ATTACHMENT F – FACT SHEET

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ATTACHMENT F – FACT SHEET

As described in section II 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 1. Facility Information

WDID	4B190703003
Discharger	United States Navy (US Navy)
Name of Facility	San Clemente Island Waste Water Treatment Plant (SCI WWTP)
Facility Address	Navy Auxiliary Landing Field San Clemente Island, CA Los Angeles County
Facility Contact, Title and Phone	Thomas Niday, Utilities System Operator (619) 524-9125
Authorized Person to Sign and Submit Reports	Brian Gordon, Water Quality Program Manager, US Navy Region Southwest I, (619) 532-2273
Mailing Address	Naval Station San Diego Bldg 3212 San Diego, Ca 92135
Billing Address	Same
Type of Facility	Federally-owned Treatment Works (FOTW)
Major or Minor Facility	Minor[1]
Threat to Water Quality	1
Complexity	B
Pretreatment Program	No
Reclamation Requirements	Producer and User
Facility Permitted Flow	0.025 million gallons per day (mgd) monthly average
Facility Design Flow	0.06 mgd design capacity for secondary treated discharge and 0.03 mgd design capacity for tertiary treated discharge
Watershed	San Clemente Island Watershed
Receiving Water	Pacific Ocean
Receiving Water Type	Ocean waters

A. The United States Navy (US Navy) is the operator of the San Clemente Island Wastewater Treatment Plant (Facility or SCI WWTP), a federally-owned treatment works (FOTW). The

[1] The SCI WWTP has a design flow of less than 1 mgd and services a population of less than 10,000.

US Navy owns the property at the Navy Auxiliary Landing Field, San Clemente Island, California, on which the Facility is located.

B. The Facility discharges wastewater to the Pacific Ocean, a water of the United States. The Discharger was previously regulated by Order No. 00-090 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0110175 adopted on June 29, 2000, and expired on July 10, 2005. The terms and conditions of the current Order have been automatically continued and remain in effect until new Waste Discharge Requirements (WDRs) and NPDES permit are adopted pursuant to this Order. Attachment B provides a map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a surface or subterranean stream, the Discharger must file a petition with the State Water Resources Control Board (State Water Board), Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under CWC section 1211.

C. The Discharger filed a report of waste discharge (ROWD) and submitted an application for renewal of its WDRs and NPDES permit on August 22, 2012. Supplemental information was requested on September 20, 2012 and on December 10, 2012 and all requested items were received on February 27, 2013. The application was deemed complete on March 19, 2013. A site visit was conducted on August 14, 2012, to observe operations and collect data to develop permit limitations and requirements for waste discharge.]

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment or Controls

The Discharger owns and operates SCI WWTP. The treatment plant is located at approximately 1500 feet east of Wilson Cove and discharges a maximum monthly average of 0.025 mgd of treated wastewater to the Pacific Ocean, a water of the United States.

SCI WWTP receives sewage from a separate sanitary sewer serving a population of approximately 500 people, except in cases when extra personnel are present due to training on the island. In those instances, wastewater from portable toilets may be delivered directly to the headworks of the treatment system. According to Navy personnel, only residential wastes are discharged to the sanitary sewer; all industrial drains have been capped with concrete. Industrial wastes (used oil, used anti-freeze, used batteries, etc.) are stored onsite and are manifested off the island (via barge) and properly disposed of in accordance with federal and state regulations. There is no heavy industry on the island, and most of the waste generated is associated with facility and vehicle maintenance (e.g. changing oil on a vehicle).

The treatment system consists of a package-type secondary wastewater treatment plant, built in 1979, and a recently completed package-type tertiary wastewater treatment plant. The tertiary plant will be brought into operation following adoption of this Order. The secondary plant has a design capacity of 0.060 mgd and consists of communition, equalization, activated sludge extended aeration, clarification, chlorination, and dechlorination.

The tertiary plant has a design capacity of 0.030 mgd. The new Smith and Loveless (S&L) Titan Membrane Bio Reactor (MBR) package plant consists of screening, flow equalization, sludge storage, anoxic zones, aeration, filtration, chlorine contact, and dechlorination. Treated wastewater, prior to dechlorination, is pumped to the tertiary recycled water storage tank (Attachment C).

The Navy intends to operate the tertiary wastewater treatment plant exclusively, except during periods of high flows to the treatment system and startup and maintenance of the tertiary plant. The secondary plant may only be operated in emergency situations or when the tertiary plant must be shut down for maintenance. During such times, the Navy must comply with all bypass conditions contained in this permit.

Solids from the treatment system are either dried in drying beds or bagged for dewatering over plastic pallets. The dried solids are transported to and disposed of at the San Clemente Island Landfill, regulated under Order No. R4-2010-0045, adopted by the Regional Water Board on March 4, 2010.

The Discharger is producing, distributing, and using recycled water under Order No. R4-2004-0057, which was adopted April 1, 2004. A revised order to authorize the use of recycled water from the tertiary plant is forthcoming.

Consistent with Area of Special Biological Significance (ASBS) exclusion area (State Water Board Resolution No. 77-11), this Order authorizes the Navy to discharge a monthly average of 0.025 mgd of treated wastewater to the Pacific Ocean. Discharges in excess of 0.025 mgd are not authorized.

Attachment B provides a location map of the area around the Facility. Attachment C provides a flow schematic of the Facility.

B. Discharge Points and Receiving Waters

The SCI WWTP has two discharge point (Discharge Point 002) located 250 feet east of the plant, 1,000 feet south of Wilson Cove, near the northeast end of the island. Discharge Point 001 (the shoreline discharge with coordinates 32 ° 59' 50" N, 118 ° 32' 45" W), has been decommissioned. Discharge Point 002, (the submerged outfall system with coordinates 33 ° 0' 17" N , 118 ° 33' 3" W) was completed on August 8, 2008.

Discharge Point 002 consists of a 450 foot long, 3.6-inch diameter pipe extension 70-feet below the ocean's surface. The discharge point is within the ASBS exclusion area (1,000-foot radius from original end of pipe) (State Water Board Resolution No. 77-11)

Table 2 Description of Discharge Point 002

Discharge Point	002
Diameter of Pipe at Discharge Terminus (inches)	3.6
Outfall Distance Offshore (feet)	450
Discharge Depth Below Surface Water (feet)	70
Latitude	33 ° 0' 17" N
Longitude	118 ° 33' 3" W

C. Summary of Existing Requirements and Self-Monitoring Report (SMR) Data

Effluent limitations contained in the 2000 Order for discharges from Discharge Point 002 and representative monitoring data (September 2007 to October 2012) from the term of the Previous Order is as follows:

Table 3 Historic Effluent Limitations and Monitoring Data (Major Wastewater Constituents/Parameters)

Parameter	Units	Effluent Limitation			Monitoring Data (From September 2007 – To October 2012)		
		Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Total Waste Flow	gal/day	25,000	25,000	25,000	22,126	--	--
BOD_5	mg/L	30	45	--	8.19	--	--
TSS	mg/L	30	45	--	10	--	--
Oil & Grease	mg/L	25	40	75	<5.5	--	--
Settleable Solids	ml/L	1.0	1.5	3.0	<1.0	--	--
Total dissolved solids	mg/L	--	--	--	1110	--	--
Turbidity	NTU	--	--	--	5.04	--	--
pH	pH units	≥ 6 and ≤ 9	≥ 6 and ≤ 9	≥ 6 and ≤ 9	--	--	--
Temperature	°F	≤ 100 °F	≤ 100 °F	≤ 100 °F	73.9	--	--
Fecal Coliform	MPN/ 100 ml	--	--	--	300	--	--
Total Coliform	MPN/ 100 ml	--	--	--	500	--	--
Enterococcus	CFU/ 100 ml	--	--	--	13	--	--

Table 4 Historic Effluent Limitations and Monitoring Data (Toxic Pollutants)

Parameter	Units	Effluent Limitation				Monitoring Data (From September 2007 – To October 2012)		
		Average Monthly	Average Weekly	Maximum Daily	Instant Maximum	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge
Chlorine Residual	µg/L	--	--	--	--	6.3	--	--

D. Compliance Summary

Monitoring data was reviewed to compare actual performance by the Discharger with (1) the performance goals and effluent limitations in Table A and (2) the performance goals in Table B, as specified in Order No. 00-090. From September 2007 through October 2012, twenty-six exceedances of Order No. 00-090 were noted. These include exceedances for copper (2012), zinc (2012), residual chlorine (2011, 2009), chronic toxicity (2011, 2008, 2007), chlorine total residual monthly average (2010), and pH (2011, 2009, 2008). In addition ten reporting violations were noted in the self-monitoring reports (SMRs) during the period September 2007 through October 2012: chronic toxicity (2008); hexavalent chromium, mercury, dichloromethane, and dichlorobenzene (2009); and pH reporting related to exceeding the holding time (2011, 2012).

E. Planned Changes (Not Applicable)

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

The requirements contained in this Order are based on the requirements and authorities described in this section.

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the United States Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (CWC; commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the CWC (commencing with section 13260).

B. California Environmental Quality Act (CEQA)

Under CWC section 13389, this action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of CEQA, (commencing with section 21100) of division 13 of Public Resources Code (PRC).

C. State and Federal Regulations, Policies, and Plans

1. Water Quality Control Plans

The Los Angeles Regional Water Quality Control Board (Regional Water Board) adopted a Water Quality Control Plan for the Los Angeles Region (Basin Plan) on June 13, 1994, as amended, that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for the Pacific Ocean and other Receiving Waters addressed by the Basin Plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the Pacific Ocean in the vicinity of San Clemente Island are as follows:

Table 5 Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
002	Pacific Ocean San Clemente Island Nearshore Zone (The zone bounded by the shoreline and a line 1000 feet from the shoreline or the 30-foot depth contours, whichever is further from the shoreline).	Existing: Navigation (NAV); Water Contact Recreation (REC-1); Non-contact Water Recreation (REC-2); Commercial and Sport Fishing (COMM); Marine Habitat (MAR); Wildlife Habitat (WILD) (Marine Habitats of the Channel Islands and Mugu Lagoon serve as pinniped haul-out areas for one or more species, i.e. sea lions); Preservation of Biological Habitats (BIOL; Area of Special Biological Significance), Rare, Threatened, or Endangered Species (RARE); and Shell Harvesting (SHELL). Potential: Spawning, Reproduction, and/or Early Development (SPWN).

Requirements of this Order implement the Basin Plan.

2. California Ocean Plan

The State Water Board adopted the *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) in 1972 and amended it in 1978, 1983, 1988, 1990, 1997, 2000, 2005, and 2009. The State Water Board adopted the latest amendment on September 15, 2009 and it became effective on October 8, 2010. The Ocean Plan is applicable, in its entirety, to point source discharges to the ocean. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized below:

Table 6 Ocean Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
Outfall 002	Pacific Ocean	Industrial water supply (IND); REC-1; REC-2; NAV; COMM; MAR; SPWN; RARE; SHELL; AQUA; MIGR; and, preservation and enhancement of designated Areas of Special Biological Significance (ASBS).

To protect the beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Requirements of this Order implement the Ocean Plan.

3. California Thermal Plan

In 1972, the State Water Board adopted a Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Water and Enclosed Bays and Estuaries of California (Thermal Plan), as amended. This plan contains temperature objectives for coastal and inland surface waters. Requirements of this Order implements the Thermal Plan.

4. Alaska Rule

On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 CFR part 131.21, 65 Federal Regulation 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska Rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

5. Stringency of Requirements for Individual Pollutants

This Order contains both technology-based effluent limitations (TBELs) and water quality-based effluent limitations (WQBELs) for individual pollutants. The TBELs consist of restrictions on biological oxygen demand (BOD), total suspended solids (TSS), oil and grease, settleable solids, turbidity, pH, and percent removal of BOD and TSS. Restrictions on BOD, TSS, oil and grease, settleable solids, turbidity, and pH are discussed in section IV.B.2 of the Fact Sheet. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are carried over from the previous permit.

WQBELs have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have

been approved pursuant to federal law and are the applicable federal water quality standards. All beneficial uses and water quality objectives contained in the Basin Plan and the Ocean Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to 40 CFR part 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA

6. Antidegradation Policy

40 CFR part 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 is deemed to incorporate the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge must be consistent with the antidegradation provision of 40 CFR part 131.12 and State Water Board Resolution No. 68-16.

7. Anti-Backsliding Requirements

Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at 40 CFR part 122.44(l) restrict backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed.

8. Endangered Species Act (ESA)

This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California ESA (Fish and Game Code (FGC) sections 2050 to 2097) or the federal ESA (16 United States Code (USC) sections 1531 to 1544). This Order requires compliance with effluent limitations, receiving water limitations, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable ESA.

9. Water Rights

Prior to making any change in the point of discharge, place of use, or purpose of use of treated wastewater that results in a decrease of flow in any portion of a surface or subterranean stream, the Discharger must file a petition with the State Water Board (State Water Board), Division of Water Rights, and receive approval for such a change. The State Water Board retains the jurisdictional authority to enforce such requirements under CWC section 1211. However, since this is an ocean discharge, CWC section 1211 is not applicable to this permit.

10. Monitoring and Reporting

40 CFR part 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The MRP establishes monitoring and reporting requirements to implement federal and state requirements. This MRP is provided in Attachment E.

11. Sewage Sludge/Biosolids Requirements

Section 405 of the CWA and implementing regulations at 40 CFR part 503 require that producers of sewage sludge/biosolids meet certain reporting, handling, and use or disposal requirements. The state has not been delegated the authority to implement this program; therefore, USEPA is the implementing agency. This Order contains sewage sludge/biosolids requirements pursuant to 40 CFR part 503 that are applicable to the Discharger

D. Impaired Water Bodies on CWA 303(d) List (Not Applicable)

E. Other Plans, Polices and Regulations

1. Secondary Treatment Regulations

40 CFR Part 133 establishes the minimum levels of effluent quality to be achieved by secondary treatment. These limitations, established by USEPA, are incorporated into this Order, except where more stringent limitations are required by other applicable plans, policies, or regulations.

2. Watershed Management.

The Regional Water Board has been implementing a Watershed Management Approach to address water quality protection in Los Angeles and Ventura Counties. The approach is in accordance with USEPA guidance on *Watershed Protection: A Project Focus* (EPA841-R-95-003, August 1995). The objective is to provide a comprehensive and integrated strategy resulting in water resource protection, enhancement and restoration, while balancing economic and environmental impacts within a hydrologically defined drainage basin or watershed. The approach emphasizes cooperative relationships between regulatory agencies, the regulated community, environmental groups, and other stakeholders in the watershed to achieve the greatest environmental improvements with the resources available. This Order and the accompanying *Monitoring and Reporting Program* (MRP) (Attachment E) fosters implementation of this approach.

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in CFR part 122.44(a) requires that permits include applicable technology-based limitations and standards (TBELs); and CFR part 122.44(d) requires that permits include water quality-based effluent limitations (WQBELs) to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water.

A. Discharge Prohibitions

This Order authorizes the discharge of secondary treated wastewater through Discharge Point 002. Discharge prohibitions in this Order are based on the requirements in section III.I of the Ocean Plan.

B. Technology-Based Effluent Limitations (TBELs)

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at part 122.44, title 40 of the CFR, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations

necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at 40 CFR part 133.

2. Applicable TBELs

CWA section 301 (b)(1)(B), 304 (d)(1), and implementing USEPA permit regulations at part 122.44, title 40 of the CFR require that permits include conditions meeting applicable technology-based requirements, at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. USEPA has established standards of performance for secondary treatment at 40 CFR part 133. Secondary treatment is defined in terms of three parameters – 5-day biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH. The following summarizes the TBELs for secondary treatment, which are applicable to the Facility:

Table 7 USEPA TBELs for Secondary Treatment Facilities by USEPA at 40 CFR part 133.102

Constituent	Average Monthly	Average Weekly	Percent Removal
BOD_5	30 mg/L	45 mg/L	85%
TSS	30 mg/L	45 mg/L	85%
pH	6.0 to 9.0		

Table A of the Ocean Plan (2009) also establishes the following TBELs, which are applicable to the Facility:

Table 8 TBELs established by the Ocean Plan (2009)

Constituent	Average Monthly	Average Weekly	Instantaneous Maximum	Percent Removal
Oil & Grease	25 mg/L	40 mg/L	75 mg/L	--
TSS*	--	--	--	75%*
Settleable Solids	1.0 ml/L	1.5 ml/L	3.0 ml/L	--
Turbidity	75 NTU	100 NTU	225 NTU	--
pH	6.0 to 9.0			

* Discharger shall, as a monthly average, remove 75% of TSS from the influent stream before discharging to the ocean, except that the effluent limitation to be met shall not be lower than 60 mg/L.

All TBELs from Order No. 00-090 for BOD, TSS, oil and grease, settleable solids, pH, and turbidity are retained by this Order with minor changes for turbidity as described below. Limitations for TSS, and pH are based on secondary treatment standards established by the USEPA at 40 CFR part 133. Limitations for oil and grease, turbidity, and settleable solids are based on the requirements in the 2009 Ocean Plan. To be consistent with the Ocean Plan, daily maximum limitations for these three constituents in the 2000 Order have been prescribed as instantaneous maximum limitations in this Order. All TBELs are not dependent upon the dilution ratio for the discharge outfall. In addition to the concentration-based effluent limitations, mass-based effluent limitations

based on a maximum monthly average flow rate of 0.025 million gallons per day are also included. The following table summarizes the TBELs for the discharge from the Facility:

Table 9 Summary of TBELs at Discharge Point 002

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
BOD_5 20°C	mg/L	30	45	--	--	--
	% removal	85	--	--	--	--
Total Suspended Solids (TSS)	mg/L	30	45	--	--	--
	% removal	85	--	--	--	--
Oil and Grease	mg/L	25	40	--	--	75
Settleable Solids	ml/L	1.0	1.5	--	--	3.0
Turbidity	NTU	75	100	--	--	225
pH	pH unit	6.0 to 9.0				

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C. Water Quality-Based Effluent Limitations (WQBELs)

1. Scope and Authority

Section 301(b) of the CWA and CFR part 122.44(d) require that permits include limitations more stringent than applicable federal TBELs where necessary to achieve applicable water quality standards.

CFR part 122.44(d)(1)(i) requires that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, WQBELs must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in CFR part 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the Ocean Plan.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

The Basin Plan and the Ocean Plan establish the beneficial uses for ocean waters of the State. The beneficial uses of the receiving waters affected by the discharge have been described previously in this Fact Sheet. The Ocean Plan also contains water quality objectives for bacterial characteristics, and radioactivity. The Basin Plan also contains the bacteria objectives for water bodies designated for water contact recreation that was

amended by Resolution No. 01-018. These water quality objectives from the Ocean Plan with consideration of the bacteria objective in the Basin Plan were included as receiving water limitations in this Order.

Table B of the Ocean Plan includes the numerical water quality objectives for toxic pollutants.

a. 6-month median, daily maximum, and instantaneous maximum objectives for 21 chemicals and chemical characteristics, including total residual chlorine, acute and chronic toxicity, for the protection of marine aquatic life.

b. 30-day average objectives for 20 non-carcinogenic chemicals for the protection of human health.

c. 30-day average objectives for 42 carcinogenic chemicals for the protection of human health.

3. Expression of WQBELs

Pursuant to 40 CFR part 122.45(d)(2), for continuous discharges, all permit effluent limitations, standards, and prohibitions, including those necessary to achieve water quality standards, shall, unless impracticable, be stated as average weekly and average monthly discharge limitations (AMEL and AWEL).

The WQBELs for marine aquatic life toxicants contained in this Order are based on water quality objectives contained in the 2009 Ocean Plan that are expressed as 6 month median, daily maximum, and instantaneous maximum water quality objectives. The 6 month median objectives for the marine aquatic life toxicants in the 1997 Ocean Plan were prescribed in the 2000 permit as monthly average limitations. Ocean Plan Table B parameters in the 2000 permit do not have calculated effluent limits based on the statistical performance of the treatment plant; rather they are taken directly from Ocean Plan Table B and applied as instantaneous maximum, daily maximum and monthly average performance goals.

This Order uses effluent limitations derived from 6 month median water quality objectives for marine aquatic life toxicants in Table B of the 2009 Ocean Plan as monthly average limitations.

4. Determining the Need for WQBELs

Order No. 00-090 contains effluent limitations for some of the non-conventional and toxic pollutant parameters in Table B of the 2009 Ocean Plan. For this Order, the need for effluent limitations based on water quality objectives in Table B of the 2009 Ocean Plan was reevaluated in accordance with the Reasonable Potential Analysis (RPA) procedures contained in Appendix VI of the 2009 Ocean Plan. The statistical RPA method (Reasonable Potential Calculator – Rpcalc v2.0) accounts for the averaging period of the water quality objective, accounts for and captures the long-term variability of the pollutant in the effluent, accounts for limitations associated with sparse data sets, accounts for uncertainty associated with censored data sets, and assumes a lognormal distribution of the facility-specific effluent data. The program calculates the upper confidence bound (UCB) of an effluent population percentile after complete mixing. In the evaluation employed in this Order, the UCB is calculated as the one-sided, upper 95 percent confidence bound for the 95th percentile of the effluent distribution after complete mixing. The calculated $UCB_{95/95}$ is then compared to the appropriate objective to determine the potential for an exceedance of that objective and the need for an effluent limitation. For constituents that have an insufficient number of monitoring data or have

substantial number of non-detected (ND) data (greater than 80 percent of the data is ND) with a reporting limit higher than the respective water quality objective, the RPA result is likely to be inconclusive. As suggested by the Ocean Plan, existing performance goals and/or effluent limitations for these constituents are to be retained in the 2013 Order. The MRP (Attachment E) of this Order also requires the Discharger to continue to monitor for these constituents for the determination of reasonable potential for these constituents in future permit renewals and/or updates.

For Table B Ocean Plan (2009) parameters with an inconclusive RPA result that have all ND data, further best professional judgment (BPJ) considerations were taken. If the calculated Ce=Co+Dm*(Co-Cs) is lower than both the laboratory method detection limit (MDL) and the Ocean Plan specified minimum level (ML), WQBELs were assigned.

Using this statistical procedure in combination with effluent data provided by the Discharger from September 2007- October 2012, BPJ and a State Water Board-approved minimum initial dilution ratio of 136:1 for Discharge Point 002, Regional Water Board staff has determined that the following constituents have the reasonable potential to exceed Ocean Plan objectives, and therefore, require effluent limitations:

a. The statistical procedure has shown that TCDD Equivalents and DDT have the reasonable potential to exceed Ocean Plan objectives. Effluent limitations have been assigned.

b. Wastewater disinfection with chlorine usually produces chlorine residual and the byproducts of chlorination are highly toxic to aquatic life. Although the RPA determination based on daily chlorine residual data shows no RP for chlorine residual or acute or chronic toxicity, the daily maximum and instantaneous maximum limitations for chlorine residual are prescribed in this Order based on the fact that effluent from the SCI WWTP is routinely chlorinated before discharge and based on Ocean Plan (2009) requirements applicable to a dilution ratio of 136:1.

c. The monitoring data for aldrin, benzidine, dieldrin, heptachlor, tributyltin, chlordane, 3,3-dichlorobenzidine, heptachlor epoxide, hexachlorobenzene, PAHs, PCBs, and toxaphene is all ND. Since the calculated Ces for these constituents are less than both the laboratory MDLs and the Ocean Plan MLs, the RPA is inconclusive. Based on BPJ, effluent limitations for these constituents have been assigned.

In general, for constituents that have been determined to have no reasonable potential to cause or contribute to excursions of water quality objectives, no numerical effluent limitations are prescribed. Instead performance goals are based on the more stringent of (1) carryover from Order No. 00-090, or (2) data provided by the Discharger from September 2007 – October 2012, and a narrative statement to comply with all Ocean Plan requirements, including laboratory MLs in Appendix II of the Ocean Plan (2009), have been assigned. The Discharger is required to monitor for these constituents to gather data for use in RPAs for future permit renewals and/or updates.

5. WQBEL Calculations

From the Table B water quality objectives of the Ocean Plan, WQBELs are calculated according to the following equation for all pollutants, except for chronic toxicity, acute toxicity, and radioactivity:

Ce=Co+Dm(Co-Cs)

where

Ce = the effluent limitation (µg/L)
Co = the water quality objective to be met at the completion of initial dilution(µg/L)
Cs = background seawater concentration (µg/L) (see Table below)
Dm = minimum probable initial dilution expressed as parts seawater per part wastewater.

The Dm is based on observed waste flow characteristics, receiving water density structure, and the assumption that no currents of sufficient strength to influence the initial dilution process flow across the discharge structure. Prior to issuance of Order No. 00-090, staff of the State Water Board had determined that no dilution factor was to be allowed for Discharge Point 001 (no longer in use). In this Order, the State Water Board reviewed data, reviewed water quality modeling information, and conducted water quality modeling analyses prior to approving a dilution ratio of 136:1 which has been applied to Discharge Point 002, where Dm = 136.

Initial dilution is the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally. As site-specific water quality data is not available, in accordance with Table B implementing procedures (Ocean Plan, 2009), Cs equals zero for all pollutants, except the following:

Table 10 Pollutants with Background Seawater Concentrations

Constituent	Background Seawater Concentration (Cs)
Arsenic	3 µg/L
Copper	2 µg/L
Mercury	0.0005 µg/L
Silver	0.16 µg/L
Zinc	8 µg/L

As examples, WQBELs for copper, chlorine residual, and chronic toxicity are calculated as follows:

Table 11 Ocean Plan Water Quality Objectives for Copper, Chronic Toxicity, and Tributyltin

Constituents	6-Month Median	Daily Maximum	Instantaneous Maximum	30 Day Average
Copper	3 µg/L	12 µg/L	30 µg/L	--
Chronic Toxicity	--	1 TUc	--	--
Tributyltin	--	--	--	0.0014 µg/L

Using the equation, Ce = Co+Dm (Co-Cs), effluent limitations are calculated as follows before rounding to two significant digits. All calculations are based on discharge through Discharge Point 002 and, therefore, a dilution ration (Dm) of 136:1 is applied, where Dm = 136.

Copper

Ce = 3 + 136 (3-2) = 139 µg/L (monthly average, see section 3 above)
Ce = 12 + 136 (12-2) = 1372 µg/L (daily maximum)
Ce = 30 +136 (30-2) = 3838 µg/L (instantaneous maximum)

Chronic Toxicity

Ce = 1 + 136 (1-0) = 137 TUc (daily maximum)

Tributyltin

Ce = 0.0014 + 136 (0.0014-0) = 0.1918 µg/L (average monthly)

Based on the implementing procedures described above, effluent limitations have been calculated for all 2009 Ocean Plan Table B pollutants (excluding acute toxicity and radioactivity) from the Ocean Plan and incorporated into this Order when applicable.

Determination of radioactivity limitation: Since the descriptive water quality objective for radioactivity in the 2009 California Ocean Plan fails to establish an applicable narrative or numerical effluent limit for radionuclides, the Regional Water Board staff used BPJ to establish radioactivity limitations for the effluent using the equation Ce = Co+Dm (Co-Cs) calculated similarly as above, except the Co value is taken from the RPA statistical analysis of historic data from September 2007- to October 2012. The Co value is equal to the Normal UCB (Upper 95% Confidence Bound for the 95th percentile with the assumption that the water quality objective for radioactivity is equal to 0).

Table 12 WQBELs and Performance Goals at Discharge Point 002 (dilution ratio = 136:1)

Parameter	Units	Effluent Limitations[2]					Performance Goals[3]
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly
Marine Aquatic Life Protection							
Arsenic[4]	µg/L	--	--	--	--	--	8.0
Cadmium[4]	µg/L	--	--	--	--	--	1.0
Chromium (hexavalent)[4]	µg/L	--	--	--	--	--	2.0
Copper[4]	µg/L	--	--	--	--	--	3.0
Lead[4]	µg/L	--	--	--	--	--	2.0
Mercury[4]	µg/L	--	--	--	--	--	0.04
Nickel[4]	µg/L	--	--	--	--	--	5.0
Selenium[4]	µg/L	--	--	--	--	--	15.0
Silver[4]	µg/L	--	--	--	--	--	0.70
Zinc[4]	µg/L	--	--	--	--	--	20
Cyanide	µg/L	--	--	--	--	--	0.015
Total chlorine residual	µg/L	274	--	100[5]	--	8200	0.9
	lbs/day	0.06	--	0.021	--	1.7	--
Ammonia as N	µg/L	--	--	--	--	--	0.6

[2] Effluent limitations for conventional, nonconventional, and toxic pollutants were calculated based on effluent limitations in *Table A* and water quality objectives in *Table B* of the Ocean Plan. The minimum dilution ratios used to calculate effluent limitations for nonconventional and toxic pollutants based on water quality objectives in *Table B* of the Ocean Plan are 136:1 (i.e., 136 parts seawater to one part effluent) for Discharge Point 002.

The daily mass emission calculations are based on the average design flow rate of 0.025 million gallons per day (mgd) according to the Ocean Plan equation: lbs/day = 0.00834 x Ce (effluent concentration, ug/L) x Q (flow rate, mgd). During storm events when flow exceeds the dry weather design capacity, the mass emission rate limits shall not apply. Only the concentration limits shall apply.

[3] The performance goals are based upon the actual performance data (September 2007 to October 2012) of the SCI WWTP and are specified only as an indication of the treatment efficiency of the plant. They are not considered effluent limitations or standards for the treatment plant. SCI WWTP shall make best efforts to maintain, if not improve, the effluent quality at the level of these performance goals. The Executive Officer may modify any of the performance goals if the Discharger requests and has demonstrated that the change is warranted. Please refer to Fact Sheet for procedures.

[4] Performance goals were carried over from Order No. 00-090, Table B., based on 40 CFR part 122.44(l)(1) and 40 CFR 122.62(a)(1). The alteration to the facility addressed in 40 CFR 122.62(a)(1) is the extended outfall that was completed August 8, 2008.

[5] The total chlorine residual daily discharge limitation was carried over from Order No. 00-090, Table A., based on 40 CFR part 122.44(l)(1) and 40 CFR 122.62(a)(1). The alteration to the facility addressed in 40 CFR 122.62(a)(1) is the extended outfall that was completed August 8, 2008.

Parameter	Units	Effluent Limitations[2]					Performance Goals[3]
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly
Acute toxicity[6]	TUa	1.5	2.0	2.5	--	--	--
Chronic toxicity	TUc	--	--	137	--	--	--
Phenolic compounds (chlorinated)	µg/L	--	--	--	--	--	5.1
Phenolic compounds (non-chlorinated)	µg/L	--	--	--	--	--	5.1
Endosulfan	µg/L	--	--	--	--	--	0.022
Endrin	µg/L	--	--	--	--	--	0.022
HCH	µg/L	--	--	--	--	--	0.050
Radioactivity[7] Not to exceed limits specified in title 22, section 64442 of the CCR.							
Gross alpha	PCi/L	--	--	--	--	--	4.5
Gross beta	PCi/L	--	--	--	--	--	10.0.
Combined Radium-226 & Radium-228	PCi/L	--	--	--	--	--	--
Tritium	PCi/L	--	--	--	--	--	--
Strontium-90	PCi/L	--	--	--	--	--	--
Uranium	PCi/L	--	--	--	--	--	--
Human Health Protection - Noncarcinogens							
Acrolein	µg/L	--	--	--	--	--	3.0
Antimony	µg/L	--	--	--	--	--	0.74
Bis(2-chloro-ethoxy) methane	µg/L	--	--	--	--	--	5.1
Bis(2-chloro-isopropyl) ether	µg/L	--	--	--	--	--	5.1
Chloro-benzene	µg/L	--	--	--	--	--	1.0

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[6] The acute toxicity effluent limitations were carried over from Order No. 00-090, Table A., based on 40 CFR part 122.44(l)(1) and 40 CFR 122.62(a)(1). The alteration to the facility addressed in 40 CFR 122.62(a)(1) is the extended outfall that was completed August 8, 2008.

[7] Analyze these radiochemicals by the following USEPA methods: method 900.0 for gross alpha and gross beta, method 903.0 or 903.1 for radium-226, method 904.0 for radium-228, method 906.0 for tritium, method 905.0 for strontium-90, and method 908.0 for uranium.

Analysis for combined radium-226 & 228 and uranium shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L. If radium-226 & 228 exceeds 5 pCi/L, monitor at least 4 quarters of total radium and analyze for tritium, strontium-90 and uranium.

Parameter	Units	Effluent Limitations[2]					Performance Goals[3]
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly
Chromium (III)	µg/L	--	--	--	--	--	0.73
Di-n-butyl-phthalate	µg/L	--	--	--	--	--	5.1
Dichloro-benzenes	µg/L	--	--	--	--	--	5.1
Diethyl phthalate	µg/L	--	--	--	--	--	5.1
Dimethyl phthalate	µg/L	--	--	--	--	--	5.1
4,6-dinitro-2-methylphenol	µg/L	--	--	--	--	--	5.1
2,4-Dinitrophenol	µg/L	--	--	--	--	--	5.1
Ethyl benzene	µg/L	--	--	--	--	--	1.0
Fluoranthene	µg/L	--	--	--	--	--	5.1
Hexachloro-cyclo-pentadiene	µg/L	--	--	--	--	--	5.1
Nitrobenzene	µg/L	--	--	--	--	--	5.1
Thallium	µg/L	--	--	--	--	--	0.50
Toluene	µg/L	--	--	--	--	--	1.0
Tributyltin[8]	µg/L	0.19	--	--	--	--	--
1,1,1-Trichloro-ethane	µg/L	--	--	--	--	--	2.5
Human Health Protection – Carcinogens							
Acrylonitrile	µg/L	--	--	--	--	--	3.0
Aldrin[9]	µg/L	0.003	--	--	--	--	--
Benzene		--	--	--	--	--	1.0
Benzidine[9]	µg/L	0.0095	--	--	--	--	--
Beryllium	µg/L	--	--	--	--	--	0.50
Bis(2-chloroethyl) ether	µg/L	--	--	--	--	--	5.1
Bis(2-ethylhexyl) phthalate	µg/L	--	--	--	--	--	12
Carbon tetrachloride	µg/L	--	--	--	--	--	1.0
Chlordane[9]	µg/L	0.0032	--	--	--	--	--

[8] BPJ effluent limitation applies, since all data provided was non-detect and the laboratory method selected for the highest non-detect level did not meet the minimum level required in the Ocean Plan (2009). Please refer to Fact Sheet narrative for details.

Parameter	Units	Effluent Limitations[2]					Performance Goals[3]
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly
Chloro-dibromo-methane[10]	µg/L	--	--	--	--	--	29
Chloroform[10]	µg/L	--	--	--	--	--	47
DDT	µg/L	0.024	--	--	--	--	--
	lbs/day	5.0×10^{-6}	--	--	--	--	--
1,4-Dichloro-benzene	µg/L	--	--	--	--	--	5.1
3,3'-Dichloro-benzidine[9]	µg/L	1.1	--	--	--	--	--
1,2-Dichloro-ethane	µg/L	--	--	--	--	--	1.0
1,1-Dichloro-ethylene	µg/L	--	--	--	--	--	1.0
Dichloro-bromo-methane	pg/L	--	--	--	--	--	43
Dichloro-methane	µg/L	--	--	--	--	--	1.3
1,3-Dichloro-propene	µg/L	--	--	--	--	--	1.0
Dieldrin[9]	µg/L	0.0055	--	--	--	--	--
2,4-Dinitro-toluene	µg/L	--	--	--	--	--	5.1
1,2-Diphenyl-hydrazine	µg/L	--	--	--	--	--	5.1
Halomethanes	µg/L	--	--	--	--	--	69
Heptachlor[9]	µg/L	0.00069	--	--	--	--	--
Heptachlor epoxide[9]	µg/L	0.0027	--	--	--	--	--
Hexachloro-benzene[9]	µg/L	0.029	--	--	--	--	
Hexachloro-butadiene	µg/L	--	--	--	--	--	5.1
Hexachloro-ethane	µg/L	--	--	--	--	--	5.1
Isophorone	µg/L	--	--	--	--	--	5.1
N-Nitrosodi-methylamine	µg/L	--	--	--	--	--	5.1
N-Nitrosodi-N-propylamine	µg/L	--	--	--	--	--	--
N-Nitrosodi-phenylamine	µg/L	--	--	--	--	--	5.1
PAHs	µg/L	--	--	--	--	--	1.2
PCBs[9]	µg/L	0.0026	--	--	--	--	--
TCDD	µg/L	5.3×10^{-7}	--	--	--	--	--

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Parameter	Units	Effluent Limitations[2]					Performance Goals[3]
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly
Equivalents	lbs/day	1.1×10^{-10}	--	--	--	--	--
1,1,2,2-Tetrachloro-ethane	µg/L	--	--	--	--	--	1.0
Tetrachloro-ethylene	µg/L	--	--	--	--	--	--
Toxaphene[9]	µg/L	0.029	--	--	--	--	0.029
Trichloro-ethylene	µg/L	--	--	--	--	--	1.0
1,1,2-Trichloro-ethane	µg/L	--	--	--	--	--	2.5
2,4,6-Trichloro-phenol	µg/L	--	--	--	--	--	5.1
Vinyl Chloride	µg/L	--	--	--	--	--	1.0

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6. Whole Effluent Toxicity (WET)

The 2009 Ocean Plan specifies that the Discharger shall conduct chronic toxicity testing for ocean water discharges with minimum initial dilution factors ranging from 100:1 to 350:1. The Regional Water Board may require that acute toxicity testing be conducted in addition to chronic as necessary for the protection of beneficial uses of ocean waters.

Additional analysis for chronic and acute toxicity: Wastewater disinfection with chlorine usually produces chlorine residual and the byproducts of chlorination are highly toxic to aquatic life. Although the RPA determination based on daily chlorine residual data shows no RP for chlorine residual or acute or chronic toxicity, the daily maximum and instantaneous maximum limitations for chlorine residual are prescribed in this Order based on the fact that effluent from the SCI WWTP is routinely chlorinated before discharge.

The procedure for calculating chronic toxicity is described on page F-16. The Ocean Plan 2009 formula for calculating acute toxicity is as follows:

$$Ce = Ca + (0.1)\, Dm\, (Ca)$$

Where

Ca = the concentration (water quality objective) to be met at the edge of the acute mixing zone.

Dm = minimum probable initial dilution expressed as parts seawater per part wastewater (This equation applies when Dm>24. Since Dm = 136, this equation applies).

D. Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, CFR section 122.44(l) prohibit backsliding in NPDES permits. 40 CFR section 122.62(a)(1) addresses carryover of water quality standards. The alterations that have occurred include the extension of the outfall that was completed August 8, 2008. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.

2. Satisfaction of Antidegradation Policy

On October 28, 1968, the State Water Board adopted Resolution No. 68-16, *Maintaining High Quality of Waters in California*, which established an antidegradation policy for State and Regional Water Boards. The State Water Board has, in State Water Board Order No. 86-17 and an October 7, 1987 guidance memorandum, interpreted Resolution No. 68-16 to be fully consistent with the federal antidegradation policy. Similarly, the CWA (section 304(d)(4)(B)) and USEPA regulations (40 CFR part 131.12) require that all permitting actions be consistent with the federal antidegradation policy. Together, the State and Federal policies are designed to ensure that a water body will not be degraded resulting from the permitted discharge. Discharges in conformance with the provisions of this Order will not result in a lowering of water quality and therefore conform to the antidegradation policies.

This Order is consistent with State and federal antidegradation policies in that it does not authorize any increase in pollutant mass emission rates, nor does it authorize a relaxation in the manner of treatment of the discharge. Pollutant limit mass emission rates continue to be based on the design flow rate of the treatment plant under the 2000 permit of 0.025 mgd. Further, an improvement in the level of effluent treatment with the tertiary treatment system is anticipated. As a result, both the quantity of the discharged pollutants and quality of the discharge are expected to remain relatively constant or improve during this permit term, consistent with antidegradation policies. The accompanying MRP (Attachment E) requires continued data collection and if monitoring data show a reasonable potential for a constituent to cause or contribute to an exceedance of water quality standards, the permit will be reopened to incorporate appropriate WQBELs. Such an approach ensures that the discharge will adequately protect water quality standards for designated beneficial uses and conforms to antidegradation policies and antibacksliding provisions.

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Table 13 Summary of Final Effluent Limitations at Discharge Point 002 (dilution ratio = 136:1)

Parameter	Units	Effluent Limitations[9]					Performance Goals[10]	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly	
Biochemical oxygen demand (BOD) 5-day @ 20°C[11,13]	mg/L	30	45	--	--	--	--	Existing/ Secondary Treatment Standard
	lbs/day	6.3	9.4	19	--	--	--	
Total suspended solids (TSS)[12]	mg/L	30	45	--	--	--	8.0	Existing/ Secondary Treatment Standard
	lbs/day	6.3	9.4	19	--	--	--	
pH[13]	pH units	--	--	--	6	9	--	Secondary Treatment Standard/ Ocean Plan
Oil and Grease[13]	mg/L	25	40	--	--	75	2.0	Existing/ Ocean Plan
	lbs/day	5.2	8.3	--	--	15	--	
Settleable solids[13]	ml/L	1	1.5	--	--	3	--	Existing/ Ocean Plan
Turbidity[13]	NTU	75	100	--	--	225	3.0	Ocean Plan
Marine Aquatic Life Protection[14]								
Arsenic	µg/L	--	--	--	--	--	8.0	Existing/ No RP
Cadmium	µg/L	--	--	--	--	--	1.0	Existing/ No RP

[9] Effluent limitations for conventional, nonconventional, and toxic pollutants were calculated based on effluent limitations in *Table A* and water quality objectives in *Table B* of the Ocean Plan. The minimum dilution ratios used to calculate effluent limitations for nonconventional and toxic pollutants based on water quality objectives in *Table B* of the Ocean Plan are 136:1 (i.e., 136 parts seawater to one part effluent). The daily mass emission calculations are based on the average design flow rate of 0.025 million gallons per day (mgd) specified in Order No. 00-090 according to the Ocean Plan equation: lbs/day = 0.00834 x Ce (effluent concentration, ug/L) x Q (flow rate, mgd).

[10] The performance goals are based upon the actual performance data (September 2007 to October 2012) of the SCI WWTP and are specified only as an indication of the treatment efficiency of the plant. They are not considered effluent limitations or standards for the treatment plant. SCI WWTP shall make best efforts to maintain, if not improve, the effluent quality at the level of these performance goals. The Executive Officer may modify any of the performance goals if the Discharger requests and has demonstrated that the change is warranted. Please refer to Fact Sheet for procedures.

[11] The effluent limitations are based on secondary treatment standards, 40 CFR 133.102.

[12] Performance goals were carried over from Order No. 00-090, Tables A. and B., based on 40 CFR part 122.44(l)(1) and 40 CFR 122.62(a)(1). The alteration to the facility addressed in 40 CFR 122.62(a)(1) is the extended outfall that was completed August 8, 2008.

[13] Based on Ocean Plan Table A effluent limitations.

[14] Effluent limitations for these constituents are based on Ocean Plan Table B objectives using initial dilution ratios of 136:1 (i.e., 136 parts of seawater to 1 part effluent).

Parameter	Units	Effluent Limitations[9]					Performance Goals[10]	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly	
Chromium (hexavalent)	µg/L	--	--	--	--	--	2.0	Existing/ No RP
Copper	µg/L	--	--	--	--	--	3.0	Existing/ No RP
Lead	µg/L	--	--	--	--	--	2.0	Existing / No RP
Mercury	µg/L	--	--	--	--	--	0.04	Existing/ No RP
Nickel	µg/L	--	--	--	--	--	5.0	Existing/ No RP
Selenium	µg/L	--	--	--	--	--	15.0	Existing/ No RP
Silver	µg/L	--	--	--	--	--	0.7	Exisiting/ No RP
Zinc	µg/L	--	--	--	--	--	20	Existing/ No RP
Cyanide	µg/L	--	--	--	--	--	0.015	No RP
Total Chlorine Residual[15]	µg/L	--	--	100	--	8200	0.9	Existing/ RP by BPJ/Ocean Plan
	lbs/day	--	--	0.23	--	1.7	--	
Ammonia as N	µg/L	--	--	--	--	--	600	Existing/ No RP
Acute Toxicity[16][17]	TUa	1.5	2.0	2.5	--	--	--	Existing/ RP by

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[15] These total chlorine residual limits shall only apply to continuous discharge exceeding two hours. For intermittent discharges not exceeding two hours, water quality objectives for total chlorine residual shall be determined through the use of the following equation:

$\log y = -0.43(\log x) + 1.8$

where: y = the water quality objective (in µg/L) to apply when chlorine is being discharged;
x = the duration of uninterrupted chlorine discharge in minutes.

For intermittent discharges not exceeding two hours, the applicable total chlorine residual limit (daily maximum) shall then be calculated using the above calculated water quality objective according to procedures outlined in section III.C.4.a of the 2009 Ocean Plan.

[16] Expressed as Acute Toxicity Units (TUa): TUa = 100/LC50
Where:
Lethal Concentration, 50 Percent (LC50) is expressed as the estimate of the percent effluent concentration that causes death in 50% of the test population, in the time period prescribed by the toxicity test, as required by this permit. When it is not possible to measure the LC 50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$TUa = \log (100-s)/1.7$

where: S = percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

[17] Acute toxicity effluent limitations were carried over from Order No. 00-090, Table A., based on 40 CFR part 122.44(l)(1) and 40 CFR 122.62(a)(1). The alteration to the facility addressed in 40 CFR 122.62(a)(1) is the extended outfall that was completed August 8, 2008.

Parameter	Units	Effluent Limitations[9]					Performance Goals[10]	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly	
								BPJ/Ocean Plan
Chronic Toxicity[18]	TUc	--	--	137	--	--	--	RP by BPJ/Ocean Plan
Phenolic compounds (chlorinated)[19]	µg/L	--	--	--	--	--	5.1	No RP
Phenolic compounds (non-chlorinated)[20]	µg/L	--	--	--	--	--	5.1	No RP
Endosulfan[21]	µg/L	--	--	--	--	--	0.022	No RP
Endrin[13]	µg/L	--	--	--	--	--	0.022	No RP
HCH[22]	µg/L	--	--	--	--	--	0.050	No RP
Radioactivity Not to exceed limits specified in title 22, section 64442 of the CCR.								
Gross alpha	PCi/L	--	--	--	--	--	4.5	No RP
Gross beta	PCi/L	--	--	--	--	--	10.0.	No RP
Combined Radium-226 & Radium-228	PCi/L	--	--	--	--	--	--	No RP
Tritium	PCi/L	--	--	--	--	--	--	No RP
Strontium-90	PCi/L	--	--	--	--	--	--	No RP
Uranium	PCi/L	--	--	--	--	--	--	No RP
Human Health Protection – Noncarcinogens[10]								
Acrolein	µg/L	--	--	--	--	--	3.0	No RP
Antimony	µg/L	--	--	--	--	--	0.74	No RP
Bis(2-chloro-ethoxy) methane	µg/L	--	--	--	--	--	5.1	No RP
Bis(2-chloro-	µg/L	--	--	--	--	--		No RP

[18] Expressed as Chronic Toxicity Units (TUc): TUc = 100/NOEC
Where:
NOEC (No Observed Effect Concentration) is expressed as the maximum percent effluent that causes no observable effect on a test organism as determined by the result of a critical life stage toxicity test, as required by this permit.

[19] Chlorinated phenolic compounds mean the sum of 2-Chlorophenol, 2,4-Dichlorophenol, 4-Chloro-3-methylphenol, 2,4,6-Trichlorophenol, and Pentachlorophenol.

[20] Nonchlorinated phenolic compounds shall mean the sum of Phenol, 2,4-Dimethylphenol, 2-Nitrophenol, and 4-Nitrophenol, 2,4-Dinitrophenol and 2-Methyl-4,6-dinitrophenol.

[21] Endosulfan shall mean the sum of endosulfan-alpha, endosulfan-beta, and endosulfan sulfate.

[22] HCH shall mean the sum of alpha, beta, gamma (lindane), and delta isomers of hexachlorocyclohexane.

Parameter	Units	Effluent Limitations[9]					Performance Goals[10]	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly	
isopropyl) ether							5.1	
Chloro-benzene	µg/L	--	--	--	--	--	1.0	No RP
Chromium (III)	µg/L	--	--	--	--	--	0.73	No RP
Di-n-butyl-phthalate	µg/L	--	--	--	--	--	5.1	No RP
Dichloro-benzenes[23]	µg/L	--	--	--	--	--	5.1	No RP
Diethyl phthalate	µg/L	--	--	--	--	--	5.1	No RP
Dimethyl phthalate	µg/L	--	--	--	--	--	5.1	No RP
4,6-dinitro-2-methyl-phenol	µg/L	--	--	--	--	--	5.1	No RP
2,4-Dinitrophenol	µg/L	--	--	--	--	--	5.1	No RP
Ethyl benzene	µg/L	--	--	--	--	--	1.0	No RP
Fluoranthene	µg/L	--	--	--	--	--	5.1	No RP
Hexachloro-cyclo-pentadiene	µg/L	--	--	--	--	--	5.1	No RP
Nitro-benzene	µg/L	--	--	--	--	--	5.1	No RP
Thallium	µg/L	--	--	--	--	--	0.50	No RP
Toluene	µg/L	--	--	--	--	--	1.0	No RP
Tributyltin[24]	µg/L	0.19	--	--	--	--	--	BPJ
1,1,1-Trichloro-ethane	µg/L	--	--	--	--	--	2.5	No RP
Human Health Protection - Carcinogens								
Acrylonitrile	µg/L	--	--	--	--	--	3.0	No RP
Aldrin[25]	µg/L	0.003	--	--	--	--	--	BPJ
Benzene	µg/L	--	--	--	--	--	1.0	No RP
Benzidine[25]	µg/L	0.0095	--	--	--	--	--	BPJ
Beryllium	µg/L	--	--	--	--	--	0.50	No RP
Bis(2-chloroethyl) ether	µg/L	--	--	--	--	--	5.1	No RP

[23] Dichlorobenzenes shall mean the sum of 1,2- and 1,3-dichlorobenzene.
[24] BPJ effluent limitation applies since all data provided was non-detect and the laboratory method selected for the highest non-detect level did not meet the minimum level required in the Ocean Plan (2009)

Parameter	Units	Effluent Limitations[9]					Performance Goals[10]	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly	
Bis(2-ethylhexyl) phthalate	µg/L	--	--	--	--	--	12	No RP
Carbon tetrachloride	µg/L	--	--	--	--	--	1.0	No RP
Chlordane[25, 25]	µg/L	0.0032	--	--	--	--	--	BPJ
Chloro-dibromo-methane	µg/L	--	--	--	--	--	29	No RP
Chloroform	µg/L	--	--	--	--	--	47	No RP
DDT[26]	µg/L	0.024	--	--	--	--	--	RP / Ocean Plan
	lbs/day	5.0×10^{-6}	--	--	--	--	--	
1,4-Dichloro-benzene	µg/L	--	--	--	--	--	5.1	No RP
3,3'-Dichloro-benzidine[25]	µg/L	1.1	--	--	--	--	--	BPJ
1,2-Dichloro-ethane	µg/L	--	--	--	--	--	1.0	No RP
1,1-Dichloro-ethylene	µg/L	--	--	--	--	--	1.0	No RP
Dichloro-bromo-methane	pg/L	--	--	--	--	--	43	No RP
Dichloro-methane	µg/L	--	--	--	--	--	1.3	No RP
1,3-Dichloro-propene	µg/L	--	--	--	--	--	1.0	No RP
Dieldrin[25]	µg/L	0.0055	--	--	--	--	--	BPJ
2,4-Dinitro-toluene	µg/L	--	--	--	--	--	5.1	No RP
1,2-Diphenyl-hydrazine	µg/L	--	--	--	--	--	5.1	No RP
Halomethanes[27]	µg/L	--	--	--	--	--	69	No RP
Dichlorobromo methane	µg/L	--	--	--	--	--	43	No RP
Heptachlor[25]	µg/L	0.00069	--	--	--	--	--	BPJ
Heptachlor epoxide[25]	µg/L	0.0027	--	--	--	--	--	BPJ

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[25] Chlordane shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachloralpha, nonachlor-gamma and oxychlordane.
[26] DDT shall mean the sum of 4,4'-DDT, 2,4'-DDT, 4,4'-DDE, 2,4'-DDE, 4,4'-DDD and 2,4'-DDD.
[27] Halomethanes shall mean the sum of bromoform, bromomethane (methyl bromide) and chloromethane (methyl chloride).

Parameter	Units	Effluent Limitations[9]					Performance Goals[10]	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly	
Hexachloro-benzene[25]	µg/L	0.029	--	--	--	--	--	BPJ
Hexachloro-butadiene	µg/L	--	--	--	--	--	5.1	No RP
Hexachloro-ethane	µg/L	--	--	--	--	--	5.1	No RP
Isophorone	µg/L	--	--	--	--	--	5.1	No RP
N-Nitrosodi-methylamine	µg/L	--	--	--	--	--	5.1	No RP
N-Nitrosodi-N-propylamine	µg/L	--	--	--	--	--	--	No RP
N-Nitrosodi-phenylamine	µg/L	--	--	--	--	--	5.1	No RP
PAHs[28]	µg/L	1.2	--	--	--	--	--	BPJ
PCBs[25,29]	µg/L	0.0026	--	--	--	--	--	BPJ
TCDD Equivalents[30]	µg/L	5.3×10^{-7}	--	--	--	--	--	RP/ Ocean Plan
	lbs/day	1.1×10^{-10}	--	--	--	--	--	

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[28] PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]-fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[ah]anthracene, fluorene, indeno[1, 2, 3-cd]pyrene, phenanthrene and pyrene.

[29] PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-l232, Aroclor-1242, Aroclor-l248, Aroclor-1254 and Aroclor-1260.

[30] TCDD equivalents shall mean the sum of the concentration of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity factors, as shown in the table below:

Isomer Group	Toxicity Equivalence Factor		
2,3,7,8-tetra CDD	1		
2,3,7,8-penta CDD	0.5		
2,3,7,8-hexa CDDs	0.1		
2,3,7,8-hepta CDD	0.01		
octa CDD	0.001		
2,3,7,8-tetra CDF	0.1		
l,2,3,7,8-penta CDF	0.05		
2,3,4,7,8-penta CDF	0.5		
2,3,7,8-hexa CDFs	0.1		
2,3,7,8-hepta CDFs	0.01		
octa CDF	0.001		

Parameter	Units	Effluent Limitations[9]					Performance Goals[10]	Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Average Monthly	
1,1,2,2-Tetrachloro-ethane	µg/L	--	--	--	--	--	1.0	No RP
Tetrachloro-ethylene	µg/L	--	--	--	--	--	1.0	No RP
Toxaphene[25]	µg/L	0.029	--	--	--	--	--	BPJ
Trichloro-ethylene	µg/L	--	--	--	--	--	1.0	No RP
1,1,2-Trichloro-ethane	µg/L	--	--	--	--	--	2.5	No RP
2,4,6-Trichloro-phenol	µg/L	--	--	--	--	--	5.1	No RP
Vinyl Chloride	µg/L	--	--	--	--	--	1.0	No RP

E. Performance Goals

Chapter III, section F.2, of the 2009 Ocean Plan allows the Regional Water Board to establish more restrictive water quality objectives and effluent limitations than those set forth in the Ocean Plan as necessary for the protection of the beneficial uses of ocean waters.

Pursuant to this provision and to implement the recommendation of the Water Quality Advisory Task Force (*Working Together for an Affordable Clean Water Environment, a final report presented to the California Water Quality Control Board, Los Angeles Region by Water Quality Advisory Task Force, September 30, 1993*) that was adopted by the Regional Water Board on November 1, 1993, performance goals that are more stringent than those based on Ocean Plan objectives are prescribed in this Order. This approach is consistent with the antidegradation policy in that it requires the Discharger to maintain its treatment level and effluent quality, recognizing normal variations in treatment efficiency and sampling and analytical techniques. However, this approach does not address substantial changes in treatment plant operations that could significantly affect the quality of the treated effluent.

While performance goals were previously placed in many permits in the Region, they have not been continued for discharges that are to inland surface waters. For inland surface waters, the California Toxics Rule (CTR: 40 CFR part 131.38) has resulted in effluent limits as stringent as many performance goals. However, the 2009 Ocean Plan allows for significant dilution, and the continued use of performance goals serves to maintain existing treatment levels and effluent quality and supports State and federal antidegradation policies.

The performance goals are based upon carryover from Order No. 00-090 or based on data provided by the actual performance of the SCI WWTP, whichever is more stringent, consistent with 40 CFR 122.44(l)(1) and 40 CFR 122.62(a)(1), and are specified only as an indication of the treatment efficiency of the facility. Performance goals are intended to minimize pollutant loading (primarily for toxics), while maintaining the incentive for future voluntary improvement of water quality whenever feasible, without the imposition of more stringent limits based on improved performance. They are not considered as enforceable limitations or standards for the regulation of the discharge from the treatment facility. The Executive Officer may modify any of the performance goals if the Discharger requests and has demonstrated that the change is warranted.

Procedures for the determination of performance goals:

1. For constituents that have been routinely detected in the effluent (at least 50 percent and more than 3 detectable data), performance goals are based on the one-sided, upper 95 percent confidence bound ($UCB_{95/95}$) of the 95th percentile of September 2007 through October 2012 performance data (after complete mixing) using the RPA protocol contained in the 2009 Ocean Plan. The required annual monitoring in the 2000 Order yields usually no more than 6 effluent data for each constituent. Effluent data are assumed lognormally distributed. Performance goals are calculated according to the equation $C_{PG} = Co+Dm(Co-Cs)$ in the Ocean Plan and by setting $Co=UCB_{95/95}$. However, if the maximum detected effluent concentration is less than the calculated performance goal, the maximum detected effluent concentration is used as the performance goal. For example, the performance goal for lead at Discharge Point 002 is calculated as follows:

Copper

$Co=UCB_{95/95}$ = 2.3298; Dm = 136; Cs = 2
C_{PG} = Performance Goal = 2.3298 + 136(2.3298-2) = 47 µg/L

Since the maximum detected concentration s 28 µg/L that is less than the calculated PG of 47 µg/L, the performance goal for lead is prescribed as 28 µg/L.

Determination of radioactivity performance goal: Since the descriptive water quality objective for radioactivity in the 2009 California Ocean Plan fails to establish an applicable narrative or numerical effluent limit for radionuclides, the Regional Water Board staff used BPJ to establish radioactivity limitations for the effluent using the equation Ce = Co+Dm (Co-Cs) calculated similarly as above, except the Co value is taken from the RPA statistical analysis of historic data from September 2007- to October 2012. The Co value is equal to the Normal UCB (upper 95% Confidence Bound for the 95th percentile with the assumption that the water quality objective for radioactivity is equal to 0). However, if the maximum detected effluent concentration is less than the calculated performance goal, the maximum detected effluent concentration is used as the performance goal. For example, the performance goal for gross alpha at discharge point 002 is calculated as follows:

Gross Alpha

Co = 0.0999; Dm = 136; Cs = 0
C_{PG} = Performance Goal =13.4 pCi/L

Since the maximum detected concentration is 4.5 pCi/L that is less than the calculated PG of 13.4 pCi/L, the performance goal for gross alpha is prescribed as 4.5 pCi/L.

2. For constituents where monitoring data have consistently shown ND levels (less than 20 percent detected values), performance goals are set at the lower of the following possibilities: (1) the maximum detected effluent concentration (MDEC), (2) Cpg=Co+Dm(Co-Cs) where Co is the monthly water quality objective, or (3) the highest reported laboratory MDL in the dataset provided (applicable analytical techniques: ICPMS, FAA, or CVAA for metals; GCMS, GC, or HPLC for the rest) listed in the 2009 Ocean Plan.

3. For constituents with no effluent limitations, if the performance goal derived from above steps exceeds the respective calculated 2009 Ocean Plan effluent limitation, the calculated effluent limitation is then prescribed as the performance goal for that constituent.

4. For constituents with effluent limitations, if the performance goal derived from above steps exceeds respective effluent limitation, then performance goal is not prescribed for that constituent.

5. The performance goals for Discharge Point 002 are prescribed in this Order. The listed performance goals are not enforceable effluent limitations or standards. However, the Discharger shall maintain, if not improve, its treatment efficiency. Any exceedance of the performance goals shall trigger an investigation into the cause of the exceedance. If the exceedance persists in three successive monitoring periods, the Discharger shall submit a written report to the Regional Water Board within 90 days on the nature of the exceedance, the results of the investigation as to the cause of the exceedance, and the corrective actions taken or proposed corrective measures with timetable for implementation, if necessary.

F. Interim Effluent Limitations (Not Applicable)

G. Land Discharge Specifications (Not Applicable)

H. Reclamation Specifications (Not Applicable)

Reclamation specifications will be addressed in a separate Order.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

Receiving water limitations are derived from the water quality objectives for ocean waters established by the Basin Plan and the Ocean Plan.

B. Groundwater (Not Applicable)

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

CFR part 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. CWC sections 13267 and 13383 authorize the Regional Water Board to require technical and monitoring reports. The MRP, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

Influent monitoring is required to:

- Determine compliance with NPDES permit conditions.
- Assess treatment plant performance.

Influent monitoring in this Order retains the influent monitoring requirements in the 00-090 Order and contains influent monitoring for Ocean Plan (2009) Table A and B parameters.

B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the proposed MRP (Attachment E). This provision requires compliance with the MRP, and is based on 40 CFR parts 122.44(i), 122.62, 122.63, and 124.5. The MRP is a standard requirement in almost all NPDES permits (including the proposed Order) issued by the Regional Water Board. In addition to containing definition of terms, it specifies general sampling/analytical protocols and the requirements of reporting spills, violation, and routine monitoring data in accordance with NPDES regulations, the CWC, and Regional Water Board policies. The MRP also defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with Appendix III of the 2009 Ocean Plan, a periodic monitoring is required for all the Table B parameters in the Ocean Plan, for which criteria apply and for which no effluent limitations have been established, to evaluate reasonable potential to cause or contribute to an excursion above a water quality standard.

Monitoring for those pollutants expected to be present in the discharge from the facility, will be required as shown in the proposed MRP (Attachment E).

The effluent monitoring in this 2013 Order is compared to the effluent monitoring requirements in the 2000 Order. The changes are summarized in the following table.

Table 14 Effluent Monitoring Program Comparison Table

Parameter	Monitoring Frequency (2000 Order)	Monitoring Frequency (2013 Order)
Total waste flow	continuous	continuous
$BOD_5 20^{\circ}C$	monthly	monthly
Total suspended solids (TSS)	monthly	monthly
pH	monthly	monthly
Oil and grease	monthly	monthly
Temperature	monthly	monthly
Settleable solids	monthly	monthly
Turbidity	monthly	monthly
Total coliform	monthly	monthly
Enterococcus	monthly	monthly
Fecal coliform	monthly	monthly
Ammonia nitrogen	quarterly	semi-annually
Nitrate nitrogen	quarterly	semi-annually
Nitrite nitrogen	none	semi-annually
Organic nitrogen	none	semi-annually
Arsenic	annually	semi-annually
Copper	annually	quarterly
Nickel	annually	semi-annually
Zinc	annually	quarterly
Halomethanes	annually	semi-annually
Antimony	annually	semi-annually
Chlorodibromomethane	annually	semi-annually
Chromium (VI)	annually	semi-annually
Lead	annually	semi-annually
Selenium	annually	semi-annually
Cyanide	annually	semi-annually
HCH[31]	annually	semi-annually
Chromium (III)	annually	semi-annually
Bis(2-ethylhexyl) phthalate	annually	semi-annually
DDT	annually	quarterly
TCDD equivalents	annually	quarterly
Aldrin[32]	annually	semi-annually
Benzidine[32]	annually	semi-annually
Chlordane[32]	annually	semi-annually
Tributyltin[32]	annually	semi-annually
3,3-Dichlorobenzidine[32]	annually	semi-annually
Dieldrin[32]	annually	semi-annually
Heptachlor[32]	annually	semi-annually
Heptachlor epoxide[32]	annually	semi-annually
Hexachlorobenzene[32]	annually	semi-annually
Toxaphene[32]	annually	semi-annually
Pesticides (PCBs)	annually	semi-annually
Acute toxicity	annually	quarterly
Chronic toxicity	semi-annually	quarterly
Total chlorine residual	monthly	monthly
Remaining pollutants in Table B of the 2009 Ocean Plan	annually	semi-annually
Radioactivity	annually	semi-annually

[31] Sum of alpha, beta, gamma (lindane) and delta isomers of hexachlorocyclohexane.
[32] Frequency shall increase to quarterly if the ML in the Ocean Plan decreases to below the calculated Ce value and/or if monitoring results are not ND.

C. Whole Effluent Toxicity Testing Requirements

Chronic Toxicity. The 2009 Ocean Plan requires the use critical life stage toxicity tests specified in Appendix III of the Ocean Plan to measure chronic toxicity. A minimum of three test species with approved test protocols shall be used to measure compliance with the toxicity objective. If possible, the test species shall include a fish, an invertebrate, and an aquatic plant. After a screening period, monitoring can be reduced to the most sensitive species. Dilution and control water should be laboratory water. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay test and reported with the test results. Chronic toxicity testing requirements defined in section V.A of the MRP (Attachment E) are specified on the basis of these Ocean Plan requirements.

D. Receiving Water Monitoring

1. The receiving water monitoring program is described in detail in the MRP.
2. The conceptual framework for the receiving water program has three components that comprise a range of spatial and temporal scales: (a) core monitoring; (b) regional monitoring; and (c) 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 in the MRP, 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 f 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 Order.
    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.

E. Groundwater (Not Applicable)

F. Other Monitoring Requirements

1. Outfall Inspection

    The data collected will be used for a periodic assessment of the integrity of the outfall pipes and ballasting system.

2. Sludge Monitoring and Reporting

Pursuant to 40 CFR parts 257, 258, 501, and 503, including all applicable monitoring, record keeping, and reporting requirements, the Discharger must comply with the monitoring and reporting requirements in these provisions.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with CFR part 122.41, and additional conditions applicable to specified categories of permits in accordance with CFR part 122.42, are provided in Attachment D to the order.

CFR part 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. CFR part 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with CFR part 123.25, this Order omits federal conditions that address enforcement authority specified in CFR parts 122.41(j)(5) and (k)(2) because the enforcement authority under the CWC is more stringent. In lieu of these conditions, this Order incorporates by reference CWC section 13387(e).

B. Special Provisions

1. Reopener Provisions

This provision is based on 40 CFR part 123. This Order may be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR parts 122, 124, and 125.

2. Special Studies and Additional Monitoring Requirements

a. Toxicity Reduction Requirements

If the discharge consistently exceeds an effluent limitation for toxicity, the Discharger shall conduct TIE/TRE detailed in section V of the MRP (Attachment E). The TRE will help the Discharger identify the possible source(s) of toxicity. Once the source(s) of toxicity is identified, the Discharger shall take all reasonable steps to reduce toxicity to the required level.

b. ASBS Compliance

The State Water Board Ocean Unit staff requires that the Discharger shall monitor water quality (at the boundary of the exclusion zone) at a single down-current location, at the first trapping normal depth, to demonstrate that natural water quality is not altered in the ASBS outside of the exclusion zone in comparison to an unaffected reference site. Further details are in Attachment E (MRP).

c. Constituents of Emerging Concern (CEC) in Effluent

The Discharger shall initiate an investigation of CECs by conducting a special study. Specifically, within 6 months of the effective date of this Order, the Discharger shall develop a CEC special study wrk plan (work plan) and submit it for Regional Water Board Executive Officer approval. Immediately upon approval of the work plan, the Discharger shall fully implement the work plan.

d. Evaluation of Minimum Initial Dilution

Ocean Unit staff applied data from the California Cooperative Oceanic Fisheries Investigations near shore stations surveyed in the summer 2010 and 2011 to evaluate minimum initial dilution for the San Clemente Island outfall (Discharge Point 002). Based on the results, State Water Board staff agrees with the original Navy report suggesting 136 as the value for minimum initial dilution as defined in the California Ocean Plan for use in the Order.

However, it is important to note that neither the ambient data used by staff to model near field mixing nor the ambient data used by the Navy's consultant represent actual site receiving water conditions. As a result State Water Board staff recommends the Navy collect salinity and temperature data from near the outfall as described in Attachment E (MRP). This Order includes a reopener clause to allow for re-evaluation of minimum initial dilution based on the data submitted by the Permittee.

3. Best Management Practices and Pollution Prevention

a. **Storm Water Pollution Prevention Plan (SWPPP)** (Not Applicable)

b. **Spill Clean-up Contingency Plan (SCCP)**

Within 90 days, the Discharger is required to submit an updated SCCP that describes the activities and protocols to address clean-up of spills, overflows, and bypasses of untreated or partially treated wastewater from the Discharger's collection system or treatment facilities that reach water bodies, including dry channels and beach sands. At a minimum, the SCCP shall include sections on spill clean-up and containment measures, public notification, and monitoring. The Discharger shall review and amend the SCCP, as appropriate, after each spill from the Facility or in the service area of the Facility. The discharger shall include a discussion in the annual summary report of any modifications to the SCCP and the application of the SCCP to all spills during the year.

The updated SCCP shall include a conceptual monitoring protocol for spills greater than 10,000 gallons to beach sands to (1) define the extent of waste discharged to beach sands and adjacent surface waters and (2) to confirm the conclusion and effectiveness of the clean-up and/or mitigation measures. The plan shall include a protocol for coordination with the local health department during such an event. This component of the plan shall be posted on the website. The Discharger shall ensure that the up-to-date SCCP is readily available to the sewage system personnel at all times and that the sewage personnel are familiar with it.

c. **Pollutant Minimization Program**

Pursuant to the Ocean Plan, this Order specifies requirements for the development and implementation of a Pollutant Minimization Program.

4. Construction, Operation, and Maintenance Specifications

These provisions are based on the requirements of 40 CFR part 122.41(e) and the previous Order. These provisions ensure the Discharger at all times to properly operate and maintain all facilities and systems installed or used to achieve compliance with this Order.

5. Compliance Schedules (Not Applicable)

6. Special Provisions for Federal Facilities (FOTWs Only)

a. **Sanitary Sewer Overflows (SSOs)**

The CWA prohibits the discharge of pollutants from point sources to surface waters of the United States unless authorized under an NPDES permit. (33 United States Code sections 1311, 1342). The State Water Board adopted General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems, (Water Quality Order No. 2006-0003-DWQ; SSO WDR) on May 2, 2006, to provide a consistent, statewide regulatory approach to address sanitary sewer overflows (SSOs). The SSO WDR requires public agencies that own or operate sanitary sewer systems to apply for coverage under the SSO WDR, develop and implement sewer system management plans, and report all SSOs to the State Water Board's online SSOs database. Regardless of the coverage obtained under the SSO WDR, the Discharger's collection system is part of the wastewater treatment plant that is subject to this NPDES permit. As such, pursuant to federal regulations, the Discharger must properly operate and maintain its collection system (40 CFR 122.41 (e)), report any non-compliance (40 CFR 122.41(1)(6) and (7)), and mitigate any discharge from the collection system in violation of this NPDES permit (40 CFR 122.41(d)).

The requirements contained in this Order in sections VI.C.3.b. (Spill Contingency Plan Section), VI.C.4. (Construction, Operation and Maintenance Specifications Section), and VI.C.6. (Spill Reporting Requirements) are intended to be consistent with the requirements of the SSO WDR. The Regional Water Board recognizes that there may be some overlap between these NPDES permit provisions and SSO WDR requirements, at least as related to the collection systems. The requirements of the SSO WDR are considered the minimum thresholds (State Water Board Order No. 2006-0003-DWQ). To encourage efficiency, the Regional Water Board will accept the documentation prepared by the Permittees under the SSO WDR for compliance purposes, as satisfying the requirements in sections VI.C.3.b., VI.C.4., and VI.C.6,. provided the monitoring more stringent provisions requirements contained in this NPDES permit Order in sections IV.9.B.d. and IV.9.B.e. are also addressed. Pursuant to the SSO WDR, State Water Board Order No. 2006-0003-DWQ, section D., provision 2.(iii) and (iv), the provisions of this NPDES permit supercede the SSO WDR, for all purposes, as satisfying the requirements in sections VI.C.3.b, VI.C.4, and CI.C.6, provided any more specific or stringent provisions enumerated in this Order have also been addressed.

Regardless of the coverage obtained under the SSO WDR, the Discharger's collection system is a part of the federally-owned treatment works that is subject to this Order. As such, pursuant to federal regulations, the discharger must properly operate and maintain its collection system (40 CFR part 122.41), report any non-compliance (40 CFR parts 122.41(l)(6) and (7)), and mitigate any discharge from the collection system in violation of this Order (40 CFR part 122.41(d)).

b. **Sludge Disposal Requirements**

To implement CWA section 405(d), on February 19, 1993, USEPA promulgated 40 CFR part 503 to regulate the use and disposal of municipal sewage sludge. This regulation was amended on September 3, 1999. The regulation requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. It is the responsibility of the Discharger to comply with said regulations that are enforceable by USEPA, because California has not been delegated the authority to implement this program. The Discharger is also responsible for compliance with, if applicable, WDRs and NPDES permits for the generation, transport and application of biosolids issued by the State Water Board,

other Regional Water Boards, Arizona Department of Environmental Quality or USEPA, to whose jurisdiction the Facility's biosolids will be transported and applied.

7. Spill Reporting Requirements

This Order established a reporting protocol for how different types of spills, overflow or bypasses of raw or partially treated sewage from its collection system or treatment plant covered by this Order shall be reported to regulatory agencies.

The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ (General SSO Order) on May 2, 2006. The General Order requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General SSO Order. The General SSO Order requires agencies to develop sanitary sewer management plans (SSMPs) and report all SSOs, among other requirements and prohibitions.

Furthermore, the General SSO Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating SSOs. The Discharger must comply with both the General SSO Order and this Order.

VIII. PUBLIC PARTICIPATION

The Regional Water Board is considering the issuance of WDRs that will serve as an NPDES permit for the SCI WWTP. As a step in the WDR adoption process, the Regional Water Board staff has developed WDRs. The Regional Water Board encourages public participation in the WDR adoption process

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification must be provided through the local newspaper.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order, or by email submitted to losangeles@waterboards.ca.gov. . Reference the written comments to Compliance File No. CI-6432 to facilitate routing to the appropriate staff and file.

To be fully responded to by staff and considered by the Regional Water Board, written comments must be received at the Regional Water Board offices by 5:00 p.m. on June 11, 2013.

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date:	July 11, 2013
Time:	9:00 am
Location:	Metropolitan Water District of Southern California, Board Room 700 N. Alameda Street Los Angeles, CA

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and the permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is http://www.waterboards.ca.gov/losangeles/ where you can access the current agenda for changes in dates and locations.

D. Nature of Hearing

This will be a formal adjudicative hearing pursuant to section 648 et seq. of title 23 of the California Code of Regulations. Chapter 5 of the California Administrative Procedure Act (commencing with section 11500 of the Government Code) will not apply to this proceeding.

Ex Parte Communications Prohibited: As a quasi-adjudicative proceeding, no board member may discuss the subject of this hearing with any person, except during the public hearing itself. Any communications to the Regional Board must be directed to staff.

E. Parties to the Hearing

The following are the parties to this proceeding:

1. The applicant/permittee
2. Regional Water Board staff

Any other persons requesting party status must submit a written or electronic request to staff not later than 20 business days before the hearing. All parties will be notified if other persons are so designated.

F. Public Comments and Submittal of Evidence

Persons wishing to comment upon or object to the tentative waste discharge requirements, or submit evidence for the Regional Water Board to consider, are invited to submit them in writing to the above address. To be evaluated and responded to by staff, included in the Regional Water Board's agenda folder, and fully considered by the Regional Water Board, written comments must be received no later than close of business June 11, 2013. Comments or evidence received after that date will be submitted, ex agenda, to the Regional Water Board for consideration, but only included in administrative record with express approval of the Chair during the hearing. Additionally, if the Regional Water Board receives only supportive comments, the Order may be placed on the Regional Water Board's consent calendar, and approved without an oral testimony.

G. Hearing Procedure

The meeting, in which the hearing will be a part of, will start at 9:00 a.m. Interested persons are invited to attend. Staff will present the matter under consideration, after which oral statements from parties or interested persons will be heard. For accuracy of the record, all important testimony should be in writing. The Regional Water Board will include in the administrative record written transcriptions of oral testimony that is actually presented at the hearing. Oral testimony may be limited to 30 minutes maximum or less for each speaker, depending on the number of persons wishing to be heard. Parties or persons with similar concerns or opinions are encouraged to choose one representative to speak. At the conclusion of testimony, the Regional Water Board will deliberate in open or close session, and render a decision.

Parties or persons with special procedural requests should contact staff. Any procedure not specified in this hearing notice will be waived pursuant to section 648(d) of title 23 of the California Code of Regulations. Objections to any procedure to be used during this hearing must be submitted in writing not later than close of [15] business days prior to the date of the hearing. Procedural objections will not be entertained at the hearing.

If there should not be a quorum on the scheduled date of this meeting, all cases will be automatically continued to the next scheduled meeting on September 12, 2013. A continuance will not extend any time set forth herein.

H. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

I. Information and Copying

The Report of Waste Discharge (ROWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling (213) 576-6600.

J. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

K. Additional Information

Requests for additional information or questions regarding this order should be directed to Talitha Crain at (213) 576-6793.