

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 92-019

WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF NEEDLES AND
UNITED STATES DEPARTMENT OF INTERIOR, BUREAU OF LAND MANAGEMENT
NEEDLES WASTE MANAGEMENT FACILITY
CLASS III LANDFILL
CLASS II SURFACE IMPOUNDMENTS
South of Needles - San Bernardino County

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

1. The City of Needles (hereinafter referred to as the discharger), 111 Bailey Avenue, P.O. Box 887, Needles, CA 92326, submitted a Report of Waste Discharge dated November 27, 1991, containing current information to update the waste discharge requirements for this existing waste management facility (WMF). The WMF is operated by the City of Needles. The site property is owned by the United States Government, with administration by the Bureau of Land Management (hereinafter also referred to as the discharger), 6221 Box Springs Blvd., Riverside, CA 92507.
2. The WMF is located approximately three miles south of the City of Needles on U.S. Highway 95 in the SE $\frac{1}{4}$, SW $\frac{1}{4}$, and S $\frac{1}{2}$, SE $\frac{1}{4}$ of Section 7 and N $\frac{1}{2}$, NE $\frac{1}{4}$, and N $\frac{1}{2}$, N $\frac{1}{2}$, NE $\frac{1}{4}$, Section 18, T8N, R23E, SBB&M as shown in Attachment "A" incorporated herein and made a part of this Order.
3. The WMF is currently regulated by Board Order No. 88-118. The waste discharge requirements are being updated to incorporate applicable regulations of the revised Article 5 of Chapter 15, Division 3, Title 23, of the California Code of Regulations (hereinafter referred to as Chapter 15).
4. The discharger submitted a Solid Waste Assessment Test (SWAT) report dated March 1989 in accordance with Section 13273 of the California Code of Regulations. The report contains technical information describing the site hydrology, geology, topography, disposal operations and waste classification.
5. In view of the technical information that has become available, it is appropriate that the Regional Board adopt revised waste discharge requirements for the Needles WMF to include more stringent requirements to protect and monitor the quality of ground water in the vicinity of the site.

Supervised by:
Board Ord. # 97-050
6/25/97

Adopted
9-15-93
amended
BO #
93-071

6. The discharger reports that the total site area is 180 acres of which approximately 60 acres are being used for disposal purposes. The discharger reports that WMF receives an average of 23 tons per day of non-hazardous solid waste. The total capacity of the site is 755,040 cubic yards. The remaining capacity of the site is 376,800 cubic yards. The site has a remaining life of 15.7 years.
7. The discharger operates the site as a Class III landfill for the disposal of non-hazardous and inert wastes as defined in Chapter 15.
8. The non-hazardous and inert wastes consist of residential trash, commercial demolition wastes and non-putrescible agricultural wastes, dead animals, tires and car bodies.
9. Separate unlined surface impoundments were constructed to receive an average of 10,000 gallons-per-year of liquid digested sludge from the City of Needles wastewater treatment plant.
10. The site accepted chromic hydroxide sludge generated at Pacific Gas and Electric Company's Topock Compressor Station from 1973 through 1983. The sludge was disposed of in a pit away from the solid waste landfilling units. A total of 166,500 gallons of chromic hydroxide sludge was disposed of at this site. This waste stream was classified as non-hazardous by the State Department of Health Services.
11. The discharger reports that the Needles landfill is a cut and fill operation. The current operation consists of a working face in front of which the refuse is dumped. A bulldozer is used to push, spread and compact the wastes on the face of the fill. The refuse is covered daily with a minimum of six inches of compacted soil.
12. The average annual precipitation near the site is about 4 inches per year. Evaporation rates in the vicinity of the site range from 81 to 86 inches per year.
13. The WMF is located on a dissected piedmont alluvial plain on the east side of the Sacramento Mountains. The rocks beneath this site consist of undisturbed Quaternary and Tertiary alluvial deposits. The Sacramento Mountains to the west are composed primarily of Precambrian gneiss and schist and Precambrian granitic rocks.
14. The WMF is underlain by Quaternary older alluvial fan deposits that overlie Quaternary older alluvium deposited by the ancestral Colorado River. These in turn overlie fine-grained consolidated siltstones and claystones of Tertiary age.
15. The site topography is characterized by an alluvial plain which slopes approximately 2 to 3 degrees towards the Colorado River, which is approximately 2 miles to the east of the WMF. Elevations across the site range from about 730 to 840 feet above mean sea level.

16. The WMF is located in the Mojave Valley in the Piute Hydrologic Unit. The Mojave Valley is a floodplain of the Colorado River. Recharge to ground water is mainly from the Colorado River. Recharge by infiltration from precipitation contributes a minor amount to the ground-water reservoir.
17. The discharger reports that ground water beneath the site flows towards the southeast at a gradient of 0.4 degrees. Ground water beneath the site is present at depths ranging from 250 to 350 feet beneath the surface.
18. The discharger installed four ground water monitoring wells in the vicinity of the WMF as shown in Attachment "B" incorporated herein and made part of this Order. The installed ground water monitoring system consists of two upgradient monitoring wells N-3 and N-4 and two down-gradient monitoring wells N-2 and N-5.
19. Analyses of ground water samples collected in 1988 from the monitoring system indicate that the concentration of total dissolved solids ranges from 475 to 710 mg/l. Water samples from Well N-2 show concentrations of three organic compounds: 1,1-dichloroethane (0.6 mg/l¹), methylene chloride (0.7 mg/l) and trichlorofluoromethane (0.5 mg/l).
20. The landfill is immediately surrounded on its north, south, and west sides by land designated institutional. The landfill site and the remaining surrounding land are designated as open space.
21. 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.
22. The beneficial uses of ground waters in the Piute Hydrologic Unit are:
 - a. Municipal supply (MUN)
 - b. Industrial supply (IND)
 - c. Agricultural supply (AGR)
23. The Board has notified the discharger, and all known interested agencies and persons of its intent to update waste discharge requirements for said discharge and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
24. In accordance with Section 15301, Chapter 3, Title 14 of the California Code of Regulations, the issuance of these waste discharge requirements, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.).

¹ mg/l = microgram per liter

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

A. Prohibitions

1. The discharge or deposit of hazardous waste (as defined in said Chapter 15) at this site is prohibited.
2. The discharge or deposit of designated waste (as defined in said Chapter 15) at this site is prohibited unless approved by the Regional Board's Executive Officer.
3. The discharge of liquid or semi-solid waste (i.e., waste containing less than 50 percent solids) to the landfill units is prohibited unless approved by the Regional Board's Executive Officer.
4. The discharge of wastes to surface waters, surface water drainage courses, or to ground waters is prohibited.
5. The discharge or deposit of waste to land not owned or controlled by the discharger is prohibited.
6. The codisposal of incompatible wastes is prohibited.

B. Discharge Specifications

1. By June 30, 1992 the discharger shall submit an acceptable proposal to conduct a monitoring and response program in accordance with Section 2550.1, Article 5, Chapter 15.
2. All new waste management units constructed outside the area identified as Phase III in Attachment "C" shall have an adequate liner and leachate collection and removal system designed and constructed in accordance with the criteria contained in Chapter 15.
3. Liquid waste discharged at this site after January 1, 1994 shall be discharged into a Class II surface impoundment designed and constructed in accordance with criteria contained in Chapter 15.
4. Existing liquid waste units shall be closed in accordance with Section 2582, Article 8, Chapter 15. This applies to the municipal sludge and chromic hydroxide sludge disposal areas.
5. The discharger shall obtain financial assurance for initiating and completing a correction action for a reasonably foreseeable release in accordance with Section 2550.0(b), Article 5, Chapter 15.
6. The discharger shall establish a hazardous waste load checking program at this WMF. A workplan describing said program shall be submitted to the Regional Board for review and approval by September 1, 1992.
7. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Sections 13050(1) and 13050(m) of Division 7 of the California Water Code.

8. Waste materials shall be confined to the waste management facility as described on the attached site maps.
9. Waste material shall not be discharged on any ground surface which is less than five feet above the highest anticipated ground water level.
10. This discharge shall not cause degradation of any water supply.
11. The waste management units shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods having a predicted frequency of once in 100 years.
12. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, shall not contact or percolate through the wastes discharged at this site.
13. The exterior surfaces of the disposal area, including the intermediate and final landfill covers, shall be graded and maintained to promote lateral runoff of precipitation and to prevent ponding.
14. The discharger shall provide a final cover for closure of the landfill units in conformance with the requirements of said Chapter 15.
15. There shall be no discharge of liquid wastes other than the digested sludge from the City's wastewater treatment plant at this site unless approved by the Regional Board's Executive Officer.
16. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.
17. A minimum depth of freeboard of two (2) feet shall be maintained at all times in the existing sludge disposal surface impoundment.
18. Water used for site maintenance shall be limited to amounts necessary for dust control.

C. Provisions

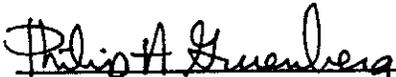
1. The discharger shall immediately notify the Regional Board of any flooding, slope failure or other change in site conditions which could impair the integrity of waste containment facilities or of precipitation and drainage control structures.
2. The discharger shall maintain legible records on the volume and type of each waste discharged at the site. These records shall be available for review by representatives of the Regional Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Regional Board.
3. The discharger shall maintain visible monuments identifying the boundary limits of the entire waste management facility.

4. Two years prior to the anticipated closure of the facility or any unit (portion) thereof, the discharger shall submit to the Regional Board, for review and approval by the Executive Officer, a closure and post-closure maintenance plan in accordance with Section 2597 of Chapter 15.
5. The discharger shall comply with all applicable provisions of said Chapter 15 that are not specifically referred to in this Board Order.
6. The discharger shall comply with "Monitoring and Reporting Program No. 92-019", and future revisions thereto, as specified by the Regional Board's Executive Officer.
7. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
8. All containment structures and erosion and drainage control systems shall be designed and constructed under direct supervision of a California registered civil engineer and shall be certified by the individual as meeting the prescriptive standards and performance goals of Chapter 15.
9. Materials used to construct liners shall have appropriate physical and chemical properties to ensure containment of wastes over the operating life, closure and post-closure maintenance period of the landfill.
10. In-place permeabilities of liners shall be determined in the field using techniques approved by the Executive Officer. Construction methods and quality assurance procedures shall be sufficient to ensure that all parts of the liners are adequate to contain landfill leachate.
11. Each disposal cell shall have a leachate collection and removal system. Leachate collection sumps shall be designed and operated to keep leachate levels at the minimum needed to ensure efficient pump operation. Leachate collected shall be disposed of in accordance with local, state, and federal regulations.
12. Materials used to construct leachate collection and removal systems shall have appropriate physical and chemical properties to ensure the required transmission of leachate through the system over the operating life, closure and post-closure maintenance period of the landfill. Materials shall have sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials and equipment used on the landfill.
13. The discharger shall maintain in good working order, and operate as efficiently as possible, any facility or control system installed by the discharger to achieve compliance with the waste discharge requirements.
14. This Order is subject to Regional Board review and updating, as necessary, to comply with changing State or Federal laws, regulations, policies, or guidelines, or changes in the discharge characteristics, in three year increments from the effective date of this Order.

15. The Regional Board considers the property owner to have a continuing responsibility for correcting any problems which may arise in the future as a result of this waste discharge.

IT IS FURTHER ORDERED that Board Order No. 88-118 be superseded by this Board Order.

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 11, 1992.


Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 92-019
FOR

CITY OF NEEDLES AND
UNITED STATES DEPARTMENT OF INTERIOR BUREAU OF LAND MANAGEMENT
NEEDLES WASTE MANAGEMENT FACILITY
CLASS III LANDFILL
CLASS II SURFACE IMPOUNDMENT
South of Needles - San Bernardino County

Location of Discharge: SE $\frac{1}{4}$, SW $\frac{1}{4}$, and S $\frac{1}{2}$, SE $\frac{1}{4}$, of Section 7 and N $\frac{1}{2}$, NE $\frac{1}{4}$ and N $\frac{1}{2}$, N $\frac{1}{2}$,
NE $\frac{1}{4}$ Section 18, T8N, R23E, SBB&M

The discharger shall monitor all wastes discharged to the waste management facility and report to the Regional Board as follows:

SOLID WASTE MONITORING

<u>ITEM</u>	<u>UNIT</u>	<u>REPORTING FREQUENCY</u>
a. Solid waste discharged	Cubic Yards	Quarterly
b. Type of materials discharged	-	Quarterly
c. Remaining capacity of the waste management facility	Cubic Yards	Quarterly
d. Any wastes discharged other than those allowed in the requirements and in accordance with the hazardous waste load checking program.	Type, Volume and Location	Immediately upon becoming aware that waste has been discharged

LIQUID WASTE MONITORING

<u>ITEM</u>	<u>UNIT</u>	<u>REPORTING FREQUENCY</u>
a. Liquid waste discharged	Gallons	Quarterly
b. Type of liquid waste	-	Quarterly
c. Volatile Organic Analysis (EPA Methods 601 and 602)	mg/l	Quarterly

GROUND WATER MONITORING

The ground water monitoring wells shall be sampled quarterly during March, June, September and December. The samples shall be analyzed for the following:

	<u>PARAMETERS & CONSTITUENTS</u>	<u>UNITS</u>	<u>TYPE OF SAMPLE</u>	<u>REPORTING FREQUENCY</u>
1.	pH		Grab	Quarterly
2.	TDS	mg/l	Grab	Quarterly
3.	Ground water Elevations	Feet	Measurement	Quarterly
4.	Nitrate	mg/l	Grab	Quarterly
5.	Organic Nitrogen	mg/l	Grab	Quarterly
6.	Volatile Organics (EPA Methods 601 and 602)	mg/l	Grab	Quarterly
7.	Lead	mg/l	Grab	Quarterly
8.	Chromium (VI)	mg/l	Grab	Quarterly
9.	Chromium III	mg/l	Grab	Quarterly

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.

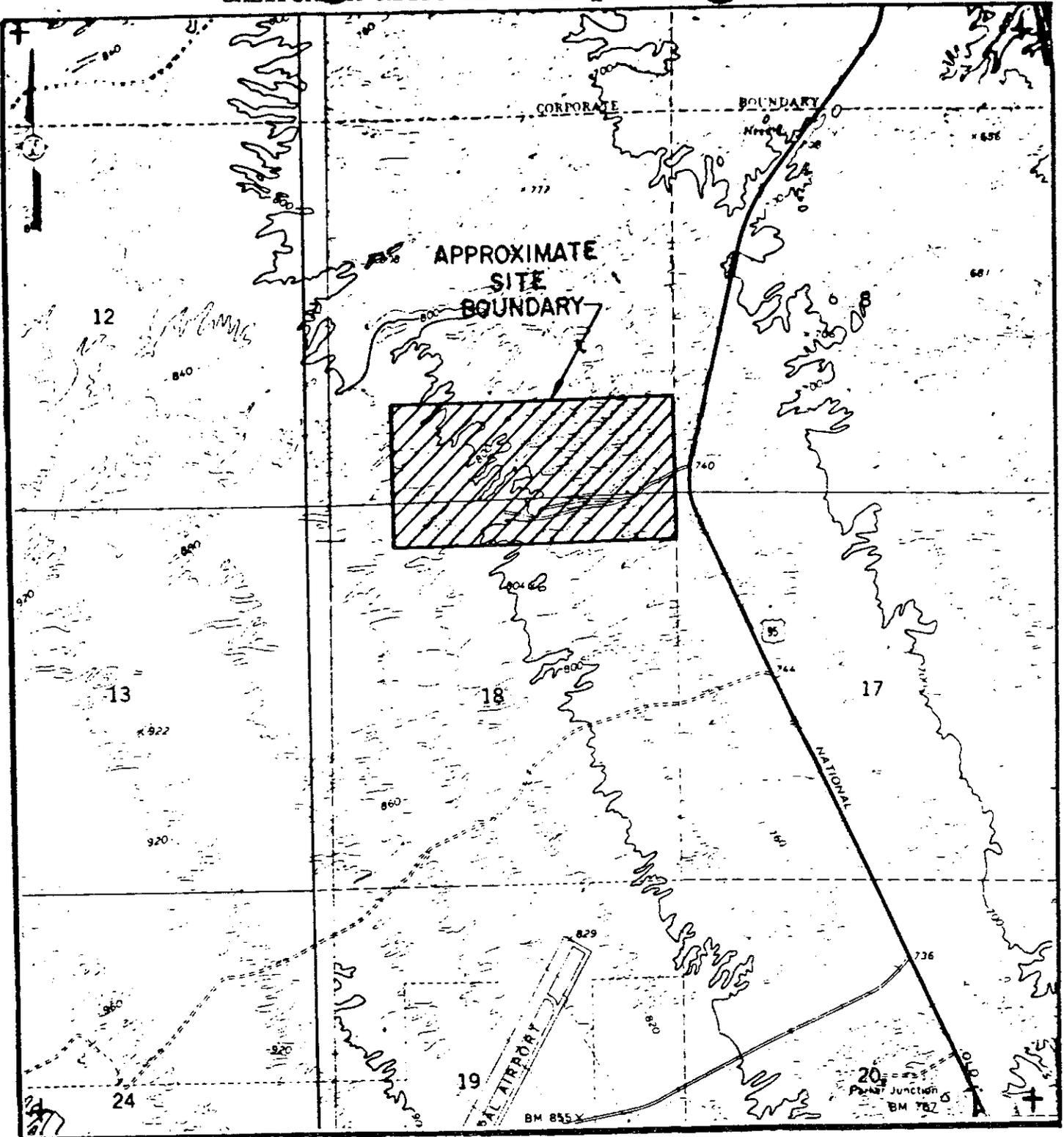
REPORTING

1. Quarterly monitoring reports shall be submitted to the Regional Board by January 15, April 15, July 15 and October 15 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. Submit monitoring reports to:

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

ORDERED BY: Philip A. Guenzberg
Executive Officer

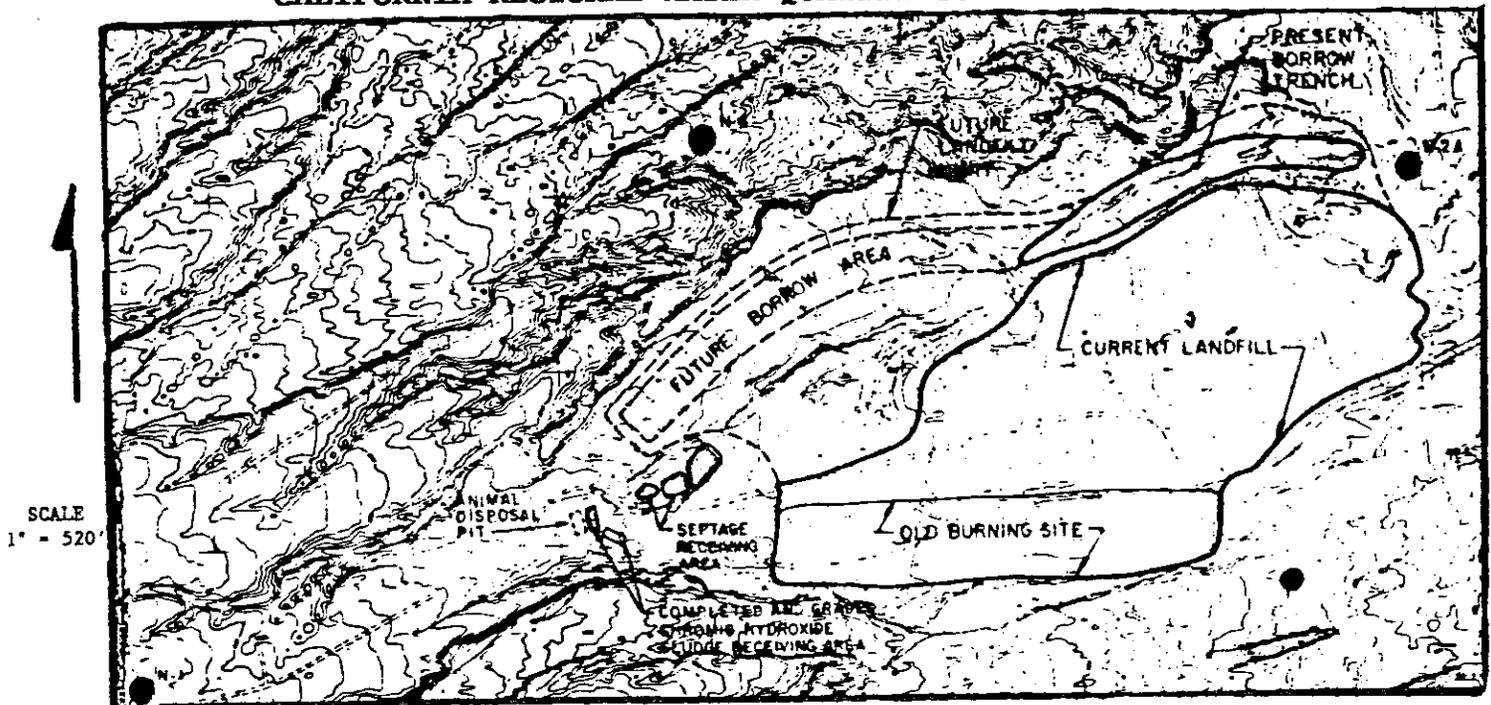
March 11, 1992
Date



**SITE LOCATION
ATTACHMENT "A"**

CITY OF NEEDLES AND
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NEEDLES WASTE MANAGEMENT FACILITY
CLASS III LANDFILL
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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD - 7

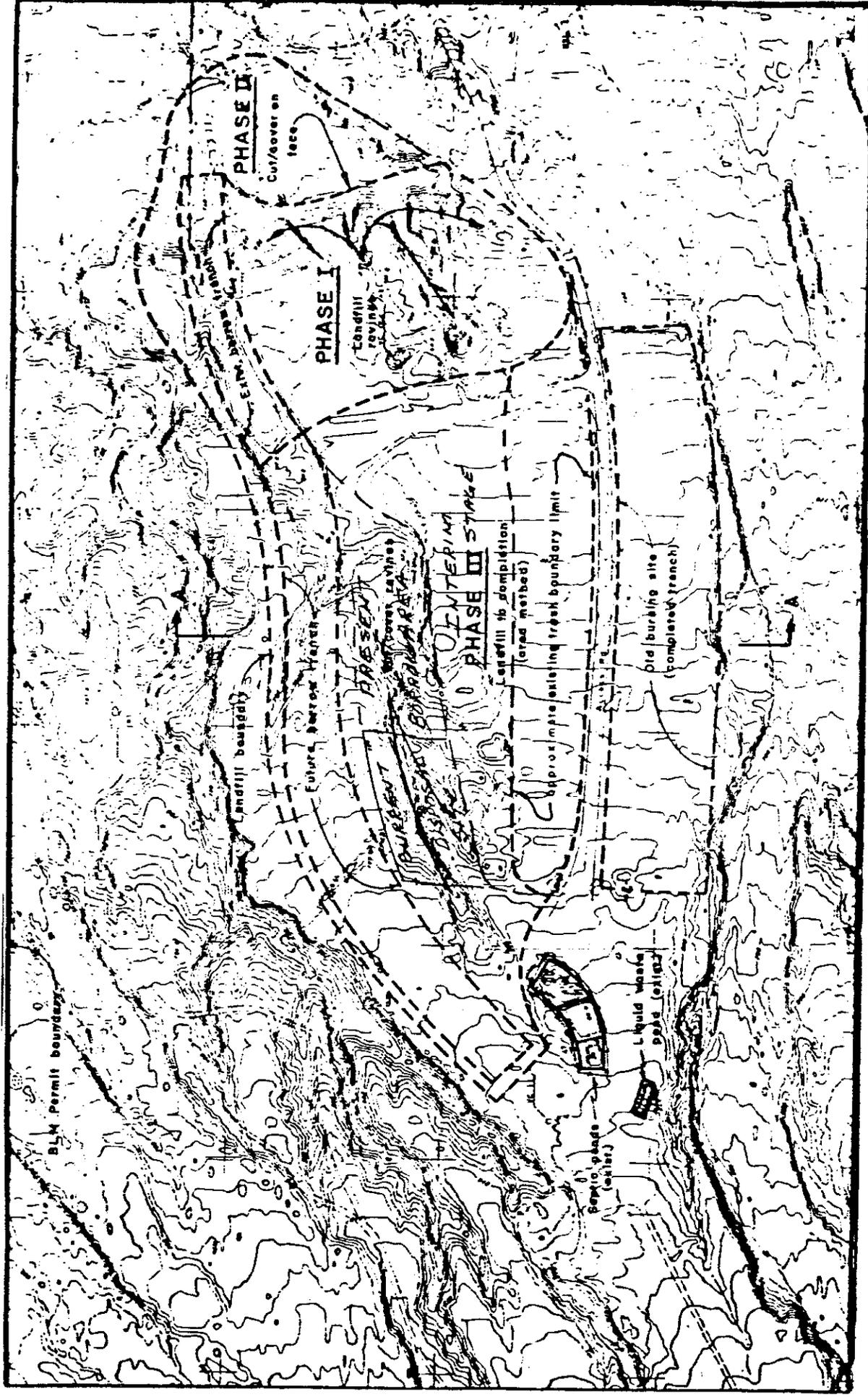


MONITORING WELLS LOCATION

ATTACHMENT "B"

CITY OF NEEDLES AND
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WASTE MANAGEMENT UNITS ATTACHMENT 'C'

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