CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. R2-2007-0053

WASTE DISCHARGE REQUIREMENTS

DUBLIN SAN RAMON SERVICES DISTRICT
DEDICATED LAND DISPOSAL SITE
CLASS II LAND TREATMENT UNIT
PLEASANTON, ALAMEDA COUNTY

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

DISCHARGER AND LOCATION

1. **Owner, operator, and discharger named**: The Dedicated Land Disposal (DLD) site is owned and operated by the Dublin San Ramon Services District (DSRSD). DSRSD is hereinafter referred to as the Discharger.

2. **Site location and description**: The DSRSD wastewater treatment plant is located southeast of the intersection of Interstate 580 and 680 in the city of Pleasanton (see Figure 1). The facility consists of 3 areas: a 30 acre main plant; six facultative sludge lagoons (FSLs) covering 27 acres; and a 55 acre dedicated land disposal (DLD) area utilized to dispose biosolids. The main wastewater treatment plant and the FSLs are separately regulated under NPDES permit CA0037613. The DLD site meets the classification of a Class II land treatment unit for non-municipal, non-hazardous waste materials. The DLD site was formed by injecting treated biosolids directly into the ground surface and incorporation of the biosolids into the soil for disposal. The DLD site terrain is flat and is surrounded by a berm averaging approximately eight feet high. Areas surrounding the site are predominantly commercial and residential.

PURPOSE OF ORDER

3. Waste Discharge Requirements: This order establishes Waste Discharge Requirements (WDRs) for the DLD biosolids land treatment unit, which include general provisions and tasks necessary to establish design criteria for the biosolids containment and to establish monitoring programs in order to minimize impacts to water quality. It is expected that the operations of the DLD biosolids land treatment unit will remain integral with the operation of the DSRSD wastewater treatment plant. No Board Order has been previously adopted for the DLD site.

4. Land treatment unit defined: A land treatment unit is a waste management unit at which liquid and solid waste is discharged to, or incorporated into, soil for degradation, transformation, or immobilization within the treatment zone. Such units are considered disposal units if the waste will remain after closure.

SITE DESCRIPTION

5. Waste placement: The DLD site is an unlined land treatment unit. The DLD site has received biosolids from one or more FSLs yearly since 1989. Biosolids are stabilized in the FSLs for a minimum of four years. During the summer months the biosolids are dredged and transported by pipeline to the DLD site. The biosolids are placed into furrows approximately 8-12 inches deep and immediately covered with soil in order to avoid odorous conditions. Approximately 1,375 dry tons of biosolids are placed into the DLD site per year.

6. Waste types and classification: The biosolids disposed at the DLD site are classified as 'designated waste' (non-municipal, non-hazardous waste) pursuant to the criteria set forth in Title 27 Section 20210. No other waste materials are disposed at the DLD site. The DLD site meets the requirements for a Land Treatment Unit (LTU) as specified in Title 27, Section 20250(b)(5).

7. Waste containment and minimization: Water quality impacts are minimized by the following methods and conditions:

   - placement of biosolids during the dry summer months to provide greatest potential net evaporation and to minimize infiltration;
   - directed conveyance of runoff by surface grading;
   - containment of surface water accumulations during the winter within peripheral berms;

- removal of surface water by collection and conveyance to the wastewater treatment plant for treatment prior to discharge under an NPDES permit;
- peripheral drainage ditches which divert surface water runoff from surrounding areas away from the DLD site; and,
- native underlying soils with low permeability, ranging from 1×10^{-7} to 1×10^{-8} cm/sec (Hydrogeologic Study for Dublin San Ramon Services District Facultative Sludge Lagoon and Dedicated Land Disposal Area, Kaldveer Associates, 1992).

Due to the grading, collection and treatment of surface water, and installation of peripheral berms and drains, and based on the lack of indications of seepage during the history of site operations, no seepage is expected to occur in the future provided that existing site controls are maintained. The seepage monitoring requirement specified in Part B, Section 1.D in Attachment A of this order is included as a precautionary measure.

SITE INVESTIGATIONS

8. Stratigraphy: The general area within the Livermore Valley is underlain by up to 400 feet of Quaternary alluvium consisting of sand, silt, clay, and gravel deposits from outwash plains and extensive lake deposits. A remnant of an extensive lake existed in the area of the DLD site until the early 1900's, when the area was drained. The uppermost layer, immediately underlying the DLD site, consists of a surficial deposit of low permeability silty clay up to 70 feet thick. At 50 to 70 feet below ground surface is Quaternary alluvium consisting of thick silty clay layers and thin sand and gravel layers. The alluvium is underlain by the 4,000 foot thick Livermore Formation, which consists of semi-consolidated deposits of clayey gravel and clayey sand.

9. Surface water: Alamo Creek is the nearest surface water body to the DLD site. The creek flows southward through the Livermore Valley toward the San Ramon Valley. The creek is channelized into flood control canals, as are many of the surface water systems in the vicinity. Stormwater from the DLD is prevented from entering storm drains or Alamo Creek or any of its tributary areas by peripheral containment berms and a stormwater collection and removal system. Stormwater at the DLD is routed to the DSRSD wastewater treatment plant for treatment prior to discharge under NPDES permit. The site is not located within the limits of a 100-year flood event.

10. Groundwater: The site is located over the Livermore Valley Groundwater Basin. Site investigations indicate that groundwater beneath the site is found at depths as shallow as 7 to 19 feet below ground surface within thin and discontinuous sand lenses which are confined by a thick clay aquiclude. The aquiclude, directly underlies the site and is

nearly continuous across the western half of Livermore Valley. The aquiclude, which is relatively impermeable (measured hydraulic conductivity of approximately 1 x 10^{-8} cm/sec) has been identified as the 'upper' of four aquicludes occurring within the upper alluvium and underlying Livermore Valley Formation. Potable groundwater occurs primarily at depths greater than 50 feet below ground surface within the aquifers of the upper alluvial deposits and the underlying Livermore Formation.

11. Geologic structure and stability: The region surrounding the DLD site is seismically active. Within the area are the Calaveras fault, located approximately 0.9 miles to the west; the Pleasanton fault, located approximately 0.7 miles to the northeast; the Verona fault, about 4 miles to the southeast; the Hayward fault, 8 miles to the southwest; the Greenville fault, located 11 miles to the east; and the San Andreas fault, 25 miles to the southwest of the site. Although a significant earthquake is statistically projected to occur within the near future, seismic risks to the DLD site are minimal due to the flat relief and low thickness of the biosolids layer above the native soils.

12. Potential for contamination: Although groundwater has not been monitored at the DLD site, groundwater beneath the FSLs immediately adjacent to the DLD site has been monitored in six monitoring wells since 1985. Samples collected from the wells and analyzed indicate that groundwater quality has not been impacted beneath the six FSLs. It is unlikely that the DLD site, which contains no free-standing water, has impacted water quality. In order to ensure that the DLD site presents no potential threat to water quality, a network of new groundwater monitoring wells are required as specified in the Provisions of this Order.

13. Groundwater Monitoring: Currently, groundwater is only monitored at the FSLs located in the area immediately north of the DLD site, as described in Finding 12. Additional groundwater monitoring wells are required to be installed in the area of the DLD site as specified in Provisions 3 and 4 of this Order. At a minimum, at the site perimeter and at multiple depths, and monitored on a yearly basis for general water quality parameters, and for a more extensive list of compounds every 5 years.

BENEFICIAL USES OF GROUNDWATER

14. Board Resolution No. 89-39: Board Resolution 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas containing high TDS (greater than 3000 mg/l TDS), high background contaminant levels, or those areas with a low-yield. Some groundwater underlying and adjacent to the site qualifies as a potential source of drinking water,

although there is no current use of the site's shallow groundwater, nor any anticipated plans for its use.

15. Basin Plan: The Board adopted a revised Water Quality Plan for the San Francisco Bay Basin (Basin Plan) on January 21, 2004. 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 Resource Control Board and the Office of the Administrative Law on July 22, 2004, and October 4, 2004, respectively, and approved by the U.S. Environmental Protection Agency, Region IX on January 5, 2005. A summary of regulatory provisions is contained in 23 CCR. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwater.

16. Designated beneficial uses of groundwater: The beneficial uses of groundwater beneath the DLD site include:

    a. Municipal and domestic supply
    b. Agricultural supply
    c. Industrial process and service supply

CALIFORNIA ENVIRONMENTAL QUALITY ACT

17. Potential environmental impacts: An Initial Study/Mitigated Negative Declaration, prepared in compliance with the California Environmental Quality Act (CEQA, Public Resources Code Section 2100 et. seq.), was certified on August 19, 1999. The document evaluates the potential environmental impacts associated with DLD site activity which may occur unless appropriate mitigation measures are taken. Potential environmental impacts may be associated with:

    - stormwater runoff
    - construction activities
    - failure of site controls due to seismic events
    - handling or associated hazardous materials
    - odors

18. Mitigation measures: The Board has considered the DSRSD Initial Study/Mitigated Negative Declaration and the mitigated measures described therein. The mitigation measures recommended at the DLD site for preventing environmental impacts included:

    - geotechnical investigation
    - establishment of facility designs and operating criteria

- periodic site inspections and audits
- erosion controls
- construction activity controls
- implementation of a Storm Water Pollution Prevention Plan (SWPPP)
- implementation of methods and controls to address odors
- materials storage, handling, and disposal procedures

The Board finds that the mitigation measures described in the Initial Study/Mitigated Negative Declaration and by the Specifications and Provisions of this WDR will prevent environmental impacts from occurring at the DLD site.

19. Public notice: The Board has notified the Discharger and interested agencies and persons of its intent to adopt revised, updated Waste Discharge Requirements for the Discharger and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

20. Public meeting: The Board, in a public meeting heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger, its agents, successors and assigns shall meet the applicable provisions contained in Title 27, Division 2, Subdivision 1 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 wastes to or from any waste management unit shall not create a condition of pollution or nuisance as defined in Section 13050 (l) and (m) of the California Water Code. Wastes shall not be relocated to any location where they can be discharged into waters of the State.

2. The discharge of waste other than biosolids associated with the DSRSD wastewater treatment plant is prohibited.

3. The discharge of solid or liquid waste or leachate to groundwater is prohibited.

4. The discharge of solid or liquid waste or leachate to surface waters or surface water drainage courses is prohibited unless specifically authorized under an NPDES permit.

5. The discharge of biosolids to the DLD site when the soil is saturated and/or during periods of significant surface water accumulation is prohibited.

6. Ponding and infiltration of leachate and stormwater runoff at the DLD site shall be minimized or prevented by operation of a surface water drainage system. The stormwater residence time at the DLD site shall be minimized by: 1) maintaining a grade sufficient to promote runoff; 2) operation of a stormwater collection and removal system; and, 3) treatment of stormwater prior to discharge under an NPDES permit, or off-hauling and disposal at a certified waste disposal facility.

7. Water used for maintenance of the DLD site shall be limited to the minimum amount necessary for dust control and perimeter landscaping. Recycled water is appropriate for this use.

8. Biosolids disposed in the DLD site shall be covered within 24 hours after application or if it poses an odor and/or vector nuisance. Injection of biosolids is considered covered unless improper application results in ponding or spillage during application, in which case the biosolids must be covered if it threatens to cause an odor and/or vector nuisance conditions.

9. Discing at the DLD site shall not result in odor and/or vector nuisance conditions.

10. The creation of any new DLD facilities beyond the existing perimeter of the site is prohibited without prior Board approval.

11. The Discharger shall not excavate within or reconfigure any existing waste management unit used for biosolids disposal without prior Board approval, except for maintenance and construction associated with existing facilities operations.

12. The Discharger, or any future owner or operator of the DLD 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 growths.
    - Alteration of temperature, turbidity, or apparent color beyond natural background levels.
    - Visible, floating, suspended or deposited oil or other products of petroleum origin.
    - 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

- Further degradation of groundwater quality.
- Substantial worsening of any existing groundwater impacts.

13. The pH of the zone of incorporation (the upper 5 feet above native soils) of the land treatment unit shall be maintained at or above 5.0.

B. SPECIFICATIONS

1. All reports pursuant to this order shall be prepared under the supervision of a California registered professional civil engineer, professional geologist or certified engineering geologist.

2. The DLD site shall be protected from any washout or erosion of wastes or cover material and from inundation that could occur as a result of a 100-year, 24-hour precipitation event, or as the result of flooding with a return frequency of 100 years.

3. Surface drainage from sources beyond the area of the DLD site shall not contact or percolate through biosolids.

4. The existing containment, drainage, and monitoring systems at the DLD site, shall be maintained as long as stormwater is present and poses a threat to water quality.

5. The Discharger shall assure that the structures which control surface drainage are constructed and maintained to withstand conditions generated during the maximum probable earthquake.

6. The Discharger shall analyze the samples from any groundwater monitoring wells as outlined in the Discharge Monitoring Program (Attachment A).

7. The Discharger shall install any reasonable additional groundwater and leachate monitoring devices required to fulfill the terms of any future Discharge Monitoring Program issued by the Executive Officer.

8. The Discharger shall maintain all devices or designed features installed in accordance with this Order, such that they continue to operate as intended without interruption.

9. The Board shall be notified immediately of any failure occurring in the DLD site. Any failure that threatens the integrity of containment features or the DLD site shall be promptly corrected after approval of the method and schedule by the Executive Officer.

10. The unsaturated native soils extending to a depth of 5 feet beneath the initial surface of the DLD shall be considered a treatment zone, as defined in Section 20250 of Title 27.

11. The Discharger shall maintain the DLD site so as maintain soil pH within the treatment zone at or above 5.0. As provided in Provision 5 and 6 of this Order, the Discharger shall maintain the DLD site and monitor the soil within the treatment zone and the groundwater beneath the treatment zone to verify that complete degradation, transformation, or immobilization of biosolids is taking place.

12. The Constituents of Concern (COCs), required under Section 20395 of Title 27, shall include all parameters listed in Tables 1 of Part B of the Discharge Monitoring Program.

13. The Discharger shall maintain the DLD site so as to prevent a statistically significant increase in water quality parameters at points of compliance as provided in Section 20420 of Title 27.

14. All monitoring instruments and devices used by the Discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy.

15. The maximum depth of biosolids accumulated within the DLD site shall not exceed five feet from the initial ground surface.

16. The Discharger shall comply with all applicable provisions of Title 27 that are not specifically referred to in this Order.

C. PROVISIONS

1. The Discharger shall comply immediately, or as prescribed by the time schedule below, with all Prohibitions, Specifications and Provisions of this Order. All required submittals must be acceptable to the Executive Officer. The Discharger must also comply with all conditions of these WDRs. Violations may result in enforcement actions, including Board orders or court orders requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Board. [CWC Section 13261, 13263, 13265, 13267, 13268, 13300, 13301, 13304, 13340, 13350].

2. All technical and monitoring reports required pursuant to this Order are being requested pursuant to Section 13267 of the California Water Code. Failure to submit reports in accordance with schedules established by this Order or failure to submit a report of sufficient technical quality acceptable to the Executive Officer may subject the Discharger to enforcement action pursuant to Section 13268 of the California Water Code.

POINT OF COMPLIANCE WELLS

3. WORKPLAN FOR INSTALLATION OF DLD POINT OF COMPLIANCE (POC) WELLS

COMPLIANCE DATE: **October 1, 2007**

The Discharger shall submit a workplan, acceptable to the Executive Officer, for installing a network of groundwater monitoring wells (Point of Compliance wells) at the DLD site necessary to monitor water quality. The workplan shall specify the locations, construction details, monitoring parameters, and a schedule for implementation.

4. REPORT DOCUMENTING INSTALLATION OF POINT OF COMPLIANCE WELLS

COMPLIANCE DATE: **December 1, 2007**

The Discharger shall submit a technical report, acceptable to the Executive Officer, which documents the installation of the POC wells. The technical report shall describe any variation between the proposed POC well network as installed and as proposed in Provision C.3 .

LAND TREATMENT UNIT MONITORING

5. ANNUAL MONITORING REPORT

COMPLIANCE DATE: **February 28 of each year**

The Discharger shall submit an Annual Monitoring Report, acceptable to the Executive Officer, by February 28 of each year in accordance with the attached Discharge Monitoring Program (Attachment A). The annual report to the Board shall cover the previous calendar year as described in Part A of the Monitoring Program. In addition to the requirements outlined in Attachment A, this report shall also include the following: location and operational condition of all groundwater monitoring wells; and a site map delineating groundwater levels for each monitoring event.

6. SEMI-ANNUAL MONITORING REPORT

COMPLIANCE DATE: **July 31 and February 28 of each year**

The Discharger shall submit semi-annual monitoring reports, no later than July 31 and February 28 of each year in accordance with the attached Discharge Monitoring Program (Attachment A). The February 28 semi-annual report may be combined with the annual report.

LAND TREATMENT UNIT MAINTENANCE

7. ANNUAL MAINTENANCE REPORT

COMPLIANCE DATE: **February 28 of each year**

The Discharger shall submit a technical report to the Board, acceptable to the Executive Officer, detailing the repair and maintenance activities that need to be completed prior to the commencement of the next rainy season (starting October 15 of each year). The report shall describe measures necessary to maintain containment and drainage systems, sufficient surface grading, the five-foot height requirement of waste material, and other conditions specified in the Prohibitions and Specifications. The report shall also include a description and schedule for repair and maintenance activities, and a cost analysis detailing the anticipated expense for all repairs, maintenance and monitoring during the next 12 months. Repair and maintenance estimates shall be based on rainy season inspections conducted throughout the winter as required in the Discharge Monitoring Program.

8. **NEW WELL INSTALLATION REPORT**

COMPLIANCE DATE: **45 days following completion of well installation activities**

The Discharger shall submit a technical report, acceptable to the Executive Officer, that provides well construction details, geologic boring logs, and well development logs for all wells installed in additional to the wells to those wells addressed in Provisions C.3 and C.4, as part of the Discharge Monitoring Program (Attachment A).

9. **CHANGE IN SITE CONDITIONS**

NOTIFICATION DUE DATE: **Immediately upon occurrence**
REPORTING DUE DATE: **30 days after initial notification**

The Discharger shall immediately notify the Board of any change in site conditions that could impair the integrity of the DLD site's containment systems and shall immediately make repairs. Within 30 days, the Discharger shall prepare and submit a technical report, acceptable to the Executive Officer, documenting the corrective measures taken.

10. **REPORT OF RELEASE**

NOTIFICATION DUE DATE: **Within 24 hours of detection**
REPORTING DUE DATE: **Within 5 days of detection**

The Discharger shall notify the Board within 24 hours of detection of any measurably significant increase (as defined in section 20164 of Title 27) in the value of contaminants below the treatment zone. Within 5 days of detection, the Discharger shall cease further discharge and complete removal or remedial actions as appropriate and submit a technical report, acceptable to the Executive Officer, which proposes modifications to the operating practices at the DLD site to maximize the success of degradation, immobilization, or transformation processes in the DLD site and/or its treatment zone.

11. **FINANCIAL ASSURANCE DOCUMENT**

COMPLIANCE DATE: **December 1, 2007**

The Discharger shall submit a technical report, acceptable to the Executive Officer, which provides assurances of financial responsibility for initiating and completing corrective action for all known and reasonably foreseeable releases

from the facility. The Discharger shall also maintain an irrevocable fund or other means to ensure annual and long-term maintenance of the DLD site.

12. The Discharger shall maintain records of the volume of biosolids discharged at the DLD site and the manner and location of discharge. Such records shall be maintained at its facility and summarized in the semi-annual reports. The records shall be available for review by representatives of the Board at all times [CWC Section 13263].

13. The Discharger shall maintain a copy of these WDRs and these WDRs shall be available to operating personnel at all times [CWC Section 13263].

14. The Discharger shall permit the Board or its authorized representative, upon presentation of credentials:

    a. Immediate entry upon the premises on which wastes are located or in which any required records are kept.
    b. Access to copy any records required under the terms and conditions of this order.
    c. Inspection of any treatment equipment, monitoring equipment, or monitoring methods required by this order or by any other California State Agency.
    d. Sampling of any discharge or groundwater governed by this order.

15. In the event of any change in control/operator or ownership of land or parcel of land, or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the Board's office. The Discharger must notify the Executive Officer, in writing at least 30 days in advance of any proposed transfer of this Order's responsibility and coverage to a new discharger. The notice must include a written agreement between the existing and new discharger containing a specific date for the transfer of this order's responsibility and coverage between the current discharger and the new discharger. This agreement shall include an acknowledgment that the existing discharger is liable for violations up to the transfer date and that the new discharger is liable from the transfer date on. [CWC Sections 13267 and 13263]. The request must contain the requesting entity's full legal name, the address and telephone number of the persons responsible for contact with the Board and statement. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code.

16. This Order is subject to Board review and updating, as necessary, to comply with changing State and Federal laws, regulations, policies, or guidelines; changes in the Board's Basin Plan; or changes in the discharge characteristics [CWC Section 13263]. The Executive Officer may specify minor changes to the Discharge Monitoring Plan as necessary.

17. Where the Discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge or submitted incorrect information in a Report of Waste Discharge or in any report to the Board, it shall promptly submit such facts or information [CWC Sections 13260 and 13267].

18. This Order does not convey any property rights of any sort or any exclusive privileges. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, do not protect the Discharger from its liability under Federal, State or local laws, nor do they create a vested right for the Discharger to continue the waste discharge [CWC Section 13263(g)].

19. Provisions of these WDRs are severable. If any provision of these requirements is found invalid, the remainder of these WDRs shall not be affected.

20. The Discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with conditions of this Order. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this order [CWC Section 13263(f)].

21. Except for a discharge which is in compliance with these WDRs, any person who, without regard to intent or negligence, causes or permits any hazardous substance or sewage to be discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, shall, as soon as (a) that person has knowledge of the discharge, (b) notification is possible, and (c) notification can be provided without substantially impeding cleanup or other emergency measures, immediately notify the Office of Emergency Services of the discharge in accordance with the spill reporting provision of the state toxic disaster contingency plan adopted pursuant to Article 3.7 (commencing with Section 8574.7) of Chapter 7 of Division 1 of Title 2 of the Government Code, and immediately notify the State Board or the Board of the discharge. This provision does not require reporting of any discharge of less than a reportable quantity as provided for under subdivisions (f) and (g) of Section

13271 of the Water Code unless the Discharger is in violation of a prohibition in the applicable water Quality Control Plan [CWC Section 13271(a)].

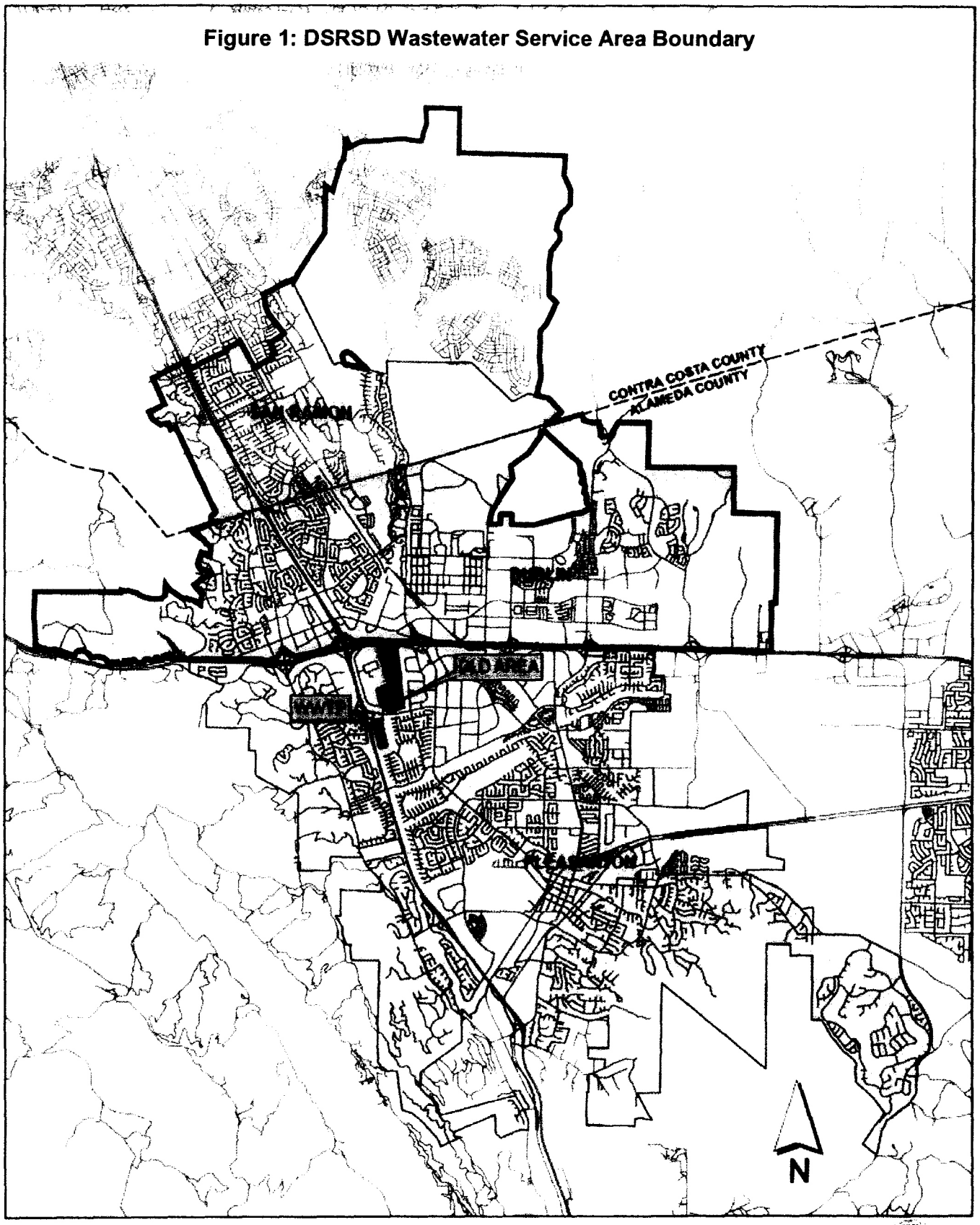
22. The Discharger shall report any noncompliance that may endanger public health or the environment. Any such information shall be provided orally to the Executive Officer within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected; the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Executive Officer, or an authorized representative, may waive the written report on a case-by-case basis if the oral report has been received within 24 hours [CWC Sections 13263 and 13267].

I, Bruce H. Wolfe, 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 August 8, 2007.

Bruce H. Wolfe
Executive Officer

Figures: Figure 1 - Location Map
Attachment: Attachment A - Discharge Monitoring Program

Figure 1: DSRSD Wastewater Service Area Boundary



Treatment Service Area
DSRSD Boundary
Regional Treatment Facility
Dedicated Land Disposal Area

ATTACHMENT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

DISCHARGE MONITORING PROGRAM

FOR

DUBLIN SAN RAMON SERVICES DISTRICT
WASTEWATER TREATMENT PLANT
LAND TREATMENT UNIT
PLEASANTON, ALAMEDA COUNTY

ORDER NO. R2-2007-0053

CONSISTS OF

PART A

AND

PART B

PART A

A. GENERAL

Reporting responsibilities of waste discharges are specified in Sections 13225(a), 13267(b), 13383, and 13387(b) of the California Water Code and this Board's Resolution No. 73-16. This Discharge Monitoring Program is issued in accordance with Title 27 of the California Code of Regulations.

The principal purposes of a discharge monitoring program are: (1) to document compliance with waste discharge requirements and prohibitions established by the Board, (2) to facilitate self-policing by the waste dischargers in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of standards of performance, and toxicity standards, (4) to assist the dischargers in complying with the requirements of Title 27.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the most recent version of EPA Standard Methods and in accordance with an approved sampling and analysis plan.

Water and waste analysis shall be performed by a laboratory approved for these analyses by the State of California. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his/her laboratory and all reports of such work submitted to the Board shall be signed by a duly authorized representative of the laboratory.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is a discrete sample collected at any time.

2. Receiving waters refers to any surface that actually or potentially receives surface or groundwaters that pass over, through, or under waste materials or contaminated soils. In this case the groundwater beneath and adjacent to the treatment unit areas and surface waters outside the containment structures are considered receiving waters.

3. Standard observations refer to:

a. Receiving Waters

1) Floating and suspended materials of waste origin: presence or absence, source, and size of affected area.
2) Discoloration and turbidity: description of color, source, and size of affected area.
3) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
4) Evidence of beneficial use: presence of water associated wildlife.
5) Flow rate
6) Weather conditions: wind direction and estimated velocity, total precipitation during the previous five days and on the day of observation.

b. Perimeter of the land treatment unit.
1) Evidence of liquid leaving or entering the waste management unit, estimated size of affected area and flow rate. (Show affected area on map)
2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
3) Evidence of erosion of containment structures.

c. The land treatment unit.
1) Evidence of undrained water at any point on the land treatment unit.
2) Evidence of odors, presence or absence, characterization, source, and distance of travel from source.
3) Evidence of ground movement and/or unstable conditions.
4) Adequacy of access road
5) Standard Analysis and measurements are listed on Table A (attached)

D. SAMPLING, ANALYSIS, AND OBSERVATIONS

The Discharger is required to perform sampling, analyses, and observations in the following media:

1. Storm drain discharges per Title 27, Section 20415
2. Groundwater per Title 27, Section 20415

and per the general requirements specified in Section 20415(e) of Title 27.

E. RECORDS TO BE MAINTAINED

Written reports shall be maintained by the Discharger or laboratory, and shall be retained for a minimum of five years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Board. Such records shall show the following for each sample:

1. Identity of sample and sample station number.

2. Date and time of sampling.

3. Date and time that analyses are started and completed, and name of the personnel performing the analyses.

4. Complete procedure used, including method of preserving the sample, and the identity and volumes of reagents used.

5. Calculation of results.

6. Results of analyses, and detection limits for each analysis.

F. REPORTS TO BE FILED WITH THE BOARD

1. Monitoring Reports

Written monitoring reports shall be filed by February 28 and July 31 of each year. In addition an annual report shall be filed by February 28 of each year. The semi-annual report may be combined with the annual report. The reports shall be comprised of the following:

a. Letter of Transmittal

A letter transmitting the essential points in each report should accompany each report. Such a letter shall include a discussion of any requirement violations found during the last reporting period, and actions taken or planned for correcting the violations. If the Discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. If no violations have occurred in the last reporting period this shall be stated in the letter of transmittal. Monitoring reports and the letter transmitting the monitoring reports shall be signed by a principal executive officer at the level of vice president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates. The letter

shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true, complete, and correct.

b. Each monitoring report shall include a compliance evaluation summary. The summary shall contain:

1) A graphic description of the direction of groundwater flow under/around the land treatment unit, based upon the past and present water level elevations and pertinent visual observations.

2) The method and time of water level measurement, the type of pump used for purging, pump placement in the well; method of purging, pumping rate, equipment and methods used to monitor field pH, temperature, and conductivity during purging, calibration of the field equipment, results of the pH, temperature conductivity and turbidity testing, well recovery time, and method of disposing of the purge water.

3) Type of pump used, pump placement for sampling, a detailed description of the sampling procedure; number and description of equipment, field and travel blanks; number and description of duplicate samples; type of sample containers and preservatives used, the date and time of sampling, the name and qualifications of the person actually taking the samples, and any other observations.

4) A written discussion of the groundwater analyses indicating any change in the quality or characteristics of the groundwater.

c. A comprehensive discussion of the compliance record and status, as well as any corrective actions taken or planned which may be needed to bring the Discharger into full compliance with the Waste Discharge Requirements and 27CCR.

d. A map or aerial photograph shall accompany each report showing observation and monitoring station locations.

e. Laboratory statements with the results of analyses specified in Part B must be included in each report. The director of the laboratory whose name appears on the laboratory certification shall supervise all analytical work in his/her laboratory and all reports of such work submitted to the Board shall be signed by a duly authorized representative of the laboratory.

1) The methods of analyses and detection limits must be appropriate for the expected concentrations. Specific methods of analyses must be identified. If methods other than EPA approved methods or Standard Methods are used, the exact methodology must be

submitted for review and approved by the Executive Officer prior to use.

2) In addition to the results of the analyses, laboratory quality assurance/quality control (QA/QC) information must be included in the monitoring report. The laboratory QA/QC information should include the method, equipment and analytical detection limits; the recovery rates; an explanation for any recovery rate that is outside laboratory control limits; the results of equipment and method blanks; the results of spiked and surrogate samples; the frequency of quality control analysis; and the name and qualifications of the person(s) performing the analyses.

f. An evaluation of the effectiveness of the stormwater drainage facilities, which includes an evaluation of stormwater buildup within the land treatment unit, collection area, and removal systems.

g. A summary and certification of completion of all standard observations for the land treatment unit and the perimeter of the land treatment unit, and, if applicable, the receiving waters.

h. The Annual Monitoring Report shall be submitted to the Board covering the previous year. The Report shall include, but is not limited to, the following:

i. A graphical presentation of the analytical data [Board-approved alternate procedure per 27CCR, Section 20415(e)(14)] for monitoring locations that have shown detectable concentrations during two consecutive monitoring events, or greater than ten percent detection frequency for any organic compound. Graphical representation must be provided for monitoring locations with metals and general chemistry analytical parameters that have an increasing trend for three consecutive monitoring events;

ii. A tabular summary of all the monitoring data obtained during the previous year;

iii. A comprehensive discussion of the compliance record, and the corrective actions taken or planed which may be needed to bring the Discharger into full compliance with the waste discharge requirements;

iv. A written summary of the groundwater analyses indicating any change in the quality of the groundwater; and

v. An evaluation of the effectiveness of the surface water drainage facilities, which includes an evaluation of surface water buildup within the land treatment units, a summary of estimated surface water volumes removed from the units, and a discussion of the surface water disposal methods utilized.

i. Tabular and graphical summaries of the monitoring data obtained during the previous year; the annual report should be accompanied by a compact disc, MS-EXCEL format, tabulating the year's data.

2. **Contingency Reporting**

A report shall be made by telephone of any release of biosolids or related materials from the land treatment area immediately after it is discovered. A written report shall be filed with the Board within five days thereafter. This report shall contain the following information:

a) a map showing the location(s) of discharge if any;
b) approximate volume and flow rate;
c) nature of effects; i.e. all pertinent observations and analyses; and
d) corrective measures underway, proposed, or as specified in the Waste Discharge Requirements.

3. **Well Logs**

A boring log and a monitoring well construction log shall be submitted for each new sampling well established for this monitoring program, as well as a report of inspection or certification that each well has been constructed in accordance with the construction standards of the Department of Water Resources. These logs and reports shall be submitted within 45 days after well installation.

G. WATER QUALITY PROTECTION STANDARDS

1. Constituents of Concern: The Constituents of Concern (COC) for groundwater are those listed in Table 1 of Part B of this Discharge Monitoring Program.

2. Concentration Limits: Concentration Limits (CLs) for each COC are shown in Table 2 of Part B. The CLs are the higher of either the PQL or the background value, and are therefore protective of human health and the environment.

3. Monitoring Points: Monitoring Points for the DLD are identified in Table 1 of this Discharge Monitoring Program. Until new Point of Compliance wells are installed at the land treatment unit, the wells listed in Table 1 will be utilized for evaluating the potential for water quality impacts.

4. Point of Compliance: The Point of Compliance for this facility is the vertical surface that extends from the outside edge of the lateral containment structures through the uppermost aquifer underlying the unit.

Part B

1. DESCRIPTION OF OBSERVATION STATIONS AND SCHEDULE OF OBSERVATIONS

A. GROUNDWATER:

Semi-Annual Reports: **due July 31 of each year**
due February 28 of each year

Annual Report: **due February 28 of each year**

Groundwater shall be sampled and analyzed as detailed in Table 1. Monitoring well locations are shown in Figure A-1. CLs for groundwater sampled at the monitoring wells are shown in Table 2.

B. FACILITIES MONITORING - **Observe semi-annually, report annually**

Semi-Annual Report: **due July 31 of each year**
Annual Report: **due February 28 of each year**

The Discharger shall inspect all facilities to ensure proper and safe operation and report semi-annually. The facilities to be monitored shall include, but not be limited to:

1. Surface water ponding
2. Perimeter diversion channels and run-on/run-off control features
3. Seepage: visible or noticeable liquid on the ground surface on the outside of the containment berms.

C. PHOTO DOCUMENTATION OF FACILITIES MONITORING - **Observe semi-annually, report annually**

Semi-Annual Report: **due July 31 of each year**
Annual Report: **due February 28 of each year**

The Discharger shall provide photo documentation of conditions at locations that include, but are not limited to the land treatment unit facilities listed in Part B above. Locations from which photographs are taken should be permanent stations such that they can be used in successive reports.

D. SEEPAGE MONITORING

Semi-Annual Report: **due July 31 of each year**
Annual Report: **due February 28 of each year**

Seepage is a visible flowing liquid on the ground surface at the perimeter of the DLD property line. Seepage monitoring stations include any point at which seepage is found occurring from the land treatment unit. In the event seepage is observed, seepage shall be sampled and analyzed as detailed in Table 3. The land treatment unit perimeter shall **be monitored semi-annually and the results reported semi-annually**.

Station	Description	Observations	Frequency
S-1 thru S-'n'	At any point(s) at which seepage is found occurring from the land treatment unit	Standard observations for the perimeter and standard analyses (Table 3, perform analyses once per seep)	Daily until remedial action is taken and seepage ceases

I, Bruce H. Wolfe, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in this Board's Order No. R2-2007-0053.

2. Is effective on the date shown below.

3. May be reviewed or modified at any time subsequent to the effective date, upon written notice from the Executive Officer.

_____
Bruce H. Wolfe
Executive Officer

Date Ordered: August 8, 2007

Attachment: Figure A-1 – Monitoring Well Location Map
Tables 1-3

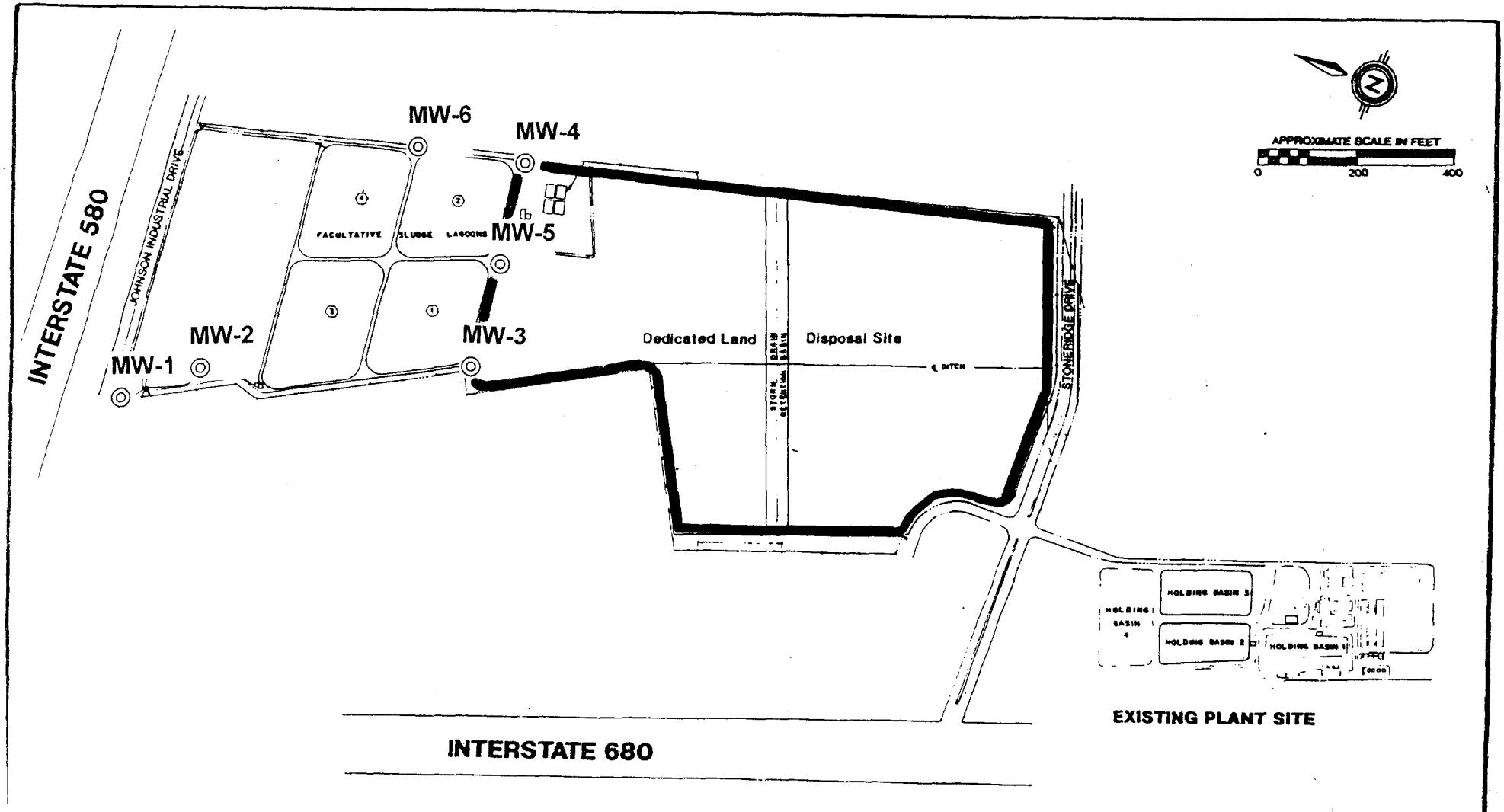


Figure A-1
MONITORING WELL LOCATION MAP
DUBLIN SAN RAMON SERVICES DISTRICT
DEDICATED LAND DISPOSAL SITE

Table 1 - Groundwater Monitoring Points, Parameters and Sampling Frequency
Dublin San Ramon Services District

Monitoring Wells	Parameters	Sampling Frequency
All Groundwater Monitoring Wells MW-1 MW-2 MW-3 MW-4 MW-5 MW-6 plus all wells installed pursuant to Provisions 3 and 4	**General Water Quality Parameters**: Temperature Specific Conductance pH Turbidity Total Dissolved Solids Chloride Nitrate as Nitrogen Ammonia (total and unionized)	Semi-annually
	Dissolved Metals Arsenic, Barium Cadmium, Copper, Chromium, Lead Mercury, Nickel, Vanadium, Zinc	Semi-annually
	Additional Metals: Antimony, Beryllium, Cobalt, Selenium, Silver, Thallium, Tin	Once every 5 years beginning in October 2007
	40 CFR 258 Appendix II constituents: Pesticides & PCBs: EPA Method 8080 Chlorophenoxy Herbicides: EPA Method 8151	Once every 5 years beginning in October 2007

Table 1 Notes:
EPA methods: Arsenic (7060 or 6010), Barium (6010), Chromium (6010), Copper (6010), Lead (7421 or 6010), Mercury (7470), Nickel (6010), Vanadium (6010), Zinc (6010), Antimony (6010), Beryllium (6010), Cobalt (6010), Selenium (7741 or 7740), Silver (6010), Thallium (7841), Tin (6010)

This subset of the 40 CFR 258 Appendix I metals is used as a surrogate for the entire suite of Appendix I metals

Table 2 - Concentration Limits for Groundwater
Dublin San Ramon Services District

Constituent of Concern	Practical Quantitation Limit	US EPA Test Method	Concentration Limits (ppb)
Metals[1]			
Arsenic	7	7060 or 6010	PQL/Background[2]
Barium	20	6010	PQL/Background[2]
Cadmium	5	6010	PQL/Background[2]
Chromium	10	6010	PQL/Background[2]
Copper	10	6010	PQL/Background[2]
Lead	5	7421 or 6010	PQL/Background[2]
Mercury	1	7470	PQL/Background[2]
Nickel	40	6010	PQL/Background[2]
Vanadium	10	6010	PQL/Background[2]
Zinc	20	6010	PQL/Background[2]
Antimony	5	6010	PQL/Background[2]
Beryllium	5	6010	PQL/Background[2]
Cobalt	10	6010	PQL/Background[2]
Selenium	10	7740 or 7741	PQL/Background[2]
Silver	20	6010	PQL/Background[2]
Thallium	5	7841	PQL/Background[2]
Tin	50	6010	PQL/Background[2]
Pesticides and PCBs	varies		PQLs
Chloropheynoxy Herbicides	varies		PQLs

Table 2 notes:
[1]PQLs may vary based on the results of the laboratory's annual MDL survey and any sample dilution required because of matrix interferences.

[2]Concentration Limit is the higher of either the routine PQL or the background value.

Table 3 – Surface Water and Seepage Monitoring Points, Parameters and Sampling Frequency – Dublin San Ramon Services District Land Treatment Unit

Monitoring Location	Analyses	EPA Method (or equivalent)	Sampling Frequency
Seep locations	Dissolved Metals		Each occurrence; daily until remedial action is taken or seep ceases
	Arsenic	7060 or 6010	
	Barium	6010	
	Cadmium	6010	
	Copper	6010	
	Chromium	6010	
	Lead	7421 or 6010	
	Mercury	7470	
	Nickel	6010	
	Vanadium	6010	
	Zinc	6010	
	pH	9040	
	Ammonia (total and unionized)	350.1	
	Pesticides/PCB	8080	
	COD	410.1	
	96-hour Toxicity Bioassay using Mysid Shrimp	N/A	