**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 Holtville | Public Notice No.: | 7-01-02 |
| NPDES Permit Number: | CA0104361 | Board Order No.: | 01-002 |
| Mailing Address: | City of Holtville<br>121 West Fifth Street<br>Holtville, CA 92250 | | |
| Location: | 1250 Kamm Road<br>Holtville, CA 92250 | | |
| Contact Person: | David Dale, Associate Engineer | | |
| Telephone: | (760) 337-3883 | | |

I. Status of Permit

On May 31, 2000, City of Holtville, 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 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 Holtville. The average daily discharge to the receiving waters is 0.623 million gallons-per-day (MGD). The present design capacity is 0.85 MGD. Wastewater is discharged into the Pear Drain, located in the SW ¼ of Section 21, T15S, R15E, SBB&M, as shown on the attached site map. Discharged water flows through the Pear Drain for about 180 yards and then enters the Alamo River. The Alamo River flows to the Salton Sea.

The wastewater collection system conveys water to the treatment plant headworks where the wastewater passes through a barminutor followed by a grit chamber before entering the primary clarifiers. The influent flow passes through three primary clarifiers in series. Sludge settled from the primary clarifiers is pumped to an aerobic digester. Wastewater from the primary clarifiers receives secondary treatment in a trickling filter followed by secondary sedimentation in three secondary clarifiers operated in parallel. Secondary sludge removed from the secondary clarifiers is pumped to the aerobic digester for treatment. Secondary treated effluent is discharged to the Pear Drain. Treated sludge removed from the aerobic digester is pumped to drying beds for liquid solids separation and stored onsite for final disposal at a landfill. Bacteriological limits will become effective on October 1, 2002.

III. Description of Discharge

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

IV. Receiving Water

The receiving water for Outfall OO1 is the Pear Drain. Water discharged from the facility flows through the Pear Drain, the 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 received May 31, 2000:

| | | |
|---|---|---|
| Average Daily Flow | 0.582 | MGD[4] |
| Maximum Daily Flow Rate | 0.658 | MGD |
| Minimum Daily pH | 7.01 | |
| Maximum Daily pH | 7.79 | |
| Average Daily BOD[5] Concentration | 9.0 | mg/L[6] |
| Maximum Daily BOD Concentration | 16 | mg/L |
| Average Daily TSS[7] Concentration | 16.0 | mg/L |
| Maximum Daily TSS Concentration | 42.0 | mg/L |

[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-per-Day
[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 August 1999 through July 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 |

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.

[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

| Constituents | Basis for Limitations |
|---|---|
| Biochemical Oxygen Demand (BOD) | Discharges 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. |
| Total Dissolved Solids | High levels of TDS can adversely impact aquatic life. The TDS limit is from the Basin Plan of the Region. |
| 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. |
| 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 0.85 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 City of Holtville NPDES permit CA0104361.
(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 January 17, 2001.

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.

TABLE 1
DISCHARGE MONITORING REPORT

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**
**COLORADO RIVER BASIN REGION**

CITY OF HOLTVILLE

| | INFLUENT DATA | | EFFLUENT DATA | | |
|---|---|---|---|---|---|
| DATE | BOD (MG/L) | SS (MG/L) | BOD (MG/L) | SS (MG/L) | TDS (MG/L) |
| August 1999 | 86 | 145 | 5.6 | 41.5 | 823 |
| September 1999 | N/D | 76 | N/D | 3.0 | 953 |
| October 1999 | 71 | 83 | 7.0 | 4.0 | 844 |
| November 1999 | 107 | 173 | N/D | 10.0 | 881 |
| December 1999 | 137 | 83 | 8.0 | 15.0 | 891 |
| January 2000 | 136 | 88 | 14.0 | 12.0 | 938 |
| February 2000 | 201 | 305 | 13.0 | 7.0 | 929 |
| March 2000 | 201 | 228 | 14.0 | 10.0 | 990 |
| April 2000 | 161 | 142 | 15.0 | 14.0 | 990 |
| May 2000 | 121 | 93 | 5.0 | 10.0 | 1040 |
| June 2000 | 105 | 118 | 8.0 | 10.0 | 950 |
| July 2000 | 145 | 169 | 10.0 | 12.0 | 975 |

| | EFFLUENT DATA | | |
|---|---|---|---|
| DATE | SETTLEABLE MATTER (ML/L) | FLOW TO CHANNEL (MGD) | PH |
| August 1999 | 0.1 | 0.598000 | 7.41 |
| September 1999 | 0.1 | 0.510607 | 7.42 |
| October 1999 | 0.1 | 0.605236 | 7.01 |
| November 1999 | 0.1 | 0.510607 | 7.85 |
| December 1999 | 0.1 | 0.510607 | 7.79 |
| January 2000 | 0.1 | 0.599065 | 7.71 |
| February 2000 | 0.1 | 0.647517 | 7.81 |
| March 2000 | 0.1 | 0.642484 | 7.80 |
| April 2000 | 0.1 | 0.596667 | 7.49 |
| May 2000 | 0.1 | 0.637774 | 7.40 |
| June 2000 | 0.06 | 0.637774 | 7.41 |
| July 2000 | 0.04 | 0.639903 | 7.40 |

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

| | EFFLUENT DATA | | | |
|---|---|---|---|---|
| DATE | BIOASSAY[11] ACUTE | | BIOASSAY[12] CHRONIC | |
| | Ceriodaphnia Dubia | Pimephales promelas | Ceriodaphnia dubia | Pimephales promelas |
| August 1999 | | | | |
| September 1999 | | | | |
| October 1999 | 90 | 62.5 | <1.0 | <2.0 |
| November 1999 | | | | |
| December 1999 | | | | |
| January 2000 | | | | |
| February 2000 | | | | |
| March 2000 | | | | |
| April 2000 | | | | |
| May 2000 | | | | |
| June 2000 | | | | |
| July 2000 | | | | |

| | RECEIVING WATER DATA | | | |
|---|---|---|---|---|
| | PEAR DRAIN Upstream of Discharge | | ALAMO RIVER Downstream of Discharge | |
| DATE | DISSOLVED OXYGEN (MG/L) | PH | DISSOLVED OXYGEN (MG/L) | PH |
| August 1999 | 8.5 | 8.11 | 10.5 | 8.27 |
| September 1999 | 6.00 | 7.64 | 7.25 | 8.37 |
| October 1999 | 8.20 | 8.05 | 7.98 | 7.85 |
| November 1999 | 8.10 | 7.21 | 8.21 | 7.10 |
| December 1999 | 8.05 | 7.92 | 8.89 | 8.10 |
| January 2000 | 8.01 | 8.20 | 8.18 | 8.25 |
| February 2000 | 8.98 | 7.86 | 8.98 | 8.05 |
| March 2000 | 7.92 | 8.17 | 8.96 | 8.30 |
| April 2000 | 6.90 | 8.10 | 5.85 | 7.74 |
| May 2000 | 7.10 | 7.90 | 6.38 | 7.74 |
| June 2000 | 6.92 | 7.89 | 6.18 | 7.60 |
| July 2000 | 6.50 | 7.89 | 7.10 | 8.10 |

[11] Bioassay Acute is measured in % survival in 100% effluent (C. dubia / P. promelas) at the end of 96 hours.
[12] 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. CA0104361
BOARD ORDER NO. 01-002
CITY OF HOLTVILLE

EFFLUENT LIMITATIONS

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

| Constituent | Unit | 30-Day Arithmetic Mean Discharge Rate | 7-Day Arithmetic Mean Discharge Rate |
|---|---|---|---|
| $20^oC$ $BOD_5$ | 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 Pear Drain 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. After September 30, 2002, effluent discharged to Pear 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 (5) samples for any 30-day period) nor shall any sample during any 30-day period, exceed 400 MPN per 100 milliliters.

6. The 24-hour hydraulic flow rate for this system shall not exceed 0.85 MGD.

7. No waste discharge shall exceed the effluent limitations for Group 1 or Group 2 pollutants. Exceedance of a Group 1 pollutant by 40 percent or a Group 2 pollutant by 20 percent or more is a serious violation. Group 1 and Group 2 pollutants are defined in 40 CFR Section 123.45.

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

9. 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 permit. The discharge shall not cause the following in Pear Drain:

   a. Depress the concentration of dissolved oxygen 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 ten (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.