

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

RESOLUTION NO. 70-72

AMENDING RESOLUTION NO. 69-8 PRESCRIBING REVISED  
REQUIREMENTS FOR WASTE DISCHARGE BY SANITARY  
DISTRICT NO. 6 OF MARIN COUNTY INTO NOVATO CREEK,  
PETALUMA RIVER AND SAN PABLO BAY, MARIN COUNTY

WHEREAS THIS REGIONAL BOARD HAS CONSIDERED

INFORMATION ABOUT THIS DISCHARGE

1. On February 13, 1969 this Regional Board adopted Resolution No. 69-8 to prescribe requirements for waste discharge from three treatment plants and sewer bypasses of Sanitary District No. 6 of Marin County.
2. Sanitary District No. 6 of Marin County, called the discharger below, filed a Report on Waste Discharge dated April 15, 1970. The Report on Waste Discharge was amended by a letter to the Regional Board dated August 25, 1970.
3. The Report on Waste Discharge describes a proposed project to improve and expand Ignacio and Novato treatment plants and construct a new effluent transport facility which will eliminate present discharges to confined waters of Novato Creek and instead transport the effluents to San Pablo Bay.
4. Information in the aforementioned Report and other information in the Regional Board's files describe these existing and the proposed waste discharges as follows:

- a. Discharge A - The Ignacio treatment plant.

This waste is being discharged to Novato Creek at a point 3000 feet downstream from the State Highway No. 37 bridge. This plant presently serves a population of 10,000 persons and has an average daily dry weather flow of 0.7 million gallons per day (mgd).

- b. Discharge B - Irrigation usage of the Ignacio plant effluent.

Under an agreement with adjacent farmers, a portion of the effluent from the Ignacio plant is diverted for pasture irrigation by means of a manually operated valve at a point 3000 feet upstream from the point of discharge to Novato Creek.

- c. Discharge C - Storm bypass from Ignacio plant.

A storm bypass located 2600 feet upstream from the point of discharge to Novato Creek is provided and discharges treated wastes to a drainage ditch which in turn discharges to

Novato Creek through tide gates located adjacent to the outfall discharge to the creek.

d. Discharge D - Novato treatment plant.

This waste is being discharged to Novato Creek at a point 4000 feet downstream from the U. S. Highway 101 bridge and 7000 feet upstream from the State Highway No. 37 bridge. This plant presently serves a population of 22,000 persons and has an average daily dry weather flow of 1.8 mgd. During wet weather and failure of auxiliary pumps untreated wastes and storm water can be bypassed around the plant and discharged through the plant outfall.

e. Discharge E - Irrigation usage of the Novato plant effluent.

Under an agreement with adjacent farmers, a portion of the effluent from the Novato plant is diverted for pasture irrigation during four dry months by means of a manually operated valve at a point 80 feet upstream from the discharge to Novato Creek. This discharge is into drainage ditches which lie inside the levee.

f. Discharge F - Bypass at the Novato Plant.

During wet weather when auxiliary pumps are inoperative or at any time when the treatment facilities are inoperative, wastes bypass upstream from the Novato plant to a marshy area whence they are pumped to Novato Creek.

g. Discharge G - Bahia treatment plant.

This waste is discharged at a depth of three feet below mean lower low water in a dead-ended channel at a point 1100 feet from the Petaluma River. The channel enters that River at a point 4000 feet upstream from the Highway 37 bridge. The discharge is 1000 feet from the entrance to a marina and recreational lagoons.

Capacity of the Bahia treatment plant is unknown but being investigated. A report on waste discharge is to be filed for the Bahia treatment plant before its capacity is exceeded and in any event before the flow to the plant exceeds 0.08 mgd.

h. Discharge H - Bel Marin Keys Pump Station No. 5 Bypass.

During pump failure at this station untreated sewage is bypassed to Novato Creek at a point 3000 feet downstream from the Highway 37 bridge.

i. Discharge I - Nave Gardens Siphon Bypass.

During failure of a siphon at this location untreated sewage will overflow the manhole and discharge to Novato Creek at a point 1500 feet upstream from the Highway 101 bridge.

j. Discharge J - Villa Anita Pump Station Bypass.

During pump failure at this station untreated sewage is bypassed to Novato Creek at a point 3300 feet upstream from the Highway 101 bridge.

k. Discharge K - Overflowing manholes.

There are sewers within the District which become surcharged during storms and overflow from manholes to city streets. This waste can enter Novato Creek.

l. Discharge L - Proposed San Pablo Bay Outfall.

Ignacio plant will be enlarged to treat 1.2 mgd from a population of 13,500. Novato plant will be enlarged to treat 3.0 mgd from a population of 33,500.

Effluents from the Ignacio and Novato plants will be collected for discharge to San Pablo Bay at one of three alternate locations:

- (1) at the northern boundary of Hamilton Air Force Base;
- (2) 2,500 feet north of alternate 1; or (3) 4,000 feet south of alternate 1. The outfall, a 60-inch pipe will discharge the waste into San Pablo Bay 300 feet from shore line.

#### STAFF INVESTIGATION

1. Bel Marin Keys, a water-oriented residential subdivision, is located on Novato Creek downstream from the Highway 37 bridge. All 900 homes in this subdivision have rear yards on lagoons or on Novato Creek. Some of these homes have been completed on Novato Creek to within 500 feet from the point of discharge from the Ignacio treatment plant, Discharge A. All lagoons are tidal and connected to Novato Creek. In July, 1966, the sewage concentration in the lagoons was estimated to be 3%.
2. Bahia is a water-oriented subdivision to be constructed on tidal lagoons which have already been dredged. Its ultimate population is estimated at 8000 persons.
3. These wastes can affect the following beneficial water uses in Novato Creek, the Petaluma River, San Pablo Bay and adjacent contiguous waters:

Recreation

Whole-body contact

Water skiing  
Wading

Limited-body water contact

Pleasure boating  
Fishing and hunting  
Marinas

Shellfishing

Fish and wildlife propagation and sustenance

Fish habitat, migration and spawning  
Shrimp and crab habitat  
Shellfish habitat  
Waterfowl and other water-associated birds habitat, resting  
and reproduction or nesting

Navigation

Shipping channels

Esthetic appeal.

4. Land uses in the vicinities of the discharges include:

Residential, recreational, agriculture and transportation.

RESOLVED BY THIS REGIONAL BOARD

BOARD INTENT

1. Protect public health as it may be affected by this waste discharge.
2. Prevent nuisance, as defined in Section 13050(m) of the California Water Code.
3. Protect the beneficial water uses listed under "Staff Investigation" above, except shellfishing.
4. Amend Resolution No. 69-8; revise the requirement relating to BOD removal; include information supplied with the Report on Waste Discharge and prescribe requirements for the proposed San Pablo Bay outfall.

WASTE DISCHARGE REQUIREMENTS - RECEIVING WATERS

1. The treatment or disposal of waste shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

2. The discharge shall not:

- a. Unreasonably affect any of the protected beneficial water uses resulting from:

Floating, suspended, or deposited macroscopic particulate matter or foam in waters of the State at any place;

Bottom deposits at any place;

Aquatic growths at any place;

Alteration of temperature, turbidity, or apparent color beyond present natural background levels in waters of the State at any place.

- b. Cause visible, floating, suspended or deposited oil or other products of petroleum origin in waters of the State at any place.
- c. Cause waters of the State to exceed the following limits of quality at any point:

pH	7.0 minimum 8.5 maximum
Dissolved oxygen	5.0 mg/l minimum
Dissolved sulfide	0.1 mg/l maximum
Nutrients	to be prescribed at the earliest practicable date
Other substances	any one or more substances in concentrations that impair any of the protected beneficial water uses or make aquatic life or wildlife unfit or unpalatable for consumption.

- d. Cause waters of the State to exceed the following limits of quality at any place within one foot of the water surface:

Bacterial concentration	The limits prescribed in Section 7958, Title 17, California Administrative Code at any time;
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When this bacterial concentration is exceeded in the receiving water for any reason it shall be met instead in the waste at some point in the treatment process.

The discharger may demonstrate compliance in the waste stream as an optional alternative.

The Board will accept proof of effective effluent disinfection in terms of factors other than bacterial concentrations if the discharger documents a sound statistical correlation between such factors and bacterial analysis, and provided the conditions of sewage strength and treatment do not change from the demonstration period.

WASTE DISCHARGE REQUIREMENTS - WASTE STREAM

The waste streams discharged to waters of the State shall meet these quality limits at all times:

1. In any grab sample:

Settleable matter

The arithmetic average of any six or more samples collected on any day 0.5 ml/l/hr., maximum

80% of all individual samples collected during maximum daily flow over any 30-day period 0.4 ml/l/hr., maximum

Any sample 1.0 ml/l/hr., maximum

2. In any representative 24-hour composite sample:

Toxicity: Survival of test fishes in 96-hour bioassays of the waste as discharged

Any sample 75%, minimum

Average of any three or more consecutive samples collected during any 21 or more days 90%, minimum

3. 5-day, 20°C. BOD removal from the waste as indicated by analysis of 24-hour composite samples of effluent and influent shall be sufficient to maintain the dissolved oxygen concentration prescribed above. When the dissolved oxygen is less than the concentration prescribed above, the BOD removal during the preceding 21 days shall be at least:

Average 90%

Not more than two consecutive daily determinations shall indicate BOD removals less than 80%.

PROHIBITION

1. The discharge of waste at any place where it may be used to irrigate pasture for milking animals is hereby prohibited, pursuant to Section 13243 of the California Water Code, unless said waste is adequately disinfected at all times. The waste shall be considered adequately disinfected if at some point in the treatment process the following bacterial quality is achieved:

A median MPN of coliform organisms not in excess of 23/100 ml as determined from the results of the previous 7 days for which analyses have been completed.

2. The discharge of any waste at any place where it may affect the waters of Novato Creek and contiguous lagoons bayward from the State Highway 37 bridge or the waters in the Bahia channel, lagoons or marina is hereby prohibited, pursuant to Section 13243, California Water Code, unless said waste is adequately disinfected at all times. The waste shall be considered adequately disinfected if at some point in the treatment process one of the following bacterial qualities is achieved with respect to the related dilution ratio in Novato Creek bayward from the State Highway 37 bridge and at all places in the Bahia channel:

Volumetric Dilution  
Bay water waste

Bacterial Quality

Equal to or greater than  
100:1

That bacterial quality prescribed in  
Section 7958, Title 17, California  
Administrative Code.

Less than 100:1 but  
greater than 10:1

A median MPN of coliform organisms  
not in excess of 23/100 ml as determined  
from the results of the previous consecu-  
tive 7 days for which analyses have been  
completed.

Equal to or less than 10:1

A median MPN of coliform organisms not  
in excess of 2.2/100 ml as determined  
from the results of the previous consecu-  
tive 7 days for which analyses have been  
completed.

3. The discharge of any waste at any place where it may affect the waters of Novato Creek and contiguous lagoons bayward from the State Highway 37 bridge or the waters in the Bahia channel, lagoons or marina is hereby prohibited, pursuant to Section 13243, California Water Code, unless the waste complies with the following requirements:

a. pH

7.0 minimum  
8.5 maximum

b. The waste shall have a maximum turbidity of 10 Turbidity Units at some point in the treatment process if the volumetric dilution of Bay water:waste is equal to or less than 10:1 in Novato Creek bayward from the State Highway 37 bridge and all places in the Bahia Channel.

4. It is the intention of this Board to enforce these prohibitions of discharge unless the Discharger adequately demonstrates in advance of design of needed facilities that it can comply with the appropriate disinfection requirement at all times, and to require the District to perform the needed self-monitoring program developed pursuant to provisions of the Board's Resolution No. 70-43.

#### REPORTING REQUIREMENTS

This Resolution includes items numbered 1, 2, 6, and 7 of the attached "Reporting Requirements", dated August 28, 1970.

#### NOTIFICATIONS

1. This Resolution includes items numbered 1 through 7 of the attached "Notifications", dated January 6, 1970.
2. This Regional Board does not consider the proposed discharge to San Pablo Bay to be satisfactory for long-range waste disposal and requires the District and adjacent sewerage agencies to develop a coordinated subregional water quality control program consistent with the general concepts of Phase I of the plan recommended by the Final Bay-Delta Program report.

WILLIAM C. WEBER  
Chairman

September 24, 1970

I, Fred H. Dierker, hereby certify that the foregoing is a true and correct copy of Resolution No. 70-72 adopted by the California Regional Water Quality Control Board - San Francisco Bay Region at its regular meeting on September 24, 1970.

FRED H. DIERKER  
Executive Officer  
CALIFORNIA REGIONAL WATER QUALITY CONTROL  
BOARD - SAN FRANCISCO BAY REGION