results (including the average and peak flow for the year), the date of the outfall inspection, and upgrades to the treatment plant's collection system, the treatment processes, or the outfall system. The Discharger shall submit annual reports to the Regional Water Board in accordance with the requirements described in subsection X.B.7. above.

   Each annual monitoring report shall contain a separate section titled "Reasonable Potential Analysis" which discusses whether or not reasonable potential was triggered for pollutants which do not have a final effluent limitation in the NPDES permit. This section shall contain the following statement: "The analytical results for this sampling period did/ did not trigger reasonable potential." If reasonable potential was triggered, then the following information should also be provided:

   a. A list of the pollutant(s) that triggered reasonable potential;
   b. The Ocean Plan criteria that was exceeded for each given pollutant;
   c. The concentration of the pollutant(s);
   d. The test method used to analyze the sample; and,
   e. The date and time of sample collection.

   The Discharger shall submit to the Regional Water Board, together with the first monitoring report required by this permit, a list of all chemicals and proprietary additives which could affect this waste discharge, including quantities of each. Any subsequent changes in types and/or quantities shall be reported promptly.

4. Receiving Water Monitoring Report

PRELIMINARY DRAFT

ED_002551_00001333-00092

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 Water Board by August 15 of the following year. The annual summary shall include data tables and a description of receiving water data.

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 Water Board by September of every other year. Any effluent compliance issues during that period shall also be discussed. This report shall include a description of the nearfield zone and an in-depth analysis of the biological and chemical data following 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.). Data shall be tabulated, summarized, graphed where appropriate, analyzed, interpreted, and generally presented in such a way as to facilitate ready understanding of its significance. Spatial and temporal trends shall be examined and compared. The relationship of physical and chemical parameters shall be evaluated. See also Section VIII of this MRP. All receiving water monitoring data shall be submitted in accordance with the California Environmental Data Exchange Network (CEDEN), when the system accepts data such as bioassessment /taxonomic data and continuous data. The Discharger shall submit all receiving water monitoring data in accordance with CEDEN, when feasible. An electronic copy of the receiving water document shall also be submitted to the CIWQS, the state electronic data repository.

The first assessment report shall be due August 15, 2020, and cover the sampling periods of January-December 2018 and January-December 2019. Subsequent reports shall be due August 15, 2022, and August 15, 2024, to cover sampling periods of January 2020-December 2021 and January 2022-December 2023, respectively.

5. Outfall Inspection Report

By August 1 of each year, a summary report of the outfall Inspection findings for the previous calendar year shall be prepared and submitted to the Regional Water Board. 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.

The first summary report shall be due August 1, 2020, covering the monitoring period from January 2019 – December 2019.

6. Technical Report on Preventive and Contingency Plans

The Regional Water Board requires the Discharger to file with the Regional Water Board, within 90 days after the effective date of this Order, a technical report on its preventive (failsafe) and contingency (cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. The technical report should:

a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment unit outage, and failure of process equipment, tanks, and pipes should be considered.

b. Evaluate the effectiveness of present facilities and procedures and state when they become operational.

PUBLIC TRUST

ED_002551_00001333-00093

c. Describe facilities and procedures needed for effective preventive and contingency plans.

d. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule contingent interim and final dates when they will be constructed, implemented, or operational

REVISED TENTATIVE

ED_002551_00001333-00094

ATTACHMENT F – FACT SHEET

CONTENTS

I. Permit Information F-3
II. Facility Description F-5
A. Description of Wastewater and Biosolids Treatment and Controls F-5
B. Discharge Points and Receiving Waters F-8
C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data. F-9
D. Compliance Summary F-13
E. Receiving Water Description F-14
F. Planned Changes F-15
III. Applicable Plans, Policies, and Regulations. F-17
A. Legal Authorities F-17
B. California Environmental Quality Act (CEQA) F-17
C. State and Federal Laws, Regulations, Policies, and Plans F-17
D. Impaired Water Bodies on the CWA section 303(d) List F-20
E. Other Plans, Polices and Regulations ..... F-21~~F-20~~
IV. Rationale for Effluent Limitations and Discharge Specification. F-22
A. Discharge Prohibitions. F-23
B. Technology-Based Effluent Limitations. F-23
C. Water Quality-Based Effluent Limitations (WQBELs) F-25
1. Scope and Authority. F-25
2. Applicable Beneficial Uses and Water Quality Criteria and Objectives F-25
3. Expression of WQBELs F-25
4. Determining the Need for WQBELs F-26
5. WQBEL Calculations F-27
6. Whole Effluent Toxicity (WET). F-30
D. Final Effluent Limitation Considerations F-32
1. Anti-Backsliding Requirements. F-32
2. Antidegradation Policies ..... F-33~~F-32~~
3. Stringency of Requirements for Individual Pollutants F-33
E. Interim Effluent Limitations – Not Applicable F-39
F. Land Discharge Specifications – Not Applicable F-39
G. Recycling Specifications – Not Applicable. F-39
V. Performance Goals F-39
VI. Rationale for Receiving Water Limitations. F-41
A. Surface Water F-41
B. Groundwater – Not Applicable. F-41
VII. Rationale for Provisions. F-41
A. Standard Provisions F-41
B. Special Provisions F-41
VIII. Rationale for Monitoring and Reporting Requirements. F-43
A. Influent Monitoring F-43
B. Effluent Monitoring F-43
C. Whole Effluent Toxicity Testing Requirements F-47
D. Receiving Water Monitoring. F-47
1. Surface Water and Benthic Monitoring F-47
2. Groundwater – Not Applicable F-47
E. Other Monitoring Requirements F-47
1. Outfall Inspection F-47

DRAFT TENTATIVE

ED_002551_00001333-00095

2. Biosolids/Sludge Monitoring F-47
3. Discharge Monitoring Report-Quality Assurance (DMR-QA) Study Program F-47
IX. Public Participation F-48
A. Notification of Interested Parties F-48
B. Written Comments F-48
C. Public Hearing F-48
D. Reconsideration of Waste Discharge Requirements F-48
E. Information and Copying F-49
F. Register of Interested Persons F-49
G. Additional Information F-49

TABLES

Table F-1. Facility Information F-3
Table F-2. Outfall Description F-8
Table F-3. Historic Effluent Limitations and Monitoring Data (Conventional/Non-Conventional Pollutants) F-9
Table F-4. Historic Effluent Limitations and Monitoring Data for Toxic Constituents F-10
Table F-5. Violations F-14
Table F-6. Planned Changes F-16
Table F-7. Basin Plan Beneficial Uses F-17
Table F-8. Ocean Plan Beneficial Uses F-18
Table F-9. Summary of TBELs in 40 CFR part 133.102 ..... F-23
Table F-10. Summary of TBELs for POTWs established by the 2015 Ocean Plan ..... F-24~~F-23~~
Table F-11. Summary of TBELs for Discharge Point 001 ..... F-24
Table F-12. Pollutants with Background Seawater Concentration F-28
Table F-13. Ocean Plan Water Quality Objectives (Co) F-28
Table F-14. Proposed Water Quality Objectives (Ce) F-29
Table F-15. Summary of Final Effluent Limitations for Discharge Point 001 ..... F-34
Table F-16. Effluent Monitoring Frequency Comparison F-44

REVISED TENTATIVE

ED_002551_00001333-00096

ATTACHMENT F – FACT SHEET

As described in section I of this Order, the Regional Water Board incorporates this Fact Sheet as findings of the Regional Water Board supporting the issuance of this Order. This Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table F-1. Facility Information

WDID	4A560105001
Discharger	City of Oxnard Municipal Corporation
Name of Facility	Oxnard Wastewater Treatment Plant (OWTP)
Facility Address	6001 South Perkins Road
	Oxnard, CA 93033-9047
	Ventura County
Facility Contact, Title and Phone	Thien Ng, Assistant Public Works Director, (805) 432-3575
Authorized Person to Sign and Submit Reports	Vince Ines, Interim Operations ManagerThien Ng, Assistant Public Works Director, (805) 271 2203432-3575, Cell (805) 797-7264
Mailing Address	SAME
Billing Address	SAME
Type of Facility	Publicly Owned Treatment Works
Major or Minor Facility	Major
Threat to Water Quality	1
Complexity	A
Pretreatment Program	Yes
Reclamation Requirements	Producer
Facility Permitted Flow	31.7 (million gallons per day)
Facility Design Flow	31.7 (million gallons per day)
Watershed	Ventura Coastal Stream Watershed Management Area
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

A. The City of Oxnard (hereinafter City, Permittee or Discharger) is the owner and operator of the Oxnard Wastewater Treatment Plant (hereinafter OWTS or Facility or Plant), a Publicly-Owned Treatment Works (POTW). The Regional Water Board has classified the OWTS as a major discharger. It has a Threat to Water Quality and Complexity rating of 1-A pursuant to California Code of Regulations (CCR), Title 23, section 2200.

DRAFT TENTATIVE

ED_002551_00001333-00097

For the purposes of this Order, references to the "Discharger" or "Permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

The Facility discharges wastewater to the Pacific Ocean, a water of the United States. The discharge was previously regulated by Order R4-2013-0094 and National Pollutant Discharge Elimination System (NPDES) No. CA0054097, adopted on June 6, 2013, and expired on July 26, 2018 and which was administratively extended until the adoption of this Order. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

The Discharger filed a report of waste discharge (ROWD) and submitted an application for renewal of its WDRs and NPDES permit on January 25, 2018. Supplemental information was requested on January 30, 2018, and received on February 22, 2018. The application was deemed complete on March 16, 2018. A site visit was conducted on July 12, 2018 to observe operations and collect additional data to develop permit limitations and requirements for waste discharge.

The Discharger is authorized to discharge subject to waste discharge requirements in this Order at the discharge locations described in Table 2 of this Order. Treated effluent is also provided to the City of Oxnard's Advanced Water Purification Facility (AWPF) for additional treatment and distribution as recycled water, with discharge regulated under Orders R4-2011-0079-A02 and R4-2008-0083-A01.

Regulations at 40 CFR section 122.46 limit the duration of NPDES permits to a fixed term not to exceed five years. Accordingly, Table 3 of this Order limits the duration of the discharge authorization. However, pursuant to CCR, title 23, section 2235.4, the terms and conditions of an expired permit are automatically continued pending reissuance of the permit if the Discharger complies with all federal NPDES requirements for continuation of expired permits.

B. **Dilution Credits.** On August 1, 2016, Regional Water Board reviewed the "July 25, 2016 Workplan for the City of Oxnard Diffuser Dilution Study" which described a work plan for an initial dilution study of the Ocean discharge from the Oxnard Wastewater Treatment Plant (OWWTP) under Order R4-2013-0094. The final results were titled the "City of Oxnard Recycled Water Retrofit Program, Technical Memorandum Ocean Outfall Effluent Dilution Study Draft", submitted on September 9, 2016. The City consulted with Regional Water Board staff between August 2016 and February 2017 on Cormix and Visual Plume initial dilution model assumptions and recommended an initial dilution ratio between 1:143 and 1:108. The existing dilution factor is 1:98. The ratio of 1:108 was selected as discussed below.

The secondary treated wastewater and brine waste from the AWPF is discharged to the Pacific Ocean through a diffuser at Discharge Point 001. The diffuser pipe is 4 feet in diameter and 1,016 feet long, terminating 5,950 feet offshore. All 170 of the 2-inch diameter diffuser ports are located along the spring line on both sides (opposite-one-another) of the pipe at 12-foot intervals. In addition, there is a single 6-1/4-inch diameter port on the end of the terminal pipe section. The diffuser lies at a minimum of 46 feet below the surface and the ports are angled to discharge at 90 degrees from the center line of the outfall. While the 2016 annual visual observation of the outfall pipe and supporting rip-rap showed a rocky reef community with macroinvertebrates, fish and algae, all lateral ports were flowing freely, with no evidence of external damage holes, cracks or leaks.

On behalf of the City, the consulting firm Exponent applied the USEPA-approved Visual Plumes UM3 model to the flow with the assumption that the ocean mixing need only be modeled on one side of the outfall pipe, with identical and mirror-image hydrodynamics on the opposite side of the centerline. Discharge data from 2009 to 2013 was used to define the

ED_002551_00001333-00098