CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 94-072
NPDES PERMIT NO. CA 0037869

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

EAST BAY DISCHARGERS AUTHORITY,
CITY OF HAYWARD,
CITY OF SAN LEANDRO,
ORO LOMA/CASTRO VALLEY SANITARY DISTRICT,
UNION SANITARY DISTRICT, AND
LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY
ALAMEDA COUNTY

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

1. The East Bay Dischargers Authority (EBDA), by application dated December 10, 1993, on behalf of itself and its member agencies above, submitted a Report of Waste Discharge for reissuance of waste discharge requirements and a permit to discharge wastewater to waters of the State and the United States through a common outfall under the National Pollutant Discharge Elimination System (NPDES).

2. The Livermore-Amador Valley Water Management Agency (LAVWMA) member agencies have also applied for reissuance of waste discharge requirements and NPDES Permits to discharge wastewaters through the EBDA outfall. EBDA, and its member agencies, and LAVWMA are hereinafter collectively and individually refereed to as dischargers. These waste discharge requirements are primarily for regulation of EBDA and its member agencies and the operation of the EBDA joint outfall facilities. Separate effluent waste discharge requirements have been adopted by the Board for the City of Livermore (Order No. 94-073, NPDES No. CA0038008) and Dublin San Ramon Services District (Order No. 94-074, NPDES No. CA0037613).

3. Both EBDA and LAVWMA are Joint Exercise of Powers Agencies (JEPA), the members of which separately own and operate collection and treatment facilities for domestic, commercial, and industrial wastewater. LAVWMA transports effluent from its member agencies to the EBDA system. By contractual agreement, EBDA transports LAVWMA treated wastewater jointly with the treated wastewater from its member agencies to its dechlorination station near the San Leandro Marina (Marina Dechlorination Facility) and thence to its deepwater outfall in Lower San Francisco Bay west of the Oakland Airport at longitude 122° 17' 42" W, latitude 37° 41' 40" N. The outfall's diffuser is located 37,000 feet from shore; it discharges 23.5 feet below the surface (MLLW); and it is designed to provide minimum initial dilution of greater than 10:1 at all times, and about 45:1 for 45% of the time.

4. The existing and proposed waste discharge volumes are as follows:

Agency	Actual 1993 ADWF(1)	Design Existing ADWF	Capacity Proposed ADWF	Peak WWF(4)
EBDA				
San Leandro	4.41	7.6	7.6	22.3
Oro Loma Sanitary District	11.3	20.0	20.0	69.2
Hayward(2)	10.0	13.1	16.5	35.0
Union Sanitary District (3)	24.19	26.0	35.0	42.9
Subtotal	49.90	66.7	79.1	169.4
LAVWMA	11.63	17.75	20.0	21.0(4)
Totals	61.53	84.45	99.1	190.4

NOTES:
(1) Average Dry Weather Flow (ADWF); All units in million gallons per day (mgd).
(2) Hayward will have design capacity of 16.5 mgd after documenting adequate reliability, capacity and performance of the completed improvements to the treatment facility.
(3) Union Sanitary District will have design capacity of 35 mgd after documenting adequate reliability, capacity and performance of the completed improvements to the treatment facility.
(4) Wet Weather Flow (WWF); sum does not equal parts due to LAVWMA flow. The maximum LAVWMA flow to the EBDA system, under a LAVWMA-EBDA agreement, is 21 mgd if capacity is available. During peak EBDA WWF only 19.7 mgd capacity is available to LAVWMA in the EBDA system. If EBDA system capacity is not available due to peak WWF, LAVWMA is authorized to discharge up to 1.3 mgd of its peak WWF to San Lorenzo Creek by a separate Board order.

5. The City of Hayward treatment facility provides secondary treatment for an average dry weather flow of 10.0 mgd and has a dry weather discharge capacity of 13.1 mgd. Treatment consists of comminution, grit removal, flow equalization, primary sedimentation, high-rate trickling filter, fluid bed reactors, secondary clarification, and chlorination. Treated effluent from the wastewater treatment facility is transported to East Bay Discharge Authority's (EBDA) system and then to the San Francisco Bay. Sludge is anaerobically digested, dried in the drying beds and then used for composting at the facility. The compost, which contains wood chips and dried sludge, is used as a soil amendment for vegetation covering on an on-site landfill.

6. The Oro Loma Sanitary District (OLSD) treatment facility provides secondary treatment for an average dry weather flow of 11.09 mgd and has a dry weather design capacity of 20.0 mgd. Treatment consists of screening, grit removal, primary sedimentation, activated sludge, secondary clarification, and chlorination. Treated effluent from the wastewater treatment facility is transported to East Bay Discharge Authority's (EBDA) system and then to the San Francisco Bay. Sludge is anaerobically digested, dried in open lagoons, and disposed of by landfill burial at an authorized disposal site.

7. The City of San Leandro treatment facility provides secondary treatment for an average dry weather flow of 4.41 mgd and has a dry weather design capacity of 7.6 mgd. Treatment consists of grinding, dewatered using belt filter presses, primary sedimentation, trickling filter, activated sludge, secondary clarification, and chlorination. Treated effluent from the wastewater treatment facility is transported to East Bay Discharge Authority's (EBDA) system and then to the San Francisco Bay. Sludge is anaerobically digested, dried in open lagoons, and disposed of by landfill burial at an authorized disposal site.

8. The Union Sanitary District (USD) treatment facility provides secondary treatment for an average dry weather flow of 26 mgd and has a dry weather design capacity of 26 mgd. Treatment consists of grinding, primary sedimentation, activated sludge, secondary clarification, and chlorination. Treated effluent from the wastewater treatment facility is transported to East Bay Discharge Authority's (EBDA) system and then to the San Francisco Bay. Sludge is anaerobically digested, dewatered using belt filter presses, and disposed of by landfill burial at an authorized disposal site.

   Approximately 5 mgd of reclaimed wastewater from USD's treatment facility is delivered to the Hayward Marsh via EBDA pipeline. Hayward Marsh is operated by the East Bay Regional Park District. Discharge of treated wastewater to the marsh is regulated by Regional Board Order No. 93-155 (NPDES permit No. CA 0038636).

9. The Union Sanitary District has prepared a District-wide Master Plan to meet sewage transport, treatment, disposal and reuse needs through 2030. The District has also certified the Environmental Impact Report for the Master Plan. The Master Plan and EIR include a project to discharge to Old Alameda Creek, as the preferred approach to managing treated and infrequent peak wet weather flows (PWWFs). Board staff is currently in the process of reviewing the Master Plan and EIR. This Order may be amended in the future to include intermittent PWWF discharges by the District to Old Alameda Creek.

10. The treated effluent from Hayward, San Leandro, OLSD, and USD is combined and then dechlorinated by sulfonation prior to discharge via deepwater outfall to San Francisco Bay.

11. The discharge is presently governed by Regional Board Order No. 89-098 adopted by Board on June 21, 1989, which allows discharge into Lower San Francisco Bay.

12. EBDA's JEPA delegates the authority and responsibility to EBDA to assure compliance with all effluent waste discharge requirements. It is the intent of the EBDA JEPA to allow determination of compliance with waste discharge requirements by considering EBDA as a total system, to permit the most effective operation of all EBDA and member agency treatment facilities. The EBDA JEPA, therefore empowers that Joint Agency to monitor each member agency's discharge and the combined discharge and prescribes that the Joint Agency may, if necessary, undertake modifications of any member agency's treatment facilities to secure compliance with effluent discharge requirements.

    Since LAVWMA and its tributary agencies are not signatories to the EBDA JEPA, the EBDA-LAVWMA agreement empowers EBDA to monitor discharges by LAVWMA into the EBDA system and requires LAVWMA, as a condition of continuing service, to comply with all requirements prescribed by the Board, except residual chlorine, for which EBDA will be responsible.

    The LAVWMA is responsible for transporting effluent from its member agencies to the EBDA system. It is not empowered to take actions to secure member agency compliance with requirements.

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

14. As used herein, "Common Outfall" means the EBDA outfall; "Combined Discharge" refers to the waste stream at any point where all wastes tributary to that outfall are present; and "Individual Treatment Plant" means a treatment facility operated by a member agency or either EBDA or LAVWMA.

15. All EBDA member agencies have implemented and are maintaining an USEPA approved pretreatment program in accordance with Federal pretreatment regulations (40 CFR 403) and this Board's Order No. 89-179.

16. The Board adopted a revised Water Quality Control Plan for the San Francisco Basin (Basin Plan) on December 17, 1986. The Basin Plan identifies beneficial uses and water quality objectives for surface waters 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.

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

18. The effluent limit for copper in this permit is based on 4.9 μg/l copper as an interpretation of the narrative toxicity objective in the Basin Plan, based on best

professional judgement. Specifically, the use of 4.9 μg/l as the site-specific objective for copper is based on the Regional Board study that employed the "water effect ratio" approach developed by the EPA. This study and associated staff analysis are described in a September 25, 1992 staff report entitled "Revised Report on Proposed Amendment to Establish a Site Specific Objective for Copper for San Francisco Bay".

19. In 1993, the Regional Monitoring Program (RMP) found PCB concentrations in water throughout the estuary at levels exceeding the EPA criterion. The EPA criterion indicates the potential for bioaccumulation in fish tissue to levels that pose a risk to human health, when the fish is consumed. Concentrations of PCBs and other pollutants in fish tissue are being measured in a study currently being conducted by the Regional Board. The Regional Board and the discharger acknowledge that commercially available laboratory techniques do not allow for detection of PCBs or dioxin in effluent at levels low enough to determine the extent of contribution of these substances by the discharger. Therefore, rather than focusing additional resources on characterizing PCB and dioxin levels in effluent, the discharger is required to participate in a study to further define the level of contamination of fish tissue in the estuary, as described in Provision E.10. Since elevated PCB levels in the estuary is a region-wide issue, the Regional Board will be requiring all dischargers currently participating in the RMP to contribute to this study.

20. The Beneficial uses identified in the Basin Plan for Lower San Francisco Bay are as follows:

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

21. The 1986 Basin Plan initiated the Effluent Toxicity Characterization Program (ETCP) in which dischargers were required to monitor their effluent using critical life stage toxicity tests to generate information on toxicity test species sensitivity and effluent variability to allow development of appropriate chronic toxicity effluent limitations.

    The dischargers detected chronic toxicity in the combined effluent during the course of compliance monitoring and is currently performing toxicity identification evaluations (TIE).

22. Federal Regulations for stormwater discharges were promulgated by the U.S. Environmental Protection Agency on November 19, 1990. The regulations [40 Code of Federal Regulations (CFR) Parts 122, 123, and 124] require specific categories of industrial activity (industrial storm water) to obtain a NPDES permit and to implement Best Available Technology Economically Available (BAT) and Best Conventional Pollutant Control Technology (BCT) to control pollutants in industrial stormwater discharges.

    The storm water flows from the wastewater treatment facility process areas are directed to the wastewater treatment plant headworks and treated along with the wastewater discharged to the treatment plants. These stormwater flows constitute all industrial storm water at these facilities and consequently this permit regulates all industrial storm water discharges at these facilities.

23. An **Operations and Maintenance Manual** is maintained by the dischargers for purposes of providing plant and regulatory personnel with a source of information describing all equipment, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual shall be kept updated to reflect significant changes in treatment facility equipment and operation practices.

24. 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.

25. The dischargers 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.

26. 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 dischargers shall comply with the following:

A. DISCHARGE PROHIBITIONS

1. The bypass or overflow of untreated or partially treated wastewater to waters of the State, either at the treatment plant(s) or from any of the joint facilities or individual member collection system(s) or pump stations tributary to the treatment plant is prohibited.

2. The average dry weather flow of EBDA shall not exceed the design existing average dry weather flow as specified in Finding No. 4 of this Order. Actual average dry weather flow shall be determined for compliance with this prohibition over three consecutive dry weather months each year.

   Exceptions to the design existing average dry weather flows in Finding No. 4 for the individual agencies up to the maximum of the proposed design average dry weather flow for the EBDA system only may be approved by the Executive Officer upon submittal of a satisfactory technical report demonstrating that compliance with effluent limits at the EBDA outfall will be consistently achieved and that the EBDA commission approves the change. In no instance will the Executive Officer approve design average dry weather flow changes such that the total proposed design average dry weather flow for EBDA is exceeded. The intent of this exception procedure is to consider EBDA as a total system to allow EBDA and its member agencies to operate in the most efficient manner in complying with these waste discharge requirements.

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

4. Discharges of water, materials, or wastes other than storm water, which are not otherwise authorized by this NPDES permit, to a storm drain system or waters of the State are prohibited.

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

B. EFFLUENT LIMITATIONS

Compliance with the effluent limitations shall be demonstrated in the combined discharge, except that EBDA may elect to demonstrate compliance with requirements B.2., B.3. and B.5. in the discharge from individual member agency treatment plants after prior approval of the Executive Officer. Demonstration of compliance for removal rates will be based upon the algebraic summing of the EBDA agency loadings.

1. Combined effluent discharged to the outfall shall not exceed the following limits.

Constituent	Units	Monthly Average	Weekly Average	Daily Maximum	Instantaneous Max
a. Carbonaceous BOD (CBOD5, 20°C)	mg/l	25	40	--	--
b. Total Suspended Solids	mg/l	30	45	--	--
c. Settleable Matter	ml/l-hr	0.1	--	--	0.2
d. 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: 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, 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 (Five-day, 20°C) 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.

5. Effluent Toxicity:

5.1 Acute Toxicity:

The survival of organisms in undiluted combined effluent shall be an eleven (11) sample median value of not less than 90 percent survival, and an eleven (11) sample 90 percentile value of not less than 70 percent survival. The eleven sample median and 90th percentile effluent limitations are defined as follows:

11 sample median:	A bioassay test showing survival of less than 90 percent represents a violation of this effluent limit, if five or more of the past ten or less bioassay tests show less than 90 percent survival.
90th percentile:	A bioassay test showing survival of less than 70 percent represents a violation of this effluent limit, if one or more of the past ten or less bioassay tests show less than 70 percent survival.

If the discharger demonstrates to the satisfaction of the Executive Officer that toxicity exceeding the levels cited above is caused by ammonia and that the ammonia in the discharge is not adversely impacting receiving water quality or

beneficial uses, then such toxicity does not constitute a violation of this effluent limitation. In the event that ammonia in the effluent consistently causes toxicity, the Board may consider modifying or granting an exception to this effluent limitation if the discharger demonstrates that ammonia in the effluent is not impacting receiving water quality or beneficial uses. Anti-backsliding will not apply to such a modification because the limit does not apply to ammonia toxicity.

5.2 Chronic Toxicity:

The discharge is classified as a deep water discharge. The chronic toxicity effluent limitation is based on a dilution ratio of 10:1.

The combined effluent as discharged, shall meet both of the following chronic toxicity limitations:

a. an eleven sample median value[1] of 10 TUc[2]; and

b. a 90 percentile value[3] of 20 TUc[2].

[1] A test sample showing chronic toxicity greater than 10 TUc represents consistent toxicity and a violation of this limitation, if five or more of the past ten or less tests show chronic toxicity greater than 10 TUc.

[2] A TUc equals 100/NOEL. The NOEL is the no observable effect level, determined from IC, EC, or NOEL values. These terms and their usage in determining compliance with the limitations are defined in Attachment A of this Order. The NOEL shall be based on a critical life stage test using the most sensitive test species as specified by the Executive Officer. The Executive Officer may specify two compliance species if test data indicate that there is alternating sensitivity between the two species. If two compliance test species are specified, compliance shall be based on the maximum TUc value for the discharge sample based on a comparison of TUc values obtained through concurrent testing of the two species.

[3] A test sample showing chronic toxicity greater than 20 TUc represents consistent toxicity and a violation of this limitation if one or more of the past ten or less samples shows toxicity greater than 20 TUc.

Board staff is in process of evaluating the second round of the Effluent Toxicity Characterization Program data. The Board may revise the chronic toxicity effluent limitation based on the results of this evaluation.

6. TOXIC SUBSTANCES EFFLUENT LIMITATIONS: The discharge of combined effluent containing constituents in excess of the following concentration limits is prohibited (a,f):

Table 1
(All limits in $\mu g/\ell$)

	Constituent	Monthly Average(b)	Daily Average(b)	Interim Limits Monthly Average From 6/94 To 6/99
1.	Arsenic (h)		200	
2.	Cadmium (h)		30	
3.	Chromium (VI) (c) (h)		110	
4.	Copper		37	
5.	Lead (g)		53	
6.	Mercury	0.21	21	
7.	Nickel (g)		65	
8.	Selenium (g)		50	
9.	Silver		23	
10.	Zinc (g) (h)		580	
11.	1, 4 Dichlorobenzene	640		
12.	A-BHC	0.13		
13.	Benzene	210		
14.	B-BHC	0.46		
15.	Chlordane (d)	0.0008	0.04	
16.	Chloroform	4,800		
17.	Cyanide (e)		10	
18.	DDT (d)	0.006	0.01	
19.	Dichloromethane	16,000		
20.	Dieldrin	0.0014	0.019	
21.	Endosulfan (d)		0.87	
22.	Endrin (d)		0.023	
23.	Fluoranthene	42		
24.	G-BHC (Lindane)	0.62	1.6	
25.	Halomethanes (d)	4,800		
26.	Heptachlor	0.0017	0.036	
27.	Heptachlor Epoxide	0.0007		
28.	Hexachorobenzene	0.0069		
29.	PAHs (d)	0.31	150	10
30.	PCBs (Total) (d)	0.0007	0.03	0.2
31.	Phenol	300		
32.	TCDD Equivalents (d)	1.4E-07		1.5E-05
33.	Toxaphene (g)		0.002	
34.	Tributyltin	0.05	0.12	

Footnotes:

a. These limits are based on marine water quality objectives, and are intended to be achieved through secondary treatment and, as necessary, pretreatment and source control.
b. Limits apply to the average concentration of all samples collected during the averaging period (Daily - 24-hour period; Monthly - Calendar month).
c. The dischargers may meet this limit as total chromium.
d. See California Enclosed Bays and Estuaries Plan, April 1991, Definition of terms; and Attachment C.
e. The dischargers may demonstrate compliance with this limitation by measurement of weak acid dissociable cyanide.
f. All analyses shall be performed using current USEPA Methods, as specified in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods", SW-846, Third Edition. Detection limits, practical quantitative levels, and limits of quantitative will be taken into account in determining compliance with effluent limitations.
g. Effluent limitation may be met as a 4-day average. If compliance is to be determined based on a 4-day average, then concentrations of four 24-hour composite samples shall be reported, as well as the average of four.
h. Limit was specified in the previous permit and is lower than new limit specified in the revised Basin Plan. The dischargers have maintained compliance with this lower limit; therefore, this limit will continue to apply to the effluent, and will not be replaced with the new limit from the Basin Plan.

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 at levels that cause nuisance or adversely affect beneficial uses:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;
   b. Bottom deposits or aquatic growths to the extent that such deposits or growths cause nuisance or adversely affect beneficial uses;
   c. Alteration of temperature, turbidity, 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 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 anyone 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 0.4 mg/l as N, max.

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 dischargers 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. If the dischargers desire to dispose of sludge by a different method, a request for permit modification must be submitted to the USEPA 180 days before start-up of the alternative disposal practice. 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 dischargers.

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 dischargers 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 dischargers shall submit an annual report to the USEPA and the Board containing monitoring results and pathogen and vector attraction reduction requirements as specified by 40 CFR 503, postmarked February 19 of each year, for the period covering the previous calendar year.

7. Sludge that is disposed of in a municipal solid waste landfill must meet the requirements of 40 CFR 258. In the annual self-monitoring report, the dischargers shall include the amount of sludge disposed of, and the landfill(s) to which it was sent.

8. 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 dischargers.

9. General Provision C of this Board's "Standard Provisions and Reporting Requirements", dated August 1993, apply to sludge handling, disposal and reporting practices.

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. 89-098. Order No. 89-098 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 dischargers shall comply with all sections of this Order immediately upon adoption.

4. As new water quality objectives go into effect for San Francisco Bay (whether statewide, regional or site-specific), the effluent limitations in this permit will be modified as necessary to reflect the objectives. Adoption of the effluent limitations contained in this permit is not intended to restrict in any way future modification based on legally adopted water quality objectives.

5. Compliance with Acute Toxicity Effluent Limitation

   a. Compliance with Effluent Limitation B.5.1. (Acute Toxicity) of this Order shall be evaluated by measuring survival of three spine stickleback exposed to undiluted effluent for 96 hours in flow-through bioassays.

   b. The dischargers shall conduct a special study to measure survival of rainbow trout exposed to undiluted combined effluent. These tests can be conducted using either flow-through or static renewal bioassays. The survival of three spine stickleback and rainbow trout should be measured concurrently, by conducting two tests per month for six months. The dischargers shall submit test data acceptable to the Executive Officer, within 1 year after adoption of this Order.

      The Executive Officer may consider changing the compliance fish species and Effluent Limitation B.5.1, based on the data submitted by the dischargers.

   c. All bioassays shall be performed according to protocols approved by the USEPA or State Board, or published by the American Society for Testing and Materials (ASTM) or American Public Health Association.

6. Compliance with Chronic Toxicity Effluent Limitation

   a. The dischargers shall continue diligently with toxicity identification evaluation (TIE) efforts on the combined effluent in accordance with work plans acceptable to the Executive Officer, and shall pursue toxicity reduction evaluations (TRE) as appropriate. The dischargers shall submit quarterly reports summarizing the status of the TIE/TRE efforts. TIE/TRE efforts shall continue until the dischargers demonstrate that the discharge complies with the chronic toxicity effluent limitation. The Board recognizes that identification of causes of chronic toxicity may not be successful in all cases. Consideration of enforcement action

by the Board will be based in part on the dischargers' diligence in identifying and reducing sources of persistent toxicity.

b. The dischargers shall comply with the screening phase monitoring requirements as specified in Attachment B of this Order

7. Compliance With Toxic Substances Limitations

a. The dischargers shall comply with effluent limitations specified in Effluent Limitations B.6 immediately upon adoption of this Order.

b. The dischargers shall initiate a monitoring program using appropriate USEPA methods and detection limits, to evaluate the compliance status for all constituents listed in Effluent Limitations in B.6. Monitoring for metals, cyanide, phenols, and PAHs shall be performed biweekly during all periods of surface water discharge. For all other constituents listed in B.6, initial monitoring shall be performed for three consecutive wet months beginning with January, 1995.

8. The dischargers shall submit, by April 30, 1995, a technical report acceptable to the Executive Officer summarizing the results of the monitoring done pursuant to Provision D.7 above. This report shall include the method detection limit (MDL), and practical quantification limit (PQL) achieved at the in-house laboratory and an evaluation of compliance with the effluent limitations for each constituent. For each constituent, the MDL and PQL should be less than the effluent limit, where technically feasible. For constituents analyzed by an outside laboratories, MDLs and PQLs should be provided to the dischargers by outside laboratories. The technical report shall contain recommendations for further effluent sampling and analysis, both with respect to type and frequency of analysis. This NPDES permit shall be subsequently modified to include effluent sampling for the subject constituents.

If the monitoring results document that the effluent cannot meet the limits, the dischargers may petition for interim limits and longer compliance periods. This petition must be based on the planning and implementation of an aggressive pollution prevention program.

9. Pollution Prevention Program

a. The dischargers shall continue to participate in the Pollution Prevention Program (previously known as the Waste Minimization Program) as described in the Basin Plan, Chapter IV, Waste Minimization Section.

b. The dischargers shall continue to implement and expand its existing Pollution Prevention Program in order to reduce the pollutant loadings to the treatment plant and, subsequently, to the receiving waters. The dischargers shall focus on

copper, diazinon, and the constituents found to be in non-compliance with the Basin Plan Table IV-1B limits. For copper, the goal should be 20% reduction from a baseline annual mass loading of 3290 pounds per year, through a combination of the efforts of four EBDA member agencies, DSRSD, Livermore, and Hayward Marsh.

c. The dischargers shall continue to submit annual reports by July 15th and progress reports by January 15th of each year that are acceptable to the Executive Officer. The reports should include (1) documentation of its efforts and progress, (2) evaluation of the program's accomplishments, and (3) identify specific tasks and establish time schedules for future efforts. Duplicate copies of the reports shall be provided: one to the NPDES Permit Case Handler and one to the Pollution Prevention Coordinator.

d. The dischargers shall complete implementation of the source reduction plan in order to reduce pollutant loading to the maximum extent practicable.

10. The discharger shall conduct a study to investigate the extent and degree of fish contamination in San Francisco estuary, in conjunction with other dischargers. The study should focus on PCBs, dioxin, and other bioaccumulative pollutants which have been measured in the estuary, either in water in concentrations exceeding EPA human health criteria, or in fish tissue in concentrations that pose a risk to human health. The study shall be designed based on results of the Regional Monitoring Program (RMP) and the fish contamination study conducted by the Regional Board in 1994, in order to address issues left unresolved by the 1994 fish contamination study. A study plan and schedule shall be submitted to the Executive Officer for approval by April 1, 1995, and shall reflect a comparable level of effort to the Regional Board's 1994 fish contamination study. The study shall be conducted in the 1995-1996 timeframe. The discharger may comply with this provision by funding the study through the RMP, however, such funding must be provided in addition to the level of funding already committed by the discharger to the RMP for 1995.

11. If the dischargers choose 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.

12. The dischargers shall implement and enforce their approved pretreatment program in accordance with Board Order 89-179 and its amendments thereafter. The dischargers' responsibilities include, but are not limited to:

    a. Enforcement of National Pretreatment Standards (e.g. prohibited discharges, Categorical Standards, local limits) in accordance with 40 CFR 403.5 and Section 307(b) and (c) of the Clean Water Act.

    b. Implementation of the pretreatment program in accordance with legal authorities, policies, procedures, and financial provisions described in the General Pretreatment regulations (40 CFR 403) and its approved pretreatment program.

    c. Submission of annual and quarterly reports to USEPA and the State as described in Board Order 89-179, and its amendments thereafter.

13. The dischargers shall review, and update as necessary, their Operations and Maintenance Manuals, annually, or within 90 days of completion of any significant facility or process changes. The report 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, shall be submitted to the Board as a part of the Annual Report, as described in Section F.5, Part A, of the attached **Self-Monitoring Program**.

14. Annually, the dischargers shall review and update as necessary, their Contingency Plans as required by Board Resolution 74-10. The discharge of pollutants in violation of this Order where the dischargers have 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. The discharger may include in its Contingency Plan elements to satisfy the requirements of Standard Provisions and Reporting Requirements D (Treatment Reliability) and E.5. (Spill Prevention Contingency Plans). Plan revisions, or a letter stating that no changes are needed, shall be submitted to the Board as a part of the Annual Report, as described in Section F.5, Part A, of the attached **Self-Monitoring Program**.

15. The dischargers shall implement a program to regularly review and evaluate their 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 dischargers' service responsibilities. Records documenting this program shall be kept at each individual treatment facility and made available to the Regional Board staff upon request. A Treatment Facilities

Evaluation Program summary report discussing the status of this evaluation program, including any recommended or planned actions, shall be submitted to the Board by April 15 of each year.

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

17. The dischargers shall comply with all applicable items of the attached "**Standard Provisions and Reporting Requirements** " dated August 1993, or any amendments thereafter.

18. 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.

19. This Order expires on June 15, 1999. The dischargers must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days before this expiration date as application for reissuance of waste discharge requirements.

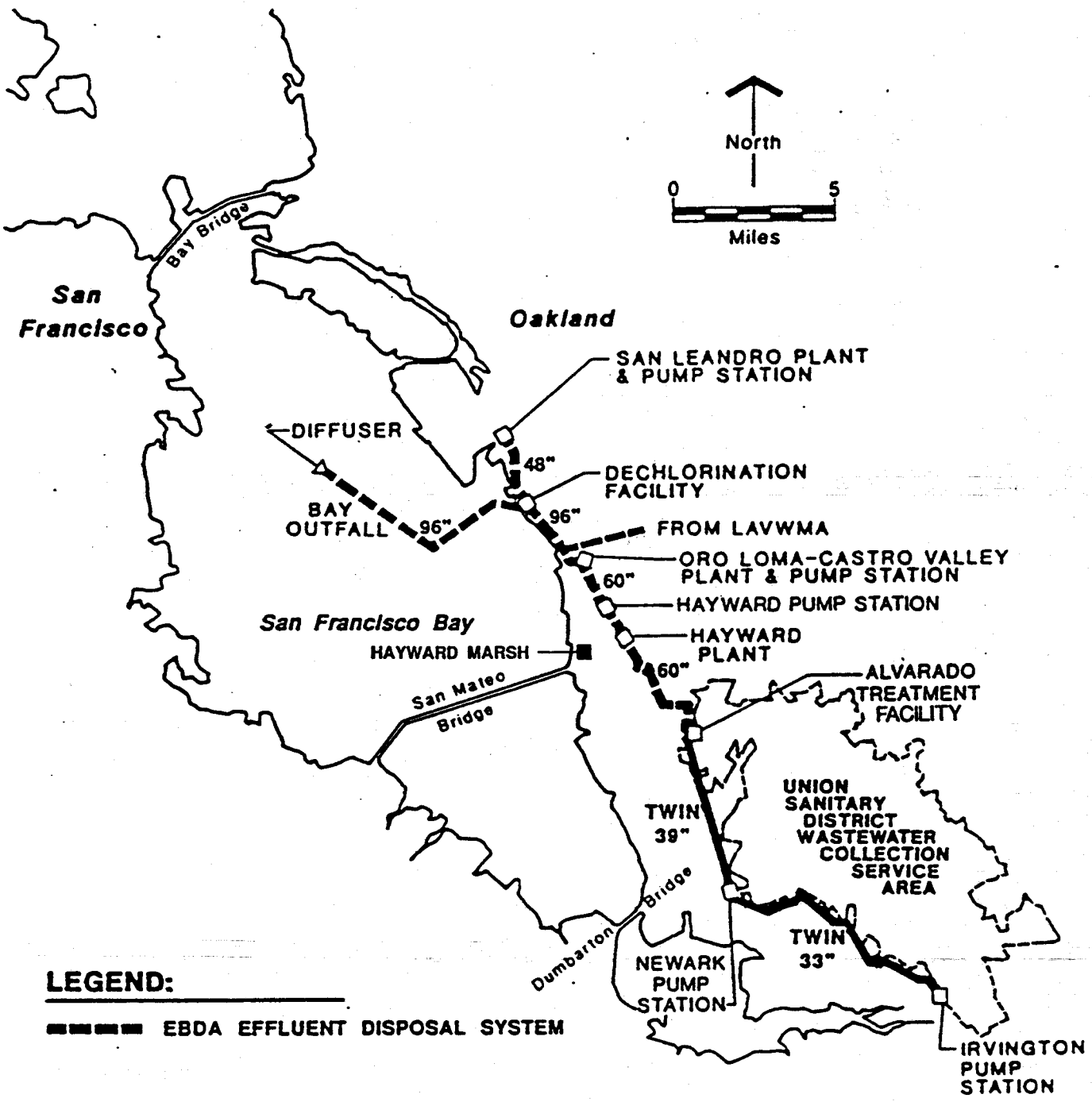
20. This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, EPA, has no objection. If the Regional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

I, Steven R. Ritchie, 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 June 15, 1994.

STEVEN R. RITCHIE
Executive Officer

Attachments:

Figure 1 - Facility Map
Attachment A - Definition of NOEL
Attachment B - Chronic Toxicity Screening Phase Monitoring Requirements
Attachment C - Definition of Terms for Chemical Constituents
Self-Monitoring Program
Standard Provisions and Reporting Requirements - August 1993
Resolution No. 74-10



Location Map

ATTACHMENT A

DEFINITION OF NO OBSERVED EFFECT LEVEL

No observed effect level (NOEL) for compliance determination is equal to IC_{25} or EC_{25}. If the IC_{25} or EC_{25} cannot be statistically determined, the NOEL shall be equal to the NOEC derived using hypothesis testing.

Effective concentration (EC) is a point estimate of the toxicant concentration that would cause an adverse effect on a quantal, "all or nothing," response (such as death, immobilization, or serious incapacitation) in a given percent of the test organisms. If the effect is death or immobility, the term lethal concentration (LC) may be used. EC values may be calculated using point estimation techniques such as probit, logit, and Spearman-Karber. EC_{25} is the concentration of toxicant (in percent effluent) that causes a response in 25% of the test organisms.

Inhibition Concentration (IC) is a point estimate of the toxicant concentration that would cause a given percent reduction in a non-lethal, non-quantal biological measurement, such as growth. For example, an IC_{25} is the estimated concentration of toxicant that would cause a 25% reduction in average young per female or growth. IC values may be calculated using a linear interpolation method such as EPA's Bootstrap Procedure.

No observed effect concentration (NOEC) is the highest tested concentration of an effluent or a toxicant at which no adverse effects are observed on the aquatic test organisms at a specific time of observation. It is determined using hypothesis testing.

ATTACHMENT B

SCREENING PHASE MONITORING REQUIREMENTS

A. Screening phase compliance monitoring is required:

1. Subsequent to any significant change in the nature of the effluent discharged through changes in sources or treatment, except those changes resulting from reductions in pollutant concentrations attributable to pretreatment, source control, and waste minimization efforts; or

2. Prior to Permit reissuance. Screening phase monitoring data shall be included in the NPDES Permit application for reissuance. The information shall be as recent as possible, but may be based on screening phase monitoring conducted within 5 years before the permit expiration date.

B. Design of the screening phase shall, at a minimum, consist of the following elements:

- Use of test species specified in Table B-1 and B-2 (attached), and use of the protocols referenced in those tables, or as approved by the Executive Officer;

- Two stages:

  Stage 1 shall consist of a minimum of one battery of tests conducted concurrently. Selection of the type of test species and minimum number of tests shall be based on Table B-3 (attached); and

  Stage 2 shall consist of a minimum of two test batteries conducted at a monthly frequency using the three most sensitive species based on the Stage 1 test results and as approved by the Executive Officer.

- Appropriate controls; and

- Concurrent reference toxicant tests.

C. The discharger shall submit a screening phase proposal to the Executive Officer for approval. The proposal shall address each of the elements listed above.

TABLE B-1
CRITICAL LIFE STAGE TOXICITY TESTS FOR ESTUARINE WATERS

SPECIES	EFFECT	TEST DURATION	REFERENCE
alga (Skeletonema costatum) (Thalassiosira pseudonana)	growth rate	4 days	1
red alga (Champia parvula)	number of cystocarps	7-9 days	5
giant kelp (Macrocystis pyrifera)	percent germination; germ tube length	48 hours	3
abalone (Haliotis rufescens)	abnormal shell development	48 hours	3
oyster (Crassostrea gigas) mussel (Mytilus edulis)	abnormal shell development; percent survival	48 hours	2
Echinoderms (urchins - Strongylocentrotus purpuratus, S. franciscanus); (sand dollar - Dendraster excentricus)	percent fertilization	1 hour	4
shrimp (Mysidopsis bahia)	percent survival; growth; fecundity	7 days	5
silversides (Menidia beryllina)	larval growth rate; percent survival	7 days	5

TOXICITY TEST REFERENCES

1. American Society for Testing Materials (ASTM). 1990. Standard Guide for conducting static 96-hour toxicity tests with microalgae. Procedure E 1218-90. ASTM, Philadelphia, PA.

2. American Society for Testing Materials (ASTM). 1989. Standard Practice for conducting static acute toxicity tests with larvae of four species of bivalve molluscs. Procedure E 724-89. ASTM, Philadelphia, PA.

3. Anderson, B.B. J.W. Hunt, S.L. Turpen, A.R. Coulon, M. Martin, D.L. McKeown, and F.H. Palmer. 1990. Procedures manual for conducting toxicity tests developed by the marine bioassay project. California State Water Resources Control Board, Sacramento.

4. Dinnel, P.J., J. Link, and Q. Stober. 1987. Improved methodology for sea urchin sperm cell bioassay for marine waters. Archives of Environmental Contamination and Toxicology 16:23-32. and S.L. Anderson. September 1, 1989. Technical Memorandum. San Francisco Bay Regional Water Quality Control Board, Oakland, CA.

5. Weber, C.I., W.B. Horning, II, D.J. Klem, T.W. Neiheisel, P.A. Lewis, E.L. Robinson, J. Menkedick, and F. Kessler (eds.). 1988. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to marine and estuarine organisms. EPA-600/4-87/028. National Technical Information Service, Springfield, VA.

TABLE B-2
CRITICAL LIFE STAGE TOXICITY TESTS FOR FRESH WATERS

SPECIES	EFFECT	TEST DURATION	REFERENCE
fathead minnow (Pimephales promelas)	survival; growth rate	7 days	6
water flea (Ceriodaphnia dubia)	survival; number of young	7 days	6
alga (Selenastrum capricornutum)	cell division rate	4 days	6

TOXICITY TEST REFERENCE

6. Horning, W.B. and C.I. Weber (eds.). 1989. Short-term methods for estimating the chronic toxicity of effluents and receiving waters to freshwater organisms. Second edition. U.S. EPA Environmental Monitoring Systems Laboratory, Cincinnati, Ohio. EPA/600/4-89/001.

TABLE B-3
TOXICITY TEST REQUIREMENTS FOR STAGE ONE SCREENING PHASE

REQUIREMENTS	RECEIVING WATER CHARACTERISTICS		
	DISCHARGES TO COAST	DISCHARGES TO SAN FRANCISCO BAY	
	Ocean	Marine	Freshwater
Taxonomic Diversity	1 plant 1 invertebrate 1 fish	1 plant 1 invertebrate 1 fish	1 plant 1 invertebrate 1 fish
Number of tests of each salinity type			
Freshwater	0	1 or 2	3
Marine	4	3 or 4	0
Total number of tests	4	5	3

The fresh water species may be substituted with marine species if:

1) the salinity of the effluent is above 5 parts per thousand (ppt) greater than 75% of the time, or

2) the ionic strength (TDS or conductivity) of the effluent at the test concentration used to determine compliance is documented to be toxic to the test species.

Marine refers to receiving water salinities greater than 5 ppt at least 75% of the time during a normal water year.
Fresh refers to receiving water with salinities less than 5 ppt at least 75% of the time during a normal water year.

ATTACHMENT C

DEFINITION OF TERMS FOR CHEMICAL CONSTITUENTS

CHLORDANE shall mean the sum of chlordane-α, chlordane-γ, chlordene-α, chlordene-γ, nonachlor-α, nonachlor-γ, and oxychlordane.

CHROMIUM VI limit may be met by analysis for total or hexavalent chromium.

DDT shall mean the sum of the p,p' and o,p' isomers of DDT, DDD (TDE), and DDE.

ENDOSULFAN shall mean the sum of endosulfan-α, endosulfan-β, and endosulfan sulfate.

ENDRIN shall mean the sum of endrin and endrin aldehyde.

HALOMETHANES shall mean the sum of bromoform, bromomethane (methyl bromide), chloromethane (methyl chloride), chlorodibromomethane, and dichlorobromomethane.

PAHs (polynuclear aromatic hydrocarbons) shall mean the sum of acenaphthylene, anthracene, 1,2-benzanthracene, 3,4-benzofluoranthene, benzo[k]fluoranthene, 1,12-benzoperylene, benzo[a]pyrene, chrysene, dibenzo[a,h]anthracene, fluorene, indeno[1,2,3-cd]pyrene, phenanthrene, and pyrene.

PCBs (polychlorinated biphenyls) shall mean the sum of chlorinated biphenyls whose analytical characteristics resemble those of Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, and Aroclor-1260.

TCDD EQUIVALENTS shall mean the sum of the concentrations of chlorinated dibenzodioxins (2,3,7,8-CDDs) and chlorinated dibenzofurans (2,3,7,8-CDFs) multiplied by their respective toxicity equivalence factors, as shown in the table below.

Isomer Group	Toxicity Equivalence Factor
2,3,7,8-tetra CDD	1.0
2,3,7,8-penta CDD	0.5
2,3,7,8-hexa CDD	0.1
2,3,7,8-hepta CDD	0.01
octa CDD	0.001
2,3,7,8-tetra CDF	0.1
1,2,3,7,8-penta CDF	0.05
2,3,4,7,8-penta CDF	0.5
2,3,7,8-hexa CDFs	0.1
2,3,7,8-hepta CDFs	0.01
octa CDFs	0.001

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

EAST BAY DISCHARGERS AUTHORITY
CITY OF HAYWARD
CITY OF SAN LEANDRO
ORO LOMA/CASTRO VALLEY SANITARY DISTRICT
UNION SANITARY DISTRICT

AND

LIVERMORE-AMADOR VALLEY WATER MANAGEMENT AGENCY

NPDES NO. CAOO37869
ORDER NO. 94-072

CONSISTING OF
PART A, DATED AUGUST 1993
AND PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT (ALL EBDA TREATMENT PLANTS)

Station	Description
A-1	At any point in the individual treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment or sidestream.

B. EFFLUENT (ALL EBDA TREATMENT PLANTS AND OUTFALL)

Station	Description
E-1	At any point in the EBDA common outfall at which all waste tributary to that outfall is present.
E-2	At any point in the individual treatment plant facilities at which adequate disinfection has taken place and just prior to where the individual facility transfers control of its effluent to EBDA facilities. Upon approval of the Executive Officer may be the same as E-1.

C. RECEIVING WATERS (SAN FRANCISCO BAY)

Station	Description
C1, C2, C4	Located per station 1, 2, and 4 respectively as shown in Figure 1.
C-R (C3)	Reference station located at station 3 as shown on Figure 1.

D. LAND OBSERVATIONS (ALL EBDA TREATMENT PLANTS AND DECHLORINATION FACILITY)

Station	Description
P-1 through P-n	Located at the corners and midpoints of the perimeter fenceline surrounding the individual and EBDA facilities (A sketch showing the locations of these stations will accompany each report).

E. OVERFLOWS AND BYPASSES (ALL EBDA TREATMENT PLANTS, COLLECTION SYSTEMS, INTERCEPTOR AND OUTFALL)

Station	Description
O-1 through O-n	Bypass or overflows from manholes, pump stations, interceptors, or collection system.

NOTE:

1. A map and description of each known or observed overflow or bypass location shall accompany each monthly report. A summary of these occurrences and their locations shall be included with the Annual Report for each calendar year.

II. CHRONIC TOXICITY MONITORING REQUIREMENT

A. Test Species and Frequency: The discharger shall collect a 24-hour composite sample of the treatment plant effluent at the station E-1 or E-2, for critical life stage toxicity testing in accordance with the attached Table 1. For toxicity tests requiring renewals, 24-hour composite samples collected on consecutive days are required.

B. Methodology: Sample collection, handling and preservation shall be in accordance with EPA protocols. The test methodology used shall be in accordance with the references cited in Order No. 92-104, or as approved by the Executive Officer. A concurrent reference toxicant test shall be performed for each test.

C. Dilution Series: The discharger shall conduct tests at 50%, 40%, 25%, and 15%. The "%" represents percent effluent as discharged.

III. CHRONIC TOXICITY REPORTING REQUIREMENTS

A. Routine Reporting: Toxicity test results for the current reporting period shall include at a minimum, for each test

1. sample date(s)
2. test initiation date
3. test species
4. end point values for each dilution (e.g. number of young, growth rate, percent survival)
5. NOEC value(s) in percent effluent
6. IC_{15}, IC_{25}, IC_{40}, and IC_{50} values (or EC_{15}, EC_{25} ... etc.) in percent effluent
7. TUc values (100/NOEC, $100/IC_{25}$, and $100/EC_{25}$)
8. Mean percent mortality ($\pm$s.d.) after 96 hours in 100% effluent (if applicable)

9. NOEC and LOEC values for reference toxicant test(s)
10. IC_{50} or EC_{50} value(s) for reference toxicant test(s)
11. Available water quality measurements for each test (e.g. pH, D.O, temperature, conductivity, hardness, salinity, ammonia)

B. Compliance Summary: Each self-monitoring report shall include a summary table of chronic toxicity data from at least eleven of the most recent samples. The information in the table shall include the items listed above under Section A item numbers 1, 3, 5, 6(IC_{25} or EC_{25}), 7, and 8.

C. Reporting Raw Data in Electronic Format: On a quarterly basis, by February 15, May 15, August 15, and December 15 of each year, the discharger shall report all chronic toxicity data for the previous calendar quarter in the format specified by the Statewide Chronic Toxicity Database Management System.

IV. SCHEDULE OF SAMPLING, ANALYSIS AND OBSERVATIONS

The schedule of sampling, analysis and observation shall be that given in Table 1.

V. REPORTING REQUIREMENTS

1. General Reporting Requirements are described in Section C of this Board's "Standard Provisions and Reporting Requirements", dated August 1993.

2. Self-Monitoring Reports for each calendar month shall be submitted monthly, by the twenty second day of the following month. The required contents of these reports are described in Section F.4. of Part A.

3. An Annual Report for each calendar year shall be submitted to the Board by February 15th of the following year. The required contents of the annual report are described in Section F.5. of Part A.

4. Any overflow and/or bypass of wastewater in excess of 1,000 gallons, or significant non-compliance incident that may endanger health or the environment, shall be reported according to the Sections F.1 and F.2 of Part A.

I, Steven R. Ritchie, Executive Officer, hereby certify that this Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 94-072.

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 authorized by the Executive Officer.

3. Is effective on the date shown below.

STEVEN R. RITCHIE
Executive Officer

Effective Date: 6/16/94

Attachment:
A. Table 1

TABLE 1
SCHEDULE OF SAMPLING, MEASUREMENTS, AND ANALYSIS (1,4,7)
East Bay Dischargers Authority

SAMPLING STATION	A-1	E-1			E-2			All P Sta.	All C Sta.
TYPE OF SAMPLE	C-24	G(3)	C-24	Cont.	G(3)	C-24	Cont.	O	G(3)
Flow Rate (mgd)	D			D			D		
CBOD, 5-day, 20 °C (mg/l & Kg/day) (2)	W		W			W			
Total Suspended Solids (mg/l & Kg/day)	W		W			W			
Chlorine Residual & Dosage (mg/l & Kg/day) (5)		H or Cont.			H or Cont.				
Settleable Matter (ml/hr. & cu.ft./day)		W							
Coliform (total or Fecal) (MPN/100 ml)		W			W				
Acute Toxicity-96 hr. (% survival)				2/M			2/M		
Chronic Toxicity			M						
Dissolved Oxygen (mg/l & % saturation)									Q
Sulfides (mg/l if DO<5.0 mg/l)									Q
pH (Units)		D							Q
Ammonia Nitrogen (mg/l & Kg/day)			2/M						Q
Nitrate Nitrogen (mg/l & Kg/day)									
Temperature (°C)		M							Q
Arsenic (µg/l & Kg/day)	Q		2/M			M			
Cadmium (µg/l & Kg/day)	Q		2/M			M			
Chromium (µg/l & Kg/day)	Q		2/M			M			
Copper (µg/l & Kg/day)	Q		W			M			
Cyanide (µg/l & Kg/day)	Q		M			M			
Lead (µg/l & Kg/day)	Q		2/M			M			
Mercury (µg/l & Kg/day)	Q		2/M			M			

TABLE 1 (Continued)
SCHEDULE OF SAMPLING, MEASUREMENTS, AND ANALYSIS (1,4,7)
East Bay Dischargers Authority

SAMPLING STATION	A-1	E-1			E-2			All P Sta.	All C Sta.
TYPE OF SAMPLE	C-24	G(3)	C-24	Cont.	G (3)	C-24	Cont.	O	G(3)
Nickel (µg/l & Kg/day)	Q		2/M			M			
Selenium (µg/l & Kg/day)	Q		2/M			M			
Silver (µg/l & Kg/day)	Q		2/M			M			
Zinc (µg/l & Kg/day)	Q		2/M			M			
Phenolic Compounds (µg/l & Kg/day)	Q		M			M			
PAHs (µg/l & Kg/day)	Q		2/M			M			
All applicable Standard Observations								W	
Organic Priority Pollutants (µg/l & Kg/day) (6)			Y				Y		
Un-ionized Ammonia (mg/l)									2/M

LEGEND

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample (24-hour)
Cont. = continuous sampling
O = observation

TYPES OF STATIONS

E = waste effluent stations
C = receiving water stations
L = basin and/or pond levee stations

FREQUENCY OF SAMPLING

E = each occurrence
H= once each hour
D = once each day
W = once each week
M = once each month
Y = once each year

2/H = twice per hour
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/Y = twice per year
Q = quarterly, once each in Mar., June, Sept., & Dec.

2H = every 2 hours
2D = every two days
2W = every two weeks
2M = every two months
Cont. = continuous

NOTES FOR TABLE 1:

(1) During any day when bypassing occurs from any treatment unit(s) in the plant or to the emergency outfall, the monitoring program for the effluent and any nearshore discharge shall include the following in addition to the above schedule for sampling, measurement and analysis:

a. Composite sample for BOD and Total Suspended Solids.

b. Grab samples for Total Coliform, Settleable Matter, and Oil and Grease.

c. Continuous monitoring of flow.

d. Continuous or every two hour monitoring of chlorine residual.

(2) Percent removal (effluent vs. influent) shall also be reported.

(3) Grab samples shall be taken on day(s) of composite sampling.

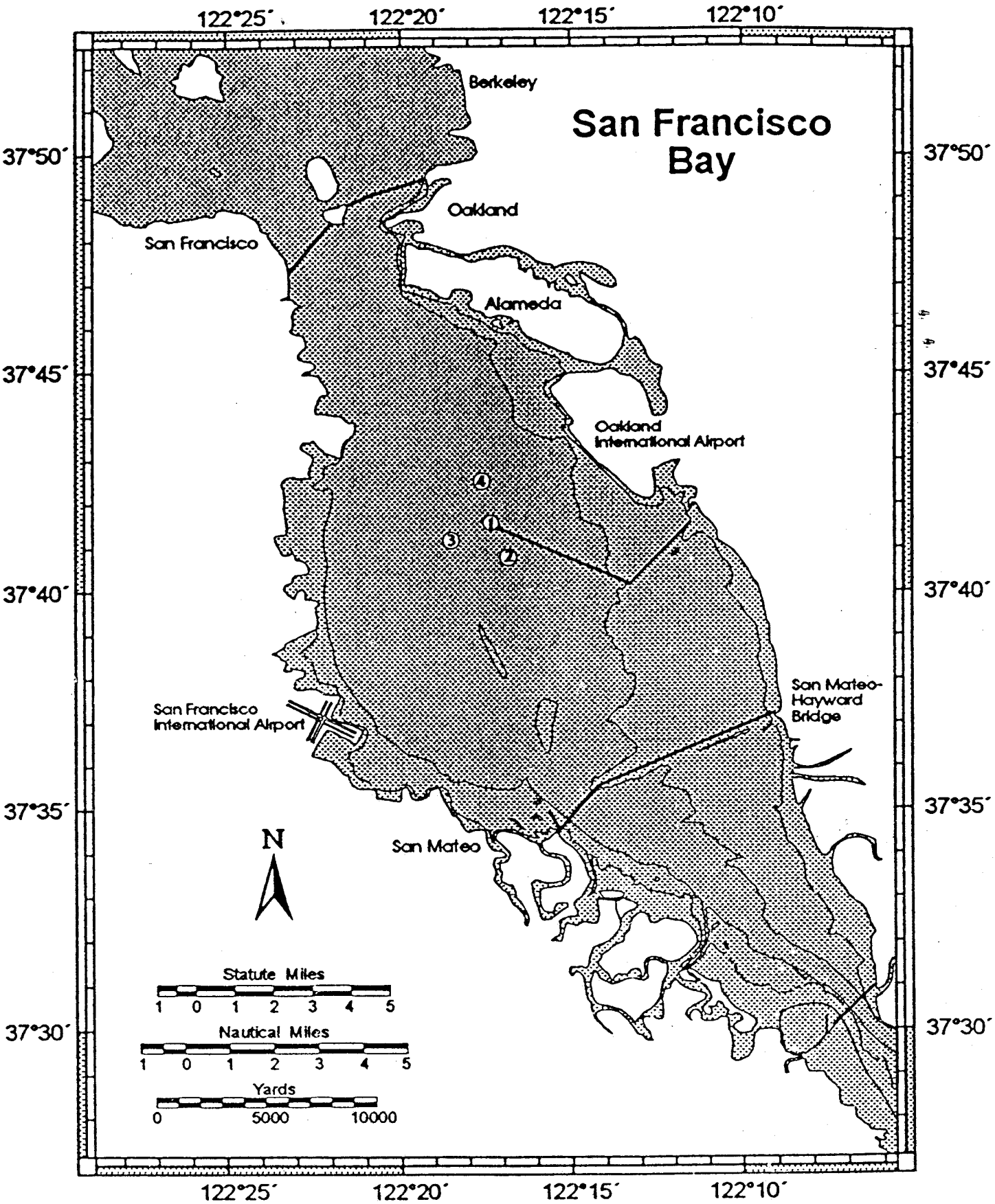
(4) If any effluent sample is in violation of limits, except those for metals, cyanide, and organics, sampling shall be increased for that parameter to at least daily or grater until compliance is demonstrated in two successive samples. Receiving water violations shall be reported in the monthly report; increased receiving water monitoring may be required. Compliance measurements represent compliance status for the time period between measurements.

(5) Chlorine residual analyzers shall be calibrated against grab samples as frequently as necessary to maintain accurate control and reliable operation. If an effluent violation is detected, grab samples shall be taken every 30 minutes until compliance is achieved.

(6) Organic priority pollutants and other constituents of the September 16, 1992 Basin Plan amendments must be monitored on a monthly basis for three months pursuant to Provision D.6. of this permit (i.e. three months wet season) to determine whether any of these constituents are present in excess of their corresponding effluent limits. The frequency of sampling will revert to once per year, as indicated in Table 1, for constituents that are determined to be non-detectable, with the exception of TCDD equivalents, for which the frequency of sampling will revert to once per permit reissuance. If the three months of monitoring show that concentrations of a specific pollutant are near or above its effluent limit, the Board may require sampling frequencies grater than once per year.

(7) Monthly sampling dates and approximate times shall coincide with receiving water monitoring conducted by EBDA.

(8) Sludge disposal shall be reported monthly. Daily records shall be kept of the quantity (cu. yds. or cu. ft.) and solids content (%) of dewatered sludge disposed of and the location of disposal.



Fugure 1
Receiving Water
Monitoring Stations