

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION**

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**REVISED TENTATIVE ORDER NO. R2-2010-XXXX**

**WASTE DISCHARGE REQUIREMENTS  
FOR EAST BROTHER LIGHT STATION, INC.  
EAST BROTHER LIGHT STATION  
EAST BROTHER ISLAND, CONTRA COSTA COUNTY**

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

- 1. Discharger.** East Brother Light Station, Inc. (hereinafter Discharger), is currently discharging under Order No. R2-2004-0079, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0038806, and Order No. R2-2007-0077, NPDES Permit No. CA0038849 (for Discharges of Mercury to San Francisco Bay).

**Facility Description and Discharge Location**

- 2. Facility Description.** The Discharger owns and operates the East Brother Light Station, located on East Brother Island in Contra Costa County, approximately 1,000 feet west of Point San Pablo in San Pablo Bay (Attachment 1). East Brother Light Station is a former lighthouse that became operational in 1874. The U.S. Coast Guard assumed responsibility for the lighthouse in 1939. In 1960, the U.S. Coast Guard announced that the lighthouse would be automated, which would require demolition of the original structures. In 1971, the lighthouse was placed on the National Register of Historic Places, and in 1979, East Brother Light Station, Inc., a non-profit agency, was formed to restore the landmark and make it accessible to the public. East Brother Light Station is designated a State of California Registered Historic Landmark and is listed on the National Register of Historic Places. The U.S. Coast Guard leases East Brother Island to the Discharger at no cost. The Discharger has restored the light station and generates funds to maintain it by operating a bed and breakfast in the former keeper's quarters.
- 3. Sanitary Wastewater.** The Discharger uses an average of 1,700 gallons of fresh water per week, which originates as rainwater and is stored in a cistern. Additional fresh water is delivered by barge on an as-needed basis. Fresh water is used for cooking, dishwashing, showering, and flushing toilets, producing between 50 and 100 gallons per day (gpd) of domestic wastewater.

The wastewater is treated by a 1,250-gallon septic tank that provides anaerobic primary treatment and settling, a septic tank effluent filter, and a 200-square foot intermittent sand filter system, including a 750-gallon pump/dosing tank and a supplemental air injection system, which provides aerobic secondary treatment. Effluent is then disinfected by ultraviolet (UV) light treatment prior to discharge to San Pablo Bay. The treatment system has a design capacity

of 250 gpd (average daily discharge flow rate). The maximum, minimum, and average flow rates for January 2008 through April 2009 were 88.5 gpd, 13.5 gpd, and 66.1 gpd, respectively.

**Effluent Limitations and Permit Compliance Summary**

- 4. Effluent Limitations.** Effluent limitations contained in the previous orders (Order Nos. R2-2004-0079 and R2-2007-0077) and representative monitoring data from the term of the previous orders are presented in Table 1.

**Table 1. Effluent Limitations (Order No. R2-2004-0079) and Monitoring Data for Conventional and Non-Conventional Pollutants**

| Parameter               | (units)    | Effluent Limitations |                |               | Monitoring Data<br>(From Apr 2008 to Apr 2009) <sup>[1]</sup> |                        |                         |
|-------------------------|------------|----------------------|----------------|---------------|---|------------------------|-------------------------|
|                         |            | Monthly Average      | Weekly Average | Daily Maximum | Highest Monthly Average                                       | Highest Weekly Average | Highest Daily Discharge |
| BOD <sub>5</sub>        | mg/L       | 30                   | 45             | ---           | <2  | <2                     | ---                     |
| TSS                     | mg/L       | 30                   | 45             | ---           | 19.8  | 19.8                   | ---                     |
| pH                      | s.u.       | Within 6.5 – 8.5     |                |               | Minimum – 3.0<br>Maximum – 7.9                                |                        |                         |
| Settleable Solids       | mL/L-hr    | 0.1                  | ---            | 0.2           | <0.1  | ---                    | <0.1                    |
| Oil and Grease          | mg/L       | 10                   | ---            | 20            | <5  | ---                    | <5                      |
| Total Coliform Bacteria | MPN/100 mL | [2]                  |                |               | Maximum 5-day Median: <2<br>Maximum Single Sample: <2         |                        |                         |
| Mercury                 | kg/yr      | 0.00001              |                |               | 0.0000029   |                        |                         |

**Footnotes to Table 1:**

BOD<sub>5</sub> = five-day biochemical oxygen demand  
 mg/L = milligrams per liter  
 mL/L-hr = milliliters per liter per hour  
 MPN/100 mL = Most Probable Number per 100 milliliters  
 ND = Non-Detect  
 NA = Not Applicable  
 TSS = total suspended solids

[1] Data presented was collected from April 2008 through April 2009, because earlier data were determined to be not representative of effluent quality, as described below.

[2] Maximum 5-day moving median = 23 MPN/100mL; maximum single sample = 240 MPN/100mL.

- 5. Compliance Summary.** The Discharger reported numerous violations of the biochemical oxygen demand (BOD), total suspended solids (TSS), and coliform bacteria effluent limitations from February 2005 to March 2008. Further investigation showed that the apparent violations were the result of unrepresentative sample collection. Regional Water Board staff responded with a letter dated March 24, 2009, stating the facility was in violation of its permit for failing to collect representative samples of its effluent from September 2004 through March 2008. The Discharger installed a sampling port on the discharge line that allows collection of representative samples, and corrected its sampling practices.

The Discharger reported significantly low effluent pH from August 2008 to June 2010, ranging from 3.0 to 5.9. The main water supply, stored rain water, is naturally slightly acidic, and the low initial pH may be exacerbated by ammonia nitrification during wastewater treatment, as

nitrification consumes alkalinity. The Discharger also reported two exceedances of its total coliform median limit of 23 MPN/100 mL in the second quarter 2010. The median was 50 MPN/100 mL on June 4 and June 25. No formal enforcement action has yet been taken for these violations.

- 6. Permit Application.** The Discharger submitted a Report of Waste Discharge, dated January 29, 2010, and applied for reissuance of its NPDES permit to discharge treated wastewater from its wastewater treatment facility to waters of the State and the United States. The Regional Water Board administratively extended NPDES Permit No. CA0038806 (specified in Order R2-2004-0079) pursuant to Title 23 California Code of Regulations (CCR) § 2235.4 and Title 40 Code of Federal Regulations (CFR) § 122.6(d).

The Discharger's Report of Waste Discharge proposed discharging its treated wastewater to an on-site subsurface soil absorption-irrigation field in the area known as the circular garden, and terminating the discharge to San Pablo Bay. Construction of the land discharge system was completed on October 1, 2010.

An NPDES permit would be unnecessary for waste discharge to land. The Discharger's Report of Waste Discharge indicated that waste discharge to land, if approved, would be the method of wastewater disposal, and the Discharger would terminate discharge to surface water. The U.S. Coast Guard approved system construction by letter dated June 8, 2010. Therefore, this Order rescinds Order No. R2-2004-0079 NPDES Permit No. CA0038806, and rescinds the coverage of Order No. R2-2007-0077 NPDES Permit No. CA0038849 on the Discharger. This Order establishes new Waste Discharge Requirements for discharge of treated wastewater to land. This Order does not allow surface water discharge.

### Site Characteristics

- 7. Site Characteristics.** Soil profiles excavated by hand shovel in the circular garden in March 28, 2009, and January 28, 2010, to observe soil and groundwater conditions showed:
- 0-12 inches: dark brown loamy sand, loosely compacted, high organic content
  - 12-24 inches: light brown, coarse gravelly sandy clay loam, interspersed with weathered sandstone fragments; friable
  - >24 inches: weathered sandstone surface, hand shovel refusal

No groundwater was encountered on either exploration date. The January 28, 2010, soil observations were made following an extended period of rainy weather specifically to determine whether or not the garden area is subject to shallow, seasonally perched water conditions at the weathered rock surface. No water table was observed. Additionally, the soils were easily excavated by hand and showed good drainage and no signs of soil smearing.

Incident rainfall and any treated wastewater applied to the subsurface would percolate through the permeable soils and then migrate through fractures in the underlying sandstone bedrock that forms the island. The bedrock fracture pattern under the garden area is unknown, but it is reasonable to assume that there could be water migration in any direction away from the garden. The nearest point where water might surface from the bedrock would be to the north of the

garden, where the cliff face is about 5 to 10 feet from the edge of the garden. Accordingly, during the January 2010 site visit, the area along and downslope of the perimeter retaining wall on the north side was investigated for signs of water seepage. No points of seepage flow were observed on the rock slope; however, a general zone of wetness on the rock face was evident about 10 to 12 feet downslope of the base of the retaining wall, or roughly 15 to 18 feet below the grade of the circular garden. The area of wetness was about 4 to 5 feet above the San Francisco Bay, which was at high tide at the time of the inspection.

## **Wastewater Treatment and Disposal**

**8. Dispersal-Irrigation Area:** The dispersal-irrigation area is a 22-foot diameter circular garden located on the west side of the main lighthouse building, adjacent to the sand filter. The circular garden was originally the site of an above-ground water tank. It was later converted to a garden as part of an Eagle Scout project involving soil importation. The garden is level and bordered by a low brick perimeter wall that extends about 8 to 10 inches above grade on the north, east, and south sides. The west side of the garden is enclosed by part of the 5.5-foot high concrete block retaining wall that circles the entire island. The walls and garden topography prevent runoff.

**9. Treatment and Dispersal System:** The onsite wastewater treatment and dispersal system consists of:

- Existing treatment system;
- 1.25-inch effluent line from UV disinfection unit to a new pump basin;
- New 48-inch deep PVC pump basin with high-head turbine pump and appropriate plumbing at the northwest corner of the sand filter; pump to operate “on demand”;
- 1.25-inch pressure line through the bottom of the concrete block wall to the circular garden;
- 250-square foot shallow, pressure-distribution dispersal field in circular garden with 105 feet of 6-inch wide gravel-filled trenches, 6 inches below existing grade, 2 feet from center to center, with 6 to 9 inches of imported cover fill over the existing grade.

On the basis of the soil, groundwater, and seepage observations discussed in Finding 7, Site Characteristics, the soils in the circular garden, with the additional 6 to 9 inches of imported fill, have suitable texture and depth and are sufficiently well drained to accommodate a shallow soil absorption system for treated wastewater. The system provides a combination of percolation and irrigation benefit by dispersing treated wastewater through the pressure-distribution trenches to the topsoil, and to the 18 inches of permeable soil below the trenches.

The maximum design flow of 250 gpd at 20 milligrams per liter (mg/L) BOD and TSS, and approximate dispersal area of 250 square feet, would result in maximum wastewater and organic loading rates of 1.0 gallon per day per square foot (gpd/ft<sup>2</sup>), and 2.0 x 10<sup>-4</sup> pounds BOD per square foot per day (lb-BOD/ft<sup>2</sup>-day), respectively. These loading rates are within the following design guidelines for similar soil types:

**Table 2. Maximum Wastewater and Organic Loading Rates**

| Reference  | Soil type   | Overflow Rate, gpd/ft <sup>2</sup> | Organic Loading Rate, lb-BOD/ft <sup>2</sup> -day |
|--|---|------------------------------------|---|
| United States Environmental Protection Agency (USEPA) <i>Onsite Wastewater Treatment Systems Manual</i> (EPA/625/R-00/08, 2002), Table 4-3 (BOD = 30 mg/L) | Coarse sand, loamy coarse sand, loamy sand (single grain)                       | 1.6                                | 0.0004  |
|  | Fine sand, very fine sand, loamy fine sand, loamy very fine sand (single grain) | 1.0                                | 0.00025   |
| California Greywater Standards, California Plumbing Code, Title 24, Part 5, Chapter 16A, Part I – Non-potable Reuse Systems, Table 16A-2                   | Sandy loam  | 2.5                                | NA  |
|  | Sandy clay  | 1.7                                | NA  |
|  | Clay with considerable sand or gravel   | 1.1                                | NA  |
| Geoflow, Inc., <i>Subsurface Drip Dispersal and Reuse Design, Installation, and Maintenance Guide</i> (2007), Table 1 (BOD/TSS = 30 mg/L)                  | Fine sand   | 1.2                                | NA  |
|  | Sandy loam  | 1.0                                | NA  |

**Applicable Plans, Policies, and Regulations**

**10. Legal Authorities.** This Order serves as Waste Discharge Requirements pursuant to article 4, chapter 4, division 7 of the California Water Code (CWC), commencing with section 13260 (CWC § 13260).

**11. Basin Plan.** The Regional Water Board adopted a *Water Quality Control Plan for the San Francisco Bay Basin* (Basin Plan) that designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. This Order implements the Regional Water Board’s Basin Plan. This Order includes effluent limits and discharge requirements intended to protect existing and potential beneficial uses of waters of the State, and to protect public health and the environment.

**12. Beneficial Uses.** East Brother Island has no significant groundwater resources or groundwater beneficial uses. Under State Water Board Resolution No. 88-63, the MUN beneficial use does not apply because East Brother Island does not provide sufficient water to supply a single well capable of producing an average, sustained yield of 200 gpd. Given the proximity of San Pablo Bay, it is also unlikely that East Brother Island groundwater would meet the 3,000 mg/L total dissolved solids maximum for the MUN beneficial use established by Resolution 88-63.

**13. California Environmental Quality Act (CEQA).** Under CWC § 13389, this action to adopt Waste Discharge Requirements is exempt from the provisions of CEQA.

**Rationale for Effluent Limitations, Discharge Prohibitions, and Provisions**

**14. Previous Order Limits.** Order No. R2-2004-0079 contained effluent limits for BOD, TSS, oil and grease, settleable matter, pH, and total coliform. There were also receiving water limits for dissolved oxygen, dissolved sulfides, pH, un-ionized ammonia, and nutrients. These limits were intended for surface water protection. Since this Order does not allow surface water discharges, effluent limits for many of these parameters are no longer necessary.

- 15. Nuisance Conditions.** The Discharger's proposal includes analysis and observations showing that wastewaters will percolate in a timely manner, and thus this discharge will not cause nuisance conditions as defined in CWC § 13050(m)(1). This Order requires that the discharge meet minimum dissolved oxygen requirements to prevent odors.
- 16. Storm Water Discharge.** The Discharger is not required to be covered under the State Water Board's statewide NPDES permit for storm water discharges associated with industrial activities (NPDES General Permit No. CAS000001) because the facility design flow rate is less than 1.0 million gallons per day (mgd). This Order does not cover storm water.
- 17. Monitoring and Reporting.** CWC § 13267 and § 13383 authorize the Regional Water Board to require technical and monitoring reports. The Self-Monitoring Program (Attachment 2) establishes monitoring and reporting requirements to implement State requirements, including requirements for quarterly and annual effluent monitoring reports. The Self-Monitoring Program requires that monitoring reports include transmittal letters signed by the Discharger's principal executive officer or his/her duly authorized representative, and statements by the official, under penalty of perjury, that the reports are true and correct to the best of the official's knowledge.
- 18. Permit Reopener.** After notice and opportunity for a hearing, Provision C.12 of this Order allows the Regional Water Board to terminate or modify this Order for cause.

### **Public Participation**

- 19. Notification of Interested Parties.** The Regional Water Board notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and provided an opportunity to submit written comments and recommendations. Notification was provided through the **Contra Costa Times on September 10, 2010.**
- 20. Consideration of Public Comment:** Staff determinations are tentative. Interested persons are invited to submit written comments concerning these Waste Discharge Requirements. Comments must be submitted either in person or by mail to the attention of John Madigan at the Regional Water Board at the address provided below.

To receive full consideration and a written response, written comments must be received at the Regional Water Board offices by 5:00 p.m. on **October 7, 2010.**

The Regional Water Board will hold a public hearing on the Waste Discharge Requirements during its regular meeting on the following date, time, and location:

Date: **November 10, 2010**  
Time: 9:00 am  
Location: Elihu Harris State Office Building  
1515 Clay Street, 1<sup>st</sup> Floor Auditorium  
Oakland, CA 94612

Contact: John Madigan, (510) 622-2405, email [JMadigan@waterboards.ca.gov](mailto:JMadigan@waterboards.ca.gov)

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, Waste Discharge Requirements, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Dates and venues may change. The Regional Water Board Web address, where one can access the current agenda for changes in dates and locations, is [www.waterboards.ca.gov/sanfranciscobay](http://www.waterboards.ca.gov/sanfranciscobay).

**IT IS HEREBY ORDERED**, pursuant to the provisions of CWC Division 7, and the regulations, plans and policies adopted thereunder, and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder, that Order No. R2-2004-0079 shall be rescinded, that the coverage of Order No. R2-2007-0077 on the Discharger shall be rescinded, and that the Discharger shall comply with the following:

**A. Discharge Prohibitions**

1. The discharge of wastewater at a location or in a manner different than that described in this Order is prohibited.
2. The discharge of wastes or hazardous substances in a manner that will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.
3. The discharge of wastes beyond the dispersal area, either by surface flow or airborne spray, is prohibited.
4. There shall be no bypasses of any treatment process, or overflows to waters of the State from the Discharger's collection, treatment, storage, or dispersal facilities.
5. The treatment, storage, or discharge of wastewater shall not cause a nuisance as defined by CWC § 13050(m)(1).
6. The discharge of wastewater in excess of system capacity is prohibited.
7. The discharge of wastewater to the dispersal area during periods of precipitation, or when soils are saturated, is prohibited.

**B. Effluent Limitations**

1. The Discharger shall comply with the following effluent limitations:

**Table 3. Effluent Limitations, Discharge Point E-001**

| Parameter        | Units | Monthly Average | Daily Maximum | Instantaneous Minimum |
|------------------|-------|-----------------|---------------|-----------------------|
| BOD              | mg/L  | 30              | 45            |                       |
| TSS              | mg/L  | 30              | 45            |                       |
| Dissolved Oxygen | mg/L  |                 |               | 1.0                   |

2. The Discharger shall comply with the following limitations on total coliform. Total coliform shall not exceed:
  - a. A median value of a Most Probable Number of 2.2 per 100 milliliters (MPN/100mL) over the last seven sample events;
  - b. A maximum value of 23 MPN/100mL in more than one sample during a calendar month.

### C. Provisions

1. **Pollution Prevention Program.** The Discharger shall continue to update and maintain its pollution prevention program. The program shall include, at minimum, (1) practices to ensure that nontoxic chemicals are used for cleaning, and for pest and weed management; and, (2) education practices directed toward visitors and employees regarding proper disposal of toxic substances and oil and grease (i.e., not to the sewer system). The Discharger shall submit a report one time within the first year from the effective date of this Order documenting the completed or planned pollution prevention measures the facility has taken or plans to take. Thereafter, the Discharger shall report any changes to the pollution prevention plan in the annual report required by Item 5 of the Self-Monitoring Program (Attachment 2).
2. **Self-Monitoring Program.** The Discharger shall comply with the Self-Monitoring Program (Attachment 2) for this Order and any amendments the Executive Officer makes to it.
3. **Wastewater Disposal Plan.** Within 60 days of the effective date of this Order, the Discharger shall submit a Wastewater Disposal Plan acceptable to the Executive Officer describing how wastewater is to be managed. The plan shall describe (1) how treated wastewater is to be applied to the dispersal area to maximize infiltration, (2) how the dispersal area is to be maintained in regard to topography and crop management, and (3) proposed maintenance measures for the next year. The Discharger shall review the Wastewater Disposal Plan at least annually and revise it as necessary. The Discharger shall submit a description of the results of the review, including a description of and estimated time schedule for completing any necessary revisions, to the Regional Water Board along with the annual report required by Item 5 of the Self-Monitoring Program (Attachment 2).
4. **Operations and Maintenance Manual.** The Discharger shall review and update, as necessary, its Operations and Maintenance Manual annually and within 90 days of completing any significant facility or process changes. The Discharger shall submit a description of the results of the review, including a description of and estimated time schedule for completing any necessary revisions, to the Regional Water Board along with the annual report required by Item 5 of the Self-Monitoring Program (Attachment 2).
5. **As-Built Plans – Current System.** The Discharger shall submit a technical report acceptable to the Executive Officer no later than 30 calendar days from the adoption of this Order containing as-built plan drawings, and narrative descriptions as appropriate, of the completed-to-date wastewater treatment and dispersal system. If the wastewater system is not yet completed, and further construction or modifications are in progress or planned, then



(1) the report shall contain as-built plans for those components completed, a complete description of construction or modifications in progress or planned, and a time schedule for completion of those actions; and (2) the Discharger shall also submit a complete set of plans for the entire completed system no later than 30 days from system completion. All plan drawings shall be of a scale of at least one inch equals 40 feet, properly labeled and clearly legible.

- 6. As-Built Plans – Future Changes.** In the event of any future changes to wastewater system components, the Discharger shall submit updated as-built plans of the portion of the system affected by such changes within 30 days of the completion of the changes.
- 7. Entry, Access, and Inspection.** The Discharger shall allow the Regional Water Board or its authorized representatives, in accordance with CWC § 13267(c):
  - a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order;
  - b. Access to and copy of, at reasonable times, any records required by conditions of this Order;
  - c. Inspection, at reasonable times, of any facility, equipment, practices, or operations regulated or required under this Order; and
  - d. Ability to photograph, sample, or monitor, at reasonable times, for the purpose of ensuring compliance with this Order.
- 8. Change in Control or Ownership.** 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 the Regional Water Board. To assume responsibility for operations under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. Failure to submit the request shall be considered a discharge without requirements, a CWC violation.
- 9. Contractor / Consultant Qualifications.** All documents required in the Provisions of this Order shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.
- 10. Lab Qualifications.** All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Regional Water Board using approved USEPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Regional Water Board review. This provision does not apply to analyses that can only reasonably be performed on-site.
- 11. Hazardous Substance Release Reporting.** If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be,

discharged in or on any waters of the State, the Discharger shall report such discharge to the Regional Water Board by calling (510) 622-5633 during regular office hours (Monday through Friday, 8:00 to 5:00). This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

**12. Permit Reopener.** After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

- a. Violation of any term or condition contained in this Order;
- b. A change in any condition that requires either a temporary or permanent reduction or elimination of the discharge;
- c. Endangerment to public health or environment that can only be regulated to acceptable levels by Order modification or termination;
- d. If an administrative or judicial decision on a separate NPDES permit or Waste Discharge Requirements addresses requirements similar to this discharge; and
- e. Or as otherwise authorized by law.

**13. Rescission of Previous Orders.** The Waste Discharge Requirements prescribed by this Order supersede those prescribed by Order Nos. R2-2004-0079 and R2-2007-0077 as it relates to the Discharger. Order No. R2-2004-0079, and the coverage of Order No. R2-2007-0077 on the Discharger, are hereby rescinded.

**14. Effective Date.** This Order is effective immediately upon adoption.

I, Bruce H. Wolfe, Executive Officer, do hereby certify that this Order with all attachments 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 10, 2010.

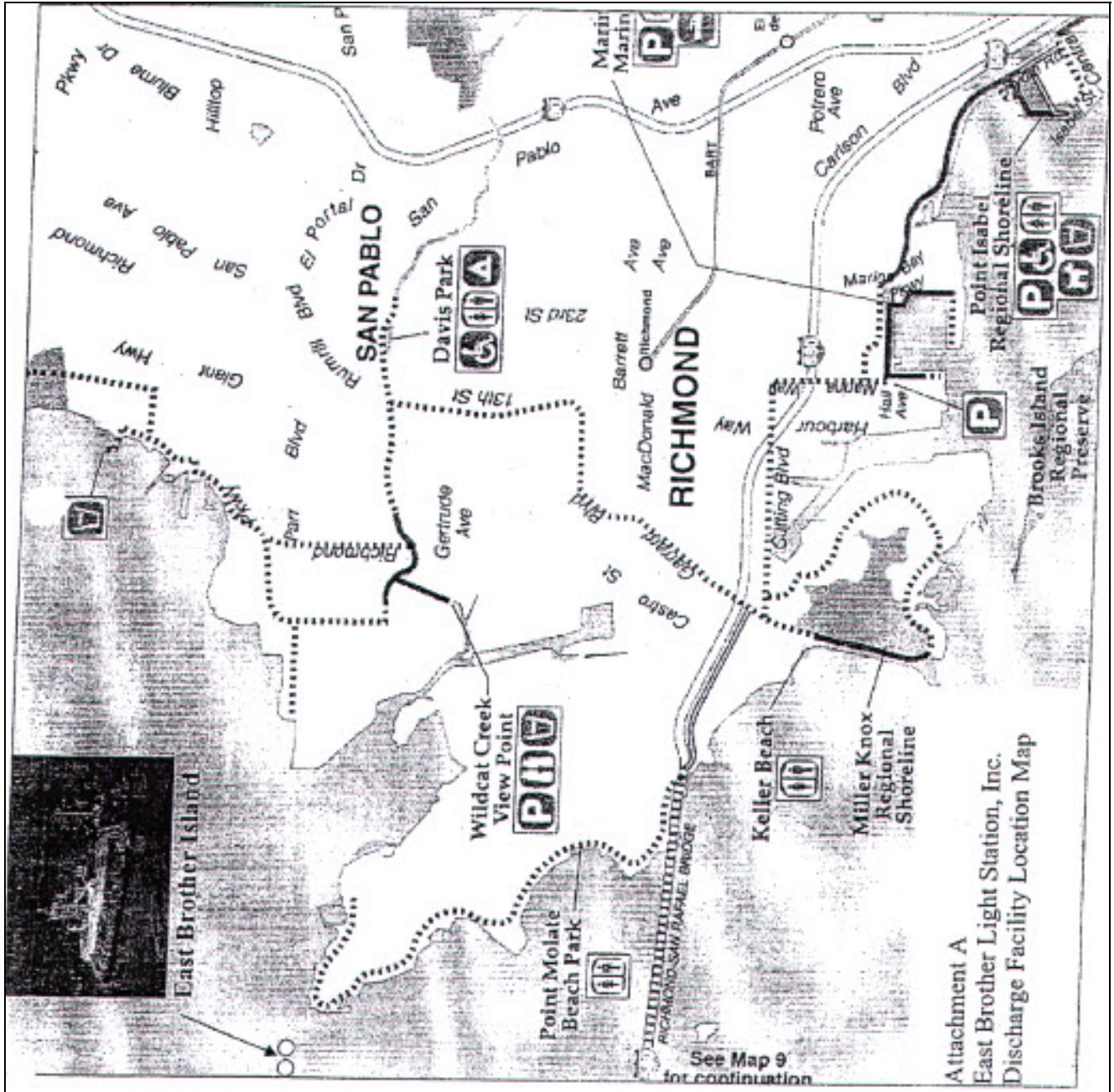
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Bruce H. Wolfe, Executive Officer

Attachments

1. Site Location
2. Self-Monitoring Program

ATTACHMENT 1 – SITE LOCATION



## ATTACHMENT 2 – SELF-MONITORING PROGRAM

For

### EAST BROTHER LIGHT STATION, INC. EAST BROTHER LIGHT STATION EAST BROTHER ISLAND, CONTRA COSTA COUNTY

1. **Authority and Purpose:** The Regional Water Board requires the technical reports in this Self-Monitoring Program pursuant to CWC § 13267 and 13383. The reports are necessary to implement State regulations.
2. **Effluent Monitoring Locations:** The Discharger shall establish the following monitoring location to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order.

**Table 3-1: Monitoring Station Location**

| Type of Sampling Location | Monitoring Location Name | Monitoring Location Description  |
|---------------------------|--------------------------|--|
| Effluent                  | EFF-001                  | At any point after discharge from the treatment system and before discharge to the dispersal area. |

3. **Effluent Monitoring:** When discharging, the Discharger shall collect representative samples of its effluent and analyze the samples as set forth in the table below:

**Table 3-2: Effluent Monitoring**

| Parameter                | Units     | Sample Type | Minimum Sampling Frequency |
|--------------------------|-----------|-------------|----------------------------|
| Flow Rate <sup>[1]</sup> | gpd       | Continuous  | Continuous/<br>Weekly      |
| BOD                      | mg/L      | Grab        | Monthly                    |
| TSS                      | mg/L      | Grab        | Monthly                    |
| Total Coliform Bacteria  | MPN/100mL | Grab        | Monthly                    |

**Legend to Table E-2:**

Unit Abbreviations:

|            |   |  |
|------------|---|--|
| BOD        | = | biochemical oxygen demand                |
| gpd        | = | gallons per day                          |
| mg/L       | = | milligrams per liter                     |
| MPN/100 mL | = | most probable number per 100 milliliters |
| TSS        | = | total suspended solids                   |

Footnotes to Table E-2:

<sup>[1]</sup> For effluent flows, the average daily flow (gpd) shall be reported quarterly.

4. **Quarterly Self-Monitoring Reports:** The Discharger shall submit quarterly self-monitoring reports to the Regional Water Board no later than 30 days following the end of each calendar quarter (e.g., the report for first calendar quarter of the year is due April 30). The reports shall include the following:

- a. *Transmittal Letter:* The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct any problems.
  - b. *Status Report:* The quarterly report shall describe any significant changes to treatment or operational procedures, and planned changes for the following quarter.
- 5. Annual Reports:** The Discharger shall submit an annual report to the Regional Water Board by February 1 of each year. The report shall include the following:
- a. *Transmittal Letter:* The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct them. The transmittal letter shall be signed by the Discharger's principal executive officer or his/her duly authorized representative, and shall include statements by the official, under penalty of perjury, that the reports are true and correct to the best of the official's knowledge.
  - b. *Compliance summary:* A summary and analysis of the compliance history and treatment effectiveness over the past year.
  - c. *Management Plans:* Summary reports of the Wastewater Disposal Plan, the Contingency Plan, and Operations and Maintenance Manual as described in Provisions C.4, C.5, and C.6.
- 6. Violation Reports:** If the Discharger violates requirements in this Order, it shall notify the Regional Water Board by telephone or email as soon as practicable once it has knowledge of the violation. Depending on violation severity, Regional Water Board staff may require the Discharger to submit a separate technical report on the violation within five working days of telephone or email notification.
- 7. Recordkeeping:** The Discharger, or his or her agent, shall retain the data generated for the above reports, including lab results and quality assurance/quality control data, for a minimum of six years after origination and shall make them available to the Regional Water Board upon request.
- 8. Self-Monitoring Program Revisions:** The Executive Officer may revise this Self-Monitoring Program, either on his or her own initiative or at the request of the Discharger. Prior to revising the Self-Monitoring Program, the Executive Officer will consider the burden, including costs, of associated monitoring and reporting, relative to the benefits to be obtained.