CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

FACT SHEET
APPLICATION FOR
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
AND
WASTE DISCHARGE REQUIREMENTS
TO DISCHARGE TO STATE WATERS

Permittee Name: United States Navy, Navy Region Southwest Public Notice No.: 7-01-01

NPDES Permit Number: CA0104906 Board Order No.: 01-001

Mailing Address: United States Naval Air Facility
1605 3rd Street, Building 504, Attn: Code 80
El Centro, CA 92243-5001

Location United States Naval Air Facility
UNICORP. Area
El Centro, CA 92243

Contact Person: Mr. William Kagele, Environmental Protection Specialist

Telephone: (760) 339-2532

I. Status of Permit

On May 3, 2000, United States Navy, Navy Region Southwest, United States Naval Air Facility, El Centro, owner (hereinafter referred to as the discharger), submitted an application to update its Waste Discharge Requirements and to renew its permit to discharge wastewater under the National Pollutant Discharge Elimination System (NPDES). The application is for the wastewater treatment facility located as outlined above.

II. Facility Description

The discharger owns a wastewater collection and disposal system and provides a sewerage service to the United States Naval Air Facility, El Centro. The average daily discharge to the receiving waters is 0.07 million gallons-per-day (MGD). The present design capacity is 0.300 MGD. The discharger has submitted information on a proposed plant expansion to increase the capacity of the treatment plant to 0.340 MGD. A date for completion of the proposed expansion has yet to be submitted. Wastewater is discharged into an unnamed tributary of the New River, located in the N ½ of Section 25, T15S, R12E, SBB&M, as shown on the attached site map. The discharged effluent flows through the unnamed tributary for approximately one-half mile before entering the New River. It is approximately 30 miles from the point that the unnamed tributary enters the New River to the Salton Sea.

Sewage from the collection system is pumped to the treatment plant via force main from two (2) collection system pumping stations. Influent flow from the pumping stations enters the influent diversion box where it can be apportioned between the equalization basin/emergency storage pond or the bar screen. The equalization basin/emergency storage pond is lined with a synthetic liner. Flow diverted to the equalization basin/emergency storage pond is then pumped through the bar screen at a controlled rate. After passing through the bar screen, influent flow passes through an influent flume for flow measurement and then into an oxidation ditch for biological treatment. Effluent from the oxidation ditch enters a secondary clarifier for liquid/solids separation. Clarified effluent from the secondary clarifier flows through an effluent flume for flow measurement and then into a contact chamber for disinfection. Disinfection is by chlorine. Following disinfection, effluent from the treatment plant is dechlorinated before discharge to

receiving waters. Sludge removed from the system is dried in drying beds. Final sludge disposal is at a landfill by a contracted hauler.

III. Description of Discharge

All wastewater discharged at this facility is discharged through Outfall 001 to an unnamed tributary of the New River. The discharge consists of secondary treated domestic wastewater.

IV. Receiving Water

The receiving water for Outfall OO1 is an unnamed tributary of the New River. Water discharged from the facility flows through the unnamed tributary, the New River and then enters the Salton Sea.

The beneficial uses of waters in the New River are:

a. Fresh Water Replenishment for Salton Sea (FRSH)
b. Water Contact Recreation (REC I) [1,2]
c. Non-Contact Water Recreation (REC II)[1]
d. Warm Water Habitat (WARM)
e. Wildlife Habitat (WILD)
f. Preservation of Rare, Endangered or Threatened Species (RARE)[3]

V. Description of Discharge

a. Permit Application Summary

The following table summarizes the discharge characteristics of Outfall 001 as reported in the NPDES application received May 3, 2000:

Daily Flow Rate Annual Average	0.07	MGD[4]
Daily Flow Rate Highest Monthly Average	0.08	MGD
pH Lowest Monthly Average	7.11	
pH Highest Monthly Average	7.74	
BOD[5] Concentration Highest Monthly Average	18	mg/L[6]
BOD Concentration Lowest Monthly Average	<5	mg/L
BOD Concentration Annual Average	<5	mg/L
TSS[7] Concentration Highest Monthly Average	66.8	mg/L
TSS Concentration Lowest Monthly Average	5.8	mg/L
TSS Concentration Annual Average	19	mg/L
Settleable Matter Highest Monthly Average	0.1	ml/L
Settleable Matter Lowest Monthly Average	<0.1	ml/L
Settleable Matter Annual Average	<0.1	ml/L
Total Dissolved Solids Highest Monthly Average	2703	mg/L
Total Dissolved Solids Lowest Monthly Average	1266	mg/L
Total Dissolved Solids Annual Average	2000	mg/L
Fecal Coliform Bacteria Highest Monthly Average	13	MPN/100 ml
Total Coliform Bacteria Highest Monthly Average	116	MPN/100 ml

[1] Unauthorized Use
[2] The only REC I usage that is known to occur is from infrequent fishing activity
[3] Rare, endangered, or threatened wildlife exists in or utilizes some of these waterway(s). If the RARE beneficial use may be affected by a water quality control decision, responsibility for substantiation of the existence of rare, endangered, or threatened species on a case-by-case basis is upon the California Department of Fish and Game on its own initiative and/or at the request of the Regional Board; and such substantiation must be provided with a reasonable time frame as approved by the Regional Board
[4] Million Gallons-per0-ay
[5] Biochemical Oxygen Demand
[6] Milligrams-per-liter
[7] Total Suspended Solids

b. Discharge Monitoring Report (DMR) Data

A summary of DMR data is given in Table 1, contained later in this Fact Sheet. This data was taken from July 1999 through June 2000.

VI. Proposed Technology-Based Effluent Limitations

Regulations promulgated at 40 CFR §125.3(a)(1) require technology-based effluent limits for municipal dischargers to be placed in NPDES permits based on Secondary or Equivalent to Secondary Treatment Standards.

a. Secondary Treatment Standards

Constituents	Unit	30-Day [8] Arithmetic Mean Discharge Rate	7-Day[9] Arithmetic Mean Discharge Rate
20° C BOD_5 [10]	mg/L	30	45
Total Suspended Solids	mg/L	30	45
Settleable Matter	ml/L[11]	0.3	0.5

The 30-day average percent removal of the pollutant parameters BOD_5 and total suspended solids shall not be less than 85 percent.

The hydrogen ion (pH) of the effluent shall be maintained within the limits of 6.0 to 9.0

VII. Proposed Water Quality-Based Effluent Limitations

Effluent discharged from this facility could contain pollutants in sufficient quantities to affect receiving water quality. Pursuant to Section 13263, Article 4, Chapter 4 of the Porter Cologne Water Quality Control Act, the Regional Boards are required to issue Waste Discharge Requirements for discharges that could affect the quality of the State's waters. Furthermore, Federal Regulation 40 CFR 122.1 requires the issuance of NPDES permits for pollutants discharged from a point source to the waters of the United States. The draft discharge requirements contain specific discharge limitations for selected pollutants.

Constituents	Basis for Limitations
Biochemical Oxygen Demand (BOD)	Discharge to waters that support aquatic life that is dependent on oxygen. Organic matter in the discharge may consume oxygen as it breaks down.
Total Suspended Solids (TSS)	High levels of suspended solids can adversely impact aquatic habitat. Untreated or improperly treated wastewater can contain high amounts of suspended solids.
Settleable Matter	High levels of settleable matter can have an adverse effect

[8] 30-Day Mean – The arithmetic mean of pollutant parameter values of samples collected in a period of 30 consecutive days as specified in the Monitoring and Reporting Program.
[9] 7-Day Mean – The arithmetic mean of pollutant parameter values of samples collected in a period of 7 consecutive days as specified in the Monitoring and Reporting Program.
[10] Biochemical Oxygen Demand
[11] ml/L – milliliters-per-Liter

	on aquatic habitat. Untreated or improperly treated wastewater can contain high amounts of settleable matter.
Hydrogen Ion (pH)	Hydrogen Ion (pH) is a measure of Hydrogen Ion concentration in the water. A range specified between 6 to 9 ensures suitability of biological life. This limitation has been adopted in the Basin Plan of the Region.
Toxicity	Toxicity testing ensures that the effluent does not contain metals, chemicals, pesticides or other constituents in concentrations toxic to aquatic life.
Fecal Coliform	These limits are required by the Basin Plan for waters designated for water contact recreation (RECI).
Total Dissolved Solids	High levels of TDS can adversely impact aquatic life. The TDS limit is from the Basin Plan of the Region.
Flow	Currently, the design capacity of the treatment plant is 0.300 MGD.

VIII. Proposed Effluent Limitations

Table 2, contained later in this Fact Sheet, summarizes the proposed effluent limitations for Outfall 001. Proposed effluent limitations are based on secondary treatment standards and Colorado River Basin Plan water quality standards.

IX. Monitoring Requirements

Monitoring for those pollutants expected to be present in the Outfall OO1 will be required as shown on the proposed monitoring and reporting program and as required in the "*Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California*" adopted March 2, 2000.

X. Information Sources

While developing effluent limitations and receiving water limitations, monitoring requirements, and special conditions for the draft permit, the following information sources were used:

(1) EPA NPDES Application Forms 1 and 2A dated April 7, 2000.
(2) 40 CFR Parts 117,122, 123, 124, 136, 302, 403, and 503.
(3) Water Quality Control Plan (Colorado River Basin – Region 7) dated 1994.
(4) Regional Board files related to U.S. Navy, Navy Region Southwest, NPDES Permit CA0104906.
(5) Porter-Cologne Water Quality Control Act with additions and amendments effective January 1, 2000.
(6) "Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California" adopted March 2, 2000.
(7) California Toxics Rule, published May 18, 2000, by U.S. EPA.
(8) National Toxics Rule (NTR), adopted by U.S. EPA on February 5, 1993.

Written Comments

Interested parties and agencies are invited to submit written comments on the proposed waste discharge requirements and the Regional Board's Executive Officer's proposed determinations. Comments should be submitted in writing not later than December 1, 2000 to:

Executive Officer
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

The application number shall appear on the first page of any submitted comments. All comments received by the above date will be considered in the formulation of the final determinations.

Public Hearing

The Waste Discharge Requirements will be considered by the Regional Board at a public hearing to be held at the City of La Quinta City Council Chambers, 78495 Calle Tampico, La Quinta on March 14, 2001.

Waste Discharge Requirements Appeals

Any person may petition the State Water Resources Control Board (SWRCB) to review the decision of the Regional Board regarding Waste Discharge Requirements. A petition must be made within 30 days of the Regional Board's hearing.

Additional Information

Persons wishing further information may write to the following address:

California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, CA 92260

or call the Regional Board at (760) 346-7491

TABLE 1

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

DISCHARGE MONITORING REPORT
UNITED STATES NAVAL AIR FACILITY, EL CENTRO

	INFLUENT DATA		EFFLUENT DATA		
DATE	BOD (MG/L)	SS (MG/L)	BOD (MG/L)	SS (MG/L)	TDS (MG/L)
July 1999	54	110	<5	26	
August 1999	79.0	87.5	<5	11.3	
September 1999	62	59.5	<5	16.5	2703
October 1999	103	49.8	<5	10.8	
November 1999	46	86.3	<5	17	
December 1999	53	192	<5	66.8	1716
January 2000	138	176	54	26.9	
February 2000	166	224	<5	27.5	
March 2000	237	133	<5	13	2260
April 2000	96	100	<5	5	
May 2000	120	320	6	5	
June 2000	140	150	7	8	3000

	EFFLUENT DATA			
DATE	SETTLEABLE MATTER (ML/L)	FLOW TO CHANNEL (MGD)	PH	Fecal Coliform MPN/100 ml
July 1999	ND[12]	0.069793	7.37	
August 1999	ND	0.067235	7.42	
September 1999	0.1	0.057487	7.53	
October 1999	0.1	0.065758	7.38	
November 1999	0.1	0.061534	7.47	
December 1999	0.1	0.079171	7.6	
January 2000	0.1	0.078751	7.52	24
February 2000	0.3	0.067861	7.42	83
March 2000	<0.2	0.071851	7.7	33
April 2000	ND	0.071727	7.2	5
May 2000	ND	0.069225	7.4	108
June 2000	ND	0.076822	7.6	168

[12] ND – Not Detected

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TABLE 1 (CONT.)
DISCHARGE MONITORING REPORT
UNITED STATES NAVAL AIR FACILITY, EL CENTRO

	EFFLUENT DATA			
DATE	BIOASSAY[13] ACUTE		BIOASSAY[14] CHRONIC	
	Ceriodaphnia Dubia	Pimephales promelas	Ceriodaphnia dubia	Pimephales promelas
July 1999				
August 1999				
September 1999				
October 1999				
November 1999	100	100	<1.0	<1.0
December 1999				
January 2000				
February 2000				
March 2000				
April 2000				
May 2000				
June 2000				

DATE	RECEIVING WATER DATA					
	Upstream			Downstream		
	DISSOLVED OXYGEN (MG/L)	Ph	Hardness (MG/L)	DISSOLVED OXYGEN (MG/L)	Ph	Hardness (MG/L)
July 1999						
August 1999						
September 1999						
October 1999	4.13	7.25	340	2.51	7.24	260
November 1999						
December 1999						
January 2000						
February 2000						
March 2000						
April 2000						
May 2000						
June 2000						

[13] Bioassay Acute is measured in % survival in 100% effluent (C. dubia / P. promelas) at the end of 96 hours.
[14] Bioassay Chronic survival is measured in chronic toxicity units (C. dubia / P. promelas) at the end of 7 days.

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TABLE 2
PROPOSED EFFLUENT AND RECEIVING WATER LIMITATIONS
NPDES PERMIT NO. CA0104906
BOARD ORDER NO. 01-001
UNITED STATES NAVAL AIR FACILITY, EL CENTRO

EFFLUENT LIMITATIONS

1. Effluent discharged to the unnamed tributary to the New River shall not contain constituents in excess of the following limits:

Constituent	Unit	30-Day Arithmetic Mean Discharge Rate	7-Day Arithmetic Mean Discharge Rate
$20^{o}C$ BOD_5	mg/L	30	45
Total Suspended Solids	mg/L	30	45
Total Dissolved Solids	mg/L	4,000	4,500

2. The 30-day average percent removal of the pollutant parameters BOD_5 and total suspended solids shall not be less than 85 percent.

3. The hydrogen ion (pH) of the effluent shall be maintained within the limits of 6.0 to 9.0.

4. Effluent discharged to the unnamed tributary to the New River shall not contain a total chlorine residual greater than 0.02 mg/L as an instantaneous maximum and 0.01 mg/L as a monthly average. Compliance for this effluent limitation shall be at a location acceptable to the Regional Board's Executive Officer or designee.

5. Effluent discharged to the unnamed tributary of the New River shall not have a Fecal coliform concentration in excess of a log mean of Most Probable Number (MPN) of 200 MPN per 100 milliliters (based on a minimum of not less than five samples for any 30-day period) nor shall more than ten percent of total samples during any 30-day period exceed 400 MPN per 100 milliliters.

6. The 24-hour hydraulic flow rate for this system shall not exceed 0.300 MGD. The discharger has submitted information on a planed plant expansion that will increase the capacity of the 24-hour hydraulic flow rate for the system to 0.340 MGD. A firm date for the treatment plant expansion has yet to be submitted.

7. The effluent shall not contain heavy metals, chemicals, pesticides or other constituents in concentration toxic to aquatic life.

8. There shall be no acute toxicity in the treatment plant effluent nor chronic toxicity in the receiving water. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, or bioassays of appropriate duration or other appropriate methods specified by the Regional Board.

RECEIVING WATER LIMITATIONS

1. Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this Board Order. Effluent discharged to the unnamed tributary of the New River shall not cause the following:

   a. Depress the concentration of dissolved oxygen below 5.0 mg/L. When dissolved oxygen in the receiving water is already below 5.0 mg/L, the discharge shall not cause any further depression.

   b. The presence of oil, grease, floating material (liquids, solids, foam and scum) or suspended material in amounts that create a nuisance or adversely affect beneficial uses.

   c. Result in the deposition of pesticides or combination of pesticides to be detected in concentrations that adversely affect beneficial uses.

   d. Aesthetically undesirable discoloration or odors in the receiving water.

   e. A significant increase in fungi, slime, or other objectionable growth.

   f. The turbidity to increase by more than 10 percent over background levels.

   g. The normal ambient pH to fall below 6.0 or exceed 9.0 units.

   h. Result in the deposition of material that causes nuisance or adversely affects beneficial uses.

   i. Chemical constituents to exceed concentrations that adversely affect beneficial uses or create nuisance.

   j. Toxic pollutants to be present in the water column, sediments or biota in concentrations that adversely affect beneficial uses or that produce detrimental physiological responses in human, plant, animal, or aquatic life.

2. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Water Resources Control Board as required by the Federal Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Regional Board will revise and modify this Permit in accordance with such more stringent standards.