SAN FRANCISCO BAY REGION

ORDER No. 98-091
UPDATED WASTE DISCHARGE REQUIREMENTS AND
RESCISSION OF ORDER NO. 81-031, CLEANUP AND ABATEMENT ORDER NO. 87-086
AND CEASE AND DESIST ORDER NO. 90-132 FOR:

IT Corporation and International Technologies Corporation
Panoche Class I Hazardous Waste Management Facility
Benicia, Solano County

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

SITE OWNER AND LOCATION

1. IT Corporation (IT) currently owns the Panoche Class I Hazardous Waste Management Facility (Panoche), and is hereinafter referred to as the Discharger. The Panoche facility is located north of Interstate 680 off of Lake Herman Road, near the City of Benicia, Solano County, as shown in Figures 1 and 2. The Class I Hazardous Waste Management Facility occupies 242 acres at this location. The site is bounded on three sides by property owned by IT with the City of Benicia owning property along the northwest perimeter. The surrounding IT property is currently an undeveloped open area used for grazing.

PURPOSE OF CLOSURE ORDER

2. The primary objective for this order is to revise existing waste discharge requirements (WDRs) to account for the closure of what was formerly an operating hazardous waste facility. Compliance with these revised WDRs will be monitored and enforced by the Department of Toxic Substances Control (DTSC), as lead state agency for the facility. The order requires continued surface and groundwater monitoring and reporting in compliance with the requirements Article 5, Chapter 15, Division 3, Title 23 of the California Code of Regulations (CCR) for as long as the wastes pose a threat to water quality.

PERMIT HISTORY

3. On May 20, 1981, the Board adopted Order No. 81-031, which prescribed WDRs for the operation and monitoring of IT Panoche. In 1987, the Board issued IT a Cease and Desist Order (CDO No. 87-086 and revised as No. 90-132) for the solidification of the hazardous waste ponds on site. The intent of this CDO has been met.

4. IT submitted Closure and Post-closure Plans, Version 2.2 (Closure Plan) to DTSC and the Board for review in 1996. Components of the Closure Plan include consolidation and capping of waste units. The facility closure plan was approved by DTSC on March 16, 1998. Numerous pre-closure activities have already taken place, including grading and drainage activities, and preparation of CEQA compliance documents including environmental impact report. The public comment period for the Environmental Impact Report was recently completed.

5. Pursuant to Senate Bill 1082 Chaptered on September 21, 1993, DTSC has been identified as the sole authority for implementing hazardous waste facility regulation and permitting for this facility under section 25204.6 (a) (b) (1) (2). DTSC has the lead to implement the requirements of this Order, including the authority to clean up or abate the effects of a release of a hazardous substance pursuant to Section 13304 of the Water Code.

SITE DESCRIPTION AND HISTORY

6. IT Panoche is situated in the eastern most portion of the Coast Range geomorphic province, along the western margin of the Suisun Marsh, and northeast of the Carquinez Straits. The hills are comprised of folded and faulted marine sediments forming steep hillsides and deeply eroded canyons. Springs are common in this setting, with a portion of the groundwater extraction system dedicated to de-watering springs near the landfill (IT Corporation, 1996b).

7. The facility consists of 52 waste management units (WMUs), comprised of 41 impoundments, two landfills, four waste piles, and five drum burial areas (DBAs). Figure 3 shows many of these WMUs, most of which have been modified since the site stopped receiving waste in 1986. Unlined ponds have been emptied or solidified, graded to minimize infiltration and promote runoff surface water, and interim covers installed. Presently, two temporary and two permanent lined ponds along with two open-top tanks are used for the collection, evaporation, and treatment of extracted groundwater or leachate. This capacity is supplemented by three solar evaporators utilized during dry months to enhance liquids de-inventory. Discharges from an unlined stormwater runoff pond at the downgradient edge of the facility are regulated by NPDES permit No. 96-021 (IT Corporation, 1996).

8. Continuing closure and post-closure operations at the facility include: management of recovered groundwater, leachate and site generated waste; long-term monitoring, corrective action measures; waste excavation, relocation, and disposal; closure construction and maintenance of containment systems; and stormwater management. Water quality is protected by the implementation of these measures.

WASTES AND THEIR CLASSIFICATION

9. The site began receiving wastes in 1970, when owned by the previous site owner, J and J Disposal. The site has received 80,000 to 200,000 tons of waste per year which included acidic and caustic liquids, sludges, and solids, catalysts, hydrogen sulfide abatement sludges, petroleum refining sludges, oily slurries, truck washout debris, inorganic precipitates, petroleum contaminated soils, organic sludges, shredded currency, and pigment sludges (Jones and Stokes, 1996, IT Corporation, 1997a).

10. Analyses of wastes at the site indicate that cadmium, chromium, silver, manganese, copper, lead, nickel, vanadium, arsenic, barium, selenium, and zinc occur at hazardous concentrations in some locations. Pesticides and herbicides have also been detected at the facility, although with less frequency.

SURFACE AND GROUNDWATER

11. Surface Water: Drainage from the eastern portion of the site is tributary to the Goodyear Slough, Suisun Wetlands, and Suisun Bay via an unnamed creek. The western portion of the facility drains to tributaries of Paddy Creek and Lower Sulfur Springs Creek. Discharge from the stormwater retention basin, Pond 2B, is regulated by a separate NPDES permit, Order No. 96-021.

12. Groundwater: Groundwater flow beneath the site has been classified into two principal water-bearing zones; these units are referred to as the upper flow zone and the lower flow zone. The upper flow zone occurs in alluvium/colluvium, weathered Panoche Formation, and in several distinct areas, the overlying Domengene sandstone. The upper flow zone ranges in depth from 10 to 85 feet below ground surface (bgs) and with flow directions in this hydrogeologic unit generally paralleling surface topography. Groundwater flow velocities for the upper flow zone range from 10 to 40 feet/year with the highest velocities in the western drainage. The lower flow zone occurs in the unweathered Panoche Formation. The lower flow zone ranges in depth from 30 to 90 feet bgs with generally low groundwater velocities (0.1 foot/year) (IT Corporation, 1996a). Most groundwater at the facility drains into the central area sub-basin, although there are three lesser sub-basins draining small portions of the facility. Groundwater from the central area sub-basin flows southward toward the Suisun Bay but is contained onsite by a slurry cutoff wall and groundwater extraction system. The most significant of the lesser basins is the western drainage that underlies portions of Drum Burial Area V and other perimeter units. This basin drains west toward Paddy Creek.

13. Beneficial Uses: The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and

consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20 and November 13, respectively, of 1995. A summary of regulatory provisions is contained in Title 23 of the California Code of Regulations at Section 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater.

The beneficial uses for Suisun Bay in the vicinity of the site are as follows:

- Commercial and sport fishing;
- Estuarine and wildlife habitat;
- Industrial service supply;
- Fish migration and spawning;
- Preservation of rare and endangered species;
- Contact and non-contact recreation; and
- Navigation.

The beneficial uses for the Suisun Wetlands in the vicinity of the site are as follows:

- Estuarine and wildlife habitat;
- Fish migration and spawning;
- Preservation of rare and endangered species; and
- Contact and non-contact recreation.

The potential beneficial uses for groundwater in the vicinity of the site are as follows:

- Domestic and municipal supply;
- Agricultural supply;
- Industrial process and service water supply; and
- Discharge to Suisun Bay and Suisun wetlands.

14. Groundwater Degradation: A list of some of the known impacts to the upper groundwater bearing zone are listed below:
    - Hydrocarbon and chlorinated hydrocarbon plumes from the DBA V area have migrated several hundred feet westward from the site boundary (IT Corporation, 1996a);
    - Several wells downgradient of the facility in each of the individual subdrainages reflect elevated concentrations for chlorides and TDS (IT Corporation, 1996c).

SURFACE AND GROUNDWATER MONITORING

15. Surface water discharge for the facility is currently monitored at Pond 2B and regulated under NPDES Permit No. 96-021 issued on February 21, 1996. Additional surface water monitoring locations may be included as part of closure construction and post-closure monitoring requirements established by DTSC.

16. Panoche is currently in a corrective action program for groundwater monitoring and containment. The current monitoring program includes a number of elements of previous RWQCB approved programs as modified by DTSC. This interim program and subsequent closure and post-closure monitoring programs will be specified and administered by DTSC. Therefore, no Self-Monitoring Program is specified in this Order.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

17. The Department of Toxic Substances Control has certified a final Environmental Impact Report (FEIR) for the closure and post-closure plans for the IT Panoche facility in accordance with the California Environmental Quality Act. Geologic, hydrogeologic and engineering evaluations were evaluated to select the preferred options to reduce potential for impacts to the environment. The Board in this order has considered the FEIR and closure measures described therein relating to protection of surface water and groundwater.

NOTICE AND MEETING

18. The Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge, and provided them with an opportunity to submit their written views and recommendations.

19. The Board in a public meeting heard and considered all comments pertaining to the site.

IT IS HEREBY ORDERED that the Discharger, their agents, successors and assigns, shall meet the applicable provisions contained in Title 23, Division 3, Chapter 15 (Chapter 15) of the California Code of Regulations and Division 7 of the California Water Code, and shall comply with the following:

A. PROHIBITIONS

1. The relocation of waste shall not create a pollution or nuisance as defined in Section 13050 (1) and (m) of the California Water Code.

2. Any relocated waste shall not be placed in or allowed to contact ponded water from any source whatsoever.

3. Waste shall not be relocated to any position where they can be carried from the disposal site and discharged into waters of the State or of the United States.

4. Leachate from wastes and ponded water containing leachate or in contact with waste shall not be discharged to waters of the State or of the United States unless specifically authorized under NPDES Order No. 96-021.

5. The Discharger, or any future owner or operator of this site, shall not cause the following conditions to exist in waters of the State at any place outside the waste management facility:

   a. Surface Waters:

      - Floating, suspended, or deposited macroscopic particulate matter or foam;
      - Bottom deposits or aquatic growth;
      - Adversely alter temperature, turbidity, or apparent color beyond natural background levels;
      - Visible, floating, suspended or deposited oil or other products of petroleum origin; and
      - Toxic or other deleterious substances to be present in concentrations or quantities which may cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.

   b. Groundwater:

      - The groundwater shall not be further degraded as a result of any waste relocation; and
      - Containment of existing groundwater impacts shall be addressed through implementation of DTSCs approved closure and postclosure plan.

B. SPECIFICATIONS

1. All reports pursuant to this Order and/or closure of the WMUs at the site shall be prepared under the supervision of a registered civil engineer, California registered geologist or certified engineering geologist.

2. The site shall be protected from any washout or erosion of wastes from inundation which could occur as a result of flooding with a return frequency of 100 years. The waste management unit and containment structures shall be constructed and maintained to prevent, to the greatest extent possible, inundation, erosion, slope failure, washout, and overtopping under 1000 year, 24-hour precipitation conditions.

3. The closure of all WMUs shall be designed and constructed in conformance with Discharger's final closure/post-closure plan as approved by DTSC.

4. The Discharger shall monitor the site pursuant to the program established by DTSC. This facility is currently in Corrective Action Monitoring.

5. The Discharger shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any future monitoring programs as determined by DTSC or specified by this Board at the request of DTSC.

6 This Board considers the Discharger to have continuing responsibility for correcting any problems which arise in the future as a result of this waste discharge or related operations during the closure and post-closure maintenance period.

7. The Discharger shall maintain all devices or designed features, installed in accordance with this Order and closure/post-closure plans as approved by DTSC, such that these devices continue to operate as intended without interruption.

8. The Discharger shall provide a minimum of two surveyed permanent monuments near the waste management units from which the location and elevation of wastes, containment structures, and monitoring facilities can be determined throughout the closure and post-closure maintenance periods. These monuments shall be installed by a licensed land surveyor or registered civil engineer.

9. The Discharger shall comply with all applicable provisions of Chapter 15 (CCR) that are not specifically referred to in this Order or as specified by DTSC.

10. The Discharger shall maintain and monitor all operations and containment systems at the site, including all waste management units: (1) so as not to cause any further release to surface or groundwater; and (2) in order to achieve the corrective action goals established in the Closure Plan and the Monitoring Program. The Discharger shall also maintain and monitor all operations and containment systems at the facility so as not to cause any new release or impact on water quality at the point of compliance.

11. Surface drainage shall not contact waste during closure operations or during the post-closure life of the site. Drainage courses constructed over final capped wastes will be underlain with a minimum 5-foot thickness of compacted earthfill or a synthetic liner which offers equivalent protection.

C. PROVISIONS

1. Except as provided in the schedules given below, the Discharger shall comply with this order immediately upon adoption. The Discharger shall comply with the Prohibitions, Specifications, and Provisions specified below according to the following schedules:

2. The Discharger shall submit surface water/groundwater/leachate monitoring reports to the Board on an annual basis and to DTSC as specified by DTSC. These reports shall satisfy the requirements in Article 5, Chapter 15, Title 23 (CCR) as defined in the closure/post-closure monitoring program as approved by DTSC. Each annual report shall also include a summary of any revision to the monitoring program approved by DTSC during the preceding year.

3. The Discharger shall immediately notify the DTSC 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 precipitation and drainage control structures.

4. The Discharger shall maintain a copy of this Order at the site so as to be available at all times to site operating personnel.

5. This Board's Waste Discharge Requirements Order No. 81-031, Cleanup and Abatement Order No. 87-086 and Cease and Desist Order No. 90-132 are hereby rescinded.

6. These requirements do not authorize commission of any act causing injury to the property of another or of the public; do not convey any property rights; do not remove liability under federal, state or local laws; and do not authorize the discharge of wastes without appropriate permits from other agencies or organizations.

7. This Order is subject to Board review and updating, as necessary, to comply with changing State or Federal laws, regulations, policies, or guidelines; changes in the Board's Basin Plan; or changes in the discharge characteristics.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, complete, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on September 16, 1998.

Lawrence P. Kolb

Loretta K. Barsamian
Executive Officer

Attachments: Figure 1: General Site Location Map
Figure 2: Site Location Map
Figure 3: Waste Management Units

References:

IT Corporation, 1997a, Groundwater and Surface Water Monitoring - Annual Report, 1996, IT Panoche Facility.

IT Corporation, 1996a, Drum Burial Area V, Amended Phase 2 Investigation Report, IT Panoche Facility.

IT Corporation, 1996b, Closure Plan, Version 2.2, IT Panoche Facility.

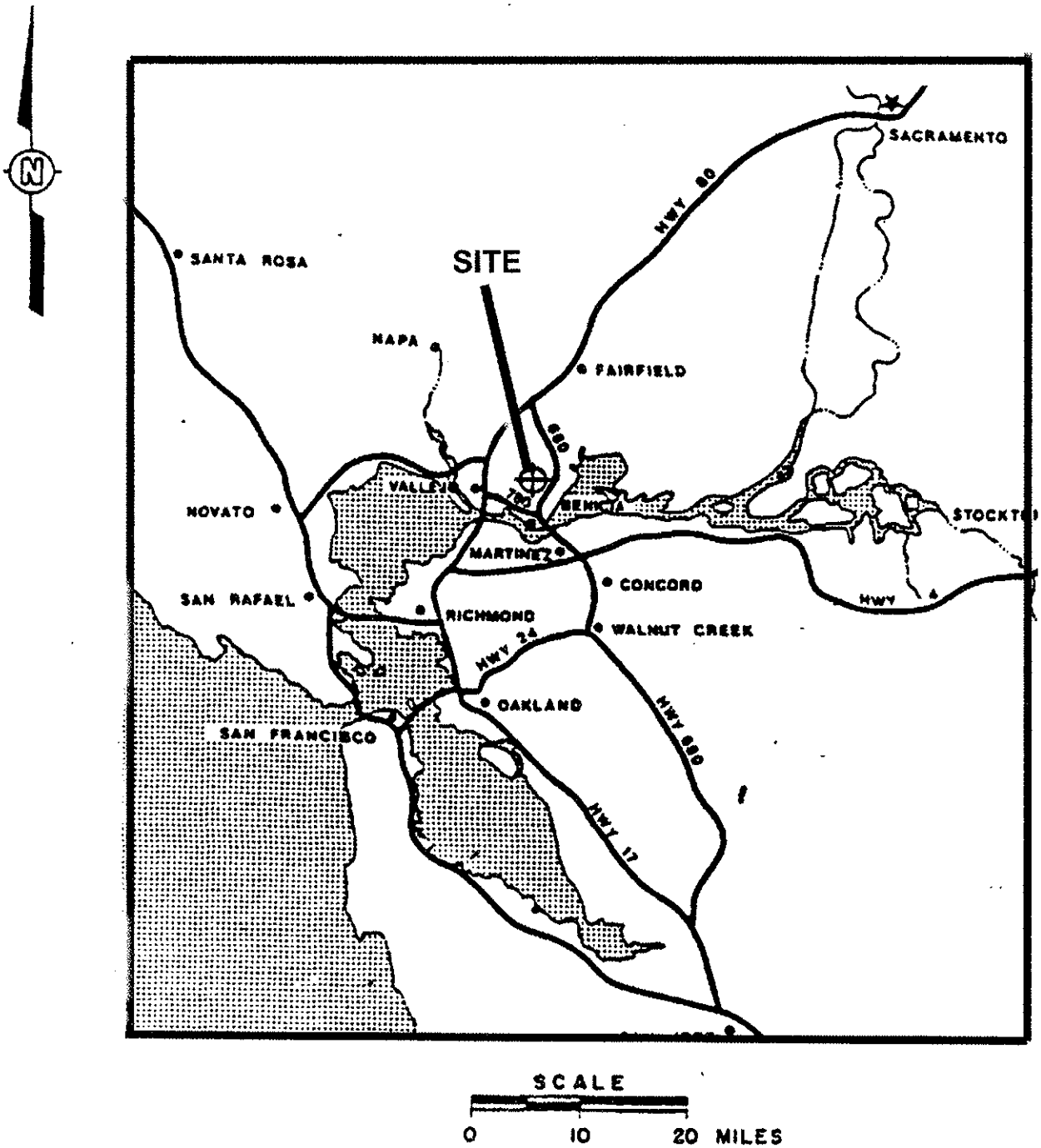
IT Corporation, 1996c, Groundwater and Surface Water Monitoring - Annual Report, 1995, IT Panoche Facility.

IT Corporation, 1995, Operations and Maintenance Inspection of the IT Panoche Facility,.

Jones and Stokes Associates, 1997, Environmental Impact Report - Closure and Post-Closure Plans, IT Panoche Facility.

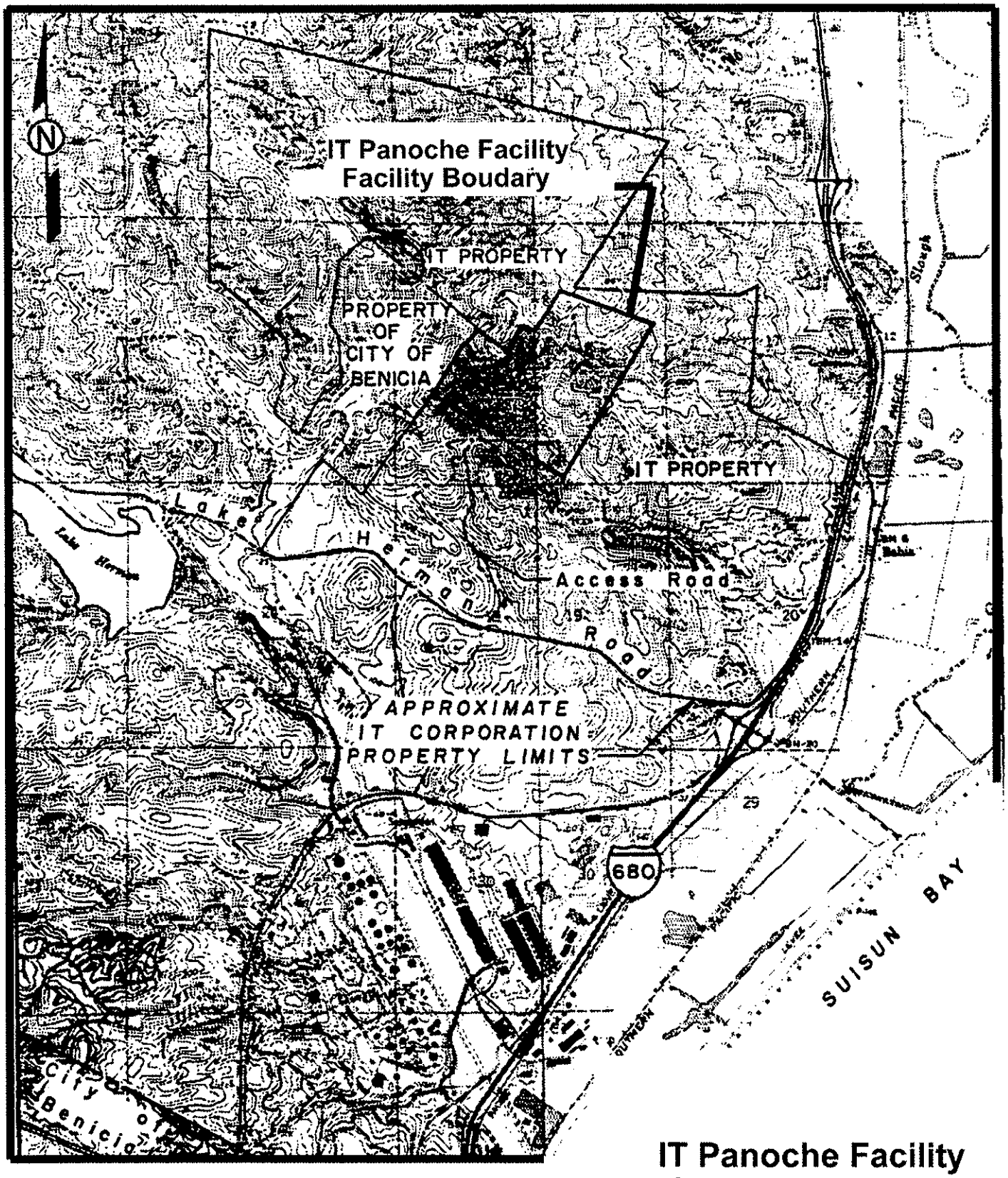
Regional Water Quality Control Board, 1995, Water Quality Control Plan; San Francisco Bay Region.

Weiss Associates, 1996, Orientation of Geologic Structures and Their Potential Influence on Groundwater Flow, Drum Burial Area V, Panoche Facility.



IT Panoche Facility
Site Location Map

Figure 1



IT Panoche Facility Site Location Map

Figure 2

SCALE

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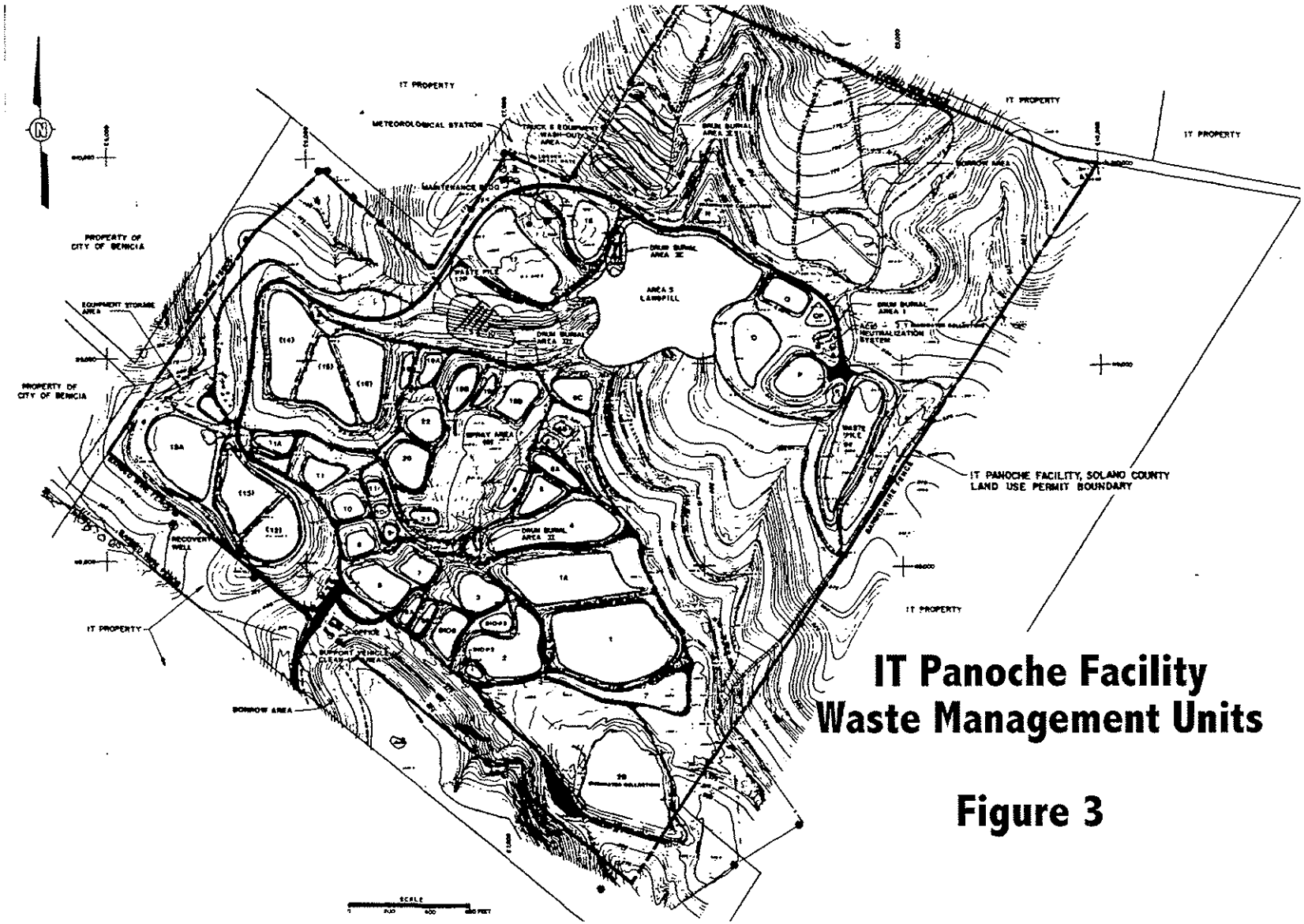

IT Panoche Facility Waste Management Units

Figure 3