CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 96-152
NPDES PERMIT NO. CA0038393

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

SEAFIRTH ESTATES COMPANY AND
PROPERTY OWNERS WITHIN THE SEAFIRTH ESTATES SUBDIVISION TIBURON
MARIN COUNTY

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

1. The Seafirth Estates Company submitted a Report of Waste Discharge dated February 29, 1996 for reissuance of waste discharge requirements and a permit to discharge wastewater to waters of the State and the United States under the National Pollutant Discharge Elimination System (NPDES). The Seafirth Estates Company, a non-profit corporation, owns and operates a wastewater collection and treatment system serving the 29 single-family homes in the Seafirth Estates subdivision. The company is governed and financed by the property owners. The company and the property owners are referred to hereafter as the discharger.

2. The discharger collects sewage from the 29 homes in the subdivision and transports it to the treatment plant, located at the end of Seafirth Road, Tiburon, Marin County, California. The plant provides secondary level treatment and presently discharges an average dry weather flow of 7000 gallons per day (gpd) to San Francisco Bay.

3. Treatment facilities utilized prior to discharge to San Francisco Bay consist of primary sedimentation, biological treatment using a trickling filter, followed by secondary clarification, chlorination and dechlorination. A treatment process schematic diagram is included as Attachment A.

4. Treated wastewater is currently discharged 100 ft. offshore at depth between 7 feet and 10 feet below water surface into San Francisco Bay through an outfall (Latitude 37° 54' 08"; Longitude 122° 28' 08").

5. Wastewater solids are stored in a storage tank and are periodically hauled to Sewerage Agency of Southern Marin for treatment and disposal.

6. The Seafirth Estates subdivision is located on the Tiburon peninsula off Paradise Road about three miles north of Tiburon's town center (see Attachment B). The subdivision is in the Tiburon town limits but outside the boundaries of nearby sanitary districts.

7. This discharge is presently regulated by Waste Discharge Requirements in Order No. 91-129, adopted by the Board on September 18, 1991.

8. The U.S. Environmental Protection Agency (USEPA) and the Board have classified this discharge as a minor discharge.

9. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20 and November 13, respectively, of 1995. A summary of regulatory provisions is contained in Title 23 of the California Code of Regulations at Section 3912. The Basin Plan defines beneficial uses and water quality objectives for surface and groundwaters in the region, as well as effluent limitations and discharge prohibitions intended to protect beneficial uses. This Order implements the plans, policies and provisions of the Board's Basin Plan.

10. The Basin Plan contains water quality objectives and beneficial uses for San Francisco Bay and contiguous waters. The beneficial uses of San Francisco Bay and contiguous water bodies include:

- Industrial Service and Process Supply
- Navigation
- Water Contact Recreation
- Non-contact Water Recreation
- Ocean Commercial and Sport Fishing
- Wildlife Habitat
- Preservation of Rare and Endangered Species
- Fish Migration and Spawning
- Shellfish Harvesting
- Estuarine Habitat

11. The Basin Plan prohibits the discharge of any wastewater which has particular characteristics of concern to beneficial uses at any point where wastewater does not receive an initial dilution of at least 10:1.

12. Effluent limitations in this permit are based on the Basin Plan, USEPA water quality criteria (Quality Criteria for Water, EPA 440/5-86-001, 1986; Gold Book), applicable Federal Regulations (40 CFR Parts 122 and 131), and Best Professional Judgement.

13. The discharge receiving water, is an estuarine water with salinity that is generally marine in character. Therefore, effluent limitations for the discharge are based on marine water quality objectives.

14. The sewerage collection systems contributing to the Discharger's treatment plant are owned and operated by the discharger. The discharger has added a new raw sewage pump for redundancy.

15. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant, collection system, and regulatory personnel with a source of information describing all equipment, recommended operation strategies, process control monitoring, and maintenance activities.

16. This Order serves as an NPDES Permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21000) of Division 13 of the Public Resources Code [California Environmental Quality Act (CEQA)] pursuant to Section 13389 of the California Water Code.

17. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided an opportunity to submit their written views and recommendations.

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

**IT IS HEREBY ORDERED**, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder, and to the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, that the discharger shall comply with the following:

## A. DISCHARGE PROHIBITIONS

1. Discharge of treated wastewater at a location or in a manner different from that described in findings of this Order is prohibited.

2. Discharge at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited.

3. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant or from the collection system or pump stations tributary to the treatment plant, is prohibited.

4. The average dry weather flow discharge shall not exceed 7500 gpd. The average dry weather flow shall be determined over three consecutive dry weather months each year.

5. Discharges of water, materials, or wastes other than storm water to a storm drain system or waters of the State are prohibited.

6. Storm water discharges shall not cause pollution, contamination, or nuisance.

## B. EFFLUENT LIMITATIONS

The term "effluent" in the following limitations means the fully treated wastewater effluent from the discharger's wastewater treatment facility, as discharged to San Francisco Bay.

1. The effluent shall not exceed the following limits:

| Constituent | Units | Monthly Average | Weekly Average | Daily Maximum | Instantaneous Maximum |
|---|---|---|---|---|---|
| a. Biochemical Oxygen Demand ($BOD_5$, 20°C) | mg/l | 30 | 45 | 60 | -- |
| b. Total Suspended Solids | mg/l | 30 | 45 | 60 | -- |
| c. Settleable Matter | ml/l-hr | 0.1 | -- | -- | 0.2 |
| d. Oil and Grease | mg/l | 10 | -- | 20 | -- |
| e. Total Chlorine Residual (1) | mg/l | -- | -- | -- | 0.0 |

Footnote:
(1) Requirement defined as below the limit of detection in standard test methods.

2. pH: the pH of the discharge shall not exceed 9.0 nor be less than 6.0.

3. Total Coliform Bacteria:

The treated wastewater, at some place in the treatment process prior to discharge, shall meet the following limits of bacteriological quality:

a. The moving median value for the Most Probable Number (MPN) of total coliform bacteria in any five (5) consecutive samples shall not exceed 240 MPN/100 ml; and,

b. Any single sample shall not exceed 10,000 MPN/100 ml.

4. 85 Percent Removal, BOD and TSS:

The arithmetic mean of the biochemical oxygen demand and total suspended solids values, by weight, for effluent samples collected in each calendar month shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for influent samples collected at approximately the same times during the same period.

## C. RECEIVING WATER LIMITATIONS

1. The discharge of waste 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; or

b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses; or

c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels; or

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

e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, waterfowl, or other aquatic biota, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result of biological concentration.

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

a. 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 concentrations less than that specified above, then the discharge shall not cause further reduction in ambient dissolved oxygen concentrations.

b. Dissolved Sulfide 0.1 mg/l, maximum

c. pH Variation from normal ambient pH by more than 0.5 pH units.

d. Un-ionized Ammonia 0.025 mg/l as N, annual median
0.16 mg/l as N, maximum

e. Nutrients Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.

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

4. Storm Water Discharge

a. Storm water discharges shall not adversely impact human health or the environment.

b. Storm water discharges shall not cause or contribute to a violation of any applicable water quality objective for receiving waters contained in the Basin Plan.

## D. SLUDGE MANAGEMENT PRACTICES

1. All sludge generated by the discharger must be disposed of in a municipal solid waste landfill, reused by land application, or disposed of in a sludge-only landfill in accordance with 40 CFR Part 503. All the requirements in 40 CFR 503 are enforceable by USEPA whether or not they are stated in an NPDES permit or other permit issued to the discharger.

2. Sludge treatment, storage, and disposal or reuse shall not create a nuisance, such as objectionable odors or flies, or result in groundwater contamination.

3. Duty to mitigate: The discharger shall take all reasonable steps to prevent or minimize any sludge use or disposal which has a likelihood of adversely affecting human health or the environment.

4. The discharge of sewage sludge shall not cause waste material to be in a position where it is, or can be carried from the sludge treatment and storage site and deposited in the waters of the State.

5. The sludge treatment and storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect boundaries of the site from erosion, and to prevent any conditions that would cause drainage from the materials in the temporary storage site. Adequate protection is defined as protection from at least a 100 year storm and protection from the highest possible tidal stage that may occur.

6. The Discharger is hereby notified that on February 19, 1993, the USEPA issued the final rule for the use and disposal of sewage sludge (40 [Code of Federal Regulations] (CFR) Part 503). This rule requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. The Discharger is advised to contact USEPA regarding compliance with 40 CFR Part 503.

7 Currently, all wastewater solids generated by the discharger is hauled to Sewerage Agency of Southern Marin for treatment and disposal. If the discharger desires to dispose of wastewater solids by a different method, the discharger shall notify the Board and USEPA in writing before start-up of the alternative disposal practice.

8 Sludge that is disposed of in a municipal solid waste landfill must meet the requirements of 40 CFR 258.

9 Permanent on-site sludge storage or disposal activities are not authorized by this permit. A Report of Waste Discharge shall be filed and the site brought into compliance with all applicable regulations prior to commencement of any such activity by the discharger.

10 The Board may amend this permit prior to expiration if changes occur in applicable state and federal sludge regulations.

## E. PROVISIONS

1. Requirements prescribed by this Order supersede the requirements prescribed by Order No. 91-129. Order No. 91-129 is hereby rescinded.

2. Where concentration limitations in mg/l or µg/l are contained in this Permit, the following Mass Emission Limitations shall also apply.

   Mass Emission Limit in kg/day = (Concentration Limit in mg/l) x (Actual Flow in million gallons per day averaged over the time interval to which the limit applies) x 3.78 (conversion factor).

3. The discharger shall comply with all sections of this Order immediately upon adoption.

4. In reviewing compliance with 85% removal for BOD and TSS of this Order, the Board will take into consideration difficulties encountered in achieving compliance during periods of extreme wet weather when ordinary treatment plant removal efficiencies are impeded by less concentrated influent resultant from stormwater dilution.

5. If the discharger chooses to pursue a capacity increase for the treatment plant, information that must be submitted prior to Board consideration of a flow increase must include, but may not be limited to, the following:

   a. Engineering reports documenting adequate reliability, capacity and performance of the completed improvements to the treatment facility;

   b. Documentation that increased discharges (evaluation must include assessment of wet weather flows) will not result in degradation of receiving waters, or adverse impacts on beneficial uses of receiving waters, in accordance with State and Federal regulations;

   c. Plans for including reuse of the treated effluent as an integral part of the wastewater management plan; and

d. Documentation of compliance with the CEQA.

6. The discharger shall review, and update as necessary, its Operations and Maintenance Manual, annually, or within 90 days of completion of any significant facility or process changes. The discharger shall submit to the Board, by April 15 of each year, a letter describing the results of the review process including an estimated time schedule for completion of any revisions determined necessary, and a description or copy of any completed revisions.

7. Annually, the discharger shall review and update as necessary, its Contingency Plan as required by Board Resolution 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or adequately implement a contingency plan will be the basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code. Plan revisions, or a letter stating that no changes are needed, shall be submitted to the Board by April 15 of each year.

8. The discharger shall implement a program to regularly review and evaluate its wastewater collection, treatment and disposal facilities in order to ensure that all facilities are adequately staffed, supervised, financed, operated, maintained, repaired, and upgraded as necessary, in order to provide adequate and reliable transport, treatment, and disposal of all wastewater from both existing and planned future wastewater sources under the discharger's service responsibilities.

9. The discharger shall comply with the Self-Monitoring Program for this order, as adopted by the Board and as may be amended by the Executive Officer.

10. The discharger shall comply with all applicable items of the attached "Standard Provisions and Reporting Requirements " dated August 1993 (attached), or any amendments thereafter.

11. In the event of any change in control or ownership 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 this office. To assume operation of this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. (Refer to Standard Provisions, referenced above). 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 a statement. The statement shall comply with the signatory paragraph described in Standard Provisions and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a

violation of the California Water Code.

12. The Board may modify, or revoke and reissue, this Order and Permit if present or future investigations demonstrate that the discharge(s) governed by this Order are causing or significantly contributing to adverse impacts on water quality and/or beneficial uses of the receiving waters.

13. This Order expires on November 20, 2001. The discharger must file a report of waste discharge in accordance with Title 23, Division 3, Chapter 9, Article 3. of the California Administrative Code not later than 180 days before this expiration date as application for reissuance of waste discharge requirements.

14. This Order shall serve as a NPDES permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, USEPA, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

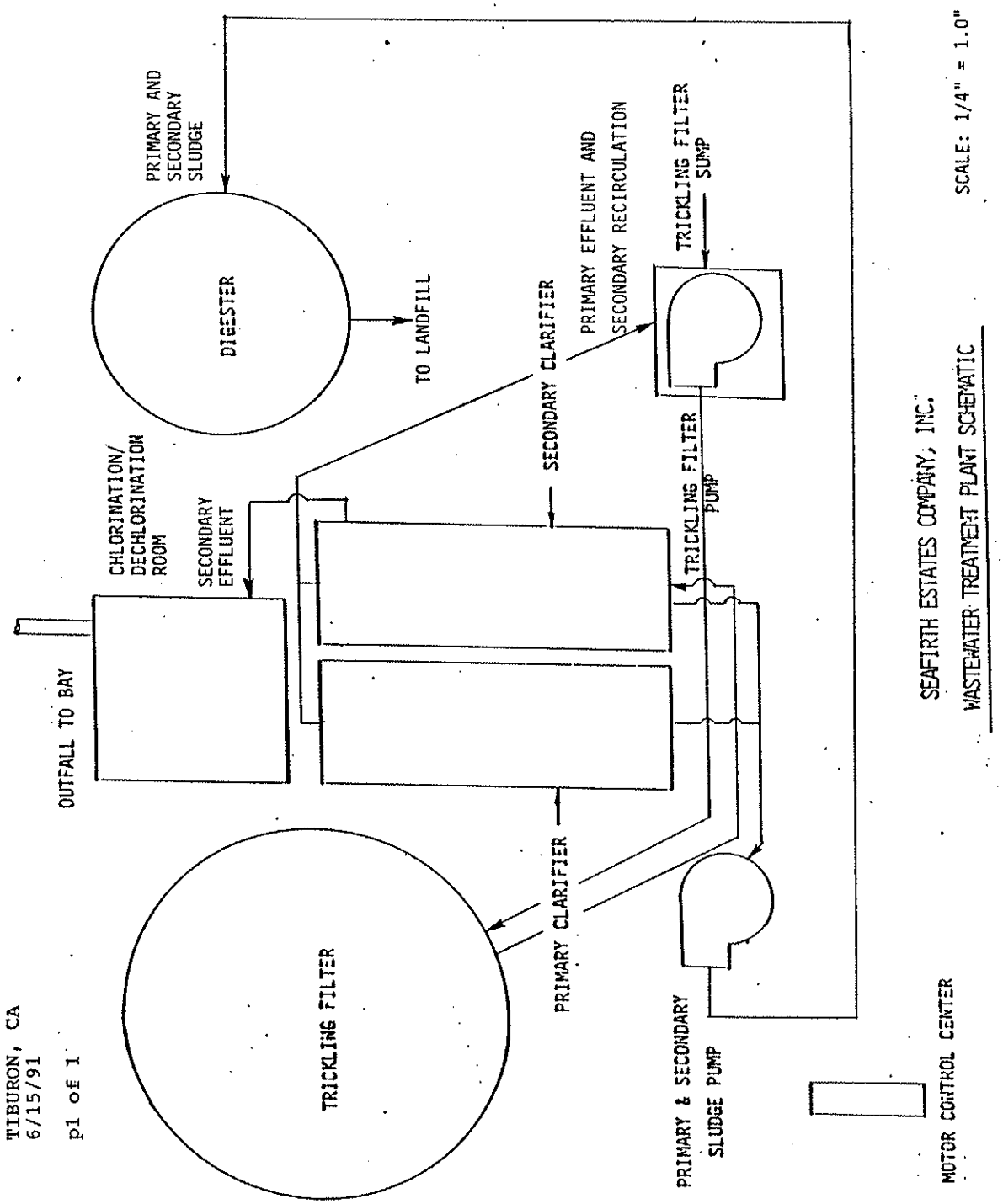
I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on November 20, 1996.

Loretta K. Barsamian
LORETTA K. BARSAMIAN
Executive Officer

Attachments:

A. Treatment Process Schematic Diagram
B. Location/Site Maps
C. Contingency Plan - Regional Water Board Resolution No. 74-10
D. Self-Monitoring Program
E. Regional Water Board NPDES Standard Provisions and Reporting Requirements - August 1993

Attachment A: Treatment Process Schematic Diagram



Attachment B: Location Maps

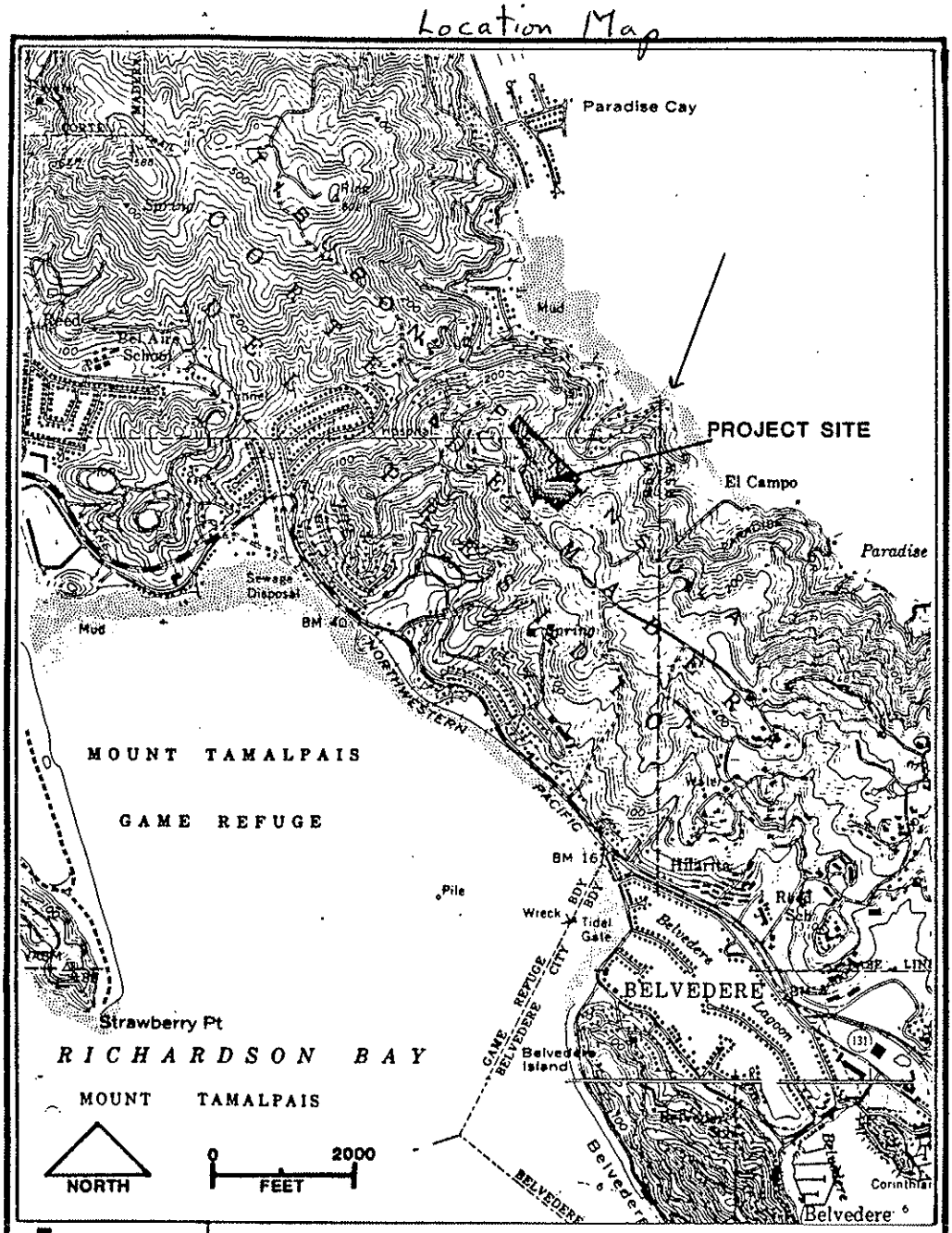



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FIGURE 2. PROJECT VICINITY

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

**SELF-MONITORING PROGRAM**

FOR

SEAFIRTH ESTATES COMPANY
TIBURON
MARIN COUNTY

NPDES PERMIT NO. CA0038393

ORDER NO. 96-152

CONSISTS OF

PART A
(Self-Monitoring Program, Part A, NPDES Permits; dated August 1993.)

AND

PART B

SELF-MONITORING PROGRAM
PART B

FOR
SEAFIRTH ESTATES

## I. DESCRIPTION OF SAMPLING STATIONS

| Station | Description |
|---|---|
| **A. INFLUENT** | |
| A-001 | At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment. |
| **B. EFFLUENT** | |
| E-001 | At any point in the outfall between the point of discharge and the point at which all waste tributary to the outfall is present. (May be the same as E-001-D). |
| E-001-D | At any point in the disinfection facilities for Waste E-001 at which adequate contact with the disinfectant is assured. |
| E-001-S | At any point in the disposal facilities following dechlorination. |
| **D. LAND OBSERVATIONS** | |
| P-1 thru P-'n' | Located at the corners and midpoints of the perimeter fence line surrounding the treatment facilities. (A sketch showing the locations of these stations will accompany each report). |
| **E. OVERFLOWS AND BYPASSES** | |
| O-1 thru O-'n' | At points in the collection system including manholes, pump stations, or any other location where overflows or bypasses occur. |

## II. SCHEDULE OF SAMPLING, MEASUREMENTS, AND ANALYSIS

The schedule of sampling, measurements and analysis shall be that given as Table I and Table I Footnotes.

## III. REPORTING REQUIREMENTS

A. General Reporting Requirements are described in Section E of the Board's "Standard Provisions and Reporting Requirements for NPDES Surface Water Discharge Permits", dated August 1993.

B. Self-Monitoring Reports for each quarter shall be submitted quarterly, to be received no later than the 15th day of the following month. The required contents of these reports are described in Section F.4 of Part A.

C. An Annual Report shall be submitted for each calendar year. The report shall be submitted to the Board by January 30 of the following year. The required contents of the report are described in Section F.5 of Part A.

D. Any overflow, bypass or significant non-compliance incident that may endanger health or the environment shall be reported in accordance with Sections F.1 and F.2 of Part A, and any additional reporting guidance as may be provided by Board staff. The date, time, duration, location, estimated volume of wastewater discharged, and corrective actions taken for these events shall be reported in the monthly Self-Monitoring Reports.

## IV. MODIFICATION OF PART A (AUGUST 1993)

A. This monitoring program does not include the following sections of Part A:

C.2.d; C.2.f; C.3; C.4; C.5; D.4; and E.3.

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

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 96-152.

2. 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.

3. Is effective as of November 20, 1996.

Loretta K. Barsamian
Executive Officer

Attachment: Table I - Schedule for Sampling, Measurements and Analyses

**TABLE 1**
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

| **Sampling Station:** | A-001 | | E-001 | | | E-001-S | | O | P | C |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type of Sample:** **Parameter** (units) [notes] | C-24 | Co | G | C-24 | Co | C-24 | G | Ob | Ob | G |
| Flow Rate (mgd) | | | | | | | | | | |
| $BOD_5$ (mg/L & kg/d) | | | | Q | | | | | | |
| Chlorine Residual (mg/L) | | | | | | | | | | |
| Settleable Matter (ml/L-hr) | | | | Q | | | | | | |
| TSS (mg/L & kg/d) | | | | Q | | | | | | |
| Oil & Grease (mg/L & kg/d) | | | | | | | | | | |
| Total Coliform (MPN/100 ml) | | | | | | | | | | |
| Acute Toxicity (% Surv.) | | | | | | | | | | |
| Ammonia Nitrogen (mg/L & kg/d) | | | | | | | | | | |
| Nitrate Nitrogen (mg/L & kg/d) | | | | | | | | | | |
| Nitrite Nitrogen (mg/L & kg/d) | | | | | | | | | | |
| Total Organic Nitrogen (mg/L & kg/d) | | | | | | | | | | |
| Turbidity (NTU) | | | | | | | | | | |
| pH (units) | | | M | | | | | | | |
| D.O. (mg/L & % Sat) | | | M | | | | | | | |
| Temperature (° C) | | | M | | | | | | | |
| Apparent Color (color units) | | | | | | | | | | |
| Total & Dissolved Sulfides (mg/L) | | | | | | | | | | |
| Arsenic (µg/L & kg/d) | | | | | | | | | | |
| Cadmium (µg/L & kg/d) | | | | | | | | | | |
| Chromium IV (µg/L & kg/d) | | | | | | | | | | |
| Copper (µg/L & kg/d) | | | | | | | | | | |
| Cyanide (µg/L & kg/d) | | | | | | | | | | |
| Silver (µg/L & kg/d) | | | | | | | | | | |
| Lead (µg/L & kg/d) | | | | | | | | | | |

**TABLE 1** (continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

| **Sampling Station:** | A-001 | | E-001 | | | E-001-S | | O | P | C |
|---|---|---|---|---|---|---|---|---|---|---|
| **Type of Sample:** **Parameter** (units) [notes] | C-24 | Co | G | C-24 | Co | C-24 | G | Ob | Ob | G |
| Mercury (µg/L & kg/d) | | | | | | | | | | |
| Nickel (µg/L & kg/d) | | | | | | | | | | |
| Selenium (µg/L & kg/d) | | | | | | | | | | |
| Zinc (µg/L & kg/d) | | | | | | | | | | |
| Phenols (µg/L & kg/d) | | | | | | | | | | |
| PAHs (µg/L & kg/d) | | | | | | | | | | |
| Applicable Standard Observations | | | | | | | | E | W | |
| Unionized Ammonia (mg/L as N) | | | | | | | | | | |

## LEGEND FOR TABLE 1:

Types of Stations:

A = treatment facility influent
E = treatment facility effluent
O = overflow and bypass points
P = treatment facility perimeter
C = receiving water

Types of Samples:

C-24 = composite sample, 24 hours
Co = continuous sampling
G = grab sample
Ob = observation

Frequency of Sampling:

D = once each day
W = once each week
2/W = two times each week (on separate days)
3/W = three times each week (on separate days)
M = once each month
2/M = twice each month (with at least two week intervals)
Q = once each calendar quarter (with at least two month intervals)
E = each occurrence
Co/2h = continuous or every two hours