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:	United States Bureau of Reclamation
Public Notice No.:	7-02-06
NPDES Permit No.:	CA7000005
Board Order No.:	R7-2002-0103
Mailing Address:	Parker Dam and Power Plant Drinking Water Facility P.O. Box 878 Parker Dam, CA 92267
Location:	Highway 95 near the crossing of the Colorado River Parker Dam, CA 92267
Contact Person:	Carlton Smith, Manager
Telephone:	(760) 663-3712

I. Status of Permit

The United States Bureau of Reclamation, (hereinafter referred to as the discharger), Owner/Operator of Parker Dam and Power Plant Drinking Water Facility, 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 water treatment facility located at the address mentioned above.

II. Facility Description

The discharger owns and operates a drinking water treatment plant that provides drinking water to City of Parker Dam and Parker Village School. The drinking water treatment plant presently treats an average daily flow of 140,000 gallons-per-day (GPD) of water and discharges an average daily flow of 6,000 GPD of filter backwash water. The filter backwash water is discharged into the Colorado River, in the NW ¼ of the NW ¼ of Section 3, T2N, R27E, SBB&M, as shown on the attached site map.

The drinking water treatment plant treats raw lake water from Lake Havasu. The treatment plant adds aqueous aluminum sulfate and sodium hypochlorite for in-line flocculation and chlorination. The direct filtration system contains two groups of four filters. The treated water is passed through high rate, dual-stage pressure filters. The filters are backwashed about every 2 to 3 days in the summer, and every 7 to 10 days in the winter. The backwash water is contained in a concrete holding tank for 3 to 4 hours and then is discharged to the Colorado River. The discharge pipe is located under riprap along the riverbank adjacent to the backwash water holding tank.

III. Receiving Water

All filter backwash water is discharged to the Colorado River.

The designated beneficial uses of waters in the Colorado River and associated lakes and reservoirs are:

a. Municipal and Domestic Supply (MUN)
b. Agriculture Supply (AGR)
c. Aquaculture (AQUA)
d. Industrial Service Supply (IND)
e. Ground Water Recharge (GWR)
f. Water Contact Recreation (REC I)
g. Non-Contact Water Recreation (REC II)
h. Warm Freshwater Habitat (WARM)
i. Cold Freshwater Habitat (COLD)[1]
j. Wildlife Habitat (WILD)
k. Hydropower Generation (POW)
l. Preservation of Rare, Threatened, or Endangered Species (RARE)

IV. 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
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	This is a specific water quality objective for the Colorado River. The Seven States Colorado River Salinity Forum developed this objective. This objective is found in 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.
Chlorine Residual	This limitation is based on the U.S. Environmental Protection Agency's – Ambient Water Quality Criteria for Chlorine –

[1] Limited to reach from Parker Dam to Nevada State Line

1984.

V. Proposed Effluent Limitations

Table 2, contained later in this Fact Sheet, summarizes the proposed effluent limitations for Outfall 001. Effluent limitations are based on water quality, best professional judgment, and on Colorado River Basin Plan Water Quality Standards.

VI. 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 2D dated February 9, 2001.
(2) Code of Federal Regulations – Title 40
(3) Water Quality Control Plan (Colorado River Basin – Region 7) dated 1994.
(4) Regional Board files related to USDI Bureau of Reclamation – Parker Dam and Power Plant Drinking Water Facility NPDES permit CA7000005.
(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 April 15, 2002 to:

Executive Officer
California Regional Water Quality Control Board
Colorado River Basin Region

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 26, 2002.

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 2
PROPOSED EFFLUENT AND RECEIVING WATER LIMITATIONS
NPDES PERMIT NO. CA7000005
BOARD ORDER NO. R7-2002-0103
PARKER DAM AND POWER PLANT DRINKING WATER FACILITY

EFFLUENT LIMITATIONS

1. Representative samples of wastewater discharged to the Colorado River from the treatment system shall not contain constituents in excess of the limits indicated below. Discharge to the Colorado River shall be monitored at a location that is acceptable to the Regional Board's Executive Officer or his designee.

Constituent	Unit	30-Day[2] Arithmetic Mean Discharge Rate	7-Day[3] Arithmetic Mean Discharge Rate
Total Suspended Solids	mg/L[4]	30	45
	Lbs/day[5]	3.5	5.3

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

3. The incremental increase of Total Dissolved Solids (TDS) concentration in the backwash water shall not exceed 400 mg/L above the flow-weighted average of the concentration in the supply water (Lake Havasu).

4. No waste discharge shall exceed the effluent limitations for Group 1 or Group 2 pollutants. Exceedence 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.

RECEIVING WATER LIMITATIONS

1. Effluent discharged to the Colorado River shall not cause the following:

   a. Cause the total chlorine concentration in the receiving water, five (5) feet from the point of discharge, to be above 0.01 mg/L.

   b. The treatment plant effluent shall not cause any acute or chronic toxicity in the receiving water. All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, 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.

   c. Depress the concentration of the dissolved oxygen below 8.0 mg/L. When dissolved oxygen in the receiving water is already below 8.0 mg/L, the discharge shall not cause any further depression.

[2] 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.
[3] 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.
[4] mg/L – milligrams per liter
[5] Based on a maximum discharge rate of 100,000 gallons-per-week.

d. 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.

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

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

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

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

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

j. The maximum electrical conductivity to exceed background levels.

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

l. 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.

m. The natural receiving water temperature of surface waters shall not be altered by discharges of wastewater unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.

n. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to otherwise adversely affect beneficial uses.

2. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the SWRCB 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.