

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

ORDER NO. 87-84

**WASTE DISCHARGE REQUIREMENTS
FOR
SAN BERNARDINO COUNTY REGIONAL PARKS DEPARTMENT
PARK MOABI
South of Needles - San Bernardino County**

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

1. San Bernardino County Regional Parks Department (hereinafter also referred to as the discharger), 825 E. Third Street, San Bernardino, California, 92415, submitted an updated Report of Waste Discharge dated June 1, 1987.
2. The discharger had been discharging an average of 9,000 gallons-per-day of brine wastewater from a reverse osmosis water treatment unit into five surface impoundments located in the NE $\frac{1}{4}$, Section 6, T7N, R24E, SBB&M. The five impoundments are presently lined with a 20-mil polyvinyl chloride (PVC) liner.
3. The discharger is in the process of developing an alternate source of water supply for the park facilities, which would place the reverse osmosis unit on a standby basis.
4. The discharge has been subject to waste discharge requirements under Board Order No. 75-28.
5. The Regional Board is updating the waste discharge requirements to comply with Section 13263 of the California Water Code, and to reflect the proposed changes in the operation of the reverse osmosis unit. This update also incorporates the applicable provisions of Subchapter 15, Chapter 3, Title 23 of the California Administrative Code (C.A.C.).
6. The brine wastewater generated from the reverse osmosis unit has an average total dissolved solids (TDS) concentration of 6000 mg/l. At such concentration, the wastewater is considered a "designated waste" as defined in Subchapter 15.
7. The discharge of a "designated waste" to land requires a Class II waste management unit, in accordance with Section 2522 (b) of Subchapter 15. Subchapter 15 contains construction standards for a Class II surface impoundment.

*Superseded
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88-48*

8. The existing facility as described in Finding No. 2 does not provide adequate containment for the brine wastewater. The facility, therefore, does not meet the performance goals for Class II surface impoundments and does not qualify as an engineered alternative under Section 2510(b) of Subchapter 15.
9. Section 2510 (e) of Subchapter 15 requires existing waste management units to be retrofitted to comply with the construction standards of Title 23, C.A.C., Sections 2541-2549, as feasible. The discharger may demonstrate that retrofitting in accordance with Subchapter 15 construction standards is not feasible, and may instead propose an engineered alternative, as provided in Section 2510 (b).
10. The discharger proposes to retrofit only one of the five existing surface impoundments, and close the remaining four. The impoundment would be retrofitted with a double liner system, which would consist of utilizing the existing 20-mil P.V.C. liner as the lower liner and constructing a 4-inch reinforced concrete liner for the upper liner. The intervening leachate collection and removal system would consist of a one-foot sand layer between the liners.

The above proposal does not meet Subchapter 15 construction standards, and does not qualify as an engineered alternative under Section 2510 (b).

11. The ground water in the area occurs at a depth of about 6-10 feet and is in hydraulic continuity with the Colorado River. The raw water supply to the reverse osmosis unit is pumped from a cistern at the site.
12. Normal annual precipitation in this area is 6 inches, and normal annual surface evaporation is 10 feet.
13. The Water Quality Control Plan for the Colorado River Basin Region of California was adopted by the Regional Board on November 14, 1984. The Basin Plan contains water quality objectives for the Needles Hydrologic Subunit.
14. The beneficial uses of the waters of the Needles Hydrologic Subunit are:
 - a. Surface Waters
 1. Ground Water Recharge
 2. Recreation
 3. Wildlife Habitat
 4. Warm and Cold Water Habitat
 5. Municipal, Industrial and Agricultural Supply
 6. Aquaculture
 7. Hydropower Generation

b. Ground Waters

1. Municipal supply
 2. Industrial supply
 3. Agricultural supply
15. The Board has notified the discharger and interested agencies and persons of its intent to revise waste discharge requirements for the discharge.
16. The Board in a public meeting heard and considered all comments pertaining to the discharge.
17. These waste discharge requirements govern an existing facility, which the discharger is currently operating, and therefore is exempt from the provisions of the California Environmental Quality Act in accordance with Section 15301, Chapter 3, Title 14 of the California Administrative Code.

IT IS HEREBY ORDERED, the discharger shall comply with the following:

A. Discharge Prohibitions:

1. The direct discharge of wastes to surface waters or surface water drainage courses or to the ground is prohibited.
2. The discharge shall not contain hazardous materials.

B. Discharge Specifications:

1. Neither the treatment nor the discharge shall cause a pollution or nuisance as defined by the California Water Code, Section 13050.
2. The discharge shall not cause degradation of any water supply.
3. Waste from the discharge shall remain within the designated surface impoundments (shown on Attachment 1) until conveyed to a waste management facility approved by the Regional Board to receive this waste. The volume of salt residue from evaporated brine wastewater shall not exceed 25% of the capacity of the surface impoundment.
4. Retrofitting of the existing surface impoundment shall be in accordance with the construction standards and other applicable requirements of Subchapter 15, or by a construction alternative as allowed under Subchapter 15, to be approved by the Regional Board's Executive Officer.
5. The surface impoundment shall be designed by, and construction shall be supervised and certified by, a California Registered Civil Engineer.
6. The surface impoundment shall be designed and constructed to prevent migration of wastes from the waste management unit to adjacent geologic materials, ground water, or surface water, during the disposal operations, closure, and post-closure maintenance period.

7. The surface impoundment shall be designed, constructed, operated and maintained to prevent inundation or washout due to floods within a 100-year return frequency.
8. The surface impoundment shall have sufficient freeboard to accommodate seasonal precipitation and a 100-year, 24-hour precipitation at the site. In no case shall there be less than 2 feet (measured vertically) of freeboard.
9. The surface impoundment shall be designed, constructed and operated to ensure that wastes will be a minimum of 5 feet above the highest anticipated elevation of underlying ground water.
10. The surface impoundment shall have a foundation or base capable of providing support for the structure and capable of withstanding hydraulic pressure gradients to prevent failure due to settlement, compression, or uplift as certified by a California Registered Civil Engineer.
11. Discharge shall cease in the event of any containment system failure which may cause a threat to water quality.
12. The discharger shall install ground water monitoring wells, and a vadose zone monitoring system, if feasible.
13. The existing surface impoundments shall be maintained to ensure the integrity of the containment and flood protection systems.
14. The existing surface impoundments shall be operated to maintain a freeboard of not less than two feet.

C. Provisions:

1. The discharger shall comply with "Monitoring and Reporting Program No. 87-84", and future revisions thereto, as specified by the Regional Board's Executive Officer.
2. The discharger shall also submit special technical reports as directed by the Regional Board's Executive Officer.
3. This Order does not authorize violation of any federal, state or local laws or regulations.
4. The discharger shall implement the following tasks according to the prescribed time schedule to bring the facility into compliance with Subchapter 15 regulations:

Tasks	Task Completion Date	Compliance Report Due Date
A. Obtain the services of a California Registered Civil Engineer to perform the following: 1) Design, supervision and certification of the construction of a Class II surface impoundment.	12/1/87	12/15/87

Tasks	Task Completion Date	Compliance Report Due Date
2) Design, supervision and certification of the installation of a ground water monitoring system.		
3) Development, supervision and certification of the closure of the existing surface impoundments.		
B. Submit to the Regional Board, for review and approval by the Executive Officer, a technical report which includes the following:	3/1/88	
1) Plans for the design and construction of a Class II surface impoundment.		
2) Plans for the design and construction of the ground water monitoring system.		
3) Plans for closure of the existing surface impoundments.		
C. Completion of the following:		
1) Construction of a Class II surface impoundment.	9/1/88	9/15/88
2) Installation of the ground water monitoring system.	9/1/88	9/15/88
3) Closure of the existing surface impoundments.	3/1/89	3/15/89

The compliance reports for Tasks C1, C2, and C3 above shall include a certification by a California Registered Civil Engineer that the tasks have been completed in accordance with the technical report approved by the Regional Board's Executive Officer.

5. Prior to any significant modifications in this facility which could result in material change in the quality or quantity of wastes discharged, or any material change in location of discharge, the discharger shall report in writing to the Regional Board allowing sufficient time for the Board's consideration and action.
6. In the event of any change in operation, or in control or ownership of land or facilities owned or controlled by the discharger, the discharger shall:
 - a. Notify the Regional Board of such change; and

- b. Notify the succeeding owner or operator by letter of the existence of this Order, a copy of which shall be filed with the Regional Board.
7. The discharger shall immediately inform the Regional Board's Executive Officer of any spillage beyond any of the containment facilities or elsewhere at the site, and of storm damage to any of the containment facilities along with a proposal to correct same.
8. This Order supersedes Board Order No. 75-28.
9. The Regional Board will review this Order periodically and may revise these requirements when necessary.

I, Arthur Swajian, 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 September 23, 1987.


Executive Officer

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

MONITORING AND REPORTING PROGRAM NO. 87-84
FOR
SAN BERNARDINO COUNTY REGIONAL PARKS DEPARTMENT
PARK MOABI
South of Needles - San Bernardino County

MONITORING AND REPORTING

The discharger shall monitor and report to the Regional Board the following:

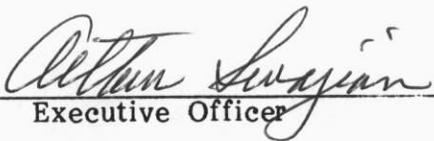
<u>Constituent</u>	<u>Unit</u>	<u>Reporting Frequency</u>
A. Volume of wastewater discharged to the surface impoundment.	Gallons	Quarterly and annually
B. Amount of salt residue removed from the surface impoundment	Pounds	Quarterly and annually
C. Ground water analysis		Once, prior to discharge into the impoundment; and quarterly after the initial discharge into the impoundment.
1. pH	pH Units	
2. Total Dissolved Solids (TDS)	mg/l	
3. Chlorides	mg/l	

Quarterly monitoring reports shall be submitted to the Regional Board by the 15th day of January, April, July, and October. Annual monitoring reports shall be submitted by January 15 of the succeeding year. Copies of the reports submitted to the Board pursuant to this Monitoring and Reporting Program shall be maintained at the operations site for a period of one year, and shall be made available to the Regional Board staff upon request.

Mail reports to:

California Regional Water Quality Control Board
Colorado River Basin Region
73-271 Highway 111, Suite 21
Palm Desert, CA 92260

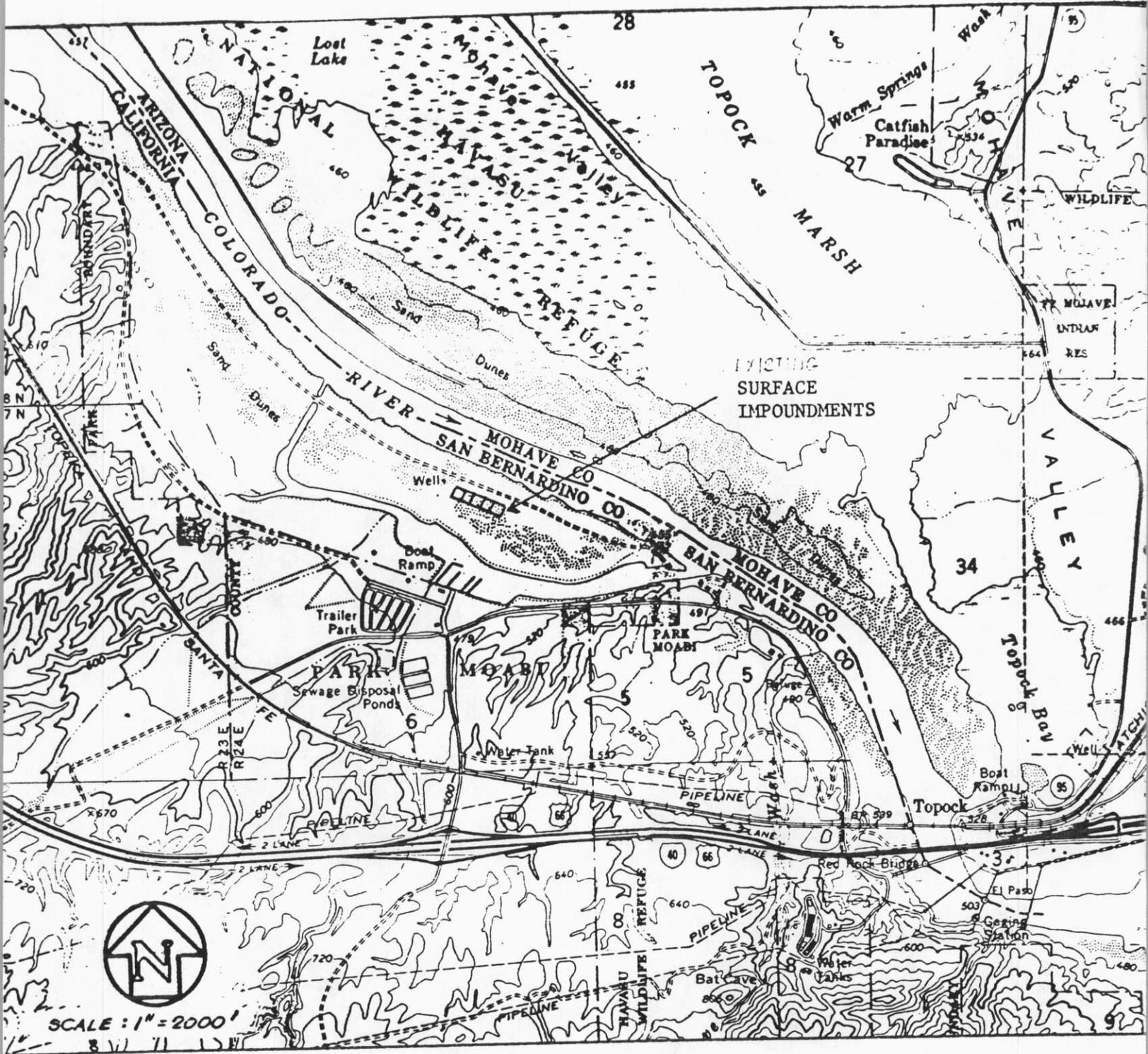
ORDERED BY:


Executive Officer

September 23, 1987

Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD -7



ATTACHMENT 1
SITE MAP
SAN BERNARDINO COUNTY REGIONAL PARKS DEPARTMENT
PARK MOABI

South of Needles - San Bernardino County
Location: NE $\frac{1}{4}$ of Section 6, T7N, R24E, SBB&M