

**STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION**

ORDER NO. R4-2003-0142
WASTE DISCHARGE REQUIREMENTS
FOR
WESTERN LOS ANGELES COUNTY COUNCIL, INC.
BOY SCOUTS OF AMERICA
(Timothy Pennington IV Marine Science Center)
(File No. 03-062, CI-8673)

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

REGULATION OF DISCHARGE

1. Western Los Angeles County Council, Inc., Boy Scouts of America (hereinafter Discharger) operates the Timothy Pennington IV Marine Science Center (Facility) within Camp Emerald Bay, a youth camp and recreational facility. The Discharger plans to build a seawater life support system, including aquarium tanks, to show a variety of marine faunas endemic to Santa Catalina Island. On April 10, 2003, the Discharger filed a report of waste discharge for discharges of circulated seawater from the proposed seawater life support system. The waste discharge requirements (WDR) contained within this Order will regulate the waste discharges described in that report.

DESCRIPTION OF FACILITY

2. The Discharger leases Camp Emerald Bay from Santa Catalina Island Company (Figure 1). The Facility is located at latitude 33° 28"10' and longitude 118°31"56', on the "West Side" area of Camp Emerald Bay. Figure 2 is a Camp Emerald Bay Site Plan, which shows the location of the Facility within the camp.
3. The Facility is a two-story building that serves as a seawater life support and learning center for the Boy Scouts. There will be three aquarium tanks, a touch tank and three wet tables to be used to observe various marine animals native to the island and teach the Boy Scouts about the animals' behavior and habitat.
4. The three aquarium tanks are the subtidal tank or kelp community tank (volume: 700 gallons) which will house animals indigenous to the subtidal zones around the island, the cryptic tank (volume: 400 gallons) which will house species found in the near shore reefs of Santa Catalina Island and the benthic tank (volume: 700 gallons) which will be used to maintain species that are found on or near the ocean floor. The touch tank (volume: 435 gallons) and wet tables will be used to more closely observe smaller animals, such as snails, gobies and nudibranchs. All the animals will be fed daily with a total of 3.5 pounds (lbs) of food that consists of shrimp, squid and krill. The animals are not given any other kind of feed or nutrient.

September 23, 2003
Revised: October 15, 2003

5. The Facility's seawater life support system is designed to support a variety of marine animals in the aquarium tanks and wet labs. The system consists of two separate processes: a seawater intake system and a seawater re-circulation system. The seawater intake system transports seawater from the ocean to a saltwater reservoir through a foam fractionator. The seawater intake system operates as needed to provide water lost through evaporation, backwash of sand filters, and to maintain nitrate concentrations at or below 20 milligrams per liter (mg/l). In order to continuously support the collected aquatic animals, the re-circulation system circulates water from the reservoir, through sand filtration, a chiller and an aeration tower for nitrification and air stripping process. Water returns to the storage reservoir via an overflow pipe at each aquarium tank and wet table. Seawater overflow from the storage reservoir and any waste seawater from the Facility flow into a 250-gallon retention basin before discharge to a leachfield. The maximum discharge is 14,400 gallons per day (gpd). The expected average discharge is 7,500 gpd. The Process Flow Diagram is shown on Figure 3.
6. The proposed leachfield is located in the northerly area of Emerald Bay Canyon. The proposed leachfield is 15 feet (ft) long x 10 ft wide. The leachfield is located 100 feet away from the nearest drainage channel and 130 feet from the high tide line (Figure 4).
7. In permitting cases for discharge of domestic wastewater through leachfield, the Regional Board requires that there should be 5 feet groundwater separation. During a percolation test conducted at the site on February 4, 2003, groundwater was encountered at approximately three and a half feet below ground surface (bgs). The Discharger cannot meet the 5 feet groundwater separation requirement.
8. The Discharger provided analytical results of samples taken on August 18, 2003 from a sea water life support system similar to the proposed system. The analytical results characterize the effluent to be discharged into the disposal system as follows:

<u>Constituents</u>	<u>Units</u> ¹	<u>Sample Results</u>
Ammonia (expressed as nitrogen)	mg/L	Non-Detected (ND)
Biochemical Oxygen Demand	mg/L	ND
pH	pH Units	7.82
Total Settleable Solids	ml/L	0.20
Total Suspended Solids	mg/L	159
Total Coliform	MPN/100 ml	7
Enterococcus	MPN/100 ml	11

^[1] mg/L: milligrams per liter; ml/L: milliliters per liter;
MPN/100mL: Most Probable Number per 100 milliliter

Compared to a domestic septic tank effluent, the proposed discharge is significantly less in strength relative to nutrients, ammonia and bacteria. Considering the analytical results

reported and the distance (minimum 100 feet) from the disposal area to the ocean, Regional Board staff determined that setting the compliance point at effluent of the retention tank before discharge to the leachfield is adequate to protect the receiving water quality as the effluent limits are set at the water quality objectives for the area. The treatment mechanisms of the leachfield and the safety factors afforded by a soil filtration in the five-foot separation zone between the leachfield and groundwater are not needed for this low-strength wastewater. Therefore, the 5-foot groundwater separation is not required in this Order.

9. The estimated daily discharge flow from the facility is estimated at 7,500 gpd. The system is designed to discharge this volume per day. The leachfield is located 100 feet from the nearest drainage channel and 130 feet from the high tide water level.

APPLICABLE LAWS, PLANS, POLICIES, AND REGULATIONS

10. On June 13, 1994, the Regional Board adopted a revised *Water Quality Control Plan for the Coastal Watersheds of Los Angeles and Ventura Counties* (Basin Plan) which was amended on January 27, 1997 by Regional Board Resolution No. 97-02. The Basin Plan (i) designates beneficial uses for surface waters and groundwaters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state antidegradation policy (*Statement of Policy with Respect to Maintaining High Quality Waters in California*, State Water Resources Control Board [State Board] Resolution No. 68-16, October 28, 1968), and (iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates by reference applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. This Order implements the plans, policies, and provisions of the Basin Plan. The Basin Plan designates beneficial uses and water quality objectives for the following waterbody as follows:

Groundwater:

San Pedro Channel Islands (Santa Catalina Island)

Existing	Municipal and domestic supply, Agricultural supply
Potential	Industrial Process Supply

Surface water:

Island Nearshore Zones (Santa Catalina Island)

Existing: Navigation, water contact recreation, non-contact water recreation, commercial and sport fishing, marine habitat, wildlife habitat, preservation of biological habitat (areas of special biological significance), rare, threatened, or endangered specie refuge and shellfish harvesting.

Potential: Spawning, reproduction and/or early development

11. On November 16, 2000, the State Board adopted a revised *Water Quality Control Plan for the Ocean Waters of California* (Ocean Plan). The State of California Office of Administrative Law and the United States Environmental Protection Agency approved the Ocean Plan on July 9, 2001 and December 3, 2001, respectively. The Ocean Plan contains water quality objectives for coastal waters of California. The beneficial uses of the ocean waters of the State that shall be protected include industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; rare and endangered species; marine habitat; fish migration; fish spawning; shellfish harvesting and enhancement of designated Areas of Special Biological Significance (ASBS). This Ocean Plan prohibits the direct discharge of wastes to ASBS.
12. The Facility is located within the Santa Catalina Island groundwater basin as identified in the Basin Plan. The Basin Plan indicates that the beneficial uses for groundwater in Santa Catalina Island include municipal and domestic supply (MUN); however the beneficial use (MUN) is not applicable to beach areas lacking significant aquifers. The beneficial use (MUN) of any ground water that may be found at the facility is limited because the facility is adjacent to the beach. While the effluent will be discharged to the land through the existing leachfields, the depth to the ground water is controlled by the tide, and at this location, the receiving surface water is assumed to be the Pacific Ocean.
13. In any marine biological life, there will be production of ammonia and the breakdown of wastes. Since the groundwater flow gradient is generally toward the Pacific Ocean, Regional Board staff is concerned that pollutants such as ammonia could move through groundwater to the ocean. To regulate the impacts from the discharge of wastewater to groundwater and the ultimate receiving water, Ocean Plan standards have been used for the limitations established herein. However, ocean monitoring is not proposed for this Facility because the discharge volume is relatively small.
14. The requirements contained in this Order are based on the Basin Plan, Ocean Plan, other state plans, policies, and guidelines, and best professional judgment.

CEQA, NOTIFICATION, AND APPEALS

15. On April 13, 2000, the Los Angeles County Department of Regional Planning issued an initial study determination that a Mitigated Negative Declaration is required for the upgrade project for Emerald Bay Camp which includes the Facility. In compliance with the provisions of the California Environmental Quality Act (Public Resources Code section 21000 et seq.), the Regional Planning Commission approved the Mitigated Negative Declaration on February 14, 2001.

16. The Regional Board has notified the Discharger and interested agencies and persons of its intent to issue WDRs for this discharge, and has provided them an opportunity to submit their views and recommendations for the requirements.
17. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge and to the requirements.
18. Pursuant to California Water Code section 13320, any aggrieved person may seek review of this Order by filing a petition with the State Water Resources Control Board (State Board). The State Board, P.O. Box 100, Sacramento, California 95812, must receive the petition within 30 days of the date of adoption of the Order.

IT IS HEREBY ORDERED that the Discharger, Western Los Angeles County Council, Inc., Boy Scouts of America, shall comply with the following requirements in connection with the disposal operations at the Facility.

A. DISCHARGE LIMITATIONS

1. Waste discharged to the leachfield disposal system shall be limited to wastewater discharged from the Facility only.
2. Average waste discharge flow from the Facility is estimated to be 7,500 gpd. The maximum daily discharge flow shall not exceed 14,400 gpd.

B. EFFLUENT LIMITATIONS BEFORE THE DISPOSAL SYSTEM

1. The wastewater discharged to the disposal system shall not contain constituents in excess of the following limits:

<u>Constituent</u> ¹	<u>Units</u> ²	<u>Monthly</u>		<u>Daily</u>
		<u>Mean</u>	<u>Median</u>	<u>Maximum</u>
Total coliform ⁴	MPN/100mL	--	70	--
Ammonia (expressed as nitrogen)	mg/L	--	0.6 ³	2.4
Enterococcus ⁴	MPN/100mL	24	--	--
Suspended solids	mg/L	--	--	-- ⁵
Settable solids	ml/L	--	--	-- ⁵
Total residual chlorine	µg/L	--	--	8

^[1] For the above parameters, the compliance point for each parameter shall be at the effluent point of the retention basin.

^[2] MPN/100mL: Most Probable Number per 100 milliliter, mg/L: milligrams per liter, µg/L: micrograms per liter

^[3] Expressed as 6-month Median as specified in the Ocean Plan

^[4] If only one sample is taken in any monthly period, that value shall be considered as the mean/median for the month.

^[5] The discharge shall not contain concentrations of solids higher than those found in the influent and shall not cause nuisance or adversely affect beneficial uses.

2. The dissolved oxygen concentration in the wastewater discharged to the disposal system shall not be at any time depressed more than 10 percent from that which occurs naturally.
3. The pH of the wastewater discharged to the disposal system shall be within the range of 6 to 9.

C. PROHIBITIONS

1. There shall be no wastewater system overflows or discharge of wastes to waters of the State (including storm drains) at any time.
2. Wastes shall not be disposed of in geologically unstable areas or so as to cause earth movement.
3. Wastes discharged shall not impart tastes, odors, color, foaming or other objectionable characteristics to the receiving water.
4. Waste discharged shall not cause any impact on the indigenous marine life and diverse marine community.
5. Adequate facilities shall be provided to divert surface and storm water away from the seawater life support and leachfield disposal systems and from areas where any potential pollutants are stored.
6. The seawater life support and leachfield disposal systems shall be protected from damage by storm flows or runoff generated by a 100-year storm.
7. There shall be no onsite disposal of sludge. Any offsite disposal of sludge shall be made only to a legal point of disposal. For purposes of this Order, a legal disposal site is one for which requirements have been established by a regional water quality control board and which is in compliance therewith. Any sewage or sludge handling shall be conducted in such a manner as to prevent sewage or sludge from reaching surface waters or watercourses.
8. No foul odors shall be detectable.
9. The discharge of waste shall not create a condition of pollution, contamination, or nuisance.

10. The direct or indirect discharge of any wastewater to surface waters or surface water drainage courses is prohibited.

E. PROVISIONS

1. A copy of this Order shall be maintained at the Facility so as to be available at all times to operating personnel.
2. In the event of any change in name, ownership, or control of the Facility, the Discharger shall notify the Regional Board of such change and shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Board.
3. The Discharger shall file with the Regional Board technical reports on self-monitoring work performed according to the detailed specifications contained in Monitoring and Reporting Program No. CI 8673 attached hereto and incorporated herein by reference, as directed by the Regional Board Executive Officer (Executive Officer). The results of any monitoring done more frequently than required at the location and/or times specified in the Monitoring and Reporting Program shall be reported to the Regional Board.
4. The Discharger shall cause the disposal system to be inspected annually during the life of this Order by a professional inspector to be retained by the Discharger. National Sanitation Foundation standards should be applied where possible to the inspection. The inspector shall also specify the capacity and condition of the disposal system and of the leachfield and the corrections needed.
5. The Discharger shall prepare a contingency plan to deal with disposal system failure or the loss of soil assimilative capacity. Within 60 days of the effective date of this Order, the Discharger shall submit for the Executive Officer's approval a contingency plan addressing the steps that will be taken to deal with any failure of the disposal system and future 100 percent replacement of the subsurface disposal area.
6. The Discharger shall notify the Regional Board within 24 hours of any adverse condition resulting from the discharge of wastewater from the Facility; written confirmation by the Discharger shall follow within one week. The Discharger in the next monitoring report shall also confirm this information. In addition, the report shall include the reasons for the violations or adverse conditions, the steps being taken to correct the problem (including dates thereof), and the steps being taken to prevent a recurrence.
7. The Discharger shall notify the Regional Board within 24 hours, by telephone or electronically, of any bypassing or surfacing of wastes. Written confirmation by the Discharger shall follow within one week and shall include information relative to the

location(s), estimated volume, date and time, duration, cause, and remedial measures taken to effect cleanup and measures taken to prevent any recurrence.

8. This Order does not relieve the Discharger from the responsibility to obtain other necessary local, state, and federal permits to construct facilities necessary for compliance with this Order; nor does this Order prevent imposition of additional standards, requirements, or conditions by any other regulatory agency.
9. Any discharge of wastewater from the seawater life support system (including wastewater collection system) at any point other than a site with approved waste discharge requirements or specifically described in this Order is prohibited, and constitutes a violation of this Order.
10. After notice and opportunity for a hearing, this Order may be terminated or modified for cause including, but not limited, to:
 - a) Violation of any term or condition contained in this Order;
 - b) Obtaining this Order by misrepresentation, or failure to disclose all relevant facts;
 - c) A change in any condition, or the discovery of any information, that requires either a temporary or permanent reduction or elimination of the authorized discharge.
11. The Discharger shall furnish, within a reasonable time, any information the Regional Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order. The Discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.
12. The Discharger shall file a written report within 10 days with the Regional Board at such time as the average daily waste flow per month has reached or exceeded 80 percent of the recognized seawater life support system design flow capacity (currently 14,400 gpd) or conditions suggest that the hydraulic capacity for the disposal system has been exceeded. The report shall detail proposed provisions to cope with excess flows.
13. Should monitoring data indicate contamination of groundwater or discharge related violations of receiving water limitations, the Discharger shall submit, within 60 days after discovery of the problem, plans for measures that will be taken, or have been taken, to mitigate any long-term effects that may result from the subsurface disposal of wastes.

14. This Order includes the attached "Standard Provisions Applicable to Waste Discharge Requirements" which are incorporated herein by reference. If there is any conflict between provisions stated herein and the "Standard Provisions," those provisions stated herein will prevail.
15. The WDRs contained in this Order will remain in effect for a period of five years. Should the Discharger wish to continue discharging to groundwater for a period of time in excess of five years, the Discharger must file an updated Report of Waste Discharge with the Regional Board no later than 180 days in advance of the fifth-year anniversary date of the Order for consideration of issuance of new or revised waste discharge requirements. Any discharge of waste five years after the date of adoption of this Order, without filing an updated Report of Waste Discharge with the Regional Board, is a violation of California Water Code section 13264. The Regional Board is authorized to take appropriate enforcement action for any noncompliance with this provision including assessment of penalties.
16. In accordance with the Governor's Executive Order requiring that any proposed activity be reviewed to determine whether such activity will cause additional energy usage, Regional Board staff have determined that implementation of these WDRs will result in minimal increases in energy usage.
17. All discharges of waste into the waters of the State are privileges, not rights. In accordance with California Water Code section 13263(g), these requirements shall not create a vested right to continue to discharge and are subject to rescission or modification.

F. REOPENER

This Order may be reopened to delete outdated requirements, or to include additional or modified requirements to address pollutant loading problems verified by monitoring data, Discharger workplans or mitigation plans, TMDL schedules, or Ocean Plan or Basin Plan mandates.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on November 6, 2003.

Dennis A. Dickerson
Executive Officer