

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 83-4

AN ORDER RESCINDING ORDER NO. 72-72

INDEPENDENT RENDERERS, INC.  
RICHMOND, CONTRA COSTA COUNTY

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

1. On September 26, 1972, the Regional Board adopted Order No. 72-72 prescribing waste discharge requirements for Independent Renderers, Inc., hereinafter called the discharger.
2. In a letter dated September 22, 1982, the discharger advised that, as a result of operational changes, discharge of all process wastewater had been eliminated, and requested that Order No. 72-72 be rescinded.
3. On November 5, 1982, an inspection by Regional Board staff verified that discharge of all process wastewater had ceased and that the wastewater is now being completely recycled. The discharger is not in need of Waste Discharge Requirements for the small amount of rainwater runoff from the roofed area of the plant.
4. The Board has notified the discharger and interested agencies and persons of its intent to rescind waste discharge requirements, and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
5. The Board in a public meeting heard and considered all comments pertaining to the rescinding of waste discharge requirements.

IT IS HEREBY ORDERED that Regional Board Order No. 72-72 is rescinded.

I, Fred H. Dierker, 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 February 16, 1983.

FRED H. DIERKER  
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 83-5

NPDES PERMIT NO. CA0038636

WATER RECLAMATION AND  
WASTE DISCHARGE REQUIREMENTS FOR:

HAYWARD SHORELINE MARSH  
EAST BAY REGIONAL PARK DISTRICT  
EAST BAY DISCHARGERS AUTHORITY  
HAYWARD, ALAMEDA COUNTY

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

1. East Bay Dischargers Authority (hereinafter producer) and East Bay Regional Park District (hereinafter discharger) on December 16, 1982 submitted a joint Report of Waste Discharge (NPDES).
2. The discharger proposes to construct a 145 acre-fresh and brackish Marsh adjacent to San Francisco Bay on presently diked-off lands that were formerly tidal lands (as shown on the attached map, which is incorporated herein and made a part of the Order). Operation of the Marsh will utilize reclaimed secondary treated wastewater of up to 20 million gallons per day from the producer's adjacent outfall as supplied from one or more Public Owned Treatment Works. After being diluted with Bay water, the Marsh would then discharge directly to the Lower San Francisco Bay, waters of the State. While the Marsh will be operated to enhance the beneficial uses of reclaimed wastewater, derive net environmental benefits, and also meet water quality objectives, it will also be used as a research site to better understand development and management of a Marsh utilizing reclaimed wastewater.
3. In July 1982 the Board adopted an amended Water Quality Control Plan for the San Francisco Bay Basin which contains existing and potential beneficial uses for Lower San Francisco Bay; they are:
  - a. Industrial service supply
  - b. Navigation
  - c. Water contact recreation and non-contact water recreation
  - d. Commercial and sport fishing
  - e. Wildlife habitat
  - f. Preservation of rare and endangered species

- g. Fish migration and spawning
  - h. Shellfish harvesting
  - i. Estuarine Habitat
4. The Basin Plan also contains a prohibition of discharge which affects the proposed discharge:

"1. Any wastewater which has particular characteristics of concern to beneficial uses at any point at which the wastewater does not receive a minimum initial dilution of at least 10:1 or into any non-tidal water, dead-end slough, similar confined waters, or any immediate tributaries thereof."

The Basin Plan also contains a provision for exceptions to the prohibition where:

- "b) a discharge is approved as part of a reclamation project;
  - or
  - c) it can be demonstrated that net environmental benefits will be derived as a result of the discharge."
5. As a reclamation project the proposed Marsh qualifies for Board consideration of an exception to the prohibition.
6. The Board has adopted Resolution No. 77-1 specifically establishing its Policy regarding the use of wastewater to create, restore, maintain and enhance Marshlands. The Policy also specifies the criteria under which it would consider exceptions to the Basin Plan for Marshes. In conformance with the Policy, the discharger has submitted a technical report, the "Hayward Marsh Expansion Management Plan", which allows the Board to consider exceptions to the Basin Plan. With certain minor exceptions, the proposal satisfies the requirements of the Basin Plan and Policy by demonstrating the beneficial uses of reclaimed waters and benefits that will be gained from the project and the discharger's commitment to satisfactorily operate and manage the Marsh to meet water quality objectives. The minor deficiencies in the proposed Marsh Management Plan that need to be resolved prior to commencement of discharge or that will be an objective of the Marsh operations are:
- (a) current state-of-the-art does not allow for determination of the exact optimum flow to maintain water quality objectives and beneficial uses before discharge commences (this is an objective of the Marsh operations and research);

- (b) whether the discharge from the marsh may require areas of the Bay to be closed to shellfish harvesting;
  - (c) the institutional framework and technical requirements to assure marsh operations and Bay protection during contingency operations; and
  - (d) plans/programs to minimize public contact with reclaimed wastewater.
7. Section 13523 of the California Water Code provides that a regional board, after consulting with and receiving the recommendations of the State Department of Public Health, and if it determines such action to be necessary to protect the public health, safety, or welfare, shall prescribe water reclamation requirements for water which is used or proposed to be used as reclaimed water. The use of reclaimed water for the purposes specified in paragraph 2, could affect the public health, safety, or welfare, and requirements for those uses are therefore necessary in accordance with the Water Code.

Board Basin Plan requirements for reclaimed water use such as proposed would normally require a median coliform limit of 23 MPN/100 ml to protect public health. The discharger has proposed a plan to State Department of Health Services (SDOHS) to restrict public access to the Marsh to allow for consideration of a higher coliform limit. The SDOHS has reviewed and concurred, by letter of January 27, 1983, with the discharger's proposal (with additional recommended restrictions) and finds that a median effluent coliform limit of 240 MPN/100 ml to the marsh would be adequate at this time to protect public health. SDOHS concurrence also includes the provision that the coliform limit be subject to review if shellfish harvesting is proposed and considered in nearby waters.

Based upon the information available, an exception to Board Basin Plan requirements that would allow a median effluent coliform limit to the Marsh of 240 MPN/100 ml is appropriate because it will protect known beneficial uses, net environmental benefits still appear significant, the action is not irreversible and can be reviewed, and the exception has the concurrence of the SDOHS.

3. The discharger has adopted a Conditional (Mitigated) Negative Declaration for the proposed project in accordance with the California Environmental Quality Act (CEQA). Significant water quality impacts identified in the Negative Declaration determined that the project would destroy a seasonal wetland, but it would be mitigated by the project's creation of a year-round marsh operated to create and enhance both fresh and brackish marsh habitat and vegetation.
9. The additional Board concerns identified in Finding 6 (above) will be eliminated or mitigated by adoption of these requirements regulating the discharge. Specifically, the following measures will be required or implemented by the producer and/or discharger:

- a. Requirements to operate the marsh so that water quality objectives are met, beneficial uses are not impaired, and a nuisance is not created.
  - b. Treatment requirements and monitoring to protect the potential for shellfish harvesting.
  - c. Development of a contingency operations plan to protect the Bay and to protect, operate, and maintain the marsh during periods when the producer cannot supply reclaimed wastewater (e.g., treatment plant upsets, etc.).
  - d. Implementation of a program to minimize public contact with reclaimed wastewater.
10. Some effluent limitations in this order are derived from promulgated federal guidelines (e.g. secondary for POTW), some from the Basin Plan. Together, they are considered the Best Available Technology in the judgement of the Board.

However, the producer and discharger are also hereby notified that the Board will consider amendment of these requirements as necessary to protect other beneficial uses (e.g. shellfish harvesting). The consideration of amendments will be dependent upon the demonstrated effects of the marsh operations on the other beneficial uses of the waters of the state.

11. The Board has notified the producer, discharger, and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
12. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, East Bay Regional Park District and East Bay Dischargers Authority, in order to meet the provisions contained in Division 7 of the California Water Code, and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act, and regulations and guidelines adopted thereunder, shall comply with the following:

A. Producer and Discharger Effluent Prohibitions

1. The producer (EBDA) shall not discharge reclaimed wastewater from the producer's facilities to the Marsh that is not secondary treated wastewater. The discharger (EPRPD) shall not discharge treated wastewater that has not been circulated through the Marsh and diluted with Bay water prior to discharge to Lower San Francisco Bay.
2. Discharge to the Northwest Channel is prohibited without prior approval of the Executive Officer.
3. Discharge is prohibited without prior approval of the Executive Officer of the program and facilities to restrict public access, and the contingency plan as described in Provisions D.6.

B. Producer and Discharger Effluent Limitations (to the Marsh)

1. The discharge of reclaimed wastewater to the marsh that does not meet the following limits is prohibited:

<u>Constituents</u>	<u>Units</u>	<u>Inst. Max.</u>	<u>Daily Avg.</u>	<u>7-Day Avg.</u>	<u>30-Day Avg.</u>
*a. BOD <sub>5</sub>	mg/l			45	30
*b. TSS	mg/l			45	30
*c. Oil and grease	mg/l		20		10
*d. Settleable Solids	ml/l-hr	0.2			0.1
e. Chlorine Residual	mg/l	0.0			

- \*f. pH--Not less than 6.5 nor more than 8.5 (in pH units).
- \*g. Coliform Organisms: Median MPN shall not exceed 240 coliform organisms per 100 milliliters of sample at some point in the treatment process prior to discharge. The median value will be determined from the bacteriological results of the last five (5) analyses.
- \*h. Toxicity: The survival of test organisms acceptable to the Regional Board in 96-hour bioassays of the effluent shall achieve a median 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for 10 consecutive samples.
- \*i. The arithmetic mean of values for BOD and Suspended Solids in effluent samples collected in a period of 30 consecutive days shall not exceed 15 percent of the arithmetic mean of respective values for influent samples collected at approximately the same times during the same period (i.e., 85 percent removal).

2. All above ground equipment, including pumps, piping and valves, etc. which may at any time contain waste shall be adequately and clearly identified and producer or discharger shall make all necessary provisions, to inform the public that the liquid contained is unfit for drinking.

\* For those items marked above with an asterisk (\*) the producer and /or discharger may demonstrate compliance with these requirements at the Public Owned Treatment Works discharging to the producer's outfall interceptor or at a point agreeable to the Executive Officer.

C. Marsh and Bay Receiving Water Limitations

1. The discharger shall provide sufficient circulation through the marsh to maintain the following limits of quality as shown:

Marsh and Bay:

- a. Dissolved oxygen--5.0 mg/l minimum; median dissolved oxygen for any three consecutive months shall not be less than 80% of the dissolved oxygen content at saturation.
- b. Un-ionized ammonia --  

0.025 mg/l (as N)	Annual Median
0.4 mg/l (as N)	Maximum at any time
- c. No visible, floating, suspended, or deposited oil or other products of petroleum origin;
- d. No floating, suspended, or deposited macroscopic particulate matter or foam of sewage origin;
- e. No aquatic growths in quantities sufficient to create a nuisance condition as defined in the California Water Code;
- f. No toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on wildlife, shellfish or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

For the Bay only:

- h. Chlorophyll 'a' -- less than 25 ug/l increase above background concentrations.
- i. pH -- No changes greater than 0.5 units in normal ambient Bay pH levels.
- j. Limit increase in turbidity above present natural background levels in San Francisco Bay by more than the following:

<u>San Francisco Bay Background</u>	<u>Incremental Increase</u>
50 units (JTU)	5 units, maximum
50-100 units	10 units, maximum
100 units	10% of background, maximum

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

D. Provisions

1. Neither the treatment nor the discharge of pollutants nor the management of the marsh shall create a nuisance as defined in the California Water Code.
2. The producer and discharger shall comply with all effluent, marsh, and receiving water limitations, prohibitions, and provisions of this order immediately upon commencement of operation.
3. The producer and discharger shall comply with the attached Self-Monitoring and Reporting Program as ordered by the Executive Officer.
4. The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements," dated April 1977, except A.12, B.2, and B.5.
5. The Board expects the discharger to operate and maintain the Marsh without chemical treatment (i.e., herbicides and algacides) and to implement all feasible measures prior to using chemical treatment. If chemical treatment is proposed by the discharger, then such treatment shall be in accordance with the provisions of the Basin Plan.
6. The producer and discharger shall jointly submit a technical report satisfactory to the Executive Officer not later than May 1, 1983, specifying: (a) the technical and institutional procedures to operate and maintain the Marsh and protect the Marsh and Bay during contingency operations (e.g., assurances that only secondary treated wastewater enters the marsh at proper coliform levels, for operations during periods when secondary treated wastewater can not be discharged to the marsh, etc.) and (b) a program to be implemented to minimize public contact with the reclaimed wastewater, and (c) a special receiving water monitoring plan and program to assess impacts on nearshore biota (ref. CDFG letter of 1/24.83). A copy shall also be sent to SDOIS, Sanitary Engineering Branch.
7. For purposes of enforcement of these requirements the Board will consider the discharger to have the primary responsibility for the operation of the marsh to meet water quality objectives and prevention of nuisance and the producer responsible for supplying treated reclaimed wastewater as specified in B.1 (less B.1.e.). The dechlorination basin (Basin I) is not to be considered waters of the State but as part of the treatment process under the responsibility of the discharger. Public contact with either the reclaimed water or Marsh is considered a violation of these requirements.
8. The discharger shall file a status report with the Board not later than February 16, 1986, on operations of the Marsh and derived net environmental benefit's through December 31, 1983.

9. This Order expires February 16, 1983. The discharger 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 in advance of such expiration date as application for issuance of new waste discharge requirements.
10. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective ten (10) days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify 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 February 16, 1983.

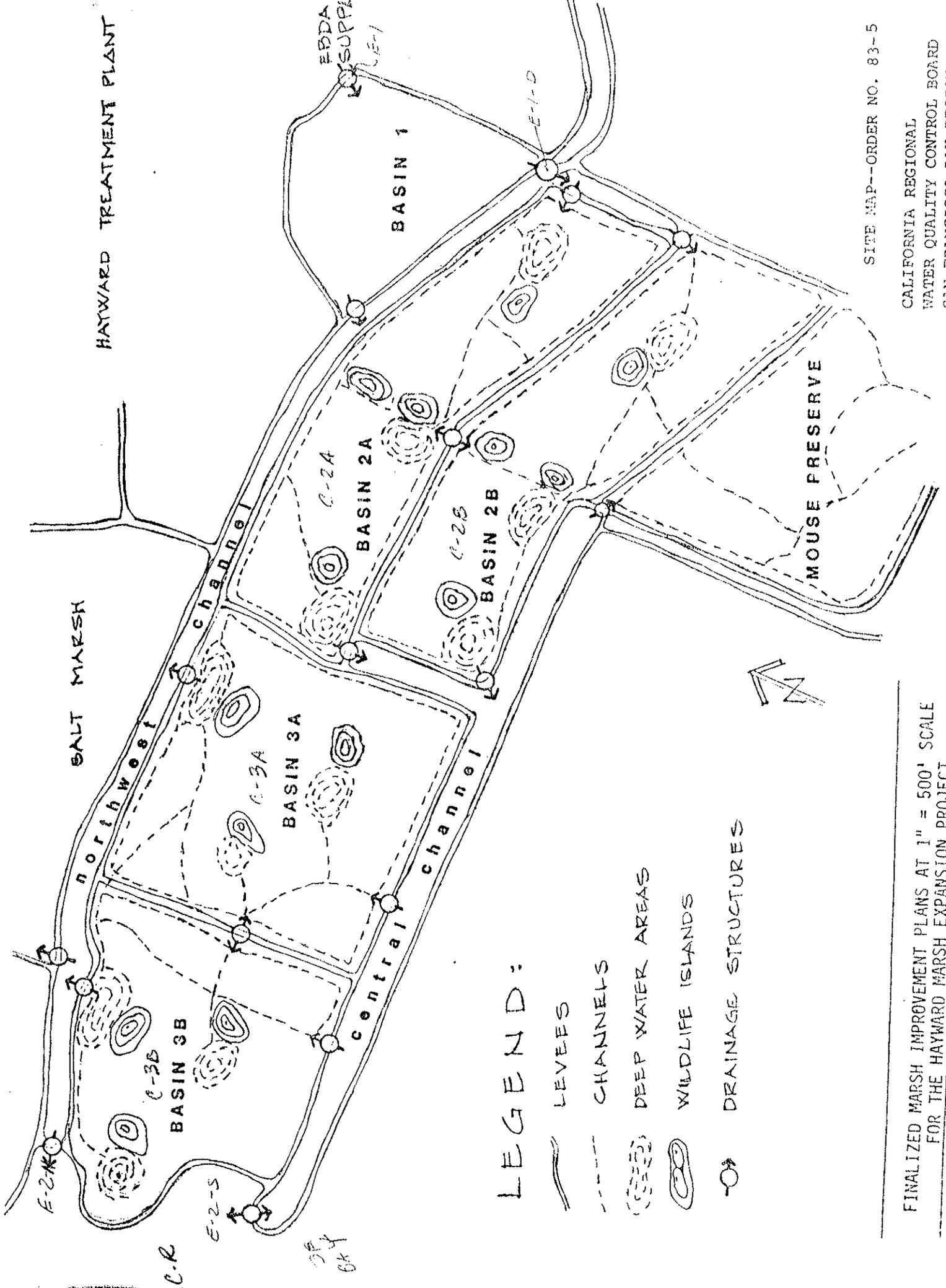
FRED H. DIERKER  
Executive Officer

Attachments:

Standard Provisions & Reporting  
Requirements,, April 1977

Self-Monitoring Program

HAYWARD TREATMENT PLANT



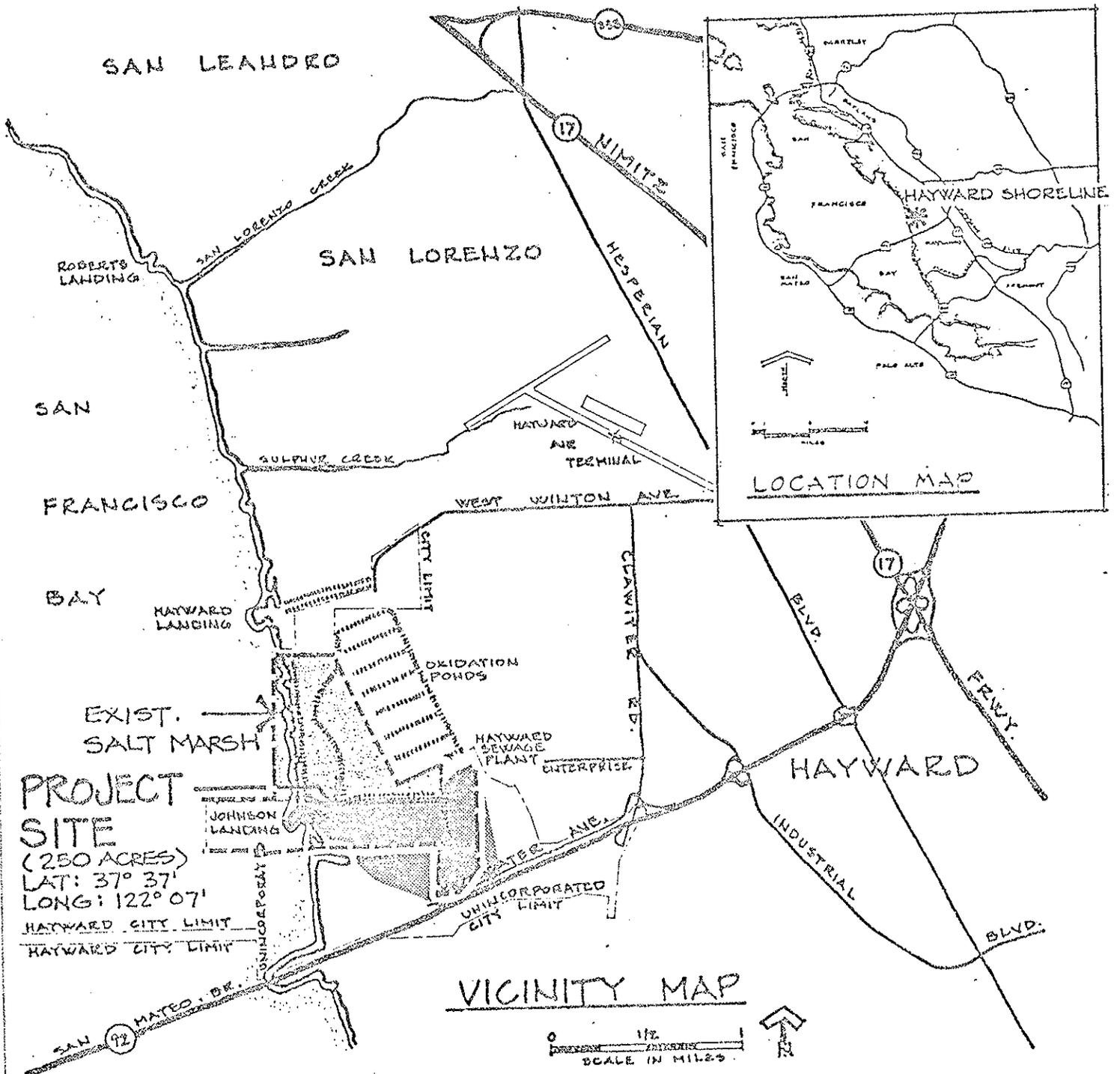
LEGEND:

- LEVEES
- CHANNELS
- DEEP WATER AREAS
- WILDLIFE ISLANDS
- DRAINAGE STRUCTURES

FINALIZED MARSH IMPROVEMENT PLANS AT 1" = 500' SCALE  
FOR THE HAYWARD MARSH EXPANSION PROJECT

SITE MAP--ORDER NO. 83-5

CALIFORNIA REGIONAL  
WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION



PARK BOUNDARIES

DATA SOURCE: BUREAU OF LAND MANAGEMENT, U.S. GEOLOGICAL SURVEY

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