CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 93-146
NPDES NO. CA0029947

WASTE DISCHARGE REQUIREMENTS FOR:

BROWNING-FERRIS INDUSTRIES
CORINDA LOS TRANCOS LANDFILL
OX MOUNTAIN RANCH
CLASS III SOLID WASTE DISPOSAL SITE
HALF MOON BAY, SAN MATEO COUNTY

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

1. This Order is a consolidated National Pollutant Discharge Elimination System (NPDES) Permit for discharge of storm water and treated groundwater.

   Browning-Ferris Industries, hereinafter called the discharger, by application dated February 1993 (revised in April 1993 and amended in August 1993) has applied for issuance of Waste Discharge Requirements under the National Pollutant Discharge Elimination System (NPDES) for treated groundwater. In addition, the discharger submitted a General Industrial Activities Storm Water Permit "Notice of Intent" to the State Board on March 19, 1993.

2. Federal Regulations for storm water discharges were promulgated by the US Environmental Protection Agency on November 19, 1990. The regulations require specific categories of industrial activities which discharge storm water associated with industrial activity (industrial storm water) to obtain an NPDES permit and to implement Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to control pollutants in industrial storm water discharges.

3. The discharger owns and operates a Class III municipal refuse disposal site in Corinda Los Trancos Canyon, San Mateo County, located approximately 3 miles northeast of the City of Half Moon Bay, as shown on Figures 1 and 2. The landfill is commonly known as the Ox Mountain Landfill.

4. On July 15, 1992, the Board issued Order No. 92-087 approving a 140 acre expansion of the existing landfill.

5. Groundwater beneath the existing landfill (i.e., pre-1993 landfill expansion) has been polluted with volatile organic compounds by the landfill waste.

Groundwater previously collected from the landfill had been stored in two storage ponds south of the existing landfill. These ponds were located in the area of landfill expansion currently underway. The ponds were eliminated and replaced with a temporary treatment facility in February 1993. No new ponds are planned because of space constraints. In lieu of these ponds, groundwater from the existing landfill will be collected, conveyed to a treatment facility, treated to removes volatile organic compounds and discharged to Corinda Los Trancos Creek.

6. The discharger seeks to minimize the migration of groundwater pollution and contain the affected groundwater by installing a groundwater extraction and treatment system. The system consists of approximately 2000 feet of perforated pipe which collects groundwater from below the existing landfill (Figure 2). The groundwater gravity flows to a treatment system consisting of two 2000-pound granular activated carbon units in series and an air stripper. Total average flow is expected to be 40 gallons per minute (57,600 gpd) with a maximum flow of 80 gpm (115,200).

   The treated groundwater will be discharged to the sedimentation pond which discharges to Corinda Los Trancos Creek and Pilarcitos Creek.

7. The Board adopted a revised Water Quality Control Plan (Basin Plan) on September 16, 1992. The Basin Plan contains water quality objectives for Pilarcitos Creek.

8. The existing and potential beneficial uses of Pilarcitos Creek include:

   - Municipal and Domestic Supply
   - Agricultural Supply
   - Contact and non-contact water recreation
   - Wildlife habitat
   - Preservation of rare and endangered species
   - Fresh water habitat
   - Fish spawning and migration

9. The Basin Plan prohibits discharge of wastewater which has "particular characteristics of concern to beneficial uses (1) at any point in San Francisco Bay south of the Dumbarton Bridge and (2) at any point where the wastewater does not receive a minimum initial dilution of at least 10:1 or into any nontidal water, dead-end slough, similar confined water, or any immediate tributary thereof."

10. Exceptions to the prohibitions referred to in Finding 9 are allowed by the Basin Plan and are warranted for this discharge because: (1) the discharger has performed a water reclamation study and determined that reclamation, reuse, or

discharge to the POTW is not a viable option, (2) the discharger has provided certification of the adequacy and reliability of the treatment facilities and a plan that describes procedures for proper operation and maintenance of all treatment facilities, and (3) because receiving water concentrations are expected to be below levels that would affect beneficial uses. Should studies indicate acute or chronic effects not currently anticipated, the Board will review the requirements of this Order based upon Limitation B.1.e.

11. Based upon the criteria in Board Resolution No. 88-160 and on information submitted by the discharger, the Board finds that treated extracted groundwater reclamation, re-use, or discharge to a POTW from the Ox Mountain Landfill is not feasible at this time.

12. The discharger has submitted a satisfactory Operations and Maintenance Manual for the treatment system prior to system startup. In addition, the treatment system, by having two granular activated carbon units, after an air stripper allows for redundancy that is anticipated to be adequate for the discharge.

13. The Basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin." The discharger's ground water extraction and treatment systems and associated operation, maintenance, and monitoring plan will constitute an acceptable control program for minimizing the discharge of toxicants to waters of the State.

14. Effluent limitations of this Order are based on the Clean Water Act, Basin Plan, State and U.S. Environmental Protection Agency (EPA) plans and policies, and best engineering and geologic judgement. EPA Region IX draft guidance "NPDES Permit Limitations for Discharge of Contaminated Groundwater: Guidance Document" was also considered in the determination of effluent limits.

15. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

16. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.

17. 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, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. PROHIBITIONS

Discharges of water, materials, or wastes other than storm water and treated groundwater, which are not otherwise authorized by this NPDES permit, to a storm drain system or waters of the state are prohibited, with the exception of discharges stated to be permissible in the attached Table 1 (See Attachment A).

B. EFFLUENT LIMITATIONS

1. The effluent, at the discharge point to the sedimentation pond, shall not contain constituents in excess of the limits contained in Table 1:

TABLE 1 - EFFLUENT LIMITATIONS

Constituent	Instantaneous Maximum Limit (ppb)	Basis for Limitation
Organics		
benzene	1	BAT
cis-1,2-dichloroethene	5	BAT
trans-1,2-dichloroethene	5	BAT
tetrachloroethene	5	BAT
1,1,1-trichloroethane	5	BAT
trichloroethene	5	BAT
vinyl chloride	0.5	BAT
Any other organic compound (as identified by EPA Method 608, 8260 or 8270)	5	BAT
Inorganics		
arsenic	190	BP
cadmium	1.1	BP
chromium VI	11	BP
copper	11.8	BP
cyanide	5.2	BP
lead	3.2	BP
mercury	2.4	BP
nickel	160	BP
selenium	5	BP
silver	4	BP
zinc	110	BP
Others		
pH	within range of 6.5 to 8.5	BP
Toxicity to Fish	90% median and 90 percentile value of 70% min.	BP

ppb=parts per billion
BAT=Best available treatment economically available
BP=Basin Plan (as revised September 16, 1992, Table IV-1A)

Cd, Cu, Pb, Ni, Ag, and Zn limits calculated at hardness =100mg/l

2. The flow of the groundwater treatment discharge shall not exceed 115,200 gallons per day.

3. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

4. In any representative set of samples, the discharges shall meet the following limit of quality:

   Toxicity: The survival of test fishes in 96-hour static bioassays of the undiluted effluent as discharged shall be a three sample moving median of 90% survival, and a 90 percentile value of not less than 70% survival in a single sample. Static renewal bioassays shall be performed according to protocols approved by the U.S. EPA or the State Water Resources Control Board or published by the American Society for Testing and Materials or American Public Health Association. Two fish species will be tested concurrently. These shall be the most sensitive two species determined from a single concurrent screening of three, using two of the following three test fish species in parallel tests: rainbow trout, fathead minnow, or three-spine stickleback.

C. RECEIVING WATER LIMITATIONS

1. The discharge of wastes shall not cause the following conditions to exist in waters of the State at any place:

   a. floating, suspended, or deposited macroscopic particulate matter or foam;

   b. bottom deposits or aquatic growths;

   c. alteration of temperature or apparent color beyond present natural background levels;

   d. visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. toxic or other deleterious substances to be present in concentrations or quantities which will 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.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

   a. pH: The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.

   b. Dissolved oxygen: 5.0 mg/l minimum. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation. When natural factors cause lesser concentration(s) than specified above, the discharge shall not cause further reduction in the concentration of dissolved oxygen.

   c. Un-ionized ammonia (as N):

      0.025 mg/l annual mean
      0.4 mg/l maximum

3. This discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. PROVISIONS

1. The discharger shall comply with all sections of this order immediately upon adoption by the Board and upon starting any discharge.

2. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

3. The discharger shall submit a Storm Water Pollution Prevention Plan in accordance with Attachment A: *Storm Water Pollution Prevention Plan Requirements* by **December 1, 1993**. Full compliance with the provisions of the plan shall be an enforceable requirement of this permit.

3. The discharger shall notify the Board if any activity has occurred or will occur which would result in the discharge, on a frequent or routine basis, of any toxic pollutant which is not limited by this Order.

4. Any discharge to a location other than the discharge point(s) specified in this Order will require a modification to this Order or submission of a second NPDES application.

5. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986 and modified January 1987, except items A.10, B.2, B.3, C.8 and C.11.

6. This Order expires on November 19, 1998. The discharger must file a report of waste discharge in accordance with Title 23, Division 3, Chapter 9 of the California Code of Regulations no later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

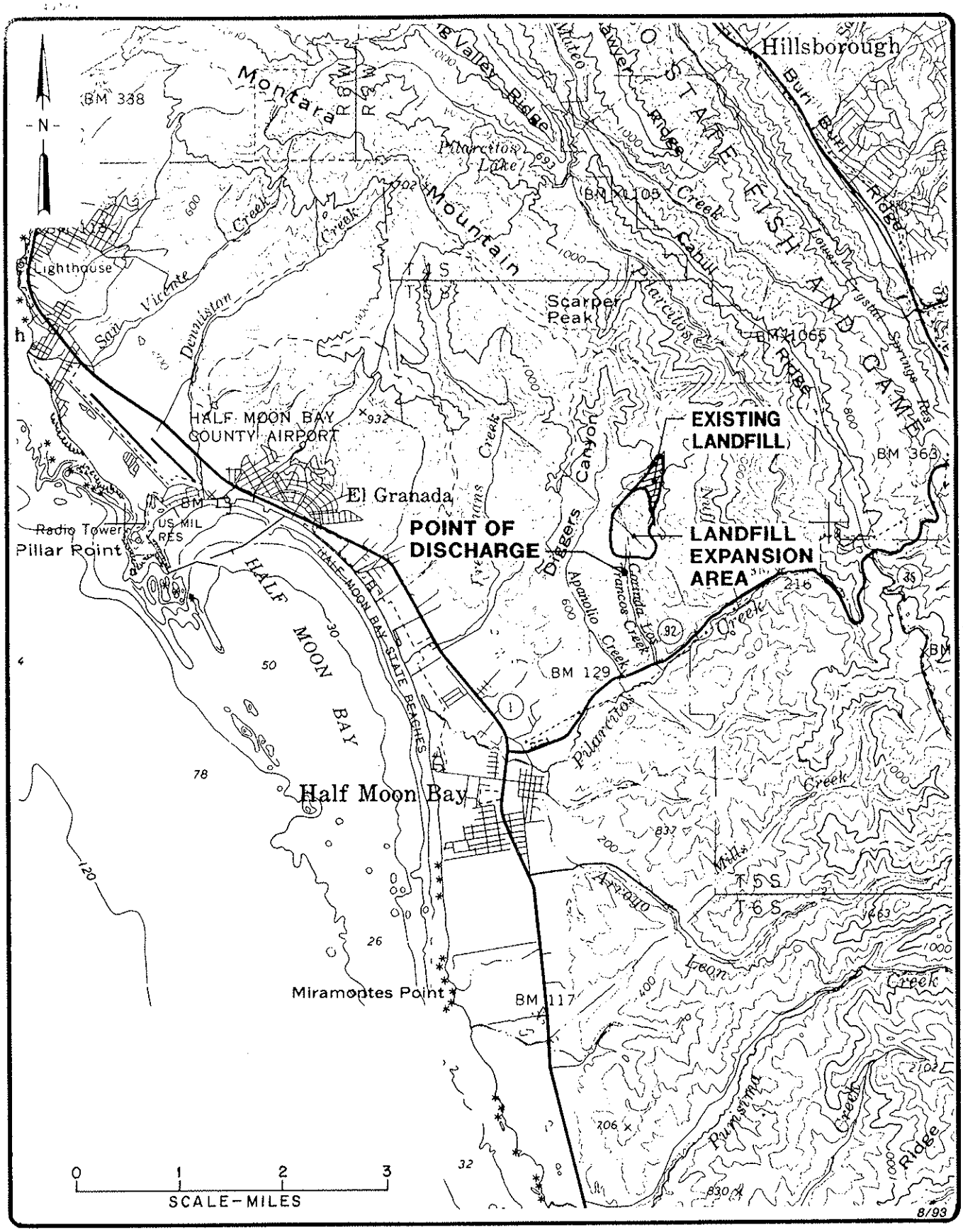
7. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Loretta K. Barsamian, Acting Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November 19, 1993.

Loretta K. Barsamian

Loretta K. Barsamian
Acting Executive Officer

Attachments:
Figure 1 - Location Map
Figure 2 - Site Map
Attachment A: Storm Water Pollution Prevention Plan Requirements
Self-Monitoring Program

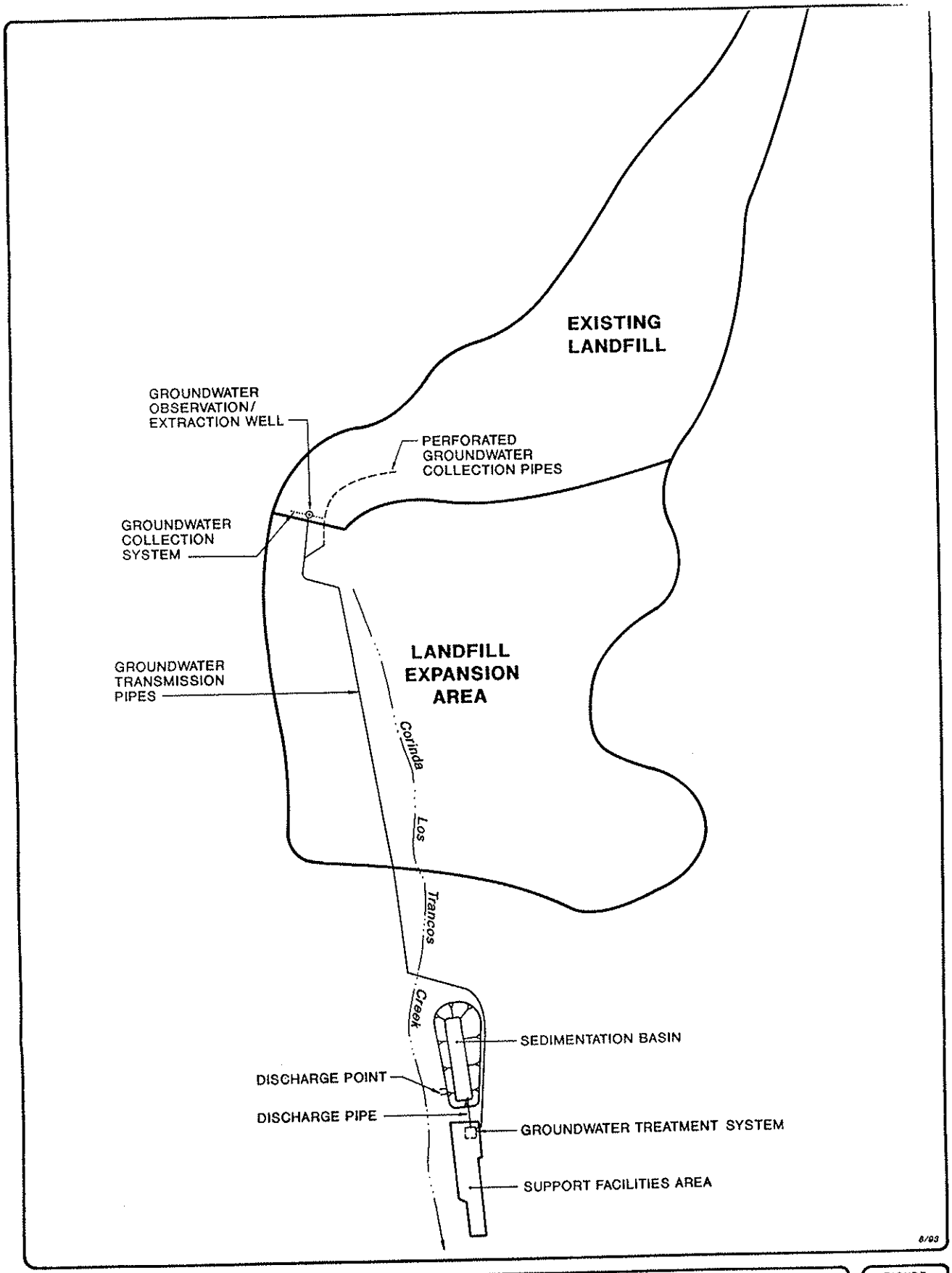


LOCATION MAP SHOWING POINT OF DISCHARGE
CORINDA LOS TRANCOS LANDFILL
OX MOUNTAIN RANCH, SAN MATEO COUNTY

SAN FRANCISCO BAY REGIONAL
WATER QUALITY CONTROL BOARD

FIGURE
1

PROJECT NO
372-09.74



GROUNDWATER COLLECTION, TREATMENT, AND DISCHARGE SYSTEM
CORINDA LOS TRANCOS LANDFILL
OX MOUNTAIN RANCH, SAN MATEO COUNTY

SAN FRANCISCO BAY REGIONAL
WATER QUALITY CONTROL BOARD

FIGURE
2

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PART B

BROWNING-FERRIS INDUSTRIES
CORINDA LOS TRANCOS LANDFILL,
CLASS III SOLID WASTE DISPOSAL SITE
HALF MOON BAY, SAN MATEO COUNTY

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station Description

INFL-1	At a point in the groundwater collection system immediately prior to treatment.

B. EFFLUENT

Station Description

EFFL-1	At a point immediately following treatment and prior to discharge to the Sedimentation Pond.

C. RECEIVING WATERS

Station Descriptions

E-002	At the existing point in Corinda Los Trancos Creek upstream of the landfill. This station has been sampled since 1987.
E-Pond	At a point in Corinda Los Trancos Creek at least 100 feet but no more than 200 feet downstream from the discharge point of the Sedimentation Pond into Corinda Los Trancos Creek.
E-Pil/Up	At a point in Pilarcitos Creek at least 100 feet but no more than 200 feet upstream from the confluence of Corinda Los Trancos Creek and Pilarcitos Creek.
E-Pil/Dn	At a point in Pilarcitos Creek at least 100 feet but no more than 200 feet downstream from the confluence of Corinda Los Trancos Creek and Pilarcitos Creek.

All stream samples shall be collected mid-stream and mid-depth.

II. SCHEDULE OF SAMPLING AND ANALYSIS

The schedule of sampling and analysis is provided in the attached Table A.

III. MODIFICATIONS TO PART A, DATED AUGUST 1993

All items of Self-Monitoring Program Part A, dated August 1993 shall be complied with except for the following:

A. Additions to Part A: Section F.4.d.: "Results from each required analysis and observation shall be submitted as laboratory originated data summary sheets in the quarterly self-monitoring reports. All chromatographic peaks for purgeable halocarbons and/or volatile organics shall be identified and quantified for all effluent samples. If previously unquantified peaks greater than 5 ppb are identified in any effluent sample, then these peaks shall be confirmed based on analyses using chemical standards necessary to achieve proper identification and quantification. Results shall also be submitted for any additional analyses performed by the discharger at the specific request of the Board for parameters for which effluent limits have been established and provided to the discharger by the Board."

B. Deletions from Part A: Sections C.2.a., C.2.c.1), C.2.g., C.4.b., C.5., D.1.d.&e., D.f.1)&2), D.3., D.4., D.5., E.3., E.5.a.&b.

C. Modifications to Part A: For the following, the discharger shall comply with the Sections as changed and reported herein:

1. Section C.1. is changed to read:

   "Samples of effluent and receiving waters shall be collected at times coincident with influent sampling unless otherwise stipulated. The Regional Board or Executive Officer may approve an alternative sampling plan if it is demonstrated that expected operating conditions warrant a deviation from the standard sampling plan."

2. Section C.2.e. is changed to read:

   "If any instantaneous maximum limit is exceeded, within 24 hours of receiving the analytical results indicating the violation, a confirmation sample shall be taken and analyzed with 24 hour turn-around time. If the instantaneous maximum is violated in the second sample, the discharger shall notify Regional Board staff

immediately. The Executive Officer may order the discharge to be terminated, on a case-by-case basis."

3. In Section E.1, the phrase "(at the waste treatment plant)" is changed to read, "(at the location of the extraction and treatment system)."

4. The Annual Report required in Section F.5. shall be submitted by January 15 of each year in place of the quarterly report due on the same day.

IV. MISCELLANEOUS REPORTING

If any chemicals or additives are proposed to be used in the operation and/or maintenance of the ground water extraction/treatment system, the discharger shall obtain the Executive Officer's concurrence prior to use. The details concerning such approved use shall be reported in the next periodic report submitted to the Board.

I, Loretta K. Barsamian, Acting Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 93-146.

2. Was adopted by the Board on November 19, 1993.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer or the Board.

Loretta K. Barsamian
Loretta K. Barsamian
Acting Executive Officer

Attachments: Table A. Schedule for Sampling, Measurements, and Analysis
Figure 1 - Location Map
Figure 2 - Site Map

TABLE A
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS
BROWNING-FERRIS INDUSTRIES
CORINDA LOS TRANCOS LANDFILL,
CLASS III SOLID WASTE DISPOSAL SITE
HALF MOON BAY, SAN MATEO COUNTY

Sampling Station	INFL-1	EFFL-1	E-002	E-Pond	E-Pil/Up E-Pil/Dn
TYPE OF SAMPLE	G	G	G	G	G
Flow Rate (gpd)	cont	cont	estimate	estimate	estimate
Bioassay 96-hr % survival	-	Q/Y	-	Y	-
Elec. Cond. (umhos/cm)	M/Q	M/Q	Q	Q	Q
Ca, Mg, Na, K, SO_4, HCO_3, Cl, Mg (ppm)	Q	Q	Q	Q	Q
TDS	M/Q	M/Q	M/Q	M/Q	M/Q
TSS	M/Q	M/Q	Q	W	W
Total Oil and Grease	Q	Q	-	Q	Y
Ammonia Nitrogen (mg/l & kg/day)	V	V	-	V	V
Turbidity (NTU's)	-	Q	Q	-	-
Ph (units)	M/Q	M/Q	Q	Q	Q
Dissolved Oxygen (mg/l and % saturation)	-	Q	Q	Q	Q
Temperature (°C)	M/Q	M/Q	Q	Q	Q
Stand. Observ.	-	-	Q	Q	Q
Arsenic (ppb)	-	Q/2Y	Q/2Y	Q/2Y	Q/2Y
Cadmium (ppb)	-	Q/2Y	Q/2Y	Q/2Y	Q/2Y
Chromium (hexavalent) (ppb)	-	Q/2Y	Q/2Y	Q/2Y	Q/2Y
Copper (ppb)	-	Q/2Y	Q/2Y	Q/2Y	Q/2Y
Cyanide (ppb)	-	Q/2Y	Q/2Y	Q/2Y	Q/2Y
Lead (ppb)	-	Q/2Y	Q/2Y	Q/2Y	Q/2Y
Mercury (ppb)	-	Q/2Y	Q/2Y	Q/2Y	Q/2Y
Nickel (ppb)	-	Q/2Y	Q/2Y	Q/2Y	Q/2Y
Selenium (ppb)	-	Q/2Y	Q/2Y	Q/2Y	Q/2Y
Silver (ppb)	-	Q/2Y	Q/2Y	Q/2Y	Q/2Y
Zinc (ppb)	-	Q/2Y	Q/2Y	Q/2Y	Q/2Y
EPA Method 8260	M/Q	M	-	Q/2Y	Q/2Y
EPA Method 8270	Y	Q/Y	-	Q/2Y	Q/2Y
EPA Method 608	Y	Y	-	Q/2Y	Q/2Y

LEGEND FOR TABLE A

TYPES OF SAMPLES

G = grab sample
C-24 = 24 hr. composite
Cont. = continuous sampling
DI = depth integrated sample
BS = bottom sediment sample
O = observation
- = none required

TYPES OF STATIONS

I = intake or influent stations
E = effluent sampling stations
D = discharge point sampling stations
C = receiving water sample stations
L = basin and/or pond levee stations
B = bottom sediment station
G = groundwater station

FREQUENCY OF SAMPLING

H = once each hour
D = once each day
W = once each week
M = once each month

Y = once each year in June

V = varies; total ammonia nitrogen shall be analyzed and un-ionized ammonia calculated whenever fish bioassay test results fail to meet the specified percent survival

2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2Y = once in March and once in September
Q = quarterly, once in March, June, September, and December

W/M = weekly for first three months after startup of operations and reduced to monthly thereafter

W/Y = weekly for first three months after startup of operations and reduced to annually thereafter

M/Y = monthly for first 12 months after startup of operations and reduced to annually thereafter

2D = every 2 days
2W =every 2 weeks
3M = every 3 months
Cont = continuous

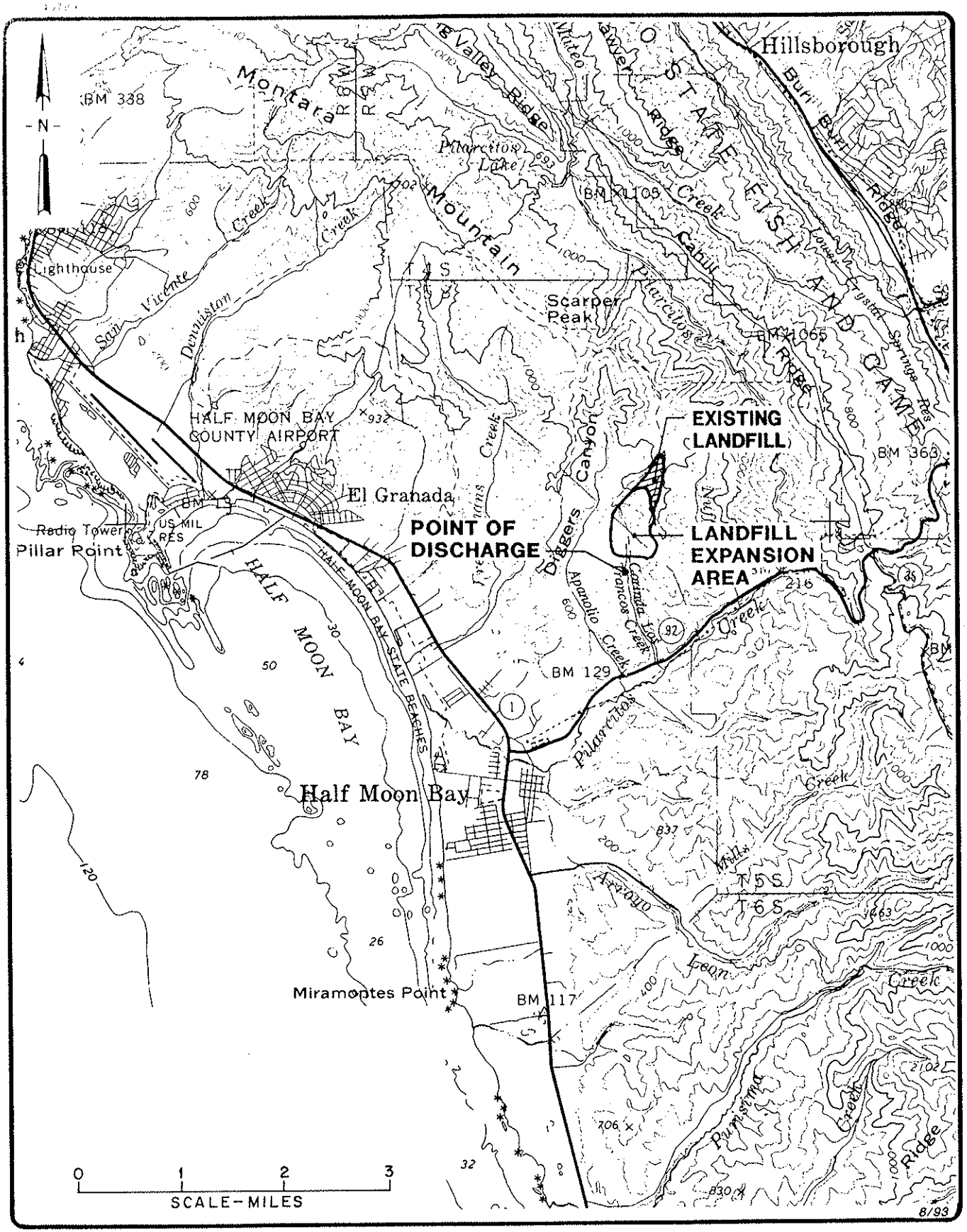
Q/Y = quarterly for first year after startup of operations and reduced to annually thereafter

W/Q = weekly for first three months after startup of operations and reduced to quarterly thereafter

M/B = monthly for first 12 months after startup of operations and reduced to every two months thereafter

M/Q = monthly for first three months after startup and reduced to quarterly thereafter

Note: For sampling stations C-1 and C-2, samples are not required to be analyzed by EPA Methods 8270 and 608 if the results from station E-1 are below the Method Detection Limit.



LOCATION MAP SHOWING POINT OF DISCHARGE
CORINDA LOS TRANCOS LANDFILL
OX MOUNTAIN RANCH, SAN MATEO COUNTY

SAN FRANCISCO BAY REGIONAL
WATER QUALITY CONTROL BOARD

FIGURE
1

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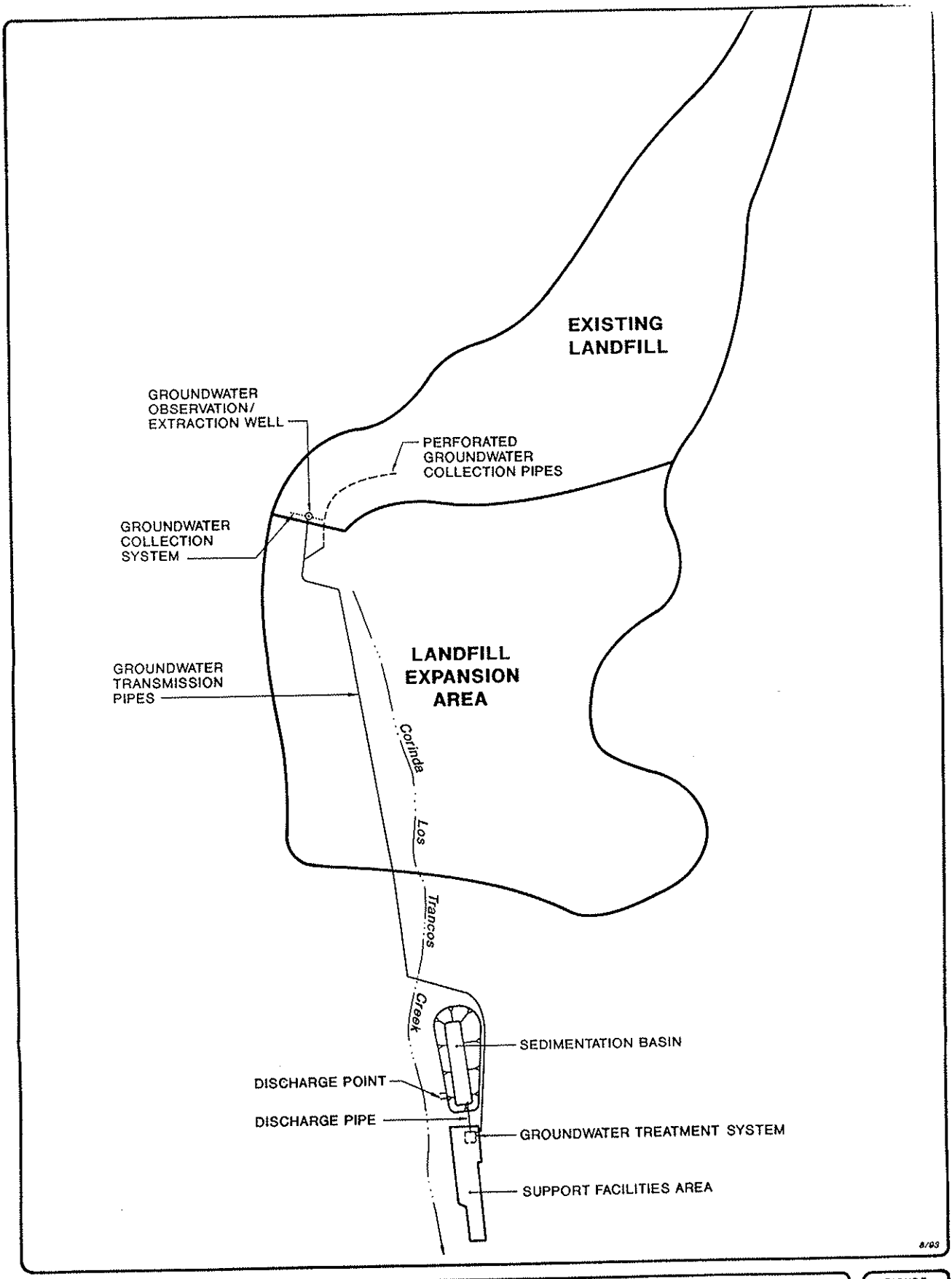

GROUNDWATER COLLECTION, TREATMENT, AND DISCHARGE SYSTEM
CORINDA LOS TRANCOS LANDFILL
OX MOUNTAIN RANCH, SAN MATEO COUNTY

SAN FRANCISCO BAY REGIONAL
WATER QUALITY CONTROL BOARD

FIGURE
2

PROJECT NO
372-09.74

ATTACHMENT A: STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

I. STORM WATER POLLUTION PREVENTION PLAN

1. A Storm Water Pollution Prevention Plan (SWPP Plan) shall be developed for each facility covered by this Permit. The SWPP Plan shall be designed in accordance with good engineering practices to comply with BAT/BCT and shall address the following objectives:

   a. to identify pollutant sources that may affect the quality of industrial storm water discharges

   b. to identify, assign, and implement control measures and management practices to reduce pollutants in industrial storm water discharges.

2. Approval. The SWPP Plan shall be retained on site, certified and signed in accordance with Standard Provisions of this General Permit, and made available upon request of a representative of the Regional Board, the Program, and/or local agencies having jurisdiction over storm water systems or water courses which receive the industrial storm water discharge. The Regional Board, the Program, and/or local agency may notify the discharger if the SWPP Plan does not meet one or more of the minimum requirements of this Section. Upon notice, the discharger shall submit a time schedule to make the requested changes to the Regional Board, the Program, and/or local agency. After making the required changes, the discharger shall provide written certification that the changes have been made.

3. Changes. The discharger shall amend the SWPP Plan whenever there is a change in design, construction, operation, or maintenance which has a significant effect on the potential for the discharge of pollutants to surface waters, groundwaters, or a local agency's storm water system. The SWPP Plan should also be amended if it is in violation of any conditions of this Permit, or in achieving the general objectives of controlling pollutants in industrial storm water discharges.

4. Source Identification. The SWPP Plan shall provide a description of potential sources which may be expected to add significant quantitities of pollutants to storm water discharges, or which may result in non-storm water discharges from the facility. The SWPP Plan shall include, at a minimum, the following items:

   a. A topographic map (or other acceptable map if a topographic map is unavailable), extending one-quarter mile beyond the property boundaries of the facility, showing: the facility, surface water bodies (including springs and wells), and the discharge point where the facility's storm water discharges to a municipal storm drain system or other water body. The requirements of this paragraph may be included in the site map required under the following paragraph if appropriate.

   b. A site map showing:

      i. Storm water conveyance, drainage, and discharge structures;

      ii. An outline of the storm water drainage areas for each storm water discharge point;

      iii. Paved areas and buildings;

      iv. Areas of pollutant contact with storm water or release to storm water, actual or potential, including but not limited to outdoor storage, manufacturing, and process areas, material loading, unloading, storage,and access areas, and waste treatment, storage, and disposal areas;

v. Location of existing storm water structural control measures (i.e., berms, coverings, etc.);

vi. Surface water locations, including springs and wetlands;

vii. Areas of existing and potential soil erosion;

viii. Vehicle service areas;

ix. Location of each well where fluids from the facility are injected underground.

c. A narrative description of the following:

i. Significant materials that have been treated, stored, disposed, spilled, or leaked in significant quantities in storm water discharge after November 19, 1988;

ii. Materials, equipment, and vehicle management practices employed to minimize contact of significant materials with storm water discharge;

iii. Material loading, unloading, and access areas;

iv. Existing structural and non-structural control measures (if any) to reduce pollutants in storm water discharge;

v. Industrial storm water discharge treatment facilities (if any);

vi. Methods of onsite storage and disposal of significant materials;

vii. Outdoor storage, manufacturing, and processing activities including activities that generate significant quantities of dust or particulates.

d. A list of pollutants that have a reasonable potential to be present in storm water discharge in significant quantities, and an estimate of the annual quantities of these pollutants in industrial storm water discharge.

e. An estimate of the size of the facility (in acres or square feet), and the percent of the facility that has impervious areas (i.e., pavement, buildings, etc.).

f. A list of significant spills or leaks of toxic or hazardous pollutants to storm water that have occurred after November 19, 1988. This shall include:

i. Toxic chemicals (listed in 40 CFR 372) that have been discharged to storm water as reported on EPA Form R;

ii. Oil or hazardous substances in excess of reportable quantities (see 40 CFR 110, 117 or 302).

g. A summary of existing sampling data (if any) describing pollutants in industrial storm water discharges.

5. Storm Water Management Controls. The SWPP Plan shall describe the storm water management controls appropriate for the facility. Best Management Practices identified in a manual to be provided by the Program as appropriate for facilities of the kind in question, or equivalent practices,

must be included in the description. The appropriateness and priorities of controls in the SWPP plan shall reflect identified potential sources of pollutants. The description of storm water management controls shall include, as appropriate:

a. Storm Water Pollution Prevention Personnel. Identify specific individuals (and job titles) who are responsible for developing, implementing, and revising the Plan.

b. Preventive Maintenance. Preventive maintenance involves inspection and maintenance of storm water conveyance system devices (i.e., oil/water separators, catch basins, etc.) and inspection and testing of plant equipment and systems that could fail and result in discharges of pollutants to storm water. Maintenance schedules including inspection and testing for failure shall be established;

c. Good Housekeeping. Good housekeeping requires the maintenance of clean, orderly facility areas that discharge storm water. Material handling areas shall be inspected and cleaned to reduce the potential for pollutants to enter the storm water conveyance system.

d. Spill Prevention and Response. Identification of areas where significant materials can spill into or otherwise enter the storm water conveyance systems and their accompanying drainage points. Specific material handling procedures, storage requirements, clean up equipment and procedures should be identified, as appropriate. The necessary equipment to implement a clean-up shall be available and personnel trained in proper response, containment and cleanup of spills. Internal reporting procedures for spills of significant materials shall be established.

e. Source Control. Source controls, such as elimination or reduction of the use of toxic pollutants, covering of pollutant areas, sweeping of paved areas, containment of potential pollutants, labelling all storm drain inlets with "No Dumping" signs, isolation/separation of industrial from non-industrial pollutant sources so that runoff from these areas does not mix, etc.;

f. Storm Water Management Practices. Storm water management practices are practices other than those which control the source of pollutants. They include treatment/conveyance structures such as drop inlets, channels, retention/detention basins, treatment vaults, infiltration galleries, filters, oil/water separators etc. Based on assessment of the potential of various sources to contribute pollutants to storm water discharges in significant quantities, additional storm water management practices to remove pollutants from storm water discharge shall be implemented and design criteria shall be described.

g. Sediment and Erosion Prevention. Measures to limit erosion around the storm water drainage and discharge points such as riprap, revegetation, slope stabilization, etc. shall be described and implemented;

h. Employee Training. Employee training programs shall inform all personnel responsible for implementing the SWPP Plan. Training should address spill response, good housekeeping, and material management practices. Periodic dates for training shall be identified.

i. Inspections. All inspections shall be done by trained personnel. Material handling areas shall be inspected for evidence of, or the potential for, pollutants entering storm water discharges. A tracking or follow-up procedure shall be used to ensure appropriate response has been taken in

response to an inspection. Inspections and maintenance activities shall be documented and recorded. Inspection records shall be retained for five years.

j. Records A tracking and followup procedure shall be described to ensure that adequate response and corrective actions have been taken in response to inspections. Records of inspections shall be maintained. Establishment of internal record keeping and internal reporting procedures of inspections and spill incidents.

6. Non-Storm Water Discharges. All non-storm water discharges, except those identified in Table 1, to storm water conveyance systems shall be eliminated prior to implementation of this SWPP Plan. The SWPP Plan shall include a certification that non-storm water discharges have been eliminated and a description of any tests for the presence of non-storm water discharges, the methods used, the dates of the testing, and any onsite drainage points that were observed during the testing. Such certification may not always be feasible if the discharger a) must make significant structural changes to eliminate the discharge of non-storm water discharges to the industrial storm water conveyance system, or b) has applied for, but not yet received, an NPDES permit for the non-storm water discharges. In such cases, the discharger must notify the Regional Board, the Program, and local agencies having jurisdiction over storm water systems or water courses which receive the non-storm water discharge prior to implementation of the SWPP Plan that non-storm water discharges cannot be eliminated. The notification shall include justification for a time extension and a schedule, subject to modification by the Regional Board, indicating when non-storm water discharges will be eliminated.

7. An annual facility inspection shall be conducted to verify that all elements of the SWPP Plan (i.e., site map, potential pollutant sources, structural and non-structural controls to reduce pollutants in industrial storm water discharge, etc.) are accurate. A report of the annual inspection and observations that require a response (and the appropriate response to the observation) shall be retained as part of the SWPP Plan.

8. This SWPP Plan may incorporate, by reference, the appropriate elements of other program requirements (i.e., Spill Prevention Control and Countermeasures (SPCC) plans under Section 311 of the CWA, Best Management Programs under 40 CFR 125.100, etc.).

9. The SWPP Plan is considered a report that shall be available to the public under Section 308(b) of the CWA.

10. The SWPP Plan shall include the signature and title of the person responsible for preparation of the SWPP Plan and include the date of initial preparation and each amendment, thereto.

II. STORMWATER MONITORING PROGRAM AND REPORTING REQUIREMENTS

1. Implementation

A monitoring program shall be developed and implemented for each facility covered by this Permit. It shall be certified in accordance with the signatory requirements contained in Standard Provision. A description of the monitoring program shall be retained on site and made available upon request of a representative of the Regional Board.

2. Objectives

The monitoring program shall be developed and amended, when necessary, to meet the following objectives:

a. Ensure that storm water discharges are in compliance with the Discharge Prohibitions, Effluent Limitations, and Receiving Water Limitations specified in this Permit.

b. Ensure practices at the facility to control pollutants in storm water discharges are evaluated of and revised to meet changing conditions.

c. Aid in the implementation of the Storm Water Pollution Prevention (SWPP) Plan required by this Permit.

d. Measure the effectiveness of best management practices (BMPs) in removing pollutants in storm water discharge.

3. General Requirements for Monitoring Programs

The monitoring program shall contain:

a. Rationale for selection of monitoring methods.

b. Identification of the analytical methods to detect pollutants in storm water discharge.

c. Description of the sampling methods, sampling locations, and frequency of monitoring.

d. A quality assurance/quality control program to assure that:

   i. All elements of the monitoring program are conducted; and
   ii. All monitoring is conducted by trained personnel.

e. Procedures and schedules by which the effectiveness of the monitoring program in achieving the objectives above can be evaluated.

4. Specific Requirements for Monitoring Programs

The monitoring program shall document the elimination or reduction of specific pollutants, resulting from the implementation of the SWPP Plan required by this Permit.

a. Annual Site Inspection

All dischargers shall:

i. Conduct a minimum annual inspection of the facility site to identify areas contributing to a storm water discharge associated with industrial activity and to evaluate whether measures to reduce pollutant loadings identified in the SWPP Plan are adequate and properly implemented in accordance with the terms of the Permit or whether additional control measures are needed. A record of the annual inspection must include the date of the inspection, the individual(s) who performed the inspection, and the observations.

ii. Certify, based on the annual site inspection, that the facility is in compliance with the requirements of this Permit and its SWPP Plan. The certification and inspection records must be signed and certified in accordance with Standard Provisions this Permit. Any noncompliance shall be reported in accordance with Provision of this Permit.

b. Non-Storm Water Discharges Observations

No less than twice during the dry season (May through September), all dischargers shall observe and/or test for the presence of non-storm water discharges at all storm water discharge locations. At minimum, tests will include visual observations of flows to determine the presence of stains, sludges, odors, and other abnormal conditions. Dye tests, TV line surveys, and/or analysis and validation of accurate piping schematics may be conducted if appropriate. Records shall be maintained of the description of the method used, date of testing, locations observed, and test results.

c. Wet Season Visual Observations

During the wet season (October through April), all dischargers shall conduct visual observations of all storm water discharge locations during the first hour of one storm event per month that produces significant storm water discharge[1] to observe the presence of floating and suspended materials, oil and grease, discolorations, turbidity, and odor, etc. Feedlots (subject to federal effluent limitation guidelines in 40 CFR Part 412) that are in compliance with Sections 2560 to 2565, Article 6, Chapter 15, Title 23, California Code of Regulations, shall, instead, conduct monthly inspections of their containment facilities to detect leaks and ensure maintenance of adequate freeboard.

d. Sampling and Analysis

During the wet season (October through April), dischargers shall estimate or calculate the volume of storm water discharge from each outfall and collect and analyze samples of storm water discharge from at least one storm event during the 1992/93 wet season and two storm events during each subsequent wet season which produce significant storm water discharge. The samples should be analyzed for:

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1 "Significant storm water discharge" is a continuous discharge of storm water for a minimum of approximately one hour or more.

i. pH, total suspended solids (TSS), specific conductance, and total organic carbon (TOC); oil and grease (O&G) may be substituted for TOC;

ii. Toxic chemicals and other pollutants that are likely to be present in storm water discharge in significant quantities; and

iii. For facilities subject to storm water limitation guidelines in 40 CFR Subchapter N, any pollutant listed in the applicable storm water effluent limitation guideline.

5. Toxic Pollutant Analysis Reduction

Samples shall be analyzed for toxic chemicals and other pollutants as identified in Sections B.5.d.ii. for at least two consecutive sampling events. A discharger may substitute whole effluent toxicity monitoring for chemical-specific monitoring. If toxic chemicals or other pollutants are not detected in significant quantities after two consecutive sampling events, or two consecutive sampling events with no whole effluent toxicity, the facility may eliminate that toxic chemical or pollutant from future sampling events. A discharger may analyze for alternative representative parameters as a substitute for the toxic chemicals and other pollutants identified in Section B.4.d.ii as long as the discharger submits the alternative monitoring procedures with justification to the Regional Board prior to use. Unless otherwise instructed by the Regional Board, dischargers who have made such submittals may use alternative monitoring procedures.

6. Sample Locations

Samples shall be collected from all locations where storm water is discharged. Samples must represent the quality and quantity of storm water discharged from the facility. If a facility discharges storm water at multiple locations, the discharger may sample a reduced number of locations if it is established and documented in the monitoring program that storm water discharges from different locations are substantially identical and the reduced number of locations are noted in the annual monitoring report.

7. Sampling Procedures

Sampling shall consist of a grab sample from a storm event that produces significant storm water discharge that is preceded by at least three days of dry weather when industrial activity has occurred. The grab sample shall be taken during the first thirty minutes of the discharge. If the collection of the grab sample during the first 30 minutes is impracticable, the grab sample can be taken as soon as practicable during the storm event, and the discharger shall explain in the annual monitoring report why the grab sample could not be taken in the first 30 minutes. A discharger may select alternative monitoring procedures (e.g., composite sampling) as long as the discharger has submitted the proposed procedure with justification to the Regional Board prior to use. Unless otherwise instructed by the Regional Board, dischargers who have made such submittals may use other monitoring procedures.

8. Visual Observation and Sample Collection Exceptions

a. When the discharger is unable to collect any of the required samples or perform visual observations due to adverse climatic conditions (drought, extended freeze, dangerous weather

conditions, etc.), a description of why the sampling or visual observations could not be conducted, including documentation of all significant storm water discharge events, must be submitted along with the annual monitoring report.

b. Dischargers are required to collect samples and perform visual observations only if significant storm water discharges commence during scheduled facility operating hours[2], or within two hours prior to or following scheduled facility operating hours. Dischargers are required to perform visual observations only within daylight hours. If dischargers do not collect samples or perform visual observations during a significant storm water discharge due to this exception, the discharger shall include documentation in the annual monitoring report.

9. Standard Methods

All sampling and sample preservation shall be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment shall be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. All analyses must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in this General Permit or by the Regional Board. All metals shall be reported as total metals. Toxicity tests shall be conducted in accordance with the latest revisions of Methods for Measuring the Acute Toxicity of Effluent to Freshwater and Marine Organisms, EPA-600/4-85-013 (March 1985). All analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. The discharger may conduct its own laboratory analysis only if the discharger has sufficient capability (qualified employees, laboratory equipment, etc.) to adequately perform the test procedures.

10. Records

Records of all storm water monitoring information and copies of all reports required by this Permit shall be retained for a period of at least five years from the date of the sample, observation, measurement, or report.

These records shall include:

a. The date, place, and time of site inspections, sampling, observations, and/or measurements;
b. The individual(s) who performed the site inspections, sampling, observations, and/or measurements;
c. Flow measurements or estimates and all standard observations;
d. The date(s) analyses were performed and the time(s) analyses were initiated;
e. The individual(s) who performed the analyses;
f. The analytical techniques or methods used and the results of such analyses;
g. Quality assurance/quality control results;

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[2] "Scheduled facility operating hours" are the time periods when the facility is staffed to conduct any function related to industrial activity, including routine maintenance, but excluding time periods where only emergency response, security, and/or janitorial services are performed.

h. Non-storm water discharge records (see Section B.4.b);
i. Visual observation and sample collection exception records (see Section B.8);
j. All calibration and maintenance records of instruments used; and
k. All original strip chart recordings for continuous monitoring instrumentation.

16. Annual Report

The discharger shall submit an annual report by July 1 of each year to the Executive Officer of the Regional Board and to the Program. The report shall include a summary of monitoring observations and results, a certification that a Storm Water Pollution Prevention Plan is being implemented and is in compliance with the requirements of this Permit, and information as required in Section B.8 The report shall be signed and certified in accordance with Standard Provisions of this Permit.