

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION

ORDER NO. 80-90

WASTE DISCHARGE REQUIREMENTS  
FOR  
IT CORPORATION - SOLID WASTE DISPOSAL SITE CLASS II-1  
Superstition Hills - Imperial County

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

1. IT Corporation (hereinafter also referred to as the discharger) 2450 Stanwell Drive #100, Concord, CA 94520, submitted a Report of Waste Discharge dated August 20, 1980.
2. The discharger proposes to discharge certain Group 1 wastes in Section 16, T13S, R12E, SBB&M, as shown in Attachment "A" incorporated herein and made part of this Order. The 640 acre site is privately owned and operated by the discharger, and 300 to 400 acres appear developable for disposal areas.
3. The site would be developed in five phases with a total useful life expectancy of three to five decades. Group 1 wastes to be discharged at this site include:
  - a. Rotary drilling muds from geothermal wells
  - b. Work-over and cleanout fluids from geothermal wells
  - c. Testing fluids from geothermal wells
  - d. Geothermal brines and residues
  - e. Pretreatment sludge from cooling water makeup
  - f. Cooling tower and boiler blow-down sludges
  - g. Pesticide container rinse water
  - h. Small amounts of outdated pesticide stock
  - i. Pesticide containers
  - j. Fluids coincident to gas/oil exploration and production
  - k. Ballast water after oil removal and recycle
  - l. Neutralized aqueous solutions of acidic or alkaline origin
  - m. Wastewater treatment solids
  - n. Storm water runoff from areas used to handle wastes
  - o. Other Group 1 wastes and quantities thereof, specifically approved by the Regional Board or, if of an emergency discharge nature, by the Executive Officer.
  - p. Tank bottom sediments and cleaning solution from petroleum fuels or feed stocks.

A manifest system would be used for the hauling and disposal of all liquid and solid hazardous wastes. The waste producer, hauler, and disposer would certify compliance with State regulations by documenting the proper handling of the waste.

4. First phase development would be ten disposal areas (cells) on 50 acres. Cells would be excavated three to eight feet below existing grade, and the excavated earth would be used to construct a levee or berm three to five feet high around each disposal cell. Liquids would be placed in cells for solar evaporation, and drilling muds and sludges would be disposed by land spreading and soil incorporation techniques. An eight foot deep trench and fill method would be used for pesticide containers, whether rinsed or unrinsed. Pesticide wastes would be disposed in trenches five to eight feet deep and covered with six inches of soil each day used. The first phase is expected to have enough capacity for four to six years. Areas encountered during construction of cells with a permeability greater than  $1 \times 10^{-6}$  cm/sec would be blanketed with an impermeable membrane of clay material.
5. Each phase would be closed as its useful life is finished. The completed fill will be three to five feet above existing grade with a final soil cover of at least three feet. The final cover will have a permeability of  $1 \times 10^{-7}$  to  $1 \times 10^{-8}$  cm/sec and would be graded to drain with a slope of about five percent. These surfaces would be revegetated with native plants.
6. The proposed site is currently vacant, unirrigated desert land that is sparsely vegetated and slopes gently downward towards the northeast. The area immediately adjacent to the proposed site is also uncultivated desert. The nearest dwelling is a farmhouse, approximately one mile to the east. The desert land at the site consists of shallow alluvial soils, underlain by partially indurated clayey silts and silty sands. Disposal areas (cells) would be set back 100 feet from all identified on-site fractures. Groundwater is at a depth of 30 to 90 feet and is of marginal quality with a total dissolved solids concentration of 1320 mg/l, 1395 mg/l, and 2845 mg/l at three monitoring wells transversing the site. This groundwater is not being beneficially used.
7. The main drainage channel which approximately bisects the site, would be improved to accommodate the projected 100-year flood from upslope areas. Disposal cells would be set back

100 feet from each edge of this channel. Perimeter drainage would be provided for a 100 year flood. Temporary drainage channels would be constructed to provide for storm water as the phases are developed. Drainage not in contact with waste material would be directed off site. Polluted drainage would stay on site.

8. The site is expected to receive about 1000 to 3000 barrels\* of wastes from the geothermal industry per day, and a relatively small amount by weight or volume of agricultural wastes. A typical five acre cell would contain a liquid storage volume of 116,000 barrels and a yearly capacity of 230,000 barrels. The total capacity of all Phase I cells is estimated at 1,200,000 barrels. Total site capacity is estimated at 7,650,000 barrels.
9. With suitable improvements as defined below this disposal site can meet the criteria contained in the California Administrative Code, Title 23, Chapter 3, Subchapter 15, for classification as a Class II-1 Disposal Site suitable to receive Group 2 and Group 3 wastes and selected Group 1 wastes.
10. The Water Quality Control Plan for the West Colorado River River Basin Region was adopted on April 10, 1975. This Order implements the objectives stated in said Plan.
11. The discharger has filed an operation and closure plan, and plans for financing for site closure and long-term maintenance.
12. On August 13, 1980, Imperial County Planning Department adopted Environmental Impact Report No. 226-79 for this disposal site. The report indicates that this project would not have a significant effect on water quality.
13. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge.
14. The Board in a public meeting heard and considered all comments pertaining to the discharge.
15. The IT Corporation representative stated at the Regional Board's regular meeting on November 12, 1980, that, in accordance with the letter of the Department of Health Services, dated October 10, 1980, extremely hazardous wastes and wastes containing volatile substances in excess of 10 percent by weight will not be accepted for disposal.

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

\*42 gallon barrels

A. Discharge Specifications

1. Neither the treatment nor the discharge or wastes shall create a pollution or a nuisance as defined in Division 7 of the California Water Code.
2. Waste materials shall not be disposed outside the designated disposal areas shown on Attachment A.
3. Disposal areas shall be protected from any washout or erosion of wastes or covering material, and from inundation, which could occur as a result of floods having a predicted frequency of once in 100 years.
4. The discharge of Group 1 wastes at this site shall be limited to those materials listed in Finding No. 3 (above) and other similar materials specifically approved by the Regional Board or, if of an emergency discharge nature, in writing by the Executive Officer.
5. Group 1 waste materials, and any water that has contacted the waste materials, shall be contained in those areas designated for Group 1 waste disposals.
6. Waste confinement barriers shall be protected and maintained to ensure their effectiveness.
7. All site facilities shall be designed and constructed to minimize damage to the graded foundation or the structures which control leachate, surface drainage, erosion and gas due to the maximum probable earthquake which appears to be reasonably expectable within a 100-year period.
8. There shall be no seepage or overflow from liquid waste holding facilities.
9. A minimum freeboard of two feet shall be maintained in the waste holding facilities at all times.
10. Liquid Group 1 wastes shall not be discharged at this site except to holding basins lined with at least two (2) feet of compacted clay and/or soil cement, having a permeability of  $1 \times 10^{-6}$  cm/sec or less, or other equivalent material approved by the Executive Officer.
11. Waste materials shall not be discharged on any surface which is less than six feet above the highest anticipated groundwater.
12. The discharger shall remove and relocate any wastes which are discharged at this site in violation of these requirements.
13. The final compacted soil covers on completed fills shall be graded to not less than a three(3) percent slope to promote lateral runoff of precipitation and to prevent ponding.



14. The final compacted soil covers on completed fills shall be not less than three(3) feet thick and at least one(1) foot of the final cover shall be compacted to obtain a permeability of not more than  $1 \times 10^{-6}$  cm/sec.
15. Completed portions of the disposal area shall be covered, graded, and maintained in conformance with the closure plan approved by the Regional Board.

B. Prohibition

1. The discharge of waste to surface drainage courses or to groundwaters is prohibited.

C. Provisions

1. The discharger shall maintain a copy of this Order at the site so as to be available at all times to site operating personnel.
2. Waste which conforms to the definition of extremely hazardous waste in Section 25115 of the Health and Safety Code, such as waste which contains a substance listed in Section 66685 of Title 22 of the California Administrative Code shall not be accepted for disposal unless specifically approved by a written permit from the California Department of Health Services, and a written approval from the Regional Board Executive Officer.
3. Waste shall not be accepted for disposal if it contains a substance which is all of the following:
  - a. A material that has toxicity upon inhalation that causes it to be toxic as defined by criteria adopted by the California Department of Health Services, or is listed in Section 66680 of Title 22 of the California Administrative Code with an indication that it is toxic; and
  - b. A substance with a vapor pressure exceeding 1 ml mercury at 20°C; and
  - c. Present in the waste in a concentration greater than 10 percent by weight.
4. The discharger shall maintain a legible record using a reporting form approved by the Executive Officer, of the volume and type of each Group 1 waste received at the site and the manner and location of disposal. The record shall be maintained for a period of not less than ten years, with the records to be forwarded to the Board if disposal operations cease.
5. The discharge of waste at this site shall not commence until the following items have been approved by the Executive Officer:

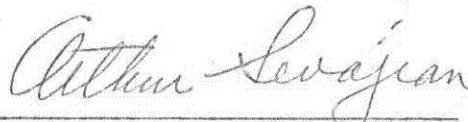
- a. An operations plan that conforms to the requirements of Title 23, Subchapter 15, Article 6, Section 2552, of the California Administrative Code.
- b. A report describing methods and procedures for termination of operations that conforms to the requirements of Title 23, Subchapter 15, Article 6, Section 2553 through 2553.2 of the California Administrative Code.
- c. Assurances that monies are available in an amount estimated by the Board to be sufficient to ensure the closure and subsequent maintenance of the disposal site in a manner that will not pose an adverse threat to the environment.

The Executive Officer's approval shall be subject to review and approval by the Regional Board at its first meeting following the Executive Officer's approval.

6. The discharger shall update the operation plan when substantial changes in operations are made, and a letter shall be submitted to the Regional Board annually indicating compliance or non-compliance with said plan. The plan shall conform to California Administrative Code.
7. The owner or operator of the disposal site shall notify the Board in writing of any change in ownership or of other persons responsible for site closure and subsequent maintenance thereof. This notification must be given at least 30 days prior to the effective date of the change and shall conform to Title 23, Subchapter 15, Article 6.5, Section 2561 of the California Administrative Code.
8. The discharger shall comply with "Monitoring and Reporting Program No. 80-90" and future revisions thereto, as specified by the Executive Officer.
9. Prior to the discharge of any liquid Group I wastes into any newly constructed containment basin (cell), the discharger shall submit to the Board a technical report showing the construction of the basin, and a certificate signed by a California Registered Civil Engineer stating that the basin and attendant facilities are constructed to meet the requirements of this Order, and shall obtain the approval of the Executive Officer prior to commencement of discharge.
10. Wells for monitoring elevation and quality of groundwater shall be installed within and around the site at locations approved by the Executive Officer. The procedure for obtaining samples from these wells is also subject to approval by the Executive Officer.

11. The Environmental Protection Agency is in the process of finalizing regulations for implementation of the Resource Conservation and Recovery Act. Upon adoption of those regulations, this permit shall be revised to incorporate those standards relevant to protection of water quality and prevention of nuisance, which will be applicable to issuance of a final permit under the Resource Conservation Recovery Act.

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 November 12, 1980.

  
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 80-90  
FOR  
IT CORPORATION - SOLID WASTE DISPOSAL SITE CLASS II-1  
Superstition Hills - Imperial, County

Location: Section 16, T13S, R12E, SBB&M

MONITORING

IT Corporation shall report monitoring data to the Regional Board in accordance with the following schedule:

<u>Constituents</u>	<u>Units</u>	<u>Regional Frequency</u>
1. Volume & type of each Group 1 waste received at the site, and manner and location of disposal	Gallons tons, or cubic yards	Monthly
2. Each monitoring well-Total Dissolved Solids and level of groundwater	mg/l and feet	Quarterly
3. Prior to the discharge of any liquid Group 1 wastes into any newly constructed containment basin (cell), the discharger shall submit to the Board a technical report showing the construction of the basin, (including results of soil tests for permeability of liner), and a certificate signed by a California Registered Civil Engineer stating that the basin and attendant facilities are constructed to meet the requirements of this Order.		
4. The discharger shall report all soil tests to the Board in regard to the permeability of cover material over completed fills.		
5. A letter shall be submitted to the Board annually indicating compliance or non-compliance with the operation plan. If non-compliance is being reported, the discharger shall submit a time schedule of specific actions for achieving compliance with said plan.		
6. The discharge of any Group 1 waste other than those allowed in the specifications, shall be reported to the Board immediately upon becoming aware that said waste has been discharged.		



REPORTING

The above monitoring program shall be implemented immediately upon commencement of discharge at the site.

Monitoring reports shall be submitted to the Regional Board as follows:

Monthly reports - by the 15th day of the following month.

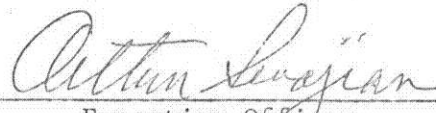
Quarterly reports - by January 15, April 15, July 15, and October 15  
of each year.

Annual reports - by January 31.

Forward monitoring reports to:

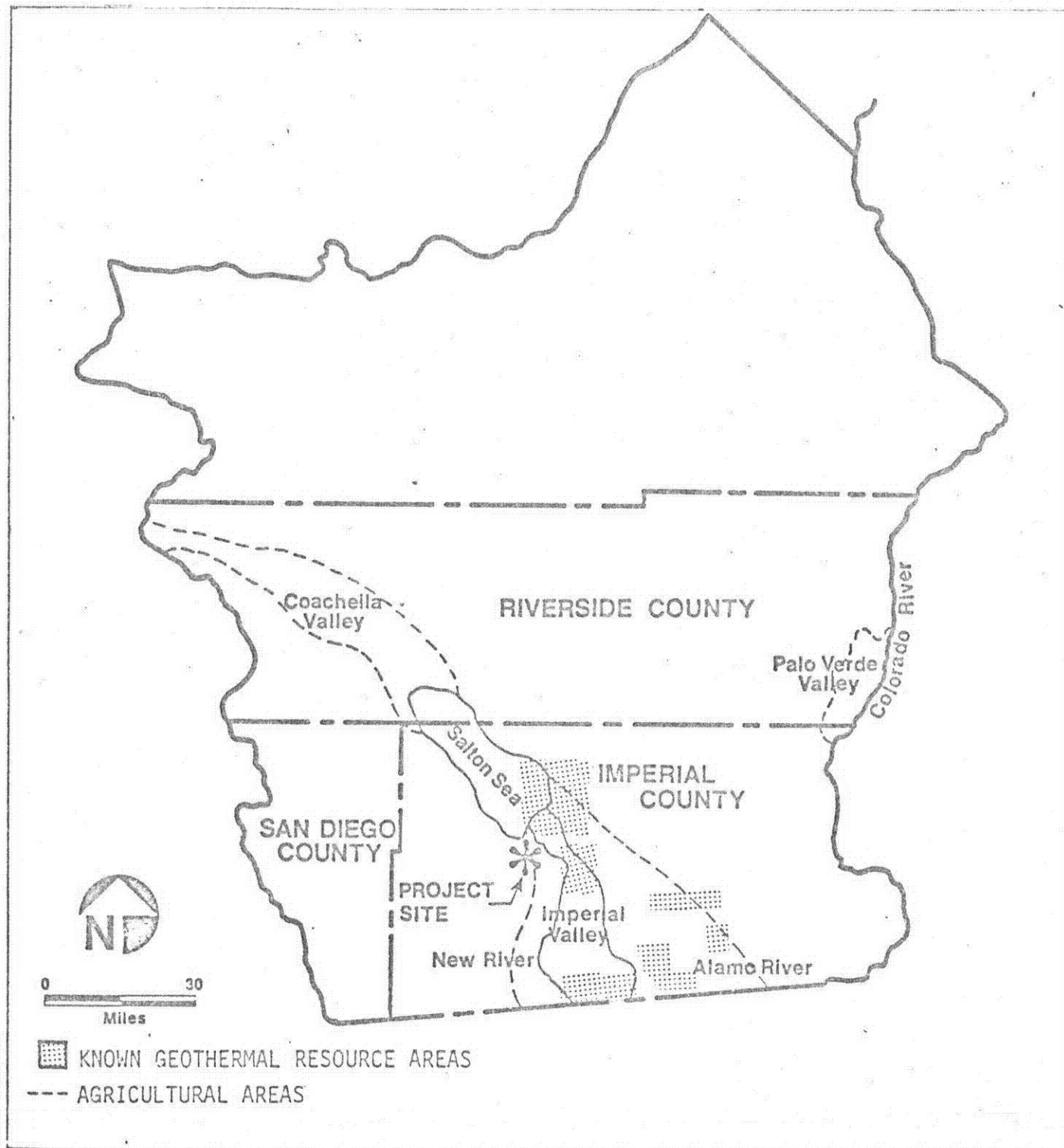
California Regional Water Quality Control Board  
Colorado River Basin Region  
73-271 Highway 1111, Suite 21  
Palm Desert, CA 92260

ORDERED BY:

  
Executive Officer

November 12, 1980

Date

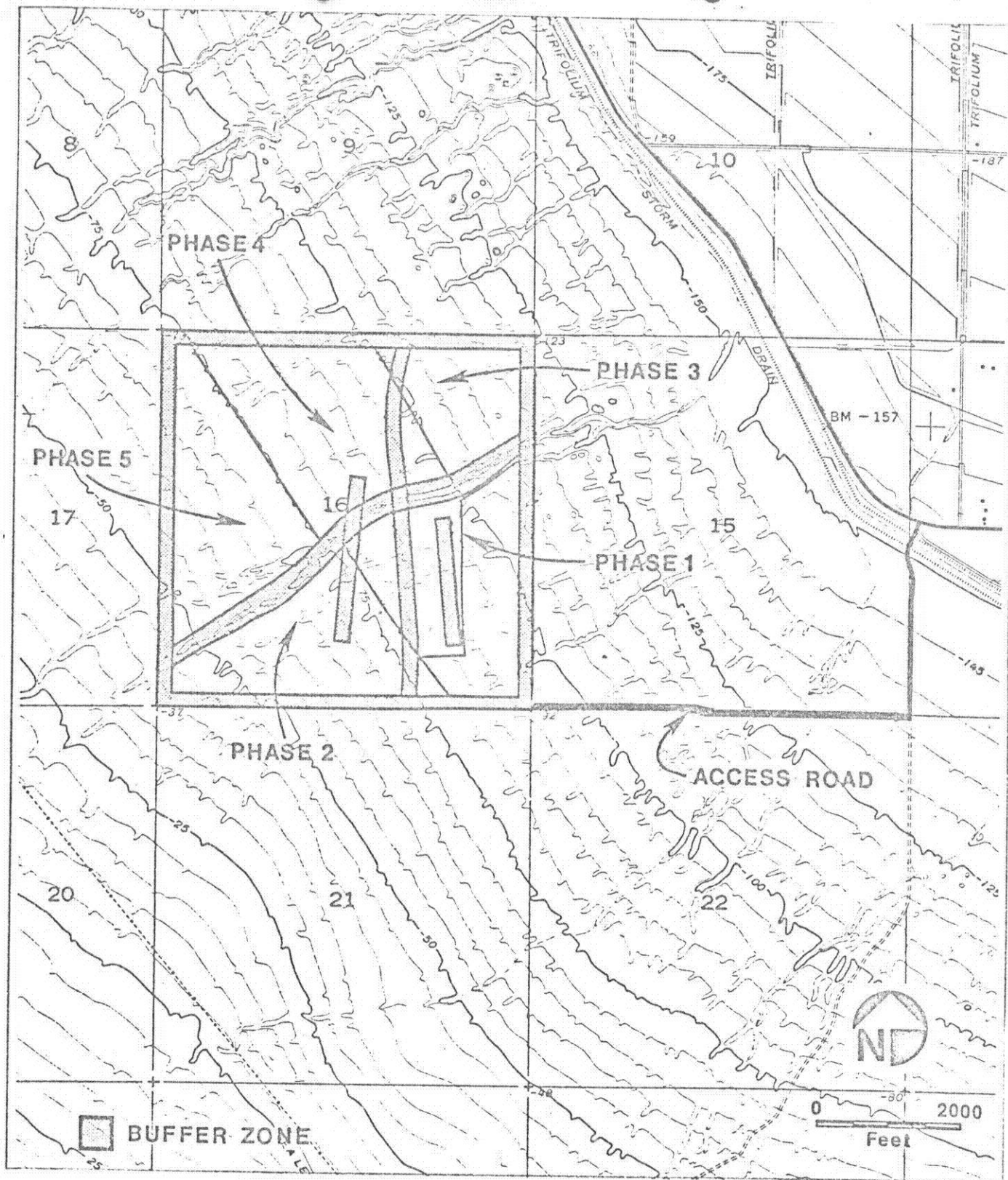


REGIONAL MAP  
IT CORPORATION - SOLID WASTE DISPOSAL SITE CLASS II-1  
SUPERSTITION HILLS - IMPERIAL COUNTY  
Section 16, T13S, R12E, SBB&M

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD - 7



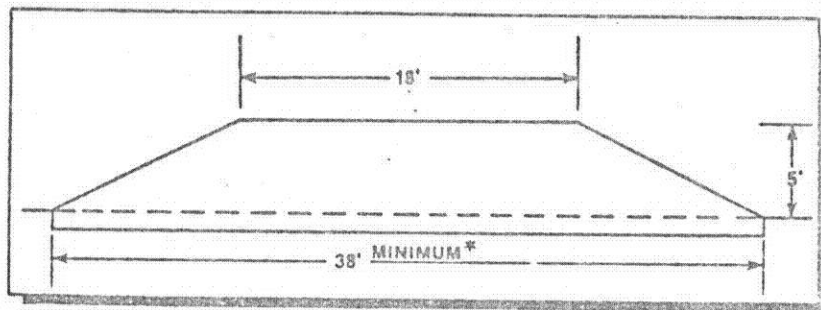
AREA MAP  
IT CORPORATION - SOLID WASTE DISPOSAL SITE CLASS II-1  
SUPERSTITION HILLS - IMPERIAL COUNTY  
Section 16, T13S, R12E, SBB&M



ATTACHMENT A  
 IT CORPORATION - SOLID WASTE DISPOSAL SITE CLASS II-1  
 SUPERSTITION HILLS - IMPERIAL COUNTY  
 Section 16, T13S, R12E, SBB&M



A 100-foot buffer zone will be provided on each side of each area of geologic and hydrologic constraint. A 200-foot wide buffer zone will be provided around the site perimeter.





LEVEE CROSS SECTION

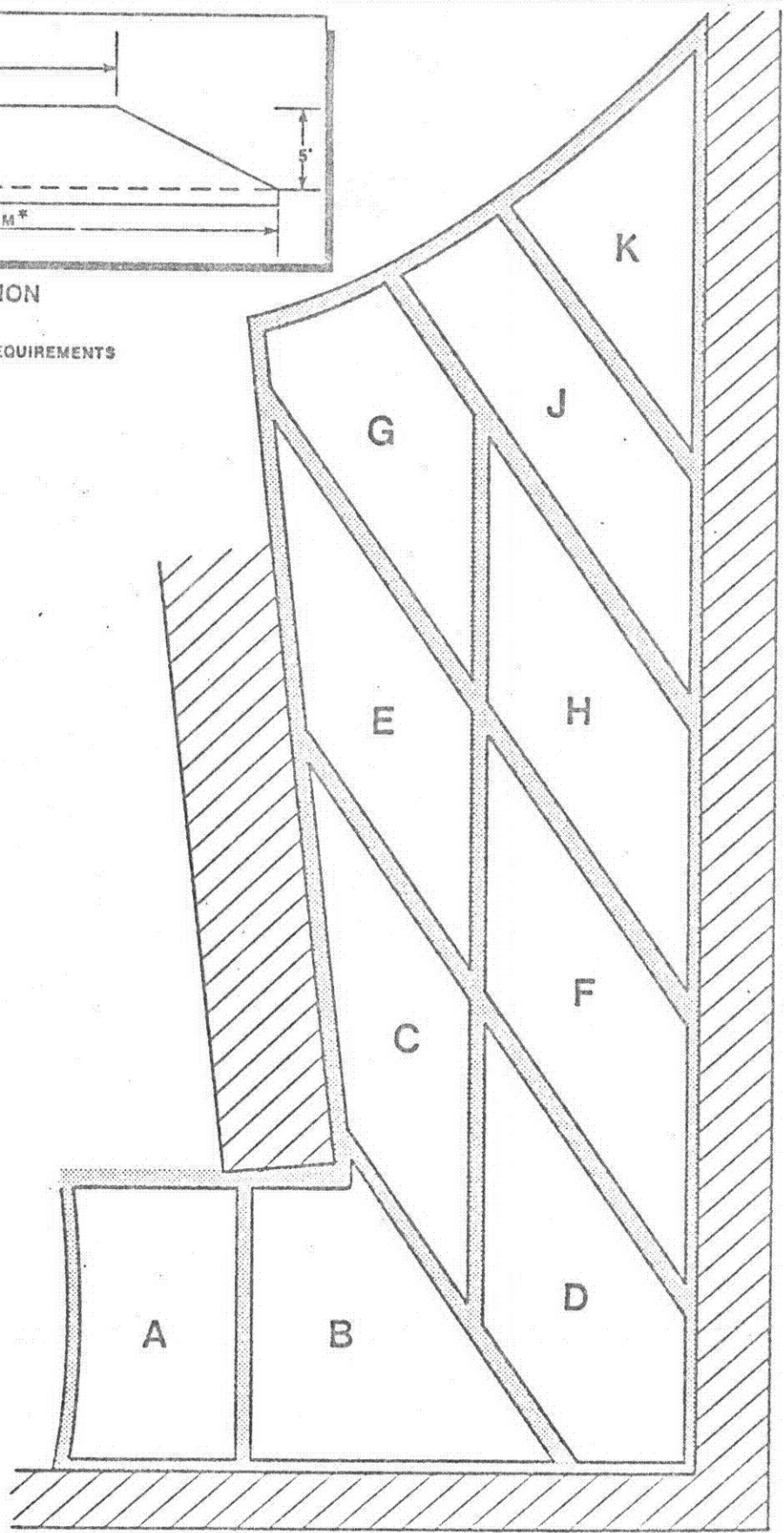
\*BASE WIDTH DEPENDS ON SIDE SLOPE REQUIREMENTS

 BUFFER ZONE  
 LEVEE

CELL	ACRES
A	5.41
B	6.47
C	5.38
D	6.32
E	5.85
F	6.47
G	5.39
H	6.47
J	6.10
K	5.18



0 500  
 FEET



DISPOSAL AREAS TO BE DEVELOPED IN PHASE I  
 IT CORPORATION - SOLID WASTE DISPOSAL SITE CLASS II-1  
 SUPERSTITION HILLS - IMPERIAL COUNTY  
 Section 16, T13, R12E, SBB&M