

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 84-82

NPDES NO. CA0037770

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

Mountain View Sanitary District
Contra Costa County

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

1. Mountain View Sanitary District (hereinafter called the discharger) submitted a Report of Waste Discharge dated August 28, 1984 for reissuance of NPDES Permit No. CA0037770.
2. The discharger presently discharges an average dry weather flow of 1.2 million gallons per day (mgd) from its secondary biofiltration treatment plant which has a design capacity of 1.6 mgd. This plant treats domestic wastewater from a portion of Contra Costa County in the vicinity of Martinez. The treated wastewater is discharged directly to 21 acres of intensively managed marsh ponds constructed by the discharger. Effluent from these ponds is discharged to Peyton Slough and then Suisun Bay. During dry weather, the discharge constitutes all or nearly all of the flow in the marsh ponds and nontidal slough. It does not have a 10:1 dilution in receiving water.
3. The discharger dries part of its digested sludge, on sludge drying beds and drainage from the drying beds is collected in an excavation on site instead of being pumped back to the treatment plant. The remainder of the sludge is filter pressed. Filter pressed sludge and air dried sludge are piled on site for the public to haul away and use as they desire. The sludge is piled next to the marsh pond and there are no barriers to prevent rainfall runoff from contacting the sludge piles and to prevent rainfall runoff from the sludge piles from flowing into the marsh pond.

The drainage waste from the sludge drying bed may seep from the excavation or overflow into the marsh ponds. The possible seepage or overflow of sludge drying bed drainage waste and the rainfall runoff from sludge piles threaten to cause pollution of state waters and the indiscriminant use of sludge by the public is a threatened hazard to public health.

4. The discharger has acquired 22 additional acres of wetland adjacent to Peyton Slough between Waterfront Road and Interstate 680 to increase its area of managed wetlands and maximize the benefits to be derived from the quantity and quality of water that is available.

5. The discharge is presently governed by Waste Discharge Requirements in Order No. 80-8.
6. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for Suisun Bay and contiguous waters.
7. The beneficial uses of Suisun Bay, Peyton Slough and the adjacent wetlands are:
 - o Water Contact and Non-contact Water Recreation
 - o Wildlife Habitat
 - o Preservation of Rare and Endangered Species
 - o Warm Fresh Water and Estuarine Habitat
 - o Fish Migration and Spawning
 - o Industrial Service and Process Supply
 - o Fresh Water Replenishment
 - o Navigation
 - o Commercial and Sport Fishing
 - o Esthetic Enjoyment
8. Discharge to Peyton Slough is contrary to two of the Board's Basin Plan prohibitions: (1) prohibition against discharge where wastewater receives less than 10:1 initial dilution in receiving water, and (2) prohibition against discharge into non-tidal water or dead-end sloughs or similar confined water areas. The Basin Plan provides for exceptions to these prohibitions for environmentally beneficial projects and the Board has established policies for evaluating benefits of marsh creation and enhancement projects in its Resolution 77-1.
9. The marsh development creates non-contact water recreation, esthetic enjoyment and fresh water replenishment and enhances other beneficial uses of water such as wildlife habitat and warm fresh water habitat in the marsh, Peyton Slough and contiguous waters.
10. The marsh, if adequately managed, provides protection of downstream beneficial uses by virtue of the buffer capacity afforded by the large volume of stored water and the improvement in water quality which occurs in the marsh.
11. The discharger has demonstrated, according to the policy guidelines given in Resolution 77-1, that a net environmental benefit will be derived as a result of discharge of treated wastewater to 43 acres of properly managed marshland.
12. The discharger proposes to submit an appropriate management plan to ensure a continued net environmental benefit from the 43 acres of wetlands.
13. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of

information describing all equipment, facilities, and recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, this manual should be kept updated to reflect significant changes in plant facilities or activities.

14. This Order serves as an NPDES permit, adoption of which is exempt from the provisions of Chapter 3 commencing with Section 21100 of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
15. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided with the opportunity to submit their written views and recommendations.
16. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the discharger in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder shall comply with the following:

A. Discharge Prohibitions

1. Discharge at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited. An exception to the prohibition is granted provided the 43 acres of wetlands are managed in accordance with a management plan acceptable to the Executive Officer which will ensure maintenance of continued net environmental benefits.
2. Bypass or overflow of untreated or partially treated wastewater to waters of the State either at the treatment plant or from any of the collection system and pump stations tributary to the treatment plant is prohibited.
3. The average dry weather flow shall not exceed 1.6 mgd. Average shall be determined over three consecutive dry months each year.

B. Effluent Limitations

1. Effluent discharged to the marsh ponds shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>30-day Average</u>	<u>7-day Average</u>	<u>Maximum Daily</u>	<u>Instan- taneous Maximum</u>
a. Settleable Matter	ml/l-hr	0.1	---	---	0.2
b. BOD ₅ or Carbon- aceous BOD ₅	mg/l	30	45	60	---
	mg/l	25	40	50	---
c. Total Suspended Solids	mg/l	30	45	60	---
d. Oil & Grease	mg/l	10	---	20	---
e. Total Chlorine Residual (1)	mg/l	---	---	---	0.0

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

2. The arithmetic mean of the biochemical oxygen demand (5-day, 20°C) and suspended solids values, by weight for effluent samples collected in a period of 30 consecutive calendar days 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 (85 percent removal).
3. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.
4. The survival of test organisms acceptable to the Executive Officer in 96-hour bioassays of the effluent shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival based on the ten most recent consecutive samples.

5. Representative samples of the effluent shall not exceed the following limits (1):

<u>Constituent</u>	<u>Unit of Measurement</u>	<u>6 month median</u>	<u>Daily Maximum</u>
Arsenic	mg/l	0.01	0.02
Cadmium	mg/l	0.02	0.03
Total Chromium	mg/l	0.005	0.01
Copper	mg/l	0.2	0.3
Lead	mg/l	0.1	0.2
Mercury	mg/l	0.001	0.002
Nickel	mg/l	0.1	0.2
Silver	mg/l	0.02	0.04
Zinc	mg/l	0.3	0.5
Cyanide	mg/l	0.1	0.2
Phenolic Compounds	mg/l	0.5	1.0
Total Identifiable Chlorinated Hydrocarbons (2)	mg/l	0.002	0.004

(1) These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

(2) Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

6. The running median value for the MPN of total coliform in any five (5) consecutive effluent samples shall not exceed 23 coliform organisms per 100 milliliters. Any single sample shall not exceed 1,000 MPN/100ml.

C. Receiving Water Limitations

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

a. Floating, suspended, or deposited macroscopic particulate matter or foam:

- b. Bottom deposits or aquatic growths;
 - 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 aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
- a. Dissolved oxygen 5.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. Dissolved sulfide 0.1 mg/l maximum
 - c. pH Variation from natural 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 Maximum
3. The discharger 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 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.

D. Sludge Disposal Requirements

- 1. The handling, storage and disposal of sludge shall not cause sludge, sludge drying bed drainage waste or sludge pile runoff to be discharged to waters of the State.
- 2. Surface runoff water shall be diverted and prevented from contacting sludge in the drying beds and storage area.

3. The discharger shall control and monitor the disposal of sludge to assure compliance with title 23, chapter 3, Subchapter 15 of the California Administrative Code and "Manual of Good Practice for Landspreading of Sewage Sludge" dated April 1983 by California Department of Health Services and their ammendments.

E. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 80-8. Order No. 80-8 is hereby rescinded.
2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

Mass Emission Limit in lbs/day=Concentration Limit in mg/l x 8.34 x Actual Flow in mgd averaged over the time interval to which the limit applies.

3. The discharger shall comply with all sections of this Order immediately upon adoption except as stipulated in Provisions E.4. and E.5. below.
4. The discharger shall comply with Prohibitions A.1. according to the following schedule:
 - A. Develop a Wetland Management Plan for the 43 acres of Wetlands. It shall include, at a minimum, procedures which will ensure compliance with the Receiving Water Limitations, continued maintenance and documentation of a net environmental benefit, a monitoring program to assist in proper management of the wetlands and a maintenance schedule for all wetland management facilities. The draft Wetlands Management Plan shall be submitted by March 1, 1985 and a final Wetlands Management Plan that is acceptable to the Executive Officer shall be submitted by June 1, 1985.
 - B. Achieve Full Compliance by June 1, 1985.

The discharger shall submit to the Board, on or before each completion date, a report detailing its compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the discharger will be in compliance. The discharger shall notify the Board by letter when it has returned to compliance with the time schedule.

5. The discharger shall comply with Sludge Disposal Requirements D.1., D.2. and D.3. according to the following schedule:

<u>Task</u>	<u>Completion Date</u>
A. Submit a report describing the corrective actions necessary and a schedule for their implementation	by March 1, 1985
B. Achieve Full Compliance	by September 1, 1985

The discharger shall submit to the Board, on or before each completion date, a report detailing its compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the discharger will be in compliance. The discharger shall notify the Board by letter when it has returned to compliance with the time schedule.

6. The discharger shall review and update its Operations and Maintenance Manual and Wetland Management Plan annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Regional Board by April 15 of each year.
7. The discharger shall review and update by December 31, annually, its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.
8. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.
9. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977. Standard Provision C.2 is revised to read as follows:
 2. The "30-day, or 7-day, average" discharge is the total discharge by weight during 30, or 7, consecutive calendar day periods, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampling is required by this permit, the 30-day, or 7-day, average discharge shall be determined by the summation of all the measured discharges by weight divided by the number of days during the 30, or 7, consecutive calendar day period when the measurements were made. For other than 7-day or 30-day periods, compliance shall be based on the average of all measurements made during the specified period.
10. This Order expires November 21, 1989. 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.
11. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or

amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, 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 November 21, 1984.

ROGER B. JAMES
Executive Office

Attachments:

Standard Provisions & Reporting
Requirements, April 1977
Self-Monitoring Program
Resolution 74-10
Title 23, Chapter 3, Subchapter 15,
California Administrative Code Manual
of Good Practice for Land spreading
of Sewage Sludge

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

Mountain View Sanitary District

Contra Costa County

NPDES NO. CA0037770

ORDER NO. 84-82

CONSISTS OF

PART A, dated January 1978

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS AND SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

A. INFLUENT AND INTAKE

<u>Station</u>	<u>Description</u>
A-1	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (May be the same as E-001-D.)
E-001-D	At any point in the disinfection facilities for Waste E-001 at which point adequate contact with the disinfectant is assured.
E-001-S	At a point between dechlorination facilities and the marsh pond.

C. RECEIVING WATERS

<u>Station</u>	<u>Description</u>
C-R	At a point in Peyton Slough, located upstream of the pond A discharge weir.
C-1	At a point in Peyton Slough, located within 10 feet of the pond B discharge weir.

- C-2 At a point in Peyton Slough, located at the downstream headwall of the culvert under Interstate Highway 680.
- C-3 At a point in Peyton Slough, located 30 feet upstream of the culvert under Waterfront Road.
- C-4 At a point in Peyton Slough, located downstream of the Tide Gate.

D. LAND OBSERVATIONS

<u>Station</u>	<u>Description</u>
P-1 thru p-'n'	Located along the periphery of the waste treatment or disposal facilities, at equidistant intervals, not to exceed 200 feet. (A sketch showing the locations of these stations will accompany each report.)

E. OVERFLOWS AND BYPASSES

<u>Station</u>	<u>Description</u>
O-1 thru O-'n'	Bypass or overflows from manholes, pump stations, collection systems or the excavation containing sludge drying bed drainage waste.

NOTE: Initial SMP report to include map and description of each known bypass or overflow location.

REPORTING - Shall be submitted monthly and include date, time and period of each overflow or bypass.

F. MARSH EFFLUENT STATIONS

M-B	In the discharge stream from marsh plot B to Peyton Slough.
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II. SCHEDULE OF SAMPLING AND ANALYSIS

The Schedule of sampling and analysis shall be that given as Table I.

III. MODIFICATIONS OF PART A

Exclusions: This SMP does not include the following paragraphs of Part A: C.3, C.4, C.5.c.

IV. MISCELLANEOUS REPORTING

- A. Annual report shall include nutrient and metals data for previous ten samples.
- B. Chlorine and sulfur dioxide dosage rates shall be reported daily as lbs/day and as average mg/l.
- C. Annual report shall include documentation of marsh pond use by the public and wildlife.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

- 1. Has been developed in accordance with the procedure set forth in the 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. 84-82.
- 2. Is effective on the date shown below.
- 3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

Roger B. James
Executive Officer

Effective Date _____

Attachment:

Table I
and Legend for Table

LEGEND FOR TABLE

TYPES OF SAMPLES:

G = grab sample
C-24 = composite sample - 24-hour
C-X = composite sample - X hours
(used when discharge does not
continue for 24-hour period)
Cont = continuous sampling
DI = depth-integrated sample
BS = bottom sediment sample
O = observation

TYPES OF STATIONS:

I = intake and/or water supply stations
A = treatment facility influent stations
E = waste effluent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations
B = bottom sediment stations
G = groundwater 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 = once in March and once in September
Q = quarterly, once in March, June,
September and December
2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

FOOTNOTES

- (1) Monthly Nov-April. Weekly May-October
- (2) Prior to completion of de-chlorination facilities, chlorine residual and toxicity shall be measured where the marsh outfalls discharge into Peyton Slough. Subsequently, they shall be measured following de-chlorination, before discharge into the marsh.
- (3) Nov-April: Sample to be taken between 0600 and 0800 hours.
May-Oct: Two samples to be taken (one between 0600 and 0800 hours and one between 1500 and 1700) on alternate of weekly sampling days. Sample between 0600 and 0800 on other sampling days.
- (4) If any sample is in violation of limits, sampling frequency shall be increased for the parameter to weekly until compliance is demonstrated in two successive samples.
- (5) During any day when bypassing occurs from any treatment unit(s) in the plant, the monitoring program for the effluent shall include the following in addition to the above schedule for sampling, measurement and analyses:
 - o Composite sample for BOD, Total Suspended Solids. (Influent and Effluent, for the duration of the bypass or 24 hours, which ever is shorter).
 - o Grab sample for Coliform (Total and Fecal), Settleable Matter, Oil and Grease and Chlorine Residual, (continuous or every two hours).
 - o Continuous monitoring of flow.