

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

STATEMENT OF BASIS
APPLICATION FOR
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
AND
WASTE DISCHARGE REQUIREMENTS
TO DISCHARGE TO STATE WATERS

Permittee Name: Imperial County Gateways CSA WWTP
Public Notice No.: 7-02-24
NPDES Permit Number: CA7000015
Board Order No.: R7-2003-0001

Mailing Address: Imperial County Gateways County Service Area
940 Main Street
El Centro, CA 92243

Location: One-quarter (1/4) mile north of Carr Road, immediately east of State
Route 7 and west of the Alamo River, Imperial County, CA 92243

Contact Person: Ann Capela

Telephone: (760) 482-4290

I. Status of Permit

Imperial County Gateway of the Americas CSA (hereinafter referred to as the discharger), submitted an application for a National Pollutant Discharge Elimination System (NPDES) permit and to update its waste discharge requirements (WDRs). The application is for the wastewater treatment facility located at the address mentioned above.

II. Facility Description

The Gateway of the Americas CSA owns the wastewater collection, treatment and disposal system (hereinafter referred to as facility) and provides sewerage service to the Imperial County Gateways Service Area. Operation of the treatment plant is currently contracted with Water Quality Specialists of San Diego Inc. The wastewater treatment plant (WWTP), has a treatment capacity of 0.2 million gallons-per-day (MGD).

The facility provides treatment through a lagoon system. The treatment system consists of two (2) treatment trains operated in parallel. Each treatment train has one (1) High Density Polyethylene (HDPE) lined facultative pond and one (1) unlined facultative pond operated in series. Surface aerators are available and ready for operation if necessary. The wastewater will be disinfected with sodium hypochlorite and dechlorinated with sodium bisulfate prior to discharge to the Alamo River via an outfall pipe.

The discharger owns and operates the wastewater collection system, servicing an area of approximately 1400 acres. The dedicated sanitary sewer system provides conveyance of raw wastewater to the treatment facility. The collection system will contain three (3) lift stations servicing three (3) drainage basins upon the Phase 3 completion date.

III. Description of Discharge

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

IV. Receiving Water

The receiving water for Outfall OO1 is the Alamo River. Water discharged from the facility flows through the Alamo River and ultimately to the Salton Sea.

1. The designated beneficial uses of waters of the Alamo River are:
 - a. Fresh Water Replenishment of Salton Sea (FRSH)
 - b. Water Contact Recreation (REC I¹)
 - c. Non-Contact Water Recreation (REC II)
 - d. Warm Freshwater Habitat (WARM)
 - e. Wildlife Habitat (WILD)
 - f. Hydropower Generation (POW²)
 - g. Preservation of Rare, Threatened, or Endangered Species (RARE)³

V. Proposed Technology-Based Effluent Limitations

Regulations promulgated in 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. Equivalent to Secondary Treatment Standards

<u>Constituents</u>	<u>Unit</u>	<u>30-Day⁴ Arithmetic Mean Discharge Rate</u>	<u>7-Day⁵ Arithmetic Mean Discharge Rate</u>
20° C BOD ₅ ⁶	mg/L	45	65
Total Suspended Solids	mg/L	95	

The 30-day average percent removal of the pollutant parameter BOD₅ shall not be less than 65 percent.

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

¹ The only REC 1 usage that is known to occur is from infrequent fishing activity

² Potential use

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 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.

⁴ 30 Day Mean- Arithmetic average of all samples collected during the calendar month

⁵ 7 Day Mean- Arithmetic average of all samples collected during a calendar week (Sunday through Saturday)

⁶ BOD₅ - Biochemical Oxygen Demand

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VI. 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 WDRs 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.

<u>Constituents</u>	<u>Basis for Limitations</u>
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.
<i>Escherichia Coli</i> (E. coli)	These limits are required by the Basin Plan for waters designated for water contact recreation (RECI) or noncontact water recreation (RECII).
Chlorine Residual	This limitation is based on the U.S. Environmental Protection Agency's - <u>Ambient Water Quality Criteria for Chlorine - 1984</u> .
Flow	The design capacity of the treatment plant is 0.2 MGD.

VII. Proposed Effluent Limitations

Table 1, contained later in this Fact Sheet, summarizes the proposed effluent limitations for Outfall 001. Proposed effluent limitations are based on equivalent to secondary treatment standards and Colorado River Basin Plan Water Quality Standards.

VIII. Monitoring Requirements

Monitoring for those pollutants expected to be present in the Outfall 001 will be required as shown on the proposed monitoring and reporting program and as required in the "Policy for

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Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California" adopted March 2, 2000.

IX. 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 June 18, 2001.
- (2) Code of Federal Regulations – Title 40
- (3) Water Quality Control Plan for the Colorado River Basin, as amended to date (Colorado River Basin – Region 7)
- (4) Regional Board files related to Imperial County Gateway of Americas CSA WWTP
- (5) Porter-Cologne Water Quality Control Act with additions and amendments effective January 1, 2002
- (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

X. 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 6, 2002 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.

XI. 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 15, 2003.

XII. 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.

XIII. Additional Information

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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.

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TABLE 1
PROPOSED EFFLUENT AND RECEIVING WATER LIMITATIONS
NPDES PERMIT NO. CA7000015
BOARD ORDER NO. R7-2003-0001
IMPERIAL COUNTY GATEWAY OF AMERICAS CSA WWTP

EFFLUENT LIMITATIONS

1. Representative samples of wastewater discharged to the Alamo River from the treatment systems shall not contain constituents in excess of the limits indicated below. Each treatment system discharging to the Alamo River shall be monitored separately at locations which are acceptable by the Regional Board's Executive Officer or his designee:

<u>Constituent</u>	<u>Unit</u>	<u>30-Day Arithmetic Mean Discharge Rate⁷</u>	<u>7-Day Arithmetic Mean Discharge Rate⁸</u>
20° C BOD ₅ ⁹	mg/L ¹⁰	45	65
	lb/day ¹¹	75	110
Total Suspended Solids	mg/L	95	
	lb/day	160	

2. The 30-day monthly average percent removal of the pollutant parameter BOD₅ shall not be less than 65 percent.
3. The hydrogen ion (pH) of the effluent shall be maintained within the limits of 6.0 to 9.0.
4. Wastewater effluent discharged to the Alamo River shall not have a geometric mean *Escherichia coli* (E. coli) concentration in excess of 126 Most Probable Number (MPN) per 100 milliliters (based on a minimum of not less than five (5) samples for any 30-day period) nor shall any sample exceed 400 MPN per 100 milliliters. The compliance point for this effluent limitation shall be at a location acceptable to the Regional Board's Executive Officer or his designee.
5. Effluent discharged to the Alamo 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 his designee.
6. The discharge of wastewater shall not cause the concentration of total dissolved solids (TDS) in the Alamo River to exceed an annual average of 4000 mg/L or a maximum daily of 4500 mg/L.
7. There shall be no acute or chronic toxicity in the treatment plant effluent nor shall the treatment plant effluent cause any acute or chronic toxicity in the receiving water. All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce

⁷ 30 Day Mean- Monthly arithmetic mean sample concentration

⁸ 7 Day Mean- Weekly arithmetic mean samples concentration

⁹ BOD₅ - Biochemical Oxygen Demand

¹⁰ mg/L - milligrams per Liter

¹¹ lbs/day - pounds per day

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detrimental physiological responses in human, plant, animal, or indigenous aquatic life. 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 the Alamo River:
 - a. Depress the concentration of dissolved oxygen to fall 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. Increase turbidity that results in affecting beneficial uses.
 - g. The normal ambient pH to fall below 6.0 or exceed 9.0 units.
 - h. Impact the receiving water temperature, resulting in adversely affecting beneficial uses.
 - i. Result in the deposition of material that causes nuisance or adversely affects beneficial uses.
 - j. The chemical constituents to exceed concentrations that adversely affect beneficial uses or create nuisance.
 - k. 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.
 - l. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to cause or otherwise adversely affect beneficial uses.

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.