

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 91-022

WASTE DISCHARGE REQUIREMENTS
FOR
COUNTY OF SAN BERNARDINO
MORONGO WASTE MANAGEMENT FACILITY
CLASS III LANDFILL
Morongo Valley - San Bernardino County

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

1. San Bernardino County Solid Waste Management (hereinafter also referred to as the discharger), 621 E. Carnegie Drive, Suite 270, San Bernardino, California 92415, submitted a Report of Waste Discharge, dated November 13, 1990, containing current information to update requirements for this existing disposal site.
2. This disposal facility has been subject to Board Order No. 88-038 containing waste discharge requirements, which are being updated to comply with current regulations in Section 13263 of the California Water Code and Chapter 15, Division 3, Title 23 of the California Code of Regulations, hereafter also referred to as Chapter 15.
3. The discharger submitted a Solid Waste Assessment Test (SWAT) report dated August 1989, as required by Section 13273 of the California Water Code.
4. The SWAT report contains technical information describing the site hydrogeology, topography, disposal operations and waste classification. In view of the technical information that has become available, it is appropriate that the Regional Board adopt revised waste discharge requirements for the Morongo Waste Management Facility to include more stringent requirements to protect the quality of the ground water in the vicinity of the site.
5. The discharger is currently discharging non-hazardous solid waste in the S $\frac{1}{2}$ of the NW $\frac{1}{4}$ of Section 27, T1S, R4S, SBB&M. This 75-acre Class III disposal site is owned by the County of San Bernardino. Presently, about 5 acres of the site is used for disposal. The 75-acre site is expected to be operational until the year 2012.
6. The discharger operates the site as a landfill. The site presently receives approximately 30,000 cubic yards-per-year of the following:
 - a. Seventy percent household, commercial and other decomposable waste, and
 - b. Thirty percent non-water-soluble and non-decomposable inert solids, such as concrete.

9-15-93
Adopted
Amended
mch 293071

Superseded
by: Bd. Ord. #97-009
1/22/97

7. The total remaining capacity of the disposal site is approximately 150,000 cubic yards. This site is operated as an area type landfill except for some cut and cover when new areas are opened. Generally, solid waste is dumped on the table adjacent to the shoulder of the slope of the previous excavated cell. It is pushed downslope and spread approximately 1-2 feet deep, after which three to five passes are made by a tractor to compact the trash before additional waste is added. At the end of the day, soil is either pushed up from the toe of the slope or brought in by the tractor; and the compacted waste is covered with a 6-inch layer of interim soil cover.
8. Land within 1,000 feet of this site is zoned for public use. At present, it is natural desert.
9. The Water Quality Control Plan for the Colorado River Basin Region of California designates the beneficial uses of ground and surface waters in this Region.
10. The beneficial use of ground waters in the Morongo Hydrologic Subunit is:
 - a. Municipal supply (MUN)
11. Ground waters in this area range in total dissolved solids concentration from about 370 to 890 mg/l. Depth-to-ground water at the site is from 25 to 55 feet.
12. The disposal area presently utilized is at an elevation of about 2680 feet and is in the mouth of a steep, narrow canyon that drains approximately 210 acres of watershed with a low infiltration rate. The County of San Bernardino has constructed a 100-year drainage channel which begins at the upper end of the active disposal area and diverts drainage waters to the next arroyo to the south. The channel bottom is excavated on native soil and is designed to prohibit drainage from contacting or percolating through the wastes.
13. The discharger constructed four ground water monitoring wells at the site, which meet the requirements of Article 5 of Chapter 15, as shown in Attachment B incorporated herein and made part of this Board Order.
14. Soil underlying the site is composed mainly of Quaternary alluvial deposits. Quartz monzonitic bedrock may underlie the extreme southeastern portion of the landfill.
15. Annual averages for evaporation and precipitation in the area are 90 inches and 9.7 inches, respectively.
16. The 100-year, 24-hour precipitation event for the site is 6.5 inches.
17. The disposal area is not within the 100-year floodplain.
18. There are no known major earthquake faults underlying the site. Morongo Valley Fault is a minor fault that transects the site.
19. The Board has notified the discharger and interested agencies and persons of its intent to update waste discharge requirements for the existing disposal facility to conform to the current regulations.

20. The Board in a public meeting heard and considered all comments pertaining to this facility.
21. 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.).

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

A. Discharge Specifications

1. New waste management units constructed after March 1, 1993, on top of virgin soil (soil which does not contain solid waste as part of the landfilling operation) must have adequate liner and leachate collection and removal systems, as specified in Chapter 15.
2. By January 1, 1992, the discharger shall submit a time plan detailing the location and the construction time of the new waste management units described in Discharge Specification No. A.1.
3. The treatment or disposal of waste shall not cause a pollution or nuisance as defined in Section 13050 (1) and 13050 (m) of Division 7 of the California Water Code.
4. Waste material shall be confined to the waste management facility as shown on the attached site maps.
5. The landfill areas shall be designed, constructed, operated and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
6. 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.
7. The discharger shall provide a final cover for closure of landfills in conformance with the requirements of Chapter 15.
8. Water used during disposal site operations shall be limited to a minimal amount reasonably necessary for dust control purposes.
9. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.
10. The discharger shall institute and maintain a hazardous waste load checking program at the WMF. The discharger shall report the findings of said program in the quarterly monitoring reports submitted in accordance with Discharge Provision No. C.3.

B. Prohibitions

1. The discharge or deposit of "hazardous waste" (as defined in Chapter 15) at this site is prohibited.
2. The discharge or deposit of "designated waste" at this site is prohibited.
3. The discharge of liquid or semi-solid waste (i.e., waste containing less than 50 percent solids) to the landfill areas is prohibited.
4. The discharge of solid or liquid waste or leachate to surface waters, surface water drainage courses or to ground water is prohibited.
5. The placement of "nonhazardous solid" waste in ponded water from any source whatsoever is prohibited.
6. The discharge or deposit of waste to land not owned or controlled by the discharger is prohibited.
7. The codisposal of incompatible wastes or the disposal of wastes which are not compatible with containment structures is prohibited.
8. Waste material shall not be discharged on any ground surface which is less than five feet above the highest anticipated ground water level.
5. The discharge shall not cause degradation of any water supply.
10. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, shall not contact or percolate through wastes discharged at this site.
11. No solid waste shall be placed in ponded water.

C. Provisions

1. The discharger shall maintain a copy of this Board Order at the site and make it available at all times to site operating personnel.
2. The discharger shall notify the Regional Board, in writing, of any proposed change in ownership or responsibility for construction or operation of the waste management facility. The discharger shall also notify the Regional Board of a material change in the character, location, or volume of the waste discharged and of any proposed expansions. This notification shall be given six (6) months prior to the effective date of the change, and shall be accompanied by an amended Report of Waste Discharge and any technical documents that are needed to demonstrate continued compliance with these requirements.
3. The discharger shall comply with "Monitoring and Reporting Program No. 91-022" and future revisions thereto, as specified by the Regional Board's Executive Officer.

4. 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.
5. The discharger shall maintain monuments identifying the boundary limits of the entire waste management facility.
6. One year 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.
7. The discharger shall immediately notify the Regional Board of any flooding, equipment failure, slope failure or other change in site conditions which could impair the integrity of waste or leachate containment facilities or flood control structures.
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 Board Order is subject to Regional Board review and updating, as necessary, to comply with changing state or federal laws, regulations, policies or guidelines, changes in the discharge characteristics, in three year increments from the effective date of this Board 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.
16. The discharger shall comply with "Monitoring and Reporting Program No. 91-022", and future revisions thereto, as specified by the Regional Board's Executive Officer.
18. The discharger shall comply with all applicable provisions of Chapter 15 that are not specifically referred to in this Board Order.
19. The Board will review this Board Order periodically and will revise these requirements when necessary.

IT IS FURTHER ORDERED that Board Order No. 88-038 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 13, 1991.


Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 91-022
FOR
COUNTY OF SAN BERNARDINO
MORONGO WASTE MANAGEMENT FACILITY
CLASS III LANDFILL
Morongo Valley - San Bernardino County

Location of Discharge: S½ of the NW¼ of Section 27, T1S, R4E, SBB&M

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

WASTE MONITORING

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

GROUND WATER MONITORING

The ground water monitoring 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>SAMPLING FREQUENCY</u>
a. pH	Number	Grab	Quarterly
b. TDS	mg/l	Grab	Quarterly
c. Specific Conductance	micromhos/cm	Grab	Quarterly
d. Temperature	°C	Grab	Quarterly
e. Ground Water Elevations	Feet (USGS Datum)	Measurement	Quarterly
f. Calcium	mg/l	Grab	Quarterly
g. Magnesium	mg/l	Grab	Quarterly
h. Sulphate	mg/l	Grab	Quarterly
i. Sodium	mg/l	Grab	Quarterly
j. Nitrate	mg/l	Grab	Quarterly
k. Organic Nitrogen	mg/l	Grab	Quarterly
l. Volatile Organics (EPA Method 524.2)	mg/l	Grab	Quarterly

<u>PARAMETERS & CONSTITUENTS</u>	<u>UNITS</u>	<u>TYPE OF SAMPLE</u>	<u>SAMPLING FREQUENCY</u>
m. Semi-Volatile Organics (EPA Method 525)	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:

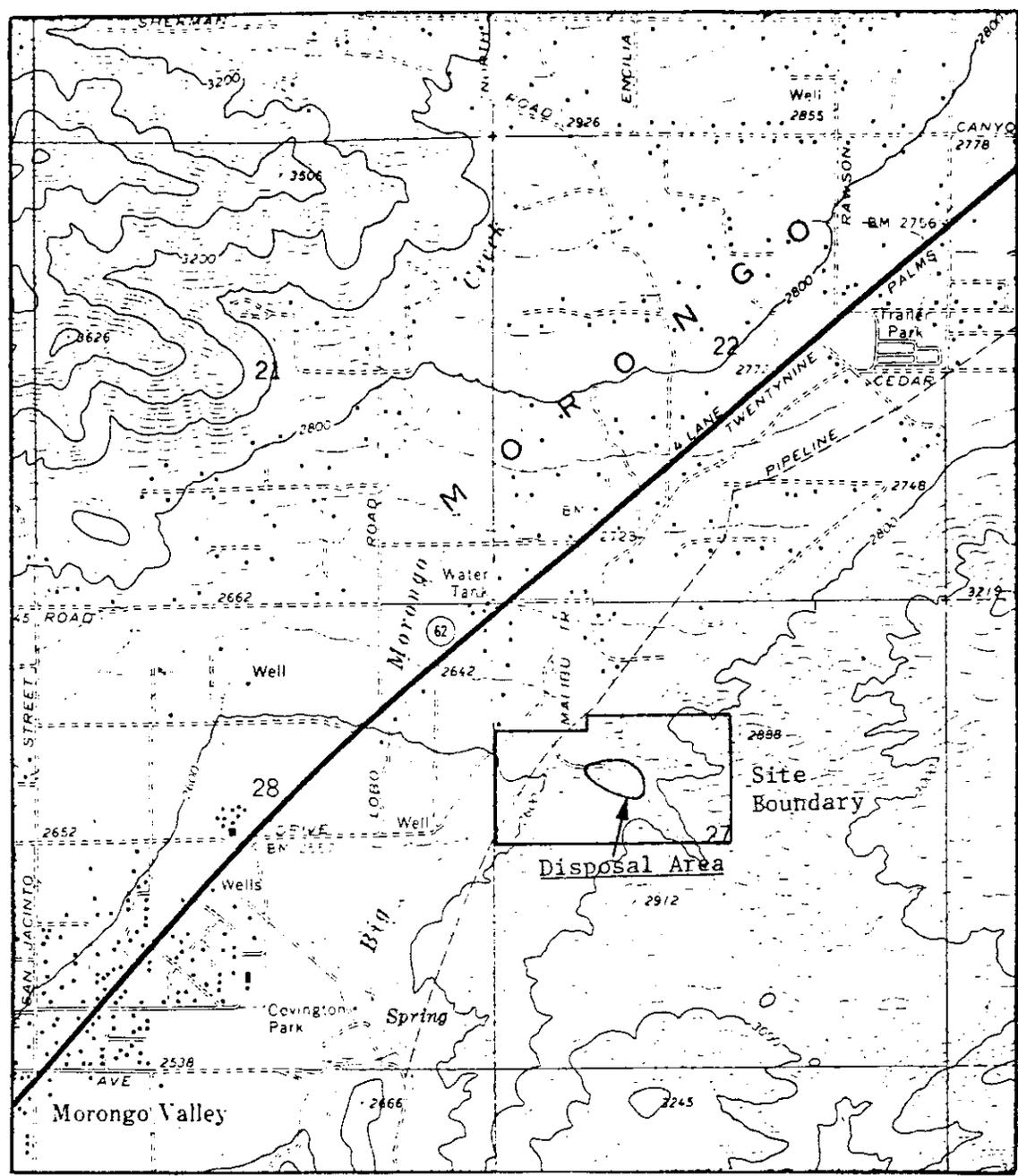
California Regional Water Quality Control Board
Colorado River Basin Region
73-271 Highway 111, Suite 21
Palm Desert, CA 92260

ORDERED BY:

Philip A. Guenzberg
Executive Officer

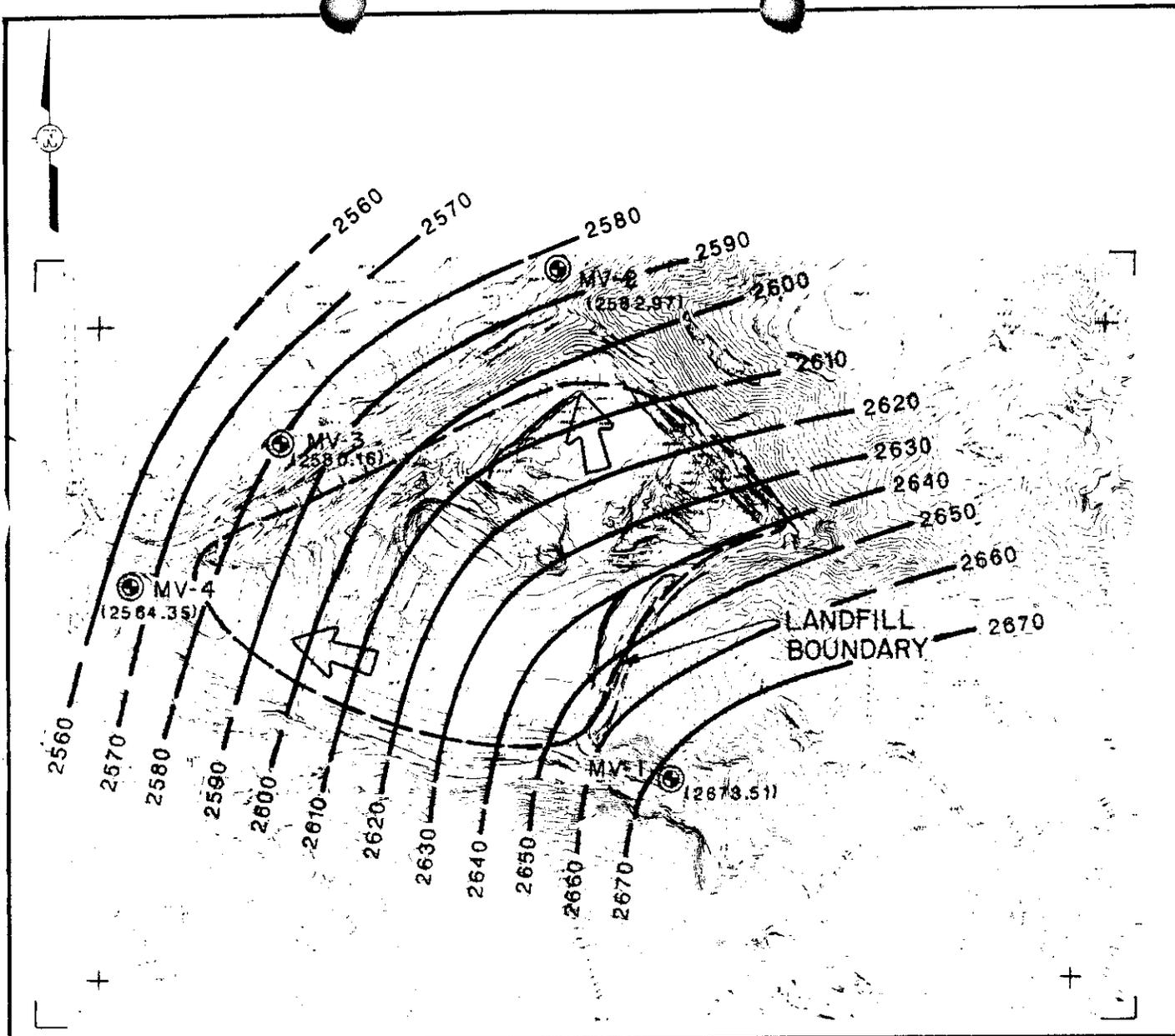
March 13, 1991

Date



SITE MAP A

COUNTY OF SAN BERNARDINO
 MORONGO WASTE MANAGEMENT FACILITY
 CLASS III LANDFILL
 Morongo Valley - San Bernardino County
 S½ of the NW¼ of Section 27, T1S, R4E, SBB&M
 USGS Morongo Valley 7.5 min. Topographic Map

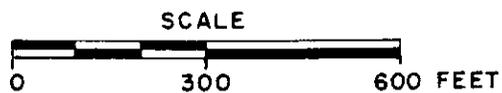


LEGEND:

MV-1  MONITORING WELL LOCATION
 (2673.51) GROUND-WATER ELEVATION
 (FEET ABOVE MSL)

 DIRECTION OF GROUND-WATER
 FLOW

 2610 GROUND-WATER ELEVATION CONTOUR
 (CONTOUR INTERVAL = 25 FEET)



SITE MAP B

DISPOSAL AREA

COUNTY OF SAN BERNARDINO
 MORONGO WASTE MANAGEMENT FACILITY
 CLASS III LANDFILL
 Morongo Valley - San Bernardino County