CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

PERMIT NO. 93-039
NPDES NO. CA0104418

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
AND
WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF CALEXICO
WASTEWATER TREATMENT PLANT NO. 1
Calexico - Imperial County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. The City of Calexico (hereinafter referred to as the permittee), 408 Heber Avenue, Calexico, California 92231 submitted a National Pollutant Discharge Elimination System (NDPES) application for the City's wastewater treatment plant No. 1, located at 298 East Anza Road, Calexico, California, 92231. The application was received and considered complete on February 1, 1993.

2. The permittee owns and operates two wastewater treatment facilities which serve a current population of approximately 22,000. Wastewater treatment plant No. 1 utilizes an activated sludge treatment unit process to meet the secondary requirements required under 40 CFR Part 133.102. Designed to treat 1.9 million gallons-per-day (MGD), the complete treatment system consists of one aerated grit chamber, one primary clarifier, an activated sludge system (two mechanically aerated basins) and one secondary clarifier. The permittee currently has the potential to chlorinate the effluent discharged to the New River.

3. The permittee has planned to expand the facility. The expansion of this facility will include the addition of one aeration basin, one secondary clarifier, one anaerobic digester and new chlorination/dechlorination facilities. In addition, an existing primary clarifier, which is not presently used, will be reconnected to the system. The expansion will take place some time in 1993.

4. The National Pollutant Discharge Elimination System Permit application described the proposed discharge as follows:

   Annual Average Influent Flow - 1.6 MGD
   Annual Average Effluent Flow - 1.6 MGD
   Lowest Monthly Average Effluent Flow - 1.4 MGD
   Highest Monthly Average Effluent Flow - 1.8 MGD

5. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) was adopted May 15, 1991 and designates the beneficial uses of ground and surface waters in this Region.

Superseded by 94-048 6/29/94

6. The beneficial uses of waters in the New River are:

   a. Fresh Water Replenishment of Salton Sea (FRSH)
   b. Noncontact Water Recreation (REC II)
   c. Warm Water Habitat (WARM)
   d. Wildlife Habitat (WILD)
   e. Preservation of Rare, Endangered or Threatened Species (RARE)
   f. Water Contact Recreation (REC I)

7. The U. S. Environmental Protection Agency and the Regional Board have classified this discharge as a major discharge.

8. In accordance with Section 13389, Chapter 5.5, Division 7 of the California Water Code, and Section 15263, Chapter 3, Title 14 of the California Code of Regulations, the issuance of these waste discharge requirements is exempt from the California Environmental Quality Act requirement to prepare an Environmental Impact Report or Negative Declaration (Public Resources Code, Section 21100 et seq.).

9. This discharge has been subject to waste discharge requirements, Board Order No. 88-092, (NPDES No. CA0104418), adopted June 30, 1988, which allows discharge to New River.

10. The permittee reports that there are no known industrial wastes subject to regulation under the NPDES Pretreatment Program being discharged to the wastewater treatment plant.

11. The State Water Resources Control Board adopted the California Inland Surface Waters Plan (ISWP) on April 11, 1991. The Plan includes water quality objectives and other requirements.

12. Federal regulations for storm water discharges were promulgated by the EPA on November 16, 1990 (40 CFR Parts 122, 123, and 124). The regulations require specific categories of facilities which discharge storm water associated with industrial activity (storm water) to obtain NPDES permits and to implement Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate industrial storm water pollution.

13. The State Water Resources Control Board adopted Order No. 91-13-DWQ (General Permit No. CAS000001), as amended by Water Quality Order No. 91-12-DWR, specifying waste discharge requirements for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries to be covered under the permit.

14. Effluent and receiving water limitations in this Permit are based on the Federal Clean Water Act, Basin Plan, California Inland Surface Waters Plan, State Water Resources Control Board's plans and policies, U. S. Environmental Protection Agency (EPA) guidance, best professional judgement, and best available technology economically achievable.

15. The Board has notified the permittee and all known interested agencies and persons of its intent to prescribe an NPDES Permit and waste discharge requirements for said discharge, and has provided them with an opportunity for a public meeting and an opportunity to submit comments.

16. The Board in a public meeting heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED that Board Order No. 88-092 is rescinded, and in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and the regulations and guidelines adopted thereunder, the permittee shall comply with the following specifications:

A. Effluent Limitations

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

Constituent	Unit	30-Day Arithmetic Mean Discharge Rate[1]	7-Day Arithmetic Mean Discharge Rate[2]
20°C BOD_5	mg/L	30	45
Suspended Solids	mg/L	30	45
Settleable Matter	ml/L	0.3	0.5
Total Dissolved Solids	mg/L	4,000	4,500

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

3. The pH of the effluent shall be maintained within the limits of 6.0 to 9.0.

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

5. Storm water discharges from the facility shall not cause or threaten to cause pollution, contamination, or nuisance.

6. Storm water discharges from the facility shall not contain hazardous substances equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.

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[1]30-Day Mean: The arithmetic mean of pollutant parameter values of samples collected in a period of 30 consecutive days.

[2]7-Day Mean: The arithmetic mean of pollutant parameter values of samples collected in a period of 7 consecutive days.

7. The discharge shall not contain total dissolved solid concentrations in excess of 300 milligrams-per-liter above the source water.

8. There shall be no acute toxicity in the treatment plant effluent being discharged to the New River. Acute toxicity is defined as less than ninety percent survival, fifty percent of the time, and less than seventy percent survival, ten percent of the time, of standard test organisms in undiluted effluent in a 96-hour static or continuous-flow test.

B. Receiving Water Limitations

1. Wastewater discharged to New River shall not:

a. Depress the dissolved oxygen content of New River below 5.0 mg/L. During any period when the receiving water's dissolved oxygen content is already below 5.0 mg/L, the discharge shall not cause any further depression.

b. Cause the presence of oil, grease, scum, or sludge.

c. Result in the deposition of objectionable solids.

d. Contain metals, chemicals, pesticides, or other constituents in concentrations which are toxic to or which produce detrimental physiological responses in human, plant, animal, or indigenous 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.

C. Prohibitions

1. The permittee shall not accept waste in excess of the design treatment capacity of the plant.

2. Discharge of treated wastewater at a location or in a manner different from that described in Findings No. 2 and 3, above is prohibited.

3. The bypass or overflow of untreated or partially treated wastes to the New River is prohibited, except as allowed in Standard Provision No. 13.

D. Provisions

1. The permittee shall comply with "Standard Provisions for National Pollutant Discharge Elimination System Permit" dated October, 1990.

2. The permittee shall exclude from the wastewater treatment plant any liquid or solid waste which could adversely affect the plant operation or effluent quality. The excluded liquid or solid waste shall be disposed of in accordance with applicable regulations.

3. The permittee's wastewater treatment plant (WWTP) shall be supervised and operated by persons possessing certification of appropriate grade pursuant to Division 4, Chapter 14, Title 23 of the California Code of Regulations.

4. The permittee shall implement acceptable operational and maintenance practices at the WWTP so that needed repairs and maintenance are performed in a timely manner. A yearly report shall be submitted to the Regional Board indicating any operational or maintenance problems.

5. In the event that the permittee proposes a wastewater treatment plant upgrade for this facility, the permittee shall provide the Regional Board a copy of the appropriate environmental impact assessment prior to construction. This document shall be overseen by the appropriate lead agency.

6. Wastewater discharged to the New River shall be monitored for toxicity using bioassays and chemical constituents as specified in "Monitoring and Reporting Program No. 93-039", and future revisions thereto, as specified by the Regional Board's Executive Officer, and in accordance with the following:

   a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

   b. All monitoring, including that of sludge use or disposal, must be conducted according to test procedures approved under 40 CFR Part 136 or as specified in this permit.

   c. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Permit, and records of all data used to complete the application for this Permit, for a period of at least 5 years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Board's Executive Officer at any time.

   d. Records of monitoring information shall include:

      1. The date, exact place, and time of sampling or measurements.

      2. The individual(s) who performed the sampling or measurements.

      3. The date(s) analyses were performed.

      4. The individual(s) who performed the analyses.

      5. The results of such analyses.

7. If the discharge consistently exceeds the applicable chronic or acute toxicity limitation, a toxicity reduction evaluation (TRE) is required. The TRE shall include all reasonable steps to identify the source(s) of toxicity. Once the source(s) of toxicity is identified, the permittee shall take all reasonable steps necessary to reduce toxicity to the required level.

8. Bioassays shall be performed to evaluate the toxicity of the discharged wastewater in accordance with the following procedures:

   a. Bioassays shall be conducted on a sensitive fish species and an invertebrate species as approved by the Regional Board's Executive Officer. Pimephales promelas (fathead minnow) and Ceriodaphnia are suggested test species which may be utilized. The bioassays shall be conducted in accordance with the protocol given in EPA/600/4-89/001 - Short Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to Freshwater Organisms.

   b. The bioassay test specified in 8.a. shall be performed Quarterly (minimum of 4 tests per organisms).

9. This Permit shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Federal Clean Water Act, as amended, and shall become effective at the end of ten (10) days from the date of the hearing at which this Permit was adopted by the Regional Board, provided the Regional Administrator, U. S. Environmental Protection Agency, has no objections.

10. This Permit expires five years from date of adoption, and the permittee shall file a complete Report of Waste Discharge in accordance with Title 23, California Code of Regulations, at least 180 days in advance of such date as an application for issuance of new waste discharge requirements.

11. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the wastewater discharge facilities inoperable.

12. A minimum depth of freeboard of two (2) feet shall be maintained at all times in clarifiers and aeration basins.

13. Prior to any modifications in this facility which would result in material change in the quality or quantity of wastewater treated or discharged, or any material change in the location of discharge, the permittee shall report all pertinent information in writing to the Regional Board; and obtain revised requirements before any modifications are implemented.

14. The permittee shall ensure that all site operating personnel are familiar with the content of this Permit.

15. This Permit does not authorize violation of any federal, state, or local laws or regulations.

16. Facilities shall be available to keep the plant in operation in the event of commercial power failure.

17. The permittee shall develop and implement a Storm Water Pollution Prevention Plan for this facility. The plan must be submitted to the Regional Board's Executive Officer for review and approval not later than ninety days after the adoption of this Permit.

18. All storm water discharges from this facility must comply with the lawful requirements of municipalities, counties, drainage districts and other local agencies regarding discharge of storm water to storm drain systems or other courses under their jurisdiction.

19. The permittee shall, at all times, properly operate and maintain all systems and components of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of this Permit. All systems, both in service and reserve, shall be inspected and maintained on a regular basis. Records shall be kept of the inspection results and maintenance performed and made available to the Regional Board upon demand.

20. The following information shall be submitted to the Regional Board's Executive Officer within 90 days of the effective date of this Permit and updated as changes occur:

    a. Annual sludge production in dry tons and percent of solids.

    b. A schematic diagram showing sludge handling facilities (e.g., digesters, lagoons, drying beds, incinerators) and a solids flow diagram.

    c. A narrative description of sludge dewatering and other treatment processes, including process parameters. For example, if sludge is digested, report average temperature and retention time of the digesters. If drying beds are used, report depth of application and drying time. If composting is used, report the depth of application and drying time, and the temperature achieved and durations.

21. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Regional Board's Executive Officer.

22. The permittee shall maintain a permanent log of all solids hauled away from the treatment facility for use/disposal elsewhere and shall provide a monthly summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and the destination. The sludge that is stockpiled at the treatment facility shall be sampled and analyzed for the substances listed in Monitoring and Reporting Program No. 93-039.

23. Prior to construction and operation, the permittee shall submit for review and approval by the Regional Board's Executive Officer the design of disinfection units for use at this facility.

24. The permittee shall allow the Regional Board's Executive Officer, or his/her authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

    a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, including reclaimed water treatment or discharge facilities, sludge use and disposal activities, or facilities where records must be kept under the conditions of this Permit.

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit. Inspect and sample or monitor, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit, including reclaimed water treatment, discharge, sludge use or disposal sites.

25. The permittee shall allow the Regional Board's Executive Officer, or his/her authorized representative, to sample or monitor influent, effluent, and sludge for the purposes of determining compliance with this Permit and other applicable requirements regarding sludge use and disposal.

26. Public contact with undisinfected wastewater shall be precluded through such means as fences, signs and other acceptable alternatives.

27. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal system.

28. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Sections 13050(l) and 13050(m) of Division 7 of the California Water Code.

29. The permittee may be required to submit technical reports as directed by the Regional Board's Executive Officer.

30. The permittee shall not cause degradation of any water supply.

31. The permittee shall comply with all conditions of this Permit. Noncompliance constitutes a violation of the Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

32. The permittee shall provide adequate notice of the following to the Regional Board's Executive Officer:

    a. Any new introduction of pollutants into any of the treatment facilities described in the findings of this Permit from an indirect discharger which would be subject to Section 301 or 306 of the Federal Clean Water Act if it were directly discharging the pollutants.

    b. Any substantial change in the volume or character of pollutants being introduced into any of the treatment facilities described in the findings of this Permit by an existing or new source.

c. Any planned physical alterations or additions to the facilities described in this Permit, or changes planned in the permittee's sludge use or disposal practice, where such alterations, additions or changes may justify the application of permit conditions that are different from or absent in, the existing Permit, including notification of additional disposal sites not reported during the permit application process, or not reported pursuant to an approved land application plan.

d. Adequate notice shall include information on the quality and quantity of effluent introduced, and any anticipated impact of the change on the quantity or quality of the permittee's effluent and/or sludge.

e. The permittee shall report all instances of noncompliance. Reports of noncompliance shall be submitted with the permittee's next scheduled self-monitoring report or earlier if requested by the Regional Board's Executive Officer or if required by an applicable standard for sludge use and disposal.

E. Pretreatment

1. In the event that significant industrial wastewaters are being discharged to the wastewater treatment facility, then:

   a. The permittee shall develop, implement and maintain an industrial pretreatment program approved by the Regional Board's Executive Officer.

   b. The permittee shall maintain an adequate revenue program and enforce prohibitions against any violation of applicable pretreatment standards approved by the Regional Board's Executive Officer.

2. The permittee shall provide the Regional Board with an annual report describing the pretreatment program activities over the previous 12-month period. The report shall be transmitted to the Regional Board office no later than January 31 of each year and include:

   a. A summary of actions taken by the permittee which ensures industrial-user compliance;

   b. An updated list of industrial users (by SIC categories) which were issued permits, and/or enforcement orders, and a status of compliance for each user; and

   c. The name and address of each user that received a revised discharge limit.

3. The Regional Board retains the right to take legal action against an industrial user and/or the permittee where a user fails to meet the approved applicable pretreatment standards.

I, Philip A. Gruenberg, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of a Permit adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on June 30, 1993.

Philip A. Gruenberg
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 93-039
FOR
CITY OF CALEXICO
WASTEWATER TREATMENT PLANT NO. 1
Calexico - Imperial County

Location of Discharge: New River in the SW 1/4 of the NW 1/4 of Section 14, T17S, R14E, SBB&M

INFLUENT MONITORING

A sampling station shall be established where a representative sample of the influent can be obtained. The influent shall be monitored for the following:

Constituent	Unit	Type of Sample	Sampling Frequency
20°C BOD_5	mg/L[1]	24-Hr. Composite	Semi-Weekly
Total Suspended Solids	mg/L	24-Hr. Composite	Semi-Weekly

EFFLUENT MONITORING

A sampling station shall be established at the point of discharge and shall be located where representative samples of effluent can be obtained. Wastewater discharged into New River shall be monitored for the following constituents:

Constituent	Unit	Type of Sample	Sampling Frequency
20°C BOD_5	mg/L	24-Hr. Composite	Weekly
Suspended Solids	mg/L	24-Hr. Composite	Weekly
Settleable Matter	ml/L[2]	Grab at Peak Flow	Weekly
pH	pH Units	Grab	Daily[3]
Flow	MGD	Daily[4]	Reported Monthly

[1]mg/L = milligrams-per-liter

[2]ml/L = milliliters-per-liter

[3]Once per weekday

[4]For each day with average monthly flow calculated

Constituent	Unit	Type of Sample	Sampling Frequency
Bioassay	--	--	Quarterly
Dissolved Oxygen	mg/L	Grab	Daily
Nitrate	mg/L	Grab	Quarterly
Total Dissolved Solids	mg/L	Grab	Quarterly
Volatile Organic Compounds	µg/L[5]	Grab	Annually

DOMESTIC WATER SUPPLY

Constituent	Unit	Type of Sample	Sampling Frequency
Total Dissolved Solids	mg/L	Grab	Quarterly

EFFLUENT CHRONIC TOXICITY TESTING

The discharger shall conduct chronic toxicity testing on the treatment plant effluent as follows:

Test	Units	Type of Samples	Minimum Frequency of Test
Chronic Toxicity	tu_c	Composite	Quarterly

Both test species given below shall be used to measure chronic toxicity:

Critical Life Stage Toxicity Tests

Species	Effect	Test Duration (Days)	Reference
fathead minnow (Pimephales promelas)	larval survival and growth rate	7	Horning & Weber, 1989
water flea (Ceriodaphnia dubia)	survival; number of young	7	Horning & Weber, 1989

[5]µg/L = micrograms-per-liter

Toxicity Test Reference: Horning W.B. and C.I. Weber (eds). 1989. Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organism. Second edition. U.S. EPA Environmental Monitoring Systems Laboratory, Cincinnati, Ohio. EPA/600/4-89/001.

Dilution and control waters should be obtained from an unaffected area of the receiving waters. Standard dilution water should be used if the above source exhibit toxicity greater than 1.0 tu_c. The sensitivity of the test organism to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results.

Chronic toxicity shall be expressed and reported as toxic units (tu_c) where:

$$tu_c = 100/NOEL$$

and the No Observed Effect Level (NOEL) is expressed as the maximum percent effluent of test water that causes no observed effect on a test organism, as determined in a critical life stage toxicity test (indicated above).

RECEIVING WATER MONITORING

Constituent	Unit	Type of Sample	Sampling Frequency
Dissolved Oxygen	mg/L	Grab	Daily
Hardness	mg/L[6]	Grab	Quarterly
pH	pH Units	Grab	Daily

SOLIDS MONITORING

The permittee shall report quarterly on the quantity, location and method of disposal of all sludge and similar solid materials being produced at the wastewater treatment plant facility.

The permittee shall submit a monthly report which reports volume, type (grit, screenings, raw sludge, etc.) and use (agricultural, composting, etc) of all solids hauled away from the wastewater treatment plant.

Sludge shall be sampled and analyzed for the following constituents:

Constituent	Unit	Type of Sample	Sampling Frequency
Arsenic	mg/kg[7]	Grab	Annually
Cadmium	mg/kg	Grab	Annually

[6]Hardness shall be expressed as milligrams-per-liter C_aCO_3

[7]mg/kg = milligrams-per-kilogram

Constituent	Unit	Type of Sample	Sampling Frequency
Chromium	mg/kg	Grab	Annually
Copper	mg/kg	Grab	Annually
Lead	mg/kg	Grab	Annually
Mercury	mg/kg	Grab	Annually
Molybdenum	mg/kg	Grab	Annually
Nickel	mg/kg	Grab	Annually
Selenium	mg/kg	Grab	Annually
Zinc	mg/kg	Grab	Annually
Fecal Coliform	MPN[8]	Grab	Annually

Annual reports shall be submitted which describe the operational problems encountered throughout the year and amount of sludge produced.

REPORTING

1. Daily, semi-weekly and monthly reports shall be submitted to the Regional Board by the 15th day of the following month. Quarterly monitoring reports shall be submitted to the Regional Board by January 15, April 15, July 15, and October 15 of each year. Annual reports shall be submitted by January 15 of the following year.

2. The permittee shall arrange the data in tabular form so that the specified information is readily discernable. The data should be summarized in such a manner as to clearly illustrate whether the treatment system is operating in compliance with the discharge limitations.

3. Each report shall contain the following statement:

   "I declare under the penalty of law that this document and all the attachments are true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

4. Monitoring reports shall be signed by a principal executive officer, ranking official, or a duly authorized representative.

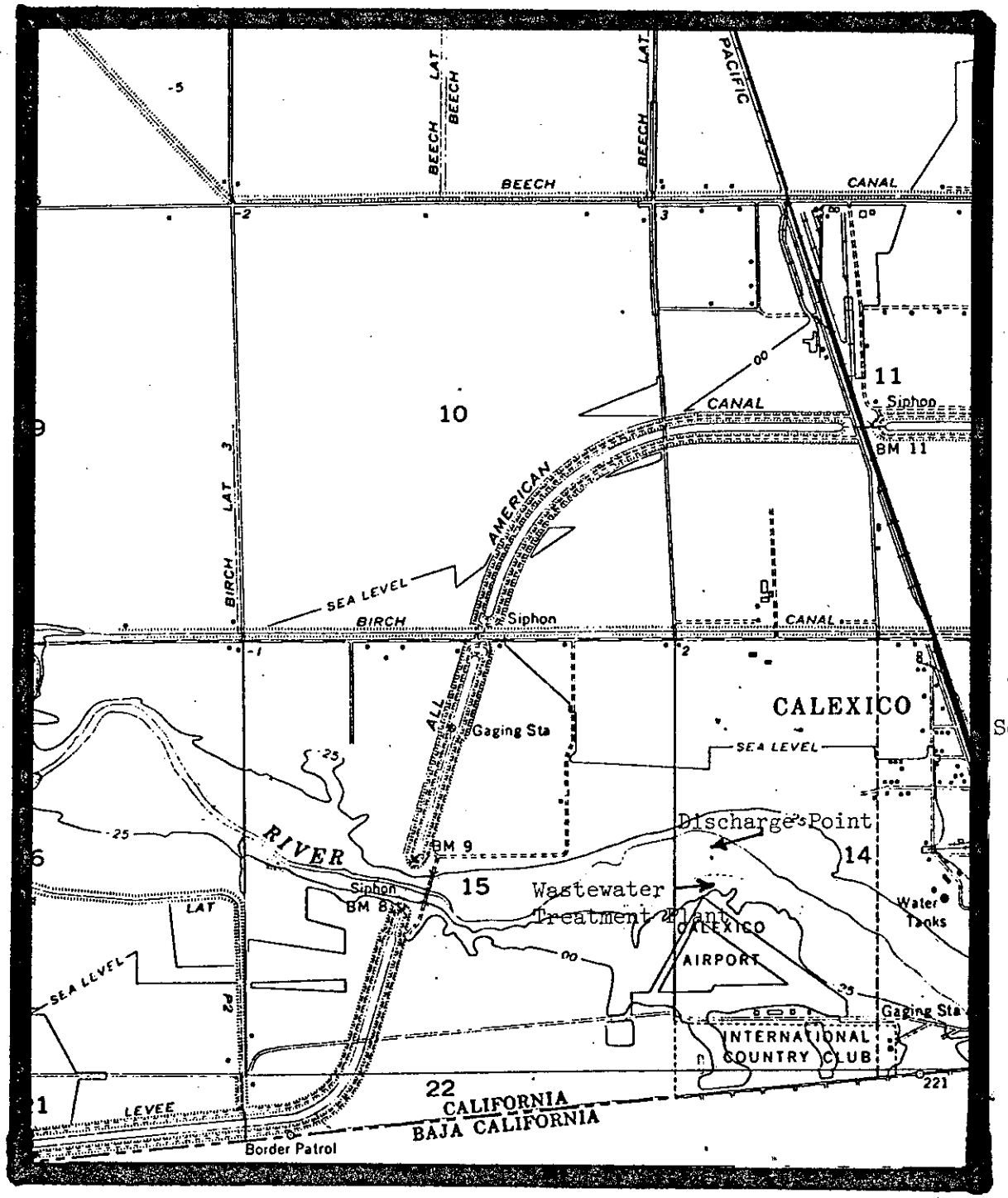
[8]MPN = Most Probable Number

5. Mail reports to:

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

Ordered By: Philip A. Gruenberg
Executive Officer

June 30, 1993
Date



SITE MAP

CITY OF CALEXICO
WASTEWATER TREATMENT PLANT NO. 1
Calexico - Imperial County

SW 1/4, NW 1/4, Section 14, T17S, R14E, SBB&M
U.S.G.S. Heber 7.5 min. Topographic Map

Order No. 93-039