CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 93-016

WASTE DISCHARGE REQUIREMENTS
FOR
CALIFORNIA DEPARTMENT OF CORRECTIONS
CHUCKWALLA CORRECTIONAL FACILITY
WASTEWATER TREATMENT FACILITY
Wiley's Well - Riverside County

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

1. California Department of Corrections (hereinafter referred to as the discharger), 501 J Street, Sacramento, CA 94283, submitted an updated Report of Waste Discharge, dated December 10, 1992, to discharge treated wastewater from a newly expanded treatment facility at the Chuckwalla Prison site, which is located approximately three miles south of the Wiley's Well Rest Stop interchange on Interstate 10, about 20 miles west of Blythe. This facility is located in the NE 1/4, Section 17, T7S, R19E, SBB&M.

2. The prison is in the process of building an expansion which will more than double the inmate capacity from 2,000 to 4,400. The average daily design flow of the expanded treatment plant is 1.8 million gallons-per-day (MGD). This is generated from the following three sources:

   a. Domestic wastewater (including the evaporative cooler and cooling tower blowdowns) from the existing Riverside I facility.

   b. Domestic wastewater (including the evaporative cooler and cooling tower blowdowns) from the new Riverside II facility.

   c. Process wastewater (including the reverse osmosis process, activated alumina units media regeneration process) from the water treatment plant (WTP)

3. Design wastewater flow rates for the expanded prison wastewater treatment plant are given below:

	Domestic			
Condition	Riverside I (MGD)	Riverside II (MGD)	Process Wastewater (MGD)	Total (MGD)
Avg. Day	0.66	0.79	0.35	1.80
Max. Day	1.32	1.58	0.70	3.60
Peak Hour	1.98	2.37	0.70	5.05

4. The expanded wastewater treatment plant would consist of primary clarifiers, trickling filters, secondary clarifiers, a chlorine disinfection system, aerobic digesters and sludge drying beds. The preliminary treatment is via a bar screen and a grinder. The wastewater is then pumped to the wastewater treatment facilities.

5. The treated wastewater is disinfected so it can be used agriculturally on site. The California Code of Regulations require that reclaimed water used for agricultural purposes via spray irrigation be disinfected to safeguard against disease. Chlorine will be utilized as the disinfecting agent.

6. Water supply for the prison comes from 6 on-site wells, which are from approximately 180 to 1,200 feet in depth. The static water level beneath the site is at 200 feet. The average total dissolved solids found in the supply water was calculated at 864 mg/L. Besides the total dissolved solids, the only other constituent of concern in the prison's supply water is fluoride. The fluoride concentration in the supply water averages approximately 8.0 mg/L.

7. The discharger states that the treated wastewater will be disposed of by spray-irrigating alfalfa fields comprising approximately 200 acres. Flows from the chlorine contact tank will pass through the reclaimed water pumping station and be pumped for irrigation of the alfalfa fields. When the flow exceeds the demand, the treated wastewater will flow by gravity to one of three earthen storage ponds. As an operation option, treated wastewater can be diverted to the percolation ponds for disposal.

8. The discharger states that the sludge produced will either be used on the alfalfa fields or disposed of off-site. In either case, the sludge disposal will be done according to 40 CFR, Part 503.

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

10. The beneficial uses of ground waters in the Colorado Hydrologic Unit are:

    a. Municipal supply (MUN)
    b. Industrial supply (IND)
    c. Agricultural supply (AGR)

11. The California Department of Health Services has established statewide reclamation criteria in Title 22, California Code of Regulations, Section 60301, et. seq. (hereafter Title 22) for the use of reclaimed water and has developed guidelines for specific uses.

12. Federal regulations for storm water discharges were promulgated by the EPA on 16 November 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 (BAT) and Best Conventional Pollutant Control Technology (BCT) 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 this Board Order.

14. This discharge has been subject to waste discharge requirements adopted in Board Order No. 87-055.

15. The Board has notified the discharger and all known interested agencies and persons of its intent to update waste discharge requirements for this discharge.

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

17. The Director of the California Department of Corrections filed a Notice of Determination on March 1, 1991 for the expansion of this facility. The State Clearinghouse number was SCH # 90020733.

IT IS HEREBY ORDERED, that Board Order No. 87-055 is rescinded and in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the discharger shall comply with the following:

A. Discharge Specifications

1. Treated wastewater effluent discharged to holding basins or used for irrigation from treatment facilities 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	30.0	45.0
Suspended Solids	mg/L	30.0	45.0
Settleable Matter	ml/L	0.3	0.5
Total Dissolved Solids	mg/L	400 (over TDS in water supply)	

2. Both treated and untreated wastewater shall be prevented from entering any surface water bodies at any time.

3. The holding facilities for wastewater shall be maintained and operated so as to minimize the increase in salinity due to evaporation.

4. A freeboard of no less than two (2) feet shall be maintained at all times in all holding basins.

5. Wastes, including windblown spray, shall be strictly confined to lands specifically designated for the disposal operation, and irrigation practices shall be managed so that runoff of effluent from the irrigated areas does not occur at any time.

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

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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.

B. Provisions

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

2. The discharger shall comply with "Monitoring and Reporting Program No. 93-016", and future revisions thereto, as specified by the Regional Board's Executive Officer, in accordance with the following:

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

   b. The discharger 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 Board Order, and all records of all data used to complete the application for this Board Order, 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.

   c. 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.

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

4. The discharger shall provide a report to the Regional Board when it determines that the treatment plant is operating at 80 percent of design capacity. The report should indicate what steps, if any, the discharger intends to take, to provide for expected wastewater treatment capacities.

5. This Board Order does not authorize violation of any federal, state, or local laws or regulations.

6. Compliance with the discharge limitations shall be determined at the end of the discharge pipe presently located at the effluent pumping station.

7. The discharger 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 90 days after the adoption of this Board Order.

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

9. The discharger shall maintain a copy of this Board Order at the site so as to be available at all times to site-operating personnel. The discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order.

10. The discharger shall, at all times, properly operate and maintain all systems and components of treatment and control which are installed or used by the discharger to achieve compliance with

the conditions of this Board Order. 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 Board Order. All systems, both in service and reserve, shall be inspected and maintained on a regular basins. Records shall be kept of the inspection results and maintenance performed and made available to the Regional Board upon demand.

11. 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 discharger shall report all pertinent information in writing to the Regional Board; and obtain revised requirements before any modifications are implemented.

12. 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 duration.

13. The discharger 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.

14. 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.

15. The storage, delivery, or use of reclaimed water shall not individually or collectively, directly or indirectly, result in a pollution or nuisance, or adversely affect water quality, as defined in the California Water Code.

16. The delivery or use of reclaimed water shall be in conformance with the reclamation criteria contained in Chapter 3, Title 22, California Code of Regulations, or amendments thereto, for the irrigation of food crops, irrigation of fodder, fiber, and see crops, landscape irrigation, supply of recreational impoundments and ground water recharge.

17. The discharger shall be responsible for assuring that reclaimed water is utilized in conformance with this Board Order and the reclamation criteria contained in Title 22, California Code of Regulations.

18. Prior to delivering reclaimed water to any new user, the discharger shall submit to the Regional Board a report discussing the delivery system, the use for which the reclaimed water is intended and plans to assure that no untreated or inadequately treated wastewater will be delivered to the use area.

19. Objectionable odors originating at this facility shall be perceivable beyond the limits of the wastewater treatment and disposal area.

20. Bypass of overflow of untreated or partially treated waste is prohibited.

21. The discharge shall not cause degradation of any water supply.

22. Ponds shall have sufficient capacity to accommodate allowable wastewater flow and design seasonal precipitation and ancillary inflow and infiltration during the nonirrigation season. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns. Freeboard shall never be less than two feet (measured vertically).,

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

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

    a. Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or facilities where records must be kept under the conditions of this Board Order.

    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Board Order. Inspect and sample or monitor, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order.

25. The discharger 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 Board Order and other applicable requirements.

I, Philip A. Gruenberg, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on March 31, 1993.

Philip A. Gruenberg
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 93-016
FOR
CALIFORNIA DEPARTMENT OF CORRECTIONS
CHUCKWALLA CORRECTIONAL FACILITY
WASTEWATER TREATMENT FACILITY
Wiley's Well - Riverside County

Location of Discharge: Sections 16, 17, 18, T7S, R20E, SBB&M

EFFLUENT MONITORING

Secondary effluent[1] discharged to any holding and/or infiltration basin or used for irrigation shall be monitored for the following:

Constituent	Unit	Type of Sample	Sampling Frequency
20°C BOD_6	mg/L	24-Hour Composite	Semi-Weekly[2]
Suspended Solids	mg/L	24-Hour Composite	Semi-Weekly
Settleable Matter	ml/L	Grab at Peak Flow	Daily
Flow (Total Plant Effluent)	MGD	Flow Measurement	Daily[3]
pH	pH Units	Grab	Daily
Total Dissolved Solids	mg/L	Grab	Weekly
Sulfate (SO_4)	mg/L	Grab	Monthly
Fluoride (F)	mg/L	Grab	Monthly
Nitrate as N	mg/L	Grab	Monthly
Total Nitrogen	mg/L	Grab	Monthly
Volatile Organic Compounds[4]	µg/L[5]	Grab	Annual

[1] Effluent from activated sludge treatment plant

[2] Once every two weeks

[3] Reported for each day with average monthly flow calculated.

[4] Analysis of Volatile Organic Compounds are to be accomplished using the EPA test methods 601 and 602

[5] µg/L - Microgram per Liter

SLUDGE MONITORING

The discharger 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 sludge that is generated at the treatment facility shall be sampled and analyzed for the following constituents:

Constituent	Unit	Type of Sample	Sampling Frequency
Arsenic	mg/kg[6]	Grab	Annually
Cadmium	mg/kg	Grab	Annually
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	Most Probable Number	Grab	Annually

The collection preservation and holding times of all samples shall be in accordance with EPA-approved methods. All analyses shall be conducted by a laboratory certified by the State Department of Health Services to perform the required analyses.

WATER SUPPLY MONITORING

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

[6] Milligrams per kilogram on a dry weight basis

REPORTING

1. Daily, semi-weekly, weekly and monthly monitoring 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 to the Regional Board by January 15th of each year.

2. The discharger shall arrange the data in tabular form so that the specified information is readily discernible. The data shall be summarized in such a manner as to clearly illustrate whether the waste management unit is operating in compliance with waste discharge requirements.

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. Submit monitoring 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

March 31, 1993
Date

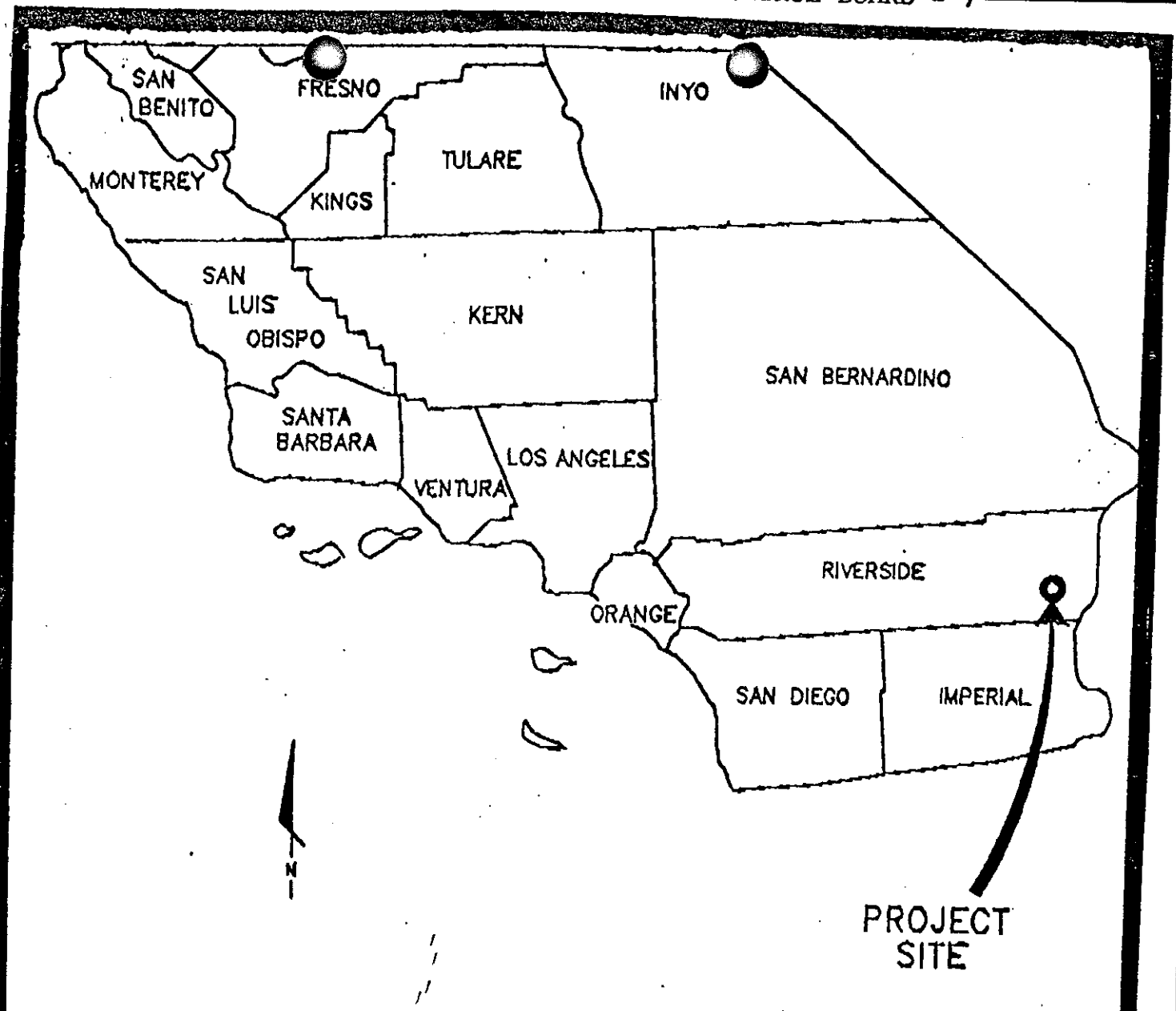

FIGURE 1

SOUTHERN CALIFORNIA MAP

NO SCALE

CALIFORNIA DEPARTMENT OF CORRECTIONS
WASTEWATER TREATMENT FACILITY
Wiley's Well - Riverside County
Parts of Sections 16, 17, 18, T7S, R20E, SBB&M

Board Order No. 93-016

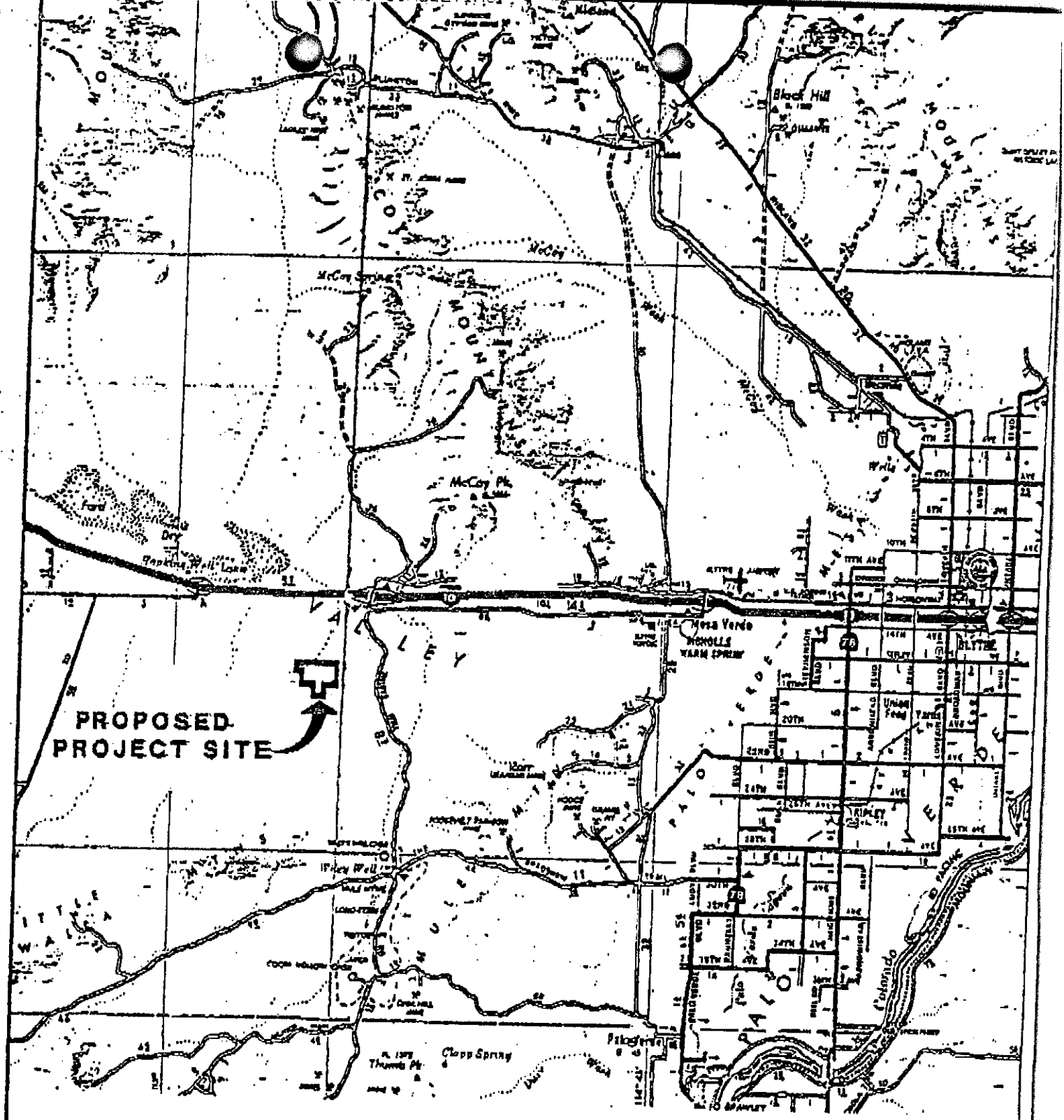

FIGURE 2

VICINITY MAP

CALIFORNIA DEPARTMENT CORRECTIONS
Riverside County I & II State Prison
Parts of Sections 16, 17 & 18, T7S, R20E, SBB&M

Order No. 93-016

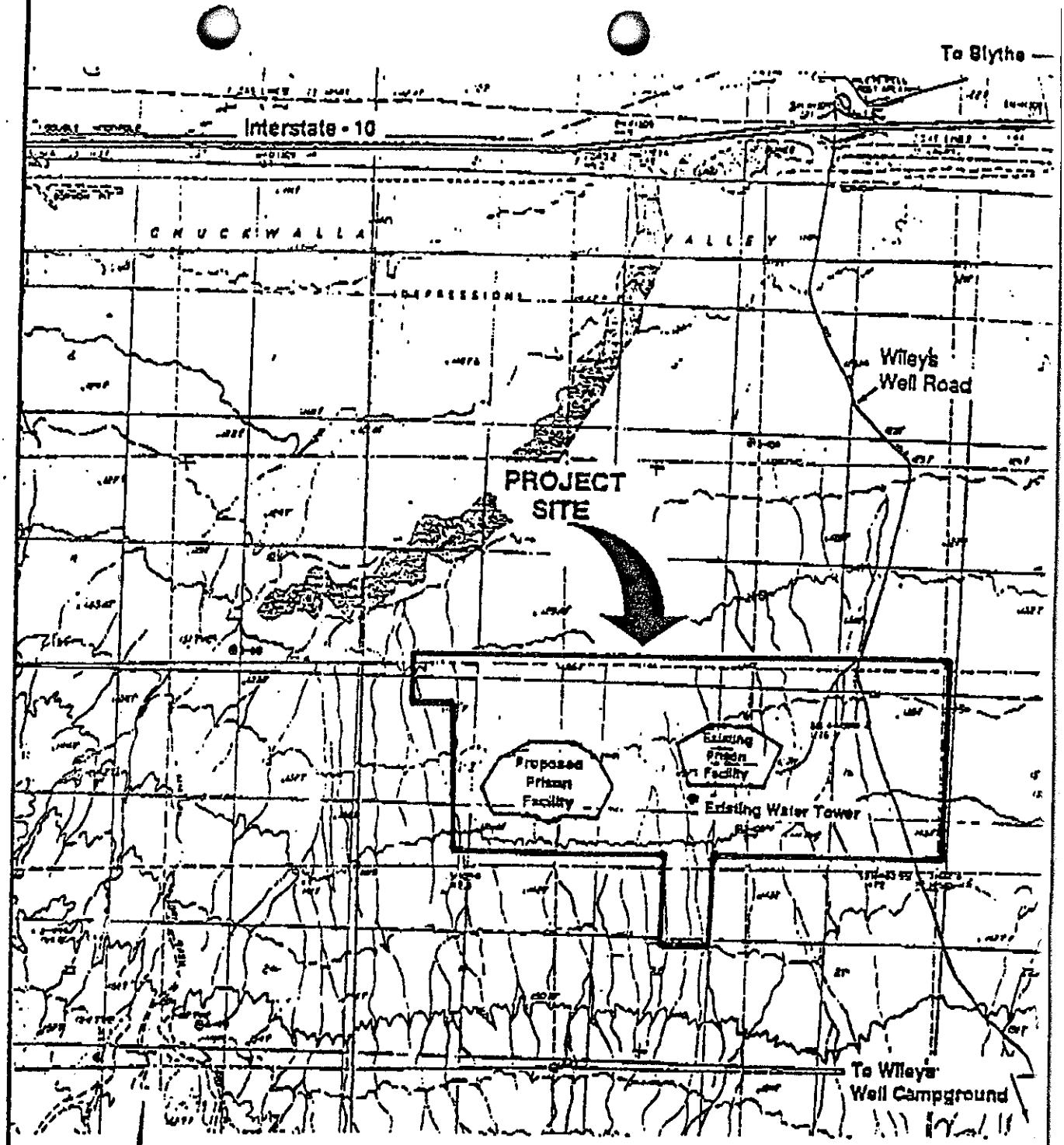

FIGURE 3

SITE MAP

CALIFORNIA DEPARTMENT CORRECTIONS
Riverside County I & II State Prison
Parts of Sections 16, 17 & 18, T7S, R20E, SBB&M