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:	**City of Imperial**	**Public Notice No.:**	**7-00-12**
NPDES Permit Number:	**CA0104400**	**Board Order No.:**	**00-040**
Mailing Address:	**City of Imperial** **420 South Imperial Avenue** **Imperial, CA 92251**		
Location	**701 East 14th Street** **Imperial, CA 92251**		
Contact Person:	**J. Kenneth Horton, Chief Operator**		
Telephone:	**(760) 355-2718**		

I. Status of Permit

On November 17, 1999, City of Imperial, owner/operator (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 at the address mentioned above.

II. Facility Description

The discharger owns and operates a wastewater collection and disposal system and provides a sewerage service to the City of Imperial. Annual average discharge to the receiving waters is 0.623 MGD. The present design capacity is 1.4 MGD. Wastewater is discharged into the Dolson Drain located in the SE ¼ of Section 7, T15S, R14E, SBB&M, as shown on the attached site map. Discharged water flows through the Dolson Drain, Lilac Drain, Rose Drain, Alamo River and to the Salton Sea.

The wastewater collection system conveys water to the treatment plant influent pumping station. The pumping station pumps flow to the plant headworks where is receives screening and grit removal. Following screening and grit removal, wastewater flows into the aeration basin for secondary treatment. Effluent from the aeration basin flows to the secondary clarifier where secondary sludge is settled from the water. Treated effluent from the secondary clarifier flows through an ultraviolet disinfection system before being discharged to the Dolson Drain.

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

III. Description of Discharge

All wastewater discharged at this facility is discharged either through Outfall 001 to the Dolson Drain. The discharge consists of secondary treated and disinfected domestic wastewater.

IV. Receiving Water

The receiving water for Outfall OO1 is the Dolson Drain. Water discharged from the facility flows through the Dolson Drain, Lilac Drain, Rose Drain, Alamo River and then enters the Salton Sea.

The beneficial uses of waters in the Imperial Valley Drains 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 dated November 11, 1999.

Lowest Monthly Average pH	**7.4**	
Highest Monthly Average pH	**7.4**	
Annual Average Value BOD	**3.8**	**mg/L**
Highest Monthly Average Value BOD	**4.9**	**mg/L**
Annual Average Value TSS	**4.6**	**mg/L**
Lowest Monthly Average Value TSS	**3**	**mg/L**
Highest Monthly Average Value TSS	**7.7**	**mg/L**
Settleable Matter Annual Average Value	**0.1**	**ml/L**
Settleable Matter Lowest Monthly Average Value	**0.1**	**ml/L**
Settleable Matter Highest Monthly Average Value	**0.1**	**ml/L**

b. Discharge Monitoring Report (DMR) Data

A summary of DMR data is given in Table 1. This data was taken from January 1999 through December 1999.

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[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 within a reasonable time frame as approved by the Regional Board

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 [4] Arithmetic Mean Discharge Rate	7-Day[5] Arithmetic Mean Discharge Rate
20° C BOD_5 [6]	mg/L	30	45
Total Suspended Solids	mg/L	30	45
Settleable Matter	ml/L[7]	0.3	0.5

The 30-day average percent removal of the pollutant parameters BOD_5 and 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.

[4] 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.
[5] 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.
[6] Biochemical Oxygen Demand
[7] ml/L – milliliters per Liter

Constituents	Basis for Limitations
Biochemical Oxygen Demand (BOD)	**Discharge's to waters that support aquatic life, which 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 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 concentration toxic to aquatic life.**
Escherichia Coli	**These limits are required by the Basin Plan for waters designated for water contact recreation (RECI).**
Flow	**The design capacity of the treatment plant is 1.4 MGD.**

VIII. Proposed Effluent Limitations

Table 2 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 A dated November 11, 1999
(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 City of Imperial NPDES permit CA0104400
(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 by 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 June 21, 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 June 28, 2000.

Waste Discharge Requirements Appeals

Any person may petition the State Board 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

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

TABLE 1
DISCHARGE MONITORING REPORT
CITY OF IMPERIAL

	INFLUENT DATA		EFFLUENT DATA	
DATE	BOD (MG/L)	SS (MG/L)	BOD (MG/L)	SS (MG/L)
January 1999	219	179	3.25	7.6
February 1999	184	182	2.35	5.3
March 1999	181	141	2.95	3.3
April 1999	162	132	3.25	3.2
May 1999	216	298	4.5	2.5
June 1999	137	70	3.6	3.2
July 1999	195	252	5.5	3
August 1999	174	184	4.45	4
September 1999	200	217	4.9	6.7
October 1999	216	297	4.7	7.1
November 1999	200	153	3.25	5.8
December 1999	335	221	3.6	7.7

	EFFLUENT DATA		
DATE	SETTLEABLE MATTER (ML/L)	FLOW TO CHANNEL (MGD)	PH
January 1999	0.1	0.624	7.4
February 1999	0.1	0.662	7.4
March 1999	0.1	0.641	7.4
April 1999	0.1	0.618	7.4
May 1999	0.1	0.614	7.4
June 1999	0.1	0.599	7.4
July 1999	0.1	0.575	7.4
August 1999	0.1	0.581	7.4
September 1999	0.1	0.622	7.4
October 1999	0.1	0.605	7.4
November 1999	0.1	0.625	7.4
December 1999	0.1	0.615	7.4

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

TABLE 1 (CONT.)
DISCHARGE MONITORING REPORT
CITY OF IMPERIAL

	EFFLUENT DATA		
DATE	**BIOASSAY[8] ACUTE**	**BIOASSAY[9] CHRONIC**	**E. coli MPN/100 ML**
January 1999			**65.0**
February 1999			**8.0**
March 1999			**91.8**
April 1999			**34.0**
May 1999			**907.0**
June 1999			**66.2**
July 1999			**3.44**
August 1999			**74.2**
September 1999	**80**	**8.0**	**423.0**
October 1999			**64.7**
November 1999			**177.6**
December 1999			**1186.0**

	RECEIVING WATER DATA		
DATE	**DISSOLVED OXYGEN (MG/L)**	**TEMPERATURE ^{0}F**	**Ph**
January 1999			
February 1999			
March 1999	**8.6**	**74**	**7.79**
April 1999			
May 1999			
June 1999	**5.3**	**86**	**7.6**
July 1999			
August 1999			
September 1999	**6.5**	**86**	**7.8**
October 1999			
November 1999			
December 1999	**7.9**	**68**	**7.73**

[8] **Bioassay Acute is measured as % survival in 100% effluent (C. dubia) at the end of 96 hours.**
[9] **Bioassay Chronic is measured in chronic toxicity units (C. dubia survival) at the end of 7 days.**

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

TABLE 2
PROPOSED EFFLUENT AND RECEIVING WATER LIMITATIONS
NPDES PERMIT NO. CA0104400
BOARD ORDER NO. 00-040
CITY OF IMPERIAL

EFFLUENT LIMITATIONS

1. **Effluent discharged to the Dolson Drain shall not contain constituents in excess of the following limits:**

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

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. **The twenty-four (24) hour hydraulic flow rate for this system shall not exceed 1.4 MGD.**

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

6. **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.**

7. **Effluent discharged to Dolson Drain shall not have an Escherichia Coli (E. Coli) concentration in excess of a log mean of Most Probable Number (MPN) of 126 MPN per 100 milliliters (based on a minimum of not less than five samples for any 30-day period) nor shall any sample during any 30-day period, exceed 400 MPN per 100 milliliters.**

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 permit. The discharge shall not cause the following in the Dolson Drain:**

[10] **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.**
[11] **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.**

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

b. **Cause 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 concentration that adversely affect beneficial uses.**

d. **Cause aesthetically undesirable discoloration or odors in the receiving water.**

e. **Cause an increase in fungi, slime, or other objectionable growth.**

f. **Cause the turbidity to increase by more than 10 percent over background levels.**

g. **Cause 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. **Cause the normal ambient receiving water temperature to be altered more than 5° F.**

j. **Cause in the maximum electrical conductivity to exceed background levels.**

k. **Cause the chemical constituents to exceed concentrations that adversely affect beneficial uses or create nuisance.**

l. **Cause 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. **This 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.**