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. _____

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. _____.

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: _____

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

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	