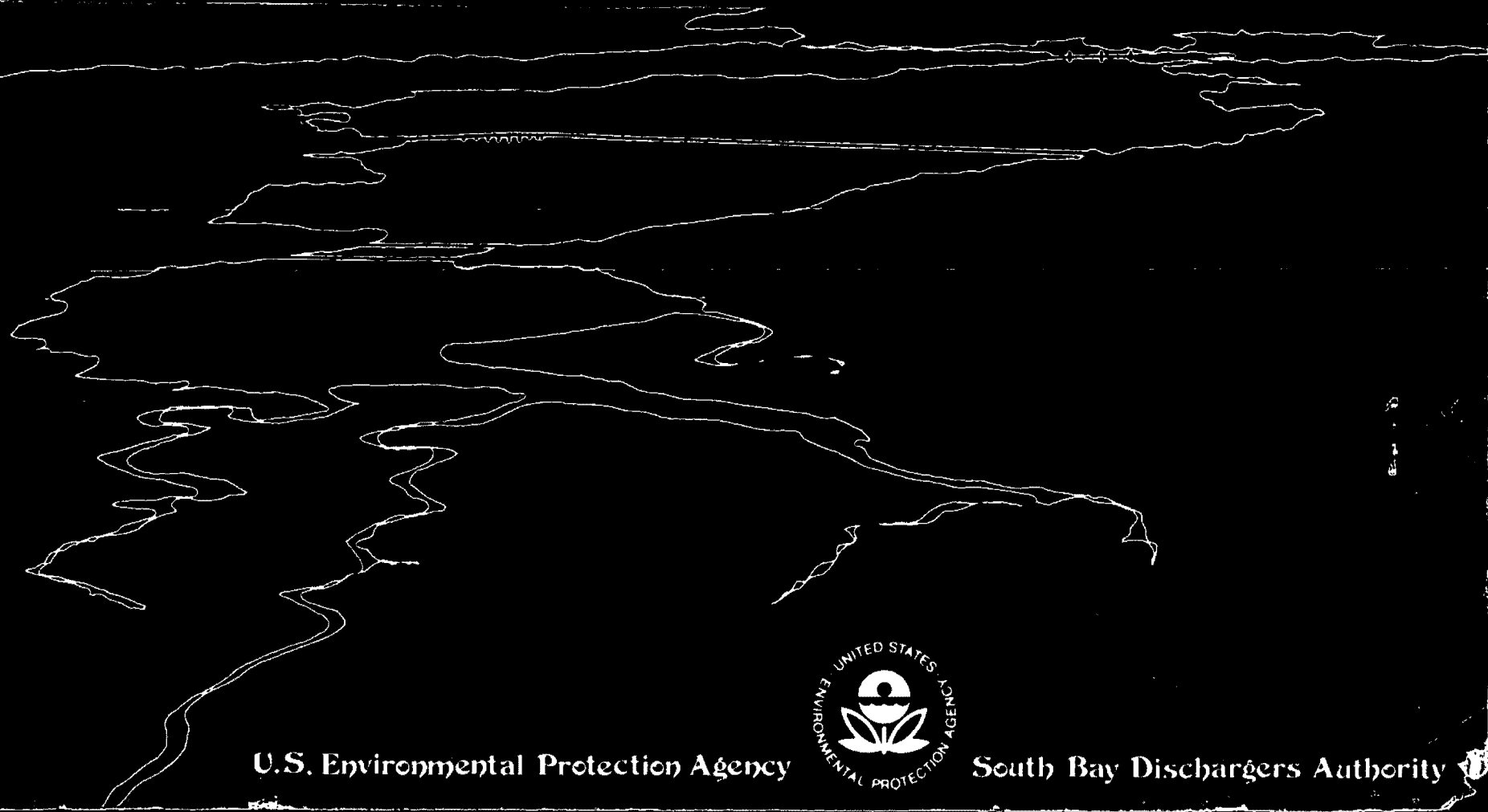


FINAL ENVIRONMENTAL IMPACT REPORT AND STATEMENT TREATED WASTEWATER DISPOSAL PROGRAM



U.S. Environmental Protection Agency



South Bay Dischargers Authority

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FINAL
ENVIRONMENTAL IMPACT REPORT
AND
ENVIRONMENTAL IMPACT STATEMENT

SOUTH BAY DISCHARGERS AUTHORITY
TREATED WASTEWATER DISPOSAL PROGRAM

June, 1980

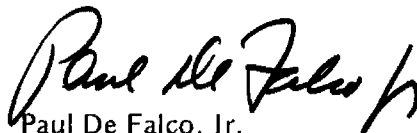
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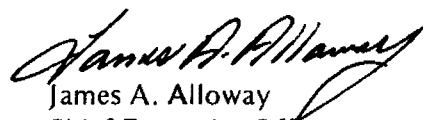
and
South Bay Dischargers Authority
801 North First Street
San Jose, California 95110

With technical assistance from:
Bechtel
50 Beale Street
San Francisco, California 94119

Grant No. CA-06-1135

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To All Interested Agencies, Public Groups, and Concerned Individuals:

The Final Environmental Impact Statement (EIS) and Environmental Impact Report (EIR) for the South Bay Dischargers Authority Treated Wastewater Disposal Program is being distributed at this time for your review and comment. This program investigated alternatives for providing a wastewater disposal system for the San Jose/Santa Clara, Sunnyvale, and Palo Alto wastewater treatment plants, located in the Santa Clara County Baylands along the southeastern edge of San Francisco Bay. The Final EIR/EIS has been prepared to conform with the requirements of the National Environmental Policy Act of 1969 and the California Environmental Quality Act of 1970, as amended.

The Draft EIR/EIS was jointly issued by the Environmental Protection Agency (EPA), Region IX, and the South Bay Dischargers Authority (SBDA) on March 19, 1979. The Draft EIR/EIS was filed with the State Clearinghouse (SCH No. 79040905) and with the EPA Office of Environmental Review (EIS Order No. 90292), and circulated for review among various Federal, State, and local agencies as well as firms, organizations, and concerned individuals.

This document contains a record of the public hearing, responses to the comments received at the public hearing, written comments, and further information which has been developed concerning the project. This document, along with the Draft EIR/EIS (Summary, Technical, and Appendices Volumes) constitutes the Final EIR/EIS.

The project alternative that has been selected is the "no project alternative." It was selected for the following reasons:

1. The degree to which increased dilution resulting from a discharge north of the Dumbarton Bridge will mitigate the adverse impacts of toxicants on the biota of the South Bay cannot be predicted.
2. Modeling studies have not shown that a substantial improvement in dissolved oxygen concentrations would result if the

discharges were moved north of the Dumbarton Bridge.

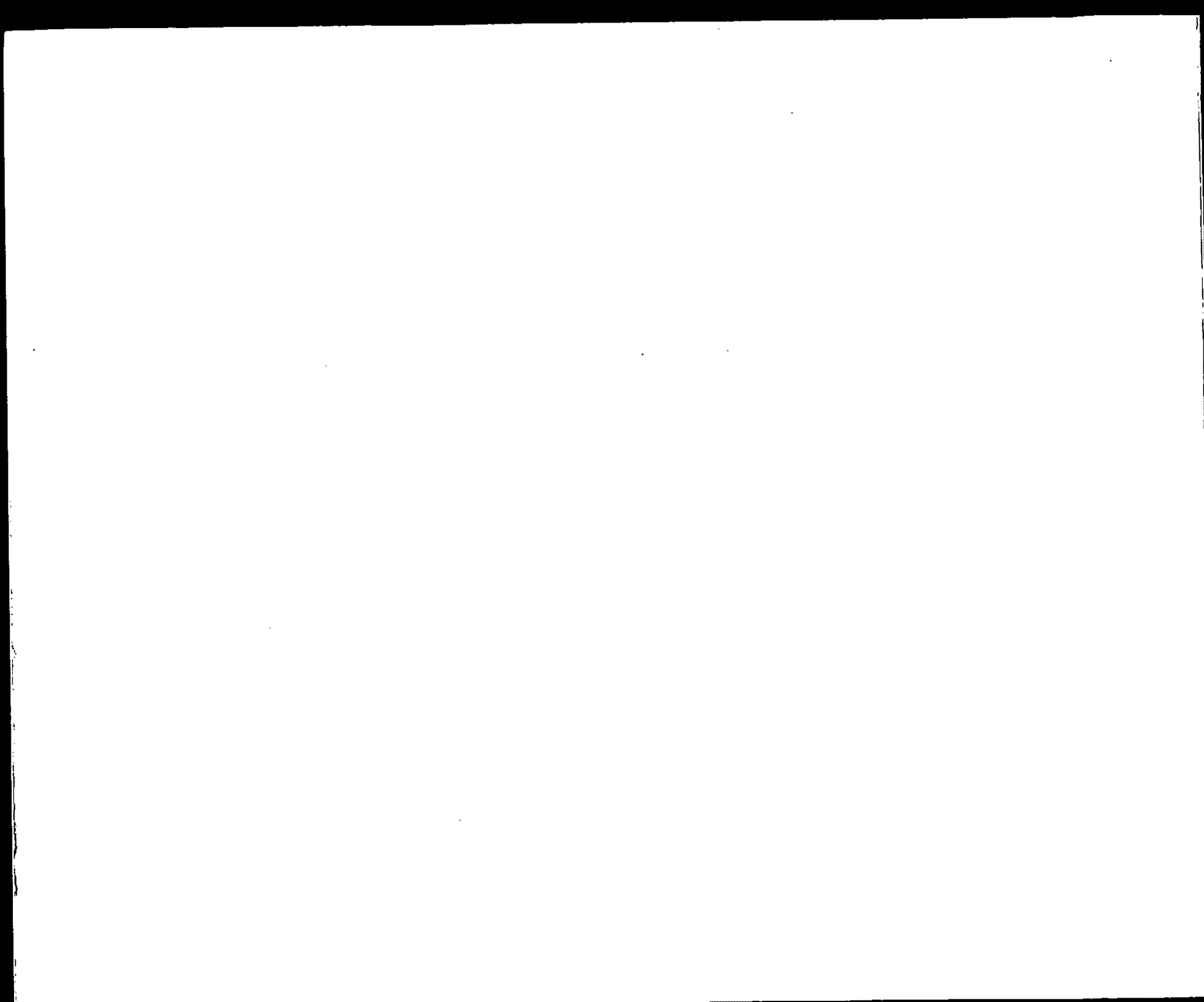
3. The viability of future full reclamation is being investigated in the Regional Wastewater Reclamation Study. Should such an alternative prove to be feasible, it would meet the planning requirements of the San Francisco Bay Basin Plan.

Operation of newly constructed advanced wastewater treatment facilities was begun by the San Jose/Santa Clara and Sunnyvale wastewater treatment plants in early 1979. Palo Alto's advanced treatment facilities will be operational by mid-1980. It is anticipated that the overall water quality in the South Bay will be improved due to the operation of these facilities. Monitoring programs of the SBDA member agencies and the San Francisco Bay Regional Water Quality Control Board (RWQCB) will continue to be evaluated and, if appropriate, the selection of the "no project alternative" will be reconsidered.

During September, 1979, the San Jose/Santa Clara wastewater treatment plant experienced an upset and was temporarily unable to provide full treatment to all wastewater flows prior to discharge. This resulted in extensive pollution of the lower portion of South San Francisco Bay in the vicinity of Coyote Creek. The RWQCB, in response to the wastewater treatment plant upset, issued a cease and desist order. This order requires that the cities of San Jose and Santa Clara develop means to protect against future upsets. San Jose and Santa Clara are now working to develop a solution to this requirement.

Wastewater reclamation was investigated as a possible effluent disposal alternative, but was not selected due to its high cost. The three discharging agencies, as a group and individually, are continuing to evaluate regional wastewater reclamation and have implemented localized reclamation. A continued commitment in this area by the agencies is an integral factor in the alternative selected at this time.

Written comments should be submitted within thirty (30) days of the issuance of this Final EIR/EIS to:



U.S. Environmental Protection Agency
Region IX
Attn: Hearing Office (HE-141)
215 Fremont Street
San Francisco, CA 94105

After review of comments received on this Final EIR/EIS, EPA will issue a public record of its decision on the selected project alternative.

The Final EIR/EIS may be reviewed at the following locations:

U.S. Environmental Protection Agency
Region IX
Library
215 Fremont Street
San Francisco, CA 94105

U.S. Environmental Protection Agency
Public Reference Unit (P. M. 213)
401 M Street, S.W., Room 2922
Washington, D.C. 20460

Documents Librarian
Santa Clara County Library
Research Center
10400 Torre Avenue
Cupertino, CA 95014

San Jose Public Library
180 W. San Carlos Street
San Jose, CA 95110

Palo Alto Public Library
1213 Newell Road
Palo Alto, CA 94303

Santa Clara County Library
7387 Rosanna Street
Gilroy, CA 95020

Santa Clara County Library
78 South Dempsey Road
Milpitas, CA 95035

Mountain View Public Library
585 Franklin Street
Mountain View, CA 94040

Library
Water Resources Center
University of California
Berkeley, CA 94720

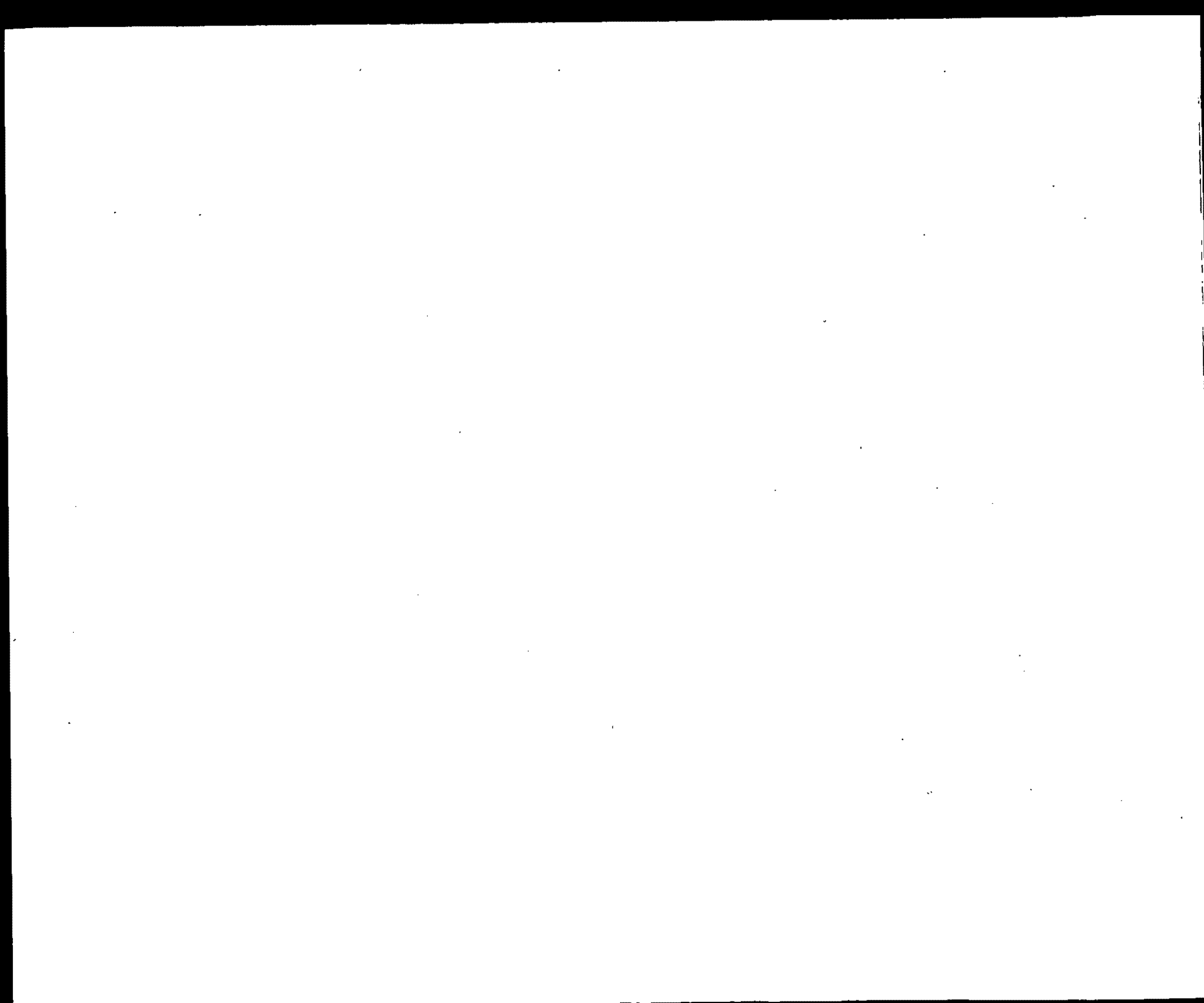
Santa Clara Public Library
2635 Homestead Road
Santa Clara, CA 95051

Sunnyvale Public Library
Attn: Documents Librarian
665 W. Olive Avenue
Sunnyvale, CA 94086

Santa Clara County Library
1095 North 7th Street
San Jose, CA 95112

NASA Ames Research Center
Technical Library
Moffett Field
Sunnyvale, CA 94040

City of San Jose
Planning Department
801 North First Street
San Jose, CA 95110



FINAL EIR/EIS

This volume provides a brief description of the alternatives for disposal of South Bay Dischargers Authority (SBDA) highly treated wastewater, the impacts of each alternative, the rationale for the selection of an alternative (No Further Action), and responses to comments on the *Draft Environmental Report and Statement (EIR/EIS)*, the *Draft Summary*, and *Appendices A – L* of that draft EIR/EIS. More detailed analyses of primary and secondary impacts, both adverse and beneficial, are contained in the Draft EIR/EIS, which was issued March 19, 1979 for public review and comment.

Since the Draft EIR/EIS is not being reprinted, an errata list for that report is provided in this volume (Section 4). This volume and the Draft EIR/EIS comprise the *Final Environmental Report and Statement, Treated Wastewater Disposal Program*.

A BRIEF DESCRIPTION OF THE DISPOSAL PROBLEM

BACKGROUND AND HISTORY

Prior to the formation of the South Bay Dischargers Authority (SBDA), an information organization consisting of San Jose, Santa Clara, Sunnyvale, Palo Alto (its member cities) and the Union and Menlo Park Sanitary Districts initiated a study to investigate alternative long-term solutions to wastewater management programs in the portion of the San Francisco Bay south of Dumbarton Bridge (South Bay). A recommended plan was presented in the Consoer-Bechtel (1972) report entitled *Water Quality Management Plan for South San Francisco Bay*. The SBDA was formed on April 1, 1973, when the cities of San Jose, Santa Clara, Sunnyvale, and Palo Alto entered into a Joint Exercise of Powers Agreement, and a second study was commissioned.

Bechtel Incorporated completed the *Overview Facilities Management Plan* in 1974, which recommended that three subregional plants pro-

vide advanced treatment (AWT) for wastewaters generated within the SBDA service area. The plants would be at the sites of the existing secondary plants operated by San Jose/Santa Clara, Sunnyvale, and Palo Alto. It was further recommended that treated wastewaters from these three plants be collected in a regional interceptor for discharge through a common outfall into deep waters north of Dumbarton Bridge, in order to meet interim water quality standards that prohibited discharge south of Dumbarton Bridge or to the dead-end sloughs tributary to the Bay.

The 1974 report found that even if a different method of effluent disposal were chosen, the advanced level of treatment recommended would still be required. On this basis, EPA in late 1974 issued Negative Declarations (findings that impacts from proposed projects will be insignificant) on upgrading the three secondary plants to provide the advanced treatment. This action allowed the design and construction of these facilities to proceed at once.

On May 30, 1975, EPA issued a Notice of Intent to commence with the preparation of an EIS on alternative effluent disposal systems. SBDA, as a State-Chartered Agency, entered into an agreement with EPA to prepare a joint EIR/EIS, responsive to both State of California and United States requirements. The common outfall to the north of Dumbarton Bridge, by that time incorporated in the *San Francisco Bay Water Quality Management Plan* (or Basin Plan) by the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Board (RWQCB) in 1975, was to be considered as one of these alternatives.

Since that time, the SBDA and its consultant, Bechtel Incorporated, have been engaged in the background studies required to generate sufficient data for the EIR/EIS. The Draft EIR/EIS is a result of those studies. On April 4, 1979, the EPA issued a notice of joint public hearing on the Draft EIR/EIS to be held May 16, 1979. The hearing was adjourned and the comment period closed on August 24, 1979. This report documents the hearing, comments received, and information developed in response to the comments.

WATER QUALITY PROBLEMS AND GOALS OF A DISPOSAL PROGRAM

Historically, wastewaters from SBDA member agencies have been discharged into sloughs draining into the South Bay. This has caused an increase in pollutants in South Bay waters — the degradation of water quality in the South Bay has been severe. Depression of dissolved oxygen concentrations to levels as low as 0.7 milligram per liter, high concentrations of toxic heavy metals in the sediments, and localized problems of fish kills and waterfowl botulism outbreaks have all been attributed to the waste load accumulations in the South Bay. These conditions are thought to be further aggravated by the lack of freshwater inflow during the dry season and the subsequent reduced flushing of the estuary.

During September 1979, the San Jose/Santa Clara wastewater treatment plant experienced an upset and was temporarily unable to provide full treatment to all wastewater flows prior to discharge. This resulted in extensive pollution of the lower portion of South San Francisco Bay in the vicinity of Coyote Creek.

Monitoring during the first few days after the upset showed that many species of fish nearly disappeared. However, by mid-October there was some evidence that aquatic life was returning to the South Bay. This evidence is not conclusive and new information continues to be evaluated. While the pollution of the Bay due to the plant upset resulted in a rapid loss of water quality in the vicinity of the discharge, it appears there has been a return to near normal water quality conditions.

Uncertainty exists about the long-term impact of the wastewater treatment plant upset upon aquatic biota. It is expected that monitoring programs begun since the upset will provide more accurate information about the status of impacts to the Bay.

The RWQCB, in response to the wastewater treatment plant upset, issued a cease and desist order. This order requires that the cities of

San Jose and Santa Clara develop means to protect against future upsets. San Jose and Santa Clara are now working to develop a solution to this requirement.

The upset incident has demonstrated the need for reliable treatment in conjunction with adequate disposal. The cities of San Jose and Santa Clara are reviewing the plant's treatment capabilities and operating procedures in an effort to improve treatment reliability.

Operations of newly constructed advanced wastewater treatment facilities was begun by the San Jose/Santa Clara and Sunnyvale wastewater treatment plants in early 1979. Palo Alto's advanced facilities will be operational by mid-1980. It is anticipated that the overall water quality in the South Bay will be improved due to the operation of these facilities. Information obtained from monitoring programs of the SBDA member agencies and the RWQCB will continue to be evaluated.

The goal of the Treated Wastewater Disposal Program was to eliminate the discharge of wastewaters to South San Francisco Bay as required by the SWRCB's Bays and Estuaries Policy and the RWQCB's Basin Plan. Each alternative discussed in the Draft EIR/EIS was evaluated with regard to the achievement of the water quality standards of the SWRCB and RWQCB, the implementation of advanced waste treatment (AWT), and the environmental impacts and economic costs expected.

At this time, it is felt that more information is needed to fully evaluate the impacts of the present treatment and disposal systems against the standard of a level of environmental protection equal to a deepwater outfall. Specific areas of concern over South Bay waste discharges include: (1) impact on the aquatic biota; (2) botulism potential; (3) dissolved oxygen levels; (4) toxicity levels; and (5) heavy metal levels in the South Bay. It is recommended that appropriate monitoring programs be developed to provide the needed information base for future reevaluations. The actions that will be taken in response to the September 1979 upset, together with the ongoing

monitoring and evaluation efforts, will provide the information for further evaluation of either the "no project alternative" selection or the existing water quality standards and discharge prohibitions.

SETTING OF THE ALTERNATIVES

The study area considered in the Draft EIS is that portion of the Santa Clara County Baylands between San Jose and the Dumbarton Bridge (Figure 1). This gently sloping, almost flat, plain and the open waters of the Bay have been extensively developed for urban, commercial, and institutional uses, including water pollution control facilities, sanitary landfills, commercial salt concentration ponds, and recreational areas.

The waters of the South Bay have a moderating effect on the climate of Santa Clara County; this climate in turn influences the susceptibility of the area to air quality problems. The study area is in a critical air basin; the combination of strong subsidence inversions common along the Pacific Coast and a basin ringed by mountains and open to the sea results in a high potential for impaired air quality. During the summer and early fall, when air temperatures are higher, these conditions result in periods of increased air pollution, primarily from non-point sources such as automobile traffic. However, disposal is not growth-related and, since no increase in treatment capacity is planned, no secondary impacts on air quality are expected.

Geologic hazards consist of the potential for major earthquake activity along the San Andreas fault zone to the west of the Bay and along the Hayward fault zone to the east. A major earthquake could affect the structural integrity of a pipeline should the firm Bay Muds supporting the structure lurch or slide.

One of the most characteristic features of the South Bay is the diverse habitat available for fish and wildlife. This habitat, designated as a beneficial use of the area in the *San Francisco Bay Water Quality Management Plan*, consists of open bay waters, estuarine and

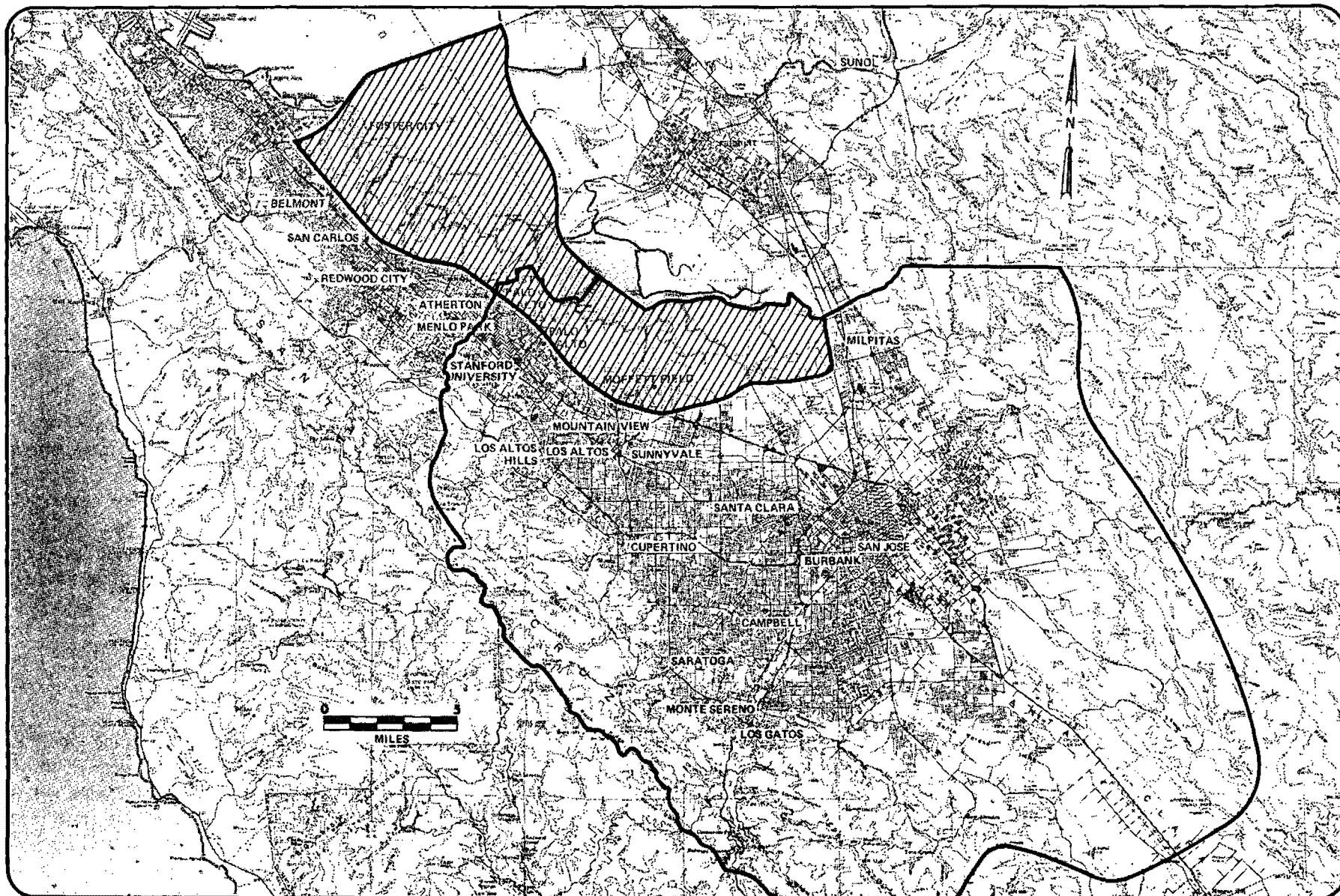
tidal mud flats, fresh and saltwater marches, salt concentration ponds, and grasslands. Although somewhat reduced in productivity as a result of water pollution problems and extensive urban development pressures, these Bayland habitats still support a diverse plant and animal community, including three resident endangered species (California least tern, California clapper rail, and salt marsh harvest mouse). Portions of the South Bay have been designated as part of the San Francisco Bay National Wildlife Refuge; in the area south of Dumbarton Bridge, the wildlife refuge consists of the marshlands, salt ponds, and sloughs from Alviso Slough north on the eastern side of the Bay.

ALTERNATIVES CONSIDERED

During the development of the *Water Quality Management Plan for South San Francisco Bay* and the *Overview Facilities Management Plan*, a number of treatment and disposal alternatives were examined. In the Draft EIR/EIS, nine disposal alternatives were evaluated, some of which were considered in the earlier studies. The criteria for evaluation in the Draft EIR/EIS include legal and institutional requirements as well as economic, engineering, and environmental (physical, chemical, biological, and sociocultural) factors.

BASIN PLAN ALTERNATIVE

The Basin Plan Alternative consists of a regional conveyance pipeline, connecting lines, and pumping facilities along the southwestern shore and in the waters of the South Bay (Figure 2). The pipeline is approximately 16 miles long, extending from a pumping station at the existing San Jose/Santa Clara treatment plant to a discharge point in the deepwater channel approximately one mile north of Dumbarton Bridge. The pipeline varies in diameter from 90 inches (inside diameter) at its southern end to 102 inches at the outfall. The three subregional advanced waste treatment plants (San Jose/Santa Clara, Sunnyvale, and Palo Alto) discharge wastewaters into



-  SBDA SERVICE AREA
-  APPROXIMATE BOUNDARY OF BASIN PLAN ALTERNATIVE STUDY AREA

Figure 1
STUDY AREA LOCATION
AND PRINCIPAL MUNICIPALITIES

this conveyance at pumping stations located near the treatment plants. The pumping stations could be modified to accommodate reversal in flow direction if large-scale regional reclamation and reuse programs that require transport of wastewaters southward are implemented in the future.

The Basin Plan Alternative facilities would be located on the Baylands plain, roughly between the Bayshore Freeway (U.S. Highway 101) and the inboard levees of the salt ponds. Where possible, the route follows existing utility corridors. Pumping stations are located on treatment plant or industrial park property. However, due to the nature of the Santa Clara Baylands, approximately 74 percent of the proposed alignment is located in relatively natural biological areas.

The main goal of the Basin Plan Alternative is compliance with the terms set forth in the Basin Plan, e.g., general improvement in dissolved oxygen levels in the South Bay, which contributes to the protection of the designated beneficial uses of these waters. Three wastewater outfalls to the Bay south of Dumbarton Bridge, including one in the San Francisco Bay National Wildlife Refuge, are eliminated. However, this alternative could result in primary adverse impacts during construction as well as secondary adverse impacts during operation.

Adverse construction impacts could include alteration of topography, erosion, dust, air pollution, noise, degraded water quality, and loss of biological habitat. All of these impacts are short-term, lasting only during construction (approximately two weeks at any point along the conveyance) and a recovery period immediately following completion of construction. Mitigating measures such as route selection, surface restoration, stream bank stabilization, and revegetation could reduce the significance of these impacts. The areas most affected include the Palo Alto discharge canal and the Palo Alto Baylands Reserve. These areas have been disturbed in the past and are now recovering from this disturbance; construction would slow this recovery. No known historical or archaeological sites are

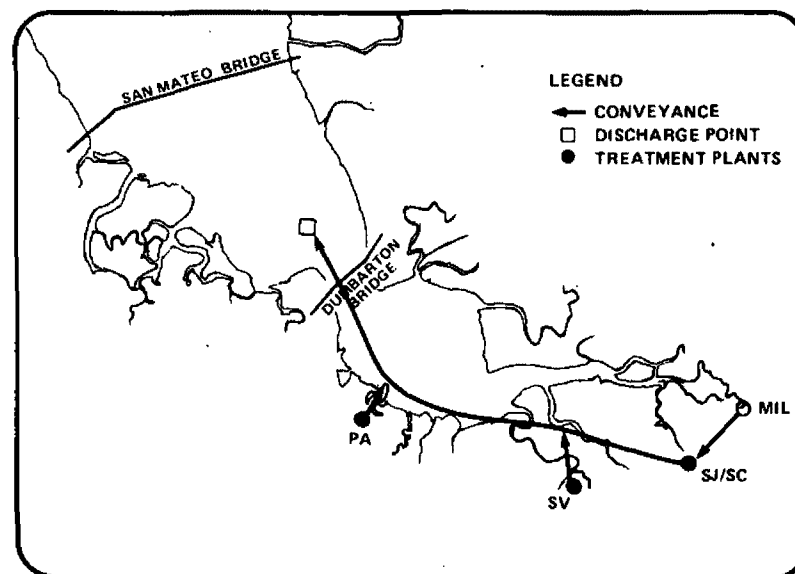


Figure 2 SCHEMATIC-BASIN PLAN ALTERNATIVE, ON-LAND

affected; no relocation of residents is anticipated; and no long-term disruption of aesthetics or access would occur.

Operation of the conveyance contributes to degraded water quality in two locations. The disposal point is locally affected by pollutants in the discharge, but no violations of water quality standards are anticipated. The headwaters of Artesian Slough could be degraded as they become more saline with the removal of the freshwater discharges from the San Jose/Santa Clara treatment plant. The headwaters are expected to exhibit an increased expression of background oxygen demands. Reduced flows also result in increased salinity in the South Bay to levels above those now occurring north of Dumbarton Bridge. Levels of 50 ml/l of toxicity are expected to occur in the 1985 dry season (the toxicity guidelines are 40 ml/l). These changes in water quality in the South Bay and its sloughs affect both

biological productivity and habitat diversity in an adverse and indirect manner, particularly in Artesian Slough.

Hazards to structural and operational integrity of the Basin Plan Alternative include potential damage by earthquake, plant upsets, pumping station malfunctions, or power failures. Each of these could potentially result in a bypass of wastewater to the South Bay. The proper selection of pipeline alignment, the use of pilings placed in stiff clays in areas of soft muds, and backfill with coarse granular material could reduce, to the extent possible, the potential for earthquake damage. Backup pumping systems and power supplies, as well as some storage capacity for bypassed flows at Sunnyvale, could reduce in-Bay impacts that could be caused by system failures.

Operation of the Basin Plan Alternative would result in electrical energy consumption in 1981 on the order of 7.9 million kilowatt-hours per year; this is equivalent to approximately 4,900 barrels of crude oil per year. To place this in perspective, the same energy consumption would occur if each of the residents of Santa Clara County burned two 150-watt light bulbs for slightly less than one day each year. Capital costs for the conveyance and pumping stations are estimated to be \$86 million (1978 dollars escalated to 1980), 87.5 percent of which is covered by federal and state grant funds. Annual operating costs (estimated for 1981-1983) of approximately \$320,000 (power consumption, maintenance, and administration) would not be grant fundable.

Each user — residential, commercial, institutional, and industrial — that discharges into the SBDA sewer system must pay a fair share of the cost of operating and maintaining a conveyance pipeline. A system of "user charges" would be established to accomplish this. In addition, each industrial user must pay back to the cities in the SBDA its share of the federal funds for capital costs; this is known as "industrial cost recovery." Annual revenue requirements for industrial users, therefore, could impose a burden on the individual industries, varying with the percentage treatment capacity of the

system attributable to each industry. Seasonal large-volume dischargers, such as the canning industry, are likely to have higher revenue requirements than year-round and low-volume dischargers.

Alternative (Estuarine) Alignment for the Basin Plan Alternative

This subalternative involves a common conveyance from San Jose to the discharge point north of Dumbarton Bridge, with the alignment being located primarily in the waters of the South Bay (Figure 3). Impacts associated with operation of this subalternative are identical to those expected from the Basin Plan Alternative, although more salt pond, mudflat, and open water habitat are affected by construction, increased construction time is required, and more dredge spoils are generated. In addition, construction in salt ponds is more costly

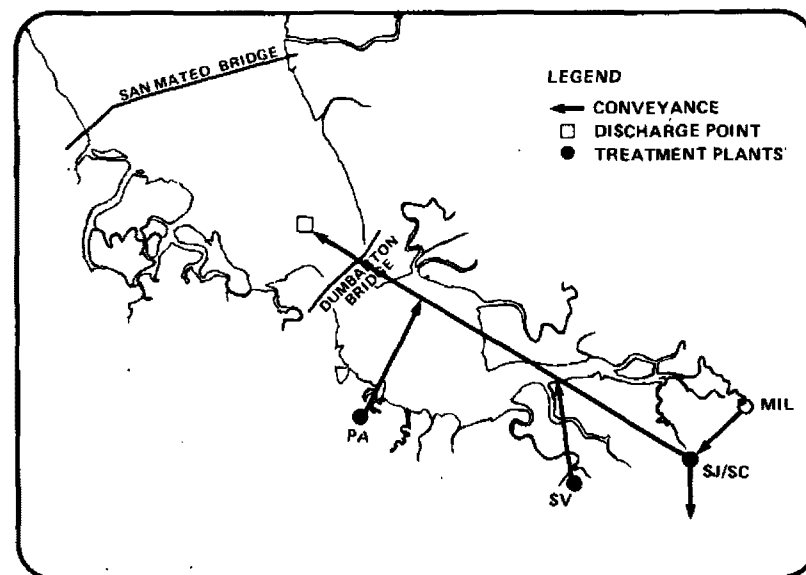


Figure 3 SCHEMATIC—BASIN PLAN ALTERNATIVE, ESTUARIAL

because special techniques have to be developed to avoid disruption of salt pond operation and to prevent breaching of the dikes. As a result, construction costs are slightly greater than those expected for the proposed project. The estuarine route, then, was eliminated from full consideration, since, when compared with the Basin Plan Alternative route, it has a similar impact on water quality, is not less costly to construct or operate, and has more adverse environmental impacts during construction.

Leslie Salt Company Participation in the Basin Plan Alternative

For the past several years, Leslie Salt Company has stored the toxic residue from evaporative salt production (bittern — the highly concentrated fluid that remains after salt crystallizes out in the salt

ponds). However, this storage is encroaching on the productive salt ponds at the rate of one per year and, consequently, is reducing the diversity of the habitat in the National Wildlife Refuge as well as limiting the economic production of salt in the South Bay. Since bittern is highly toxic and cannot be treated for toxicity, it may be discharged only after dilution of 100:1 concentrations. One source of water for dilution is the Bay itself; however, a toxic plume of wastewater might affect as much as one-third of an acre of Bay bottom under such conditions. Another source of dilution water is wastewater from a South Bay discharger. SBDA is a logical choice of such diluent, and if the Basin Plan Alternative were to be implemented, it would be technically feasible for Leslie Salt to connect to the disposal pipeline in order to discharge bittern (Figure 4).

There are institutional constraints to the joint participation of SBDA and Leslie Salt Company.

- SBDA is a chartered municipal discharger located entirely within Santa Clara County, while Leslie Salt is an industry in Alameda County; the SBDA charter would require amendment.
- Leslie Salt Company would have to arrange payback to state and federal granting agencies of the pipeline and diffuser capacity preempted by its use.
- Leslie Salt would have to arrange self-monitoring and automatic shutdown of discharge to assure 100:1 dilution minimum discharge at the proper flows and discharge only at ebb tide in winter.

NO ACTION BEYOND CURRENTLY APPROVED IMPROVEMENTS AT TREATMENT PLANTS

Under this, the selected alternative, no further improvements would take place beyond the recently (1978, 1979) implemented advanced waste treatment facilities (Figure 5). Continued discharge at present disposal points retains freshwater flushing in Artesian Slough; water

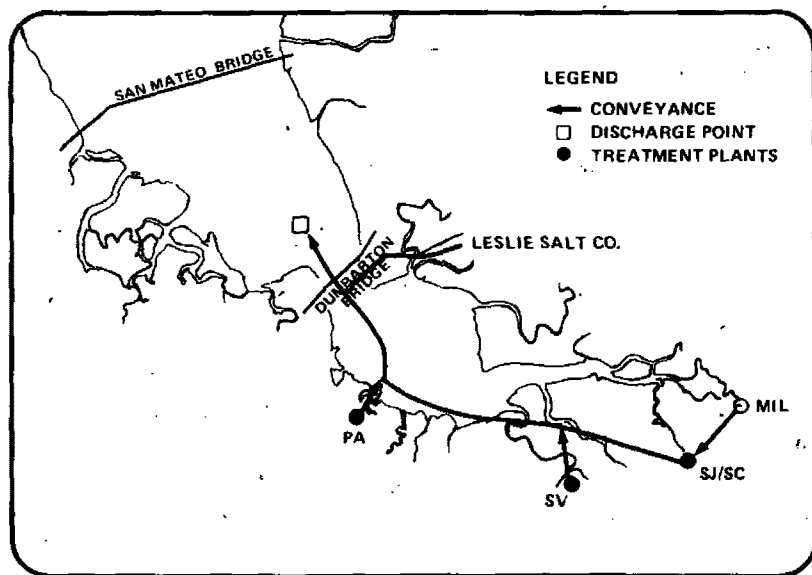


Figure 4 SCHEMATIC—BASIN PLAN ALTERNATIVE, LESLIE SALT

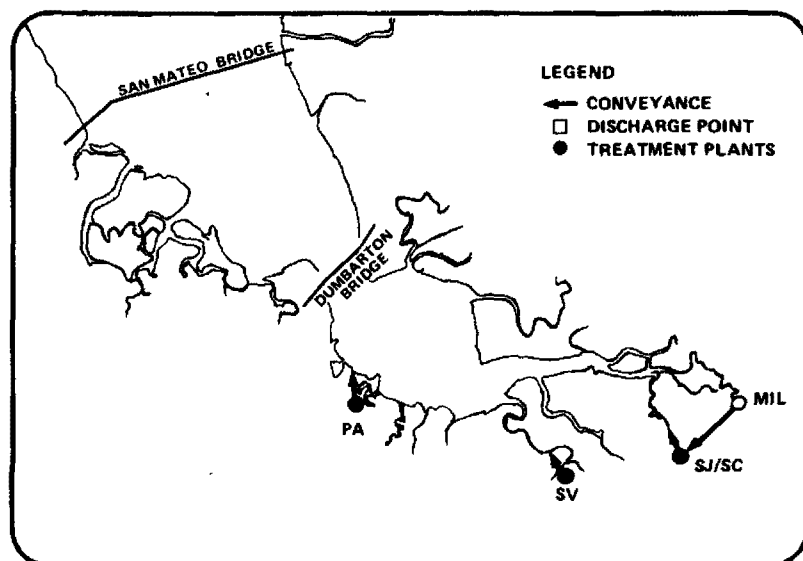


Figure 5 SCHEMATIC—NO FURTHER ACTION ALTERNATIVE

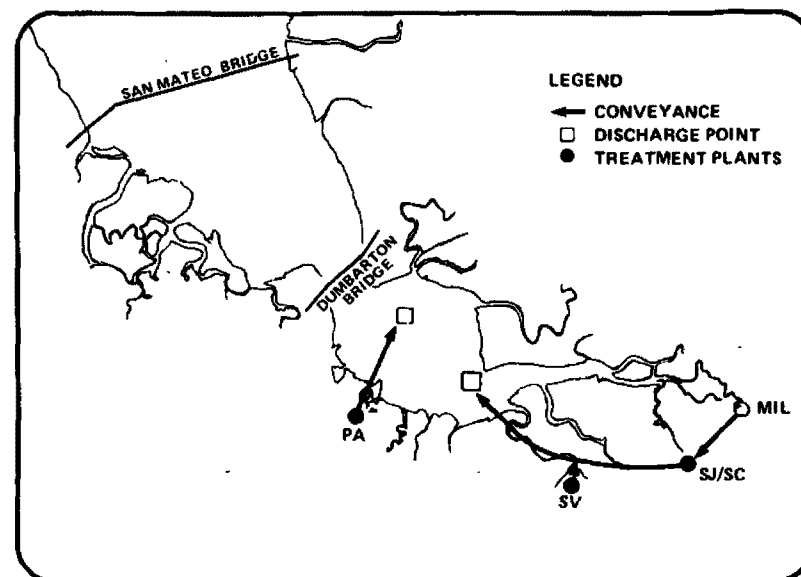


Figure 6 SCHEMATIC—INDIVIDUAL DEEPWATER OUTFALL ALTERNATIVE

quality standards are not, however, met south of Calaveras Point during dry and canning seasons. No further action does not comply with Basin Plan prohibitions against discharge south of Dumbarton Bridge or to tributaries on the South Bay, does not guarantee a 10 to 1 dilution rate, and may result in toxicity levels of up to 400 ml/l. A No Further Action alternative could be considered part of a deferred action program, however, in which the effects of the approved AWT could be monitored and documented, and the viability of future full reclamation could be investigated further. No additional costs or construction impacts are incurred with this alternative. Should additional action be required at some future date to meet water quality standards, the cost of this new action is significantly greater than present estimates, and the effects of inflation on labor and materials all contribute to this increase.

INDIVIDUAL OUTFALLS TO BAY SOUTH OF DUMBARTON BRIDGE

Using separate outfalls, dischargers would convey effluent to the nearest deep water south of Dumbarton Bridge (Figure 6). Under this arrangement, effluents from the San Jose/Santa Clara and Sunnyvale treatment plants are combined and conveyed to a discharge point in the vicinity of Calaveras Point; effluent from the Palo Alto plant is discharged from an outfall in deep water northeast of its present discharge location. This system should meet dissolved oxygen requirements in open waters of the Bay, while discontinuing wastewater discharge to the sloughs. However, improvement in water quality in the South Bay is not as great as would be expected if discharges were relocated north of the Dumbarton Bridge, and the prohibition

against discharge to the Bay south of Dumbarton Bridge is not met. Toxicity levels of 125 ml/l could occur and, as with the Basin Plan Alternative, this alternative eliminates freshwater flushing of the sloughs during the dry season, endangering the freshwater habitat of Artesian Slough.

The nature and extent of construction impacts from this alternative are not significantly different from those of the Basin Plan Alternative, although more extensive impacts would occur on natural habitats, such as marches and salt ponds.

The cost of construction and the first year of operation is estimated to be approximately 80 percent of that of the Basin Plan Alternative, or \$69 million; however, this estimate does not provide for the technical problems of construction in salt ponds. These problems would increase construction time and costs.

This alternative is compatible with local or small-scale reclamation and reuse projects and could function as an off-season disposal system for such projects. However, this alternative is less compatible with large-scale Bay Area reclamation than the Basin Plan Alternative, since a regional collection system for Santa Clara would not exist.

UPGRADED TREATMENT WITH CONTINUED LOCAL DISCHARGE

No new conveyance systems would be built in this alternative; each treatment plant continues discharging at its present location (Figure 7). Treatment levels at San Jose/Santa Clara are further upgraded, to include breakpoint chlorination for residual ammonia removal and carbon absorption for removal of toxicity and for further removal of oxygen demanding materials.

This alternative should meet dissolved oxygen requirements in open waters of the Bay. The sloughs would continue to receive flushing flows, and the freshwater habitat would persist in Artesian Slough.

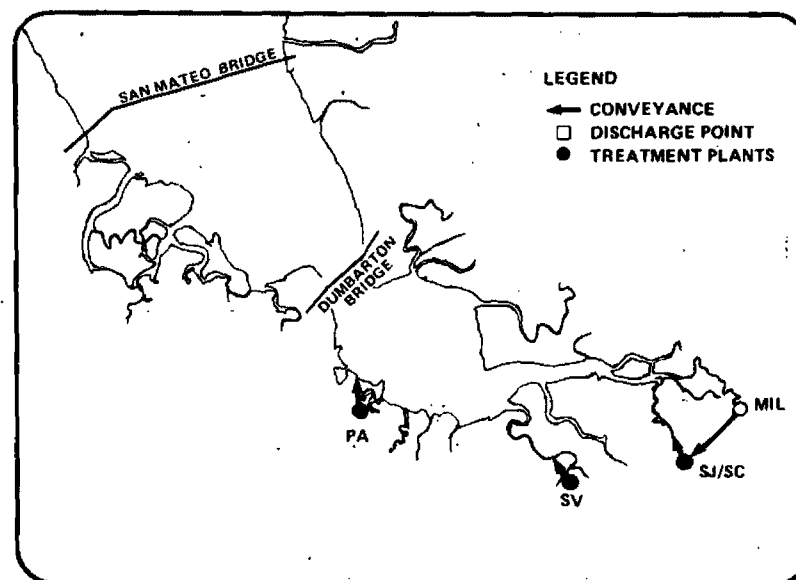


Figure 7 SCHEMATIC—UPGRADED TREATMENT WITH CONTINUED LOCAL DISCHARGE ALTERNATIVE

Oxygen depletion in the dry season and the buildup of conservative elements in the sloughs would continue, however. This alternative does not meet the prohibitions against discharge south of Dumbarton Bridge or to dead-end sloughs, nor does it provide the 10:1 minimum dilution required by the Basin Plan. Toxicity levels of 400 ml/l are expected to occur in the dry season of 1985 in the South Bay.

Construction impacts are less extensive for this alternative, limited to the San Jose/Santa Clara plant site.

The cost of construction and the first year of operation is estimated to be approximately 1.4 times that of the Basin Plan Alternative, or \$121 million. Costs of operating the advanced treatment facilities are greater than those of the Basin Plan Alternative primarily due to increased consumption of chemicals and energy. Reclamation and

reuse on a local scale is compatible with this alternative; however, it is less compatible with large-scale projects since a regional collector for Santa Clara County would not exist.

RECLAMATION AND REUSE

- Reclamation of wastewater from the SBDA treatment system, and the reuse of this water, was considered as an alternative to disposal. Depending on the market location, size, and water quality requirements, a reclamation and reuse alternative might include a reclamation treatment plant for additional treatment of a portion of the SBDA effluent, a distribution system to transport reclaimed waters to the market area, and an off-season disposal system for the discharge of that unreclaimed effluent (Figure 8). The benefit of this alternative is conservation of water resources by using reclaimed wastewaters in place of potable water supplies.

Studies of the viability of reclamation and reuse in the Bay Area have been sponsored by various member cities of SBDA, by the Department of Water Resources, by the Santa Clara Valley Water District, by the State Water Resources Control Board, by the EPA, by the State Department of Water Resources, and by the U.S. Bureau of Reclamation.

Assuming a market in the Santa Clara Valley for a portion (67 mgd) of the San Jose/Santa Clara effluent, construction impacts include those anticipated for an in-Bay outfall system for off-season discharges as well as impacts on water quality, air quality, habitats, and aesthetics in the grasslands and agricultural lands of the Santa Clara Valley. The extent of these impacts vary with the market served (i.e., Santa Clara County only or Santa Clara and San Benito Counties).

Operational impacts are primarily related to the cost and quality of the water in the market area. Salt buildup in soils, restrictions in crops, and the high cost of treating wastewaters to acceptable quality levels are all factors with potentially adverse impacts. Bay impacts

vary with the disposal system chosen; generally, improvements in water quality similar to those proposed for the Upgraded Treatment Alternative would result, if the major portion of the effluent could be reclaimed year-round.

The cost of construction and the first year operation of a 67 mgd facility is estimated to be 3.8 times that of the Basin Plan Alternative, or \$328 million. Increased cost is primarily due to increased treatment requirements and the cost of conveyance to the market. These include significant increases in energy consumption. Not included in this calculation are the revenues received for the sale of reclaimed waters, or the costs of an off-season discharge system.

A study to determine the engineering, economic, and environmental feasibility of reclaiming a smaller portion of SBDA wastewaters for

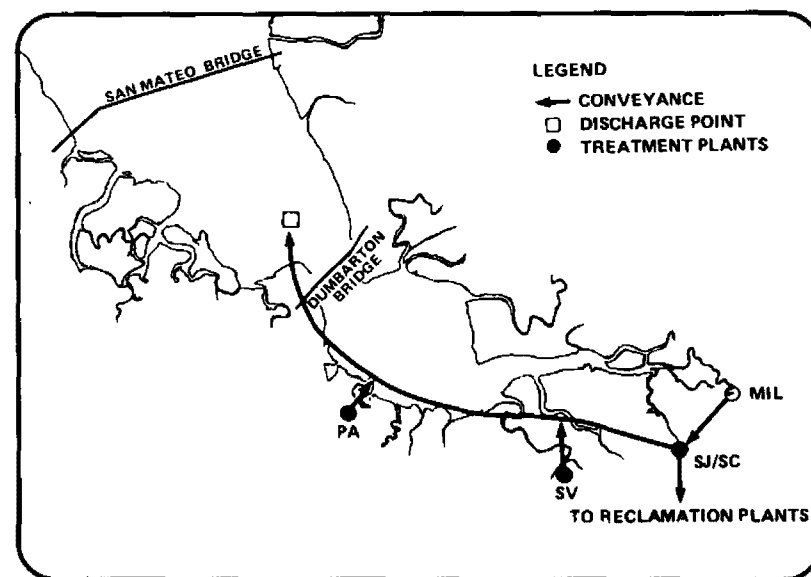


Figure 8 SCHEMATIC-RECLAMATION/REUSE ALTERNATIVE

agricultural use in the South Santa Clara Valley and the Bolsa area of San Benito County was undertaken for this EIR/EIS. As an option for water resources management, such a small-scale reclamation/reuse project has the benefits of (1) reducing SBDA discharges by approximately 10 percent, (2) increasing the amount of irrigation water without increased use of potable, diverted water supplies, and/or (3) opening up additional lands for irrigation. Disadvantages of such a project are primarily economic — depending on the level of treatment used, reclaimed water costs between \$150 and \$570 per acre-foot. If fully subsidized, the cost to the user (the farmer) is between \$9 and \$56 per acre-foot. However, in water-short areas, in drought years, and in areas with low-quality water supplies, such a water management option may be economically feasible and could be implemented regardless of the disposal alternative chosen. Such limited reclamation does not replace the requirement for a disposal system and, depending on the off-season or partial system chosen, may not comply with the water quality standard, toxicity guidelines, prohibition against discharge below Dumbarton Bridge, or a minimum 10:1 dilution.

CONSOLIDATION WITH OTHER DISCHARGE AUTHORITIES

This alternative involves consolidation with other discharger authorities in San Mateo County, with discharge north of the San Mateo Bridge, and has been considered in earlier management programs. Although it meets water quality requirements in open water, many of the environmental disadvantages associated with the five previously described alternatives occurs, such as decreased freshwater flushing in the sloughs. This alternative has more severe construction impacts and a higher cost (approximately twice) than the Basin Plan Alternative. Since many of the other Bay Area discharger authorities have completed independent studies and, in some instances, begun construction of their own improved treatment facilities, consolidation requires forfeiture of invested funds by these other authorities, with no guaranteed benefits accruing to these authorities as a result of that action. For this reason, this alternative was not given further consideration.

DISCHARGE TO THE OCEAN

This alternative consists of a collection and disposal conveyance from the Baylands to the Pacific Ocean. A tunnel through the Santa Cruz Mountains, a deepwater ocean outfall, and a series of pumping stations are required in addition to the major portion of the on-land systems of the Basin Plan Alternative. Construction impacts are significantly greater than those of in-Bay disposal Alternatives and affect additional acreage of grassland, woodland, coastal zone, and ocean habitat. Water quality in the South Bay is expected to improve to levels similar to those expected for the Basin Plan Alternative. Freshwater habitat and flushing in Artesian Slough is lost. However, it was determined that the increased costs (approximately 2.7 times that of the Basin Plan Alternative) and construction impacts were not justified by the small increment in improved Bay water quality, and this alternative was not given further consideration.

LAND DISPOSAL

Transport of effluent to a land disposal site removes wastewater from the Bay and improves water quality to levels similar to those expected for the Basin Plan Alternative. However, suitable land disposal sites do occur in Santa Clara County, and public acceptance outside the county appears to be lacking. In addition, construction impacts for a conveyance, storage, and dispersal system are large. Construction and operation costs might range as high as eight times that of the proposed project, and energy usage is significantly greater. Therefore, this alternative was not considered further.

NONSTRUCTURAL WASTEWATER MANAGEMENT

Nonstructural wastewater management uses phased development of treatment and disposal facilities to meet water quality criteria. This alternative entails source control, land-use planning, and enforcement of environmental regulations to control the quality and quantity of wastewater. The alternative modes of disposal discussed in this

EIR/EIS were considered as part of ongoing phased development plan, which in turn was designed in response to source control, land use, and environmental regulations. For this reason, nonstructural wastewater management is not an alternative mode of disposal; it is a criterion for disposal and is incorporated as such into the client alternative disposal systems.

SELECTION OF THE NO FURTHER ACTION ALTERNATIVE

At the time of issuing the Draft EIR/EIS, no decision had been made as to the selected, or preferred, alternative. However, at that time, both the EPA and the SBDA were recommending a "no project alternative" (No Further Action) because:

1. The degree to which increased dilution resulting from discharge north of the Dumbarton Bridge will mitigate the adverse impacts of toxicants on the biota of the South Bay could not be predicted.
2. Modeling studies had not shown that a substantial improvement in dissolved oxygen concentrations would result if the discharges were moved out of the sloughs (Individual Deep Water Discharge Alternative) or out of South Bay (Basin Plan Alternative).
3. The viability of future full reclamation is now being investigated in a Regional Wastewater Reclamation Study. Several local small-scale programs are in the planning or implementation stage; however, these programs do not preclude a requirement for disposal of some portion of the flow. The Regional Wastewater Reclamation Study and smaller programs, if implemented, could meet the planning requirements of the San Francisco Bay Basin Plan.

The EPA and SBDA recognize that many questions have been raised about the impact of treated effluents on biota which cannot be answered with data now available, and that the effects of the advanced waste treatment (AWT) now being provided at each plant

have not been documented or confirmed. However, EPA and SBDA feel that delay of a decision in order to obtain more data is not an acceptable approach, particularly since many of the issues left unanswered (chronic toxicity; aggravation of avian botulism; degree of oxygen depletion from presently "polluted" Bay muds, marshes and/or wastewater; degree of flushing imparted by wastewater flows) require special, beyond state-of-the-art studies which often, in turn, ask more questions than they answer. Similarly, implementation of a construction program for a disposal or treatment system, which present data indicate will not guarantee improvement of water quality or the beneficial uses of the Bay, does not appear to be acceptable.

Comprehensive monitoring of the AWT effluents and present discharge points may confirm the reported current trend toward improved biologic conditions, increased biotic diversity, and recovery of shrimp, striped bass, and marine species fisheries. In addition, SBDA and its member agencies are committed to regional and local wastewater reclamation investigations. EPA and SBDA will continue to reevaluate results of this monitoring program and reclamation studies, and will reconsider the disposal problem, if appropriate, after these data are available.

SUMMARY OF THE COORDINATION PROCESS

During the preparation of the SBDA Draft EIR/EIS, twelve Technical Advisory Committee (TAC) meetings were held. A list of the members of the TAC, as well as the preparers of the EIR/EIS, is presented below and in Chapter VII of the Draft EIR/EIS. A distribution list for the Final EIR/EIS is also presented here.

PREPARERS OF THE EIR/EIS

This Environmental Impact Report and Statement (EIR/EIS) has been prepared under a joint agreement dated 12 March 1975 be-

between the Environmental Protection Agency (EPA), the lead federal agency for the project, and the South Bay Dischargers Authority (SBDA), the lead state agency. Pursuant to this agreement, entitled "Agreement between the U.S. Environmental Protection Agency and the South Bay Dischargers Authority Regarding the Preparation of an Environmental Impact Statement and Provision of Payment Therefor," SBDA engaged Bechtel Incorporated as its consultant to assist EPA in drafting the EIR/EIS. The EIR/EIS project participants and their affiliations are presented below:

Environmental Protection Agency, Region IX

Peter R. Perez	Project Evaluator	30 May 1974 to 21 August 1975
Charles H. Campbell	Project Evaluator	21 August 1975 to 4 June 1976
William Helphingstine	Project Evaluator	4 June 1976 to 11 April 1980
Lauren Fondahl	Project Evaluator	11 April 1980 to present

Statewater Resources Control Board

F. W. Pierson	Project Evaluator	30 May 1974 to 8 September 1976
Lyndel Melton	Project Evaluator	8 September 1976 to 16 September 1979
Curtis Swanson	Project Evaluator	16 November 1977 to present

South Bay Dischargers Authority

R. R. Blackburn	City of San Jose, Project Coordinator
-----------------	---------------------------------------

Technical Advisory Committee

U.S. Army Corps of Engineers	Col. H. A. Flertzheim, Jr.
U.S. Geological Survey	D. S. McCulloch
Department of the Navy Moffett Field Naval Air Station	LCDR W. V. Sayner, Jr., Ens. C. F. Winsor
State Water Resources Control Board	Omer Peck, Howard Wright, Fred Botti, Jim Lee, John Harris, Bob Brown
State Department of Fish and Game III	Michael Rugg
State Lands Commission	Gary Horn
State Department of Public Health	William Joppling and Robert Witt
San Francisco Bay Conservation and Development Commission	Patricia Weesner
Association of Bay Area Governments	Waide Egner and Robert Wong
Bay Area Sewage Services Agency	Dan Murphy and Karol Enferadi
Regional Water Quality Control Board (2)	Robert Scholar, Robert Roche, Val Miller, Don Dalke, A. Van Kleek
U.S. Fish and Wildlife Service, River Basins	R. Breitenbach

U.S. Fish and Wildlife Service, San Francisco Bay National Wildlife Refuge	Richard Nugent, Cathy Osugi, and Robert Personius	U.S. Department of Agriculture, Agricultural Extension Service	Robert Ayers
U.S. Food and Drug Administration	David Alton	San Jose/Santa Clara Treatment Plant	Advisory Committee (F. Belick, E. Becker)
Santa Clara Valley Water District	Lloyd Fowler, Val Miller	U.S. Coast Guard, Marine Environmental Protection Branch	N. Bell
Santa Clara County Board of Supervisors	County Executive	San Mateo County Board of Supervisors	Country Executive
City of Palo Alto	City Manager and H. R. Remmel	State Department of Water Resources	Donald Finlayson, Hal Higgins, William Mitchell, Jr.
City of Mountain View	Norman H. Lougee	South Santa Clara Valley Water Conservation District	M. Sheehy, D. I. Martin, J. Jeske
City of Sunnyvale	City Manager and D. M. Somers	Agricultural Extension Service, U.C., County of San Benito	Edward Lydon
City of San Jose	City Manager, F. Belick, A. R. Turturici	Agricultural Extension Service, U.C., County of Santa Clara	Peter Lert
City of Santa Clara	Robert R. Mortenson	<u>Bechtel</u>	
State Department of Parks and Recreation		John A. Peterson	Project Manager
U.S. Department of the Interior, Bureau of Reclamation	Haydn C. Lee, Jr.		30 May 1974 to February 1976
Santa Clara County Health Department	E. H. Pearl	C. M. Spink	Project Manager
San Benito County Board of Supervisors	George E. Shore		February 1976 to present
University of California, Davis	Dr. Robert Hagen	R. L. Bardin	Project Engineer, supervising design and engineering, pipeline

C. Cain	Project Engineer, supervising design and engineering, treatment	J. A. Hepper, Ph.D. candidate	Economics
Carol M. Harper, Ph.D.	Project Engineer, supervising EIS writing and data gathering	R. A. Hughes, Ph.D.	Water chemistry
Hsing-Chi Chang, Ph.D.	Noise control technology	Martha H. Kohler, Ph.D.	Oceanography and limnology — sediments
Walter T. Clark	Physical geography	Douglas R. Longwell, Ph.D.	Air chemistry
David A. Cobb, Ph.D. candidate	Marine biology — benthos	Peter F. Mason, Ph.D.	Urban geography
J. A. Coil III, Ph.D.	Aquatic ecology, water chemistry*	J. J. Meersman	Water quality
G. S. Dhillon, Ph.D.	Agriculture, soils	Ramon Nugent	Noise control technology
S. Douglas	Planning	J. L. Owen	Terrestrial ecology-botany
R. Eggers	Planning	F. Z. Patassy	Agronomy and reclamation
J. W. Gerald, Ph.D.	Fisheries	Max G. Rodel	Water chemistry
E. Goldman	Environmental monitoring, chemistry	R. B. Scheibach	Groundwater, geology, water quality
J. D. Gougé	Marine biology — plankton	Brent P. Sherfey	Economics
W. S. Gray, Ph.D.	Marine biology — amphipods	C. Valentino	Ecology
Charles A. Harper, Ph.D.	Terrestrial biology — birds and arthropods	John D. Walsh	Meteorology
		B. L. Westree	Marine ecology, estuarine biology*
		<u>Consultant to Bechtel</u>	
		Michael Melanson	Terrestrial biology — mammals and plants

E. H. Smith and Associates, Sebastopol, CA

Edmund Smith, Ph.D. Benthic biological survey and
collection of water samples

(for qualifications of technical personnel, see Appendix H of
Draft EIR/EIS)

Archaeological Consulting and Research Services, Inc.
Mill Valley, CA

Archaeological and
paleontological survey

R. C. Harlan and Associates, San Francisco, CA

Collection of sediment samples
and physical analyses of these
sediment samples

Pacific Environmental Laboratory, San Francisco, CA

Chemical analyses of sediment and
water samples

Hydroscience, Inc., Westwood, New Jersey

Mathematical model of water
quality for South San
Francisco Bay

*On FEIR/EIS only

RESPONSE TO COMMENT
ON SOUTH BAY DISCHARGERS AUTHORITY DRAFT EIR/EIS

City of Santa Clara
Planning Department
1500 Warburton Avenue
Santa Clara, CA 95050

City of Mountain View
Planning Department
540 Castro Street
Mountain View, CA 94040

City of Sunnyvale
Planning Department
P.O. Box 607
456 W. Olive Avenue
Sunnyvale, CA 94088

City of Los Altos
Planning Department
1 N. San Antonio Road
Los Altos, CA 94022

City of Palo Alto
Planning Department
250 Hamilton Street
Palo Alto, CA 94301

City of Milpitas
Planning Department
455 E. Calaveras Blvd.
Milpitas, CA 95035

City of Cupertino
Planning Department
City Hall, 10300 Torre Avenue
Cupertino, CA 95014

Town of Los Altos Hills
Planning Department
26379 Fremont Road
Los Altos Hills, CA 94022

City of Los Gatos
Planning Department
P.O. Box 949
Los Gatos, CA 95030

City of Monte Sereno
Planning Department
18041 Saratoga-Los Gatos Road
Monte Sereno, CA 95030

Please bring this notice to the attention of all persons who would be interested in this matter.

U.S. Environmental Protection Agency, Region IX


by Paul De Falco, Jr.

Regional Administrator

South Bay Dischargers Authority


by James A. Alloway
Chief Executive Officer

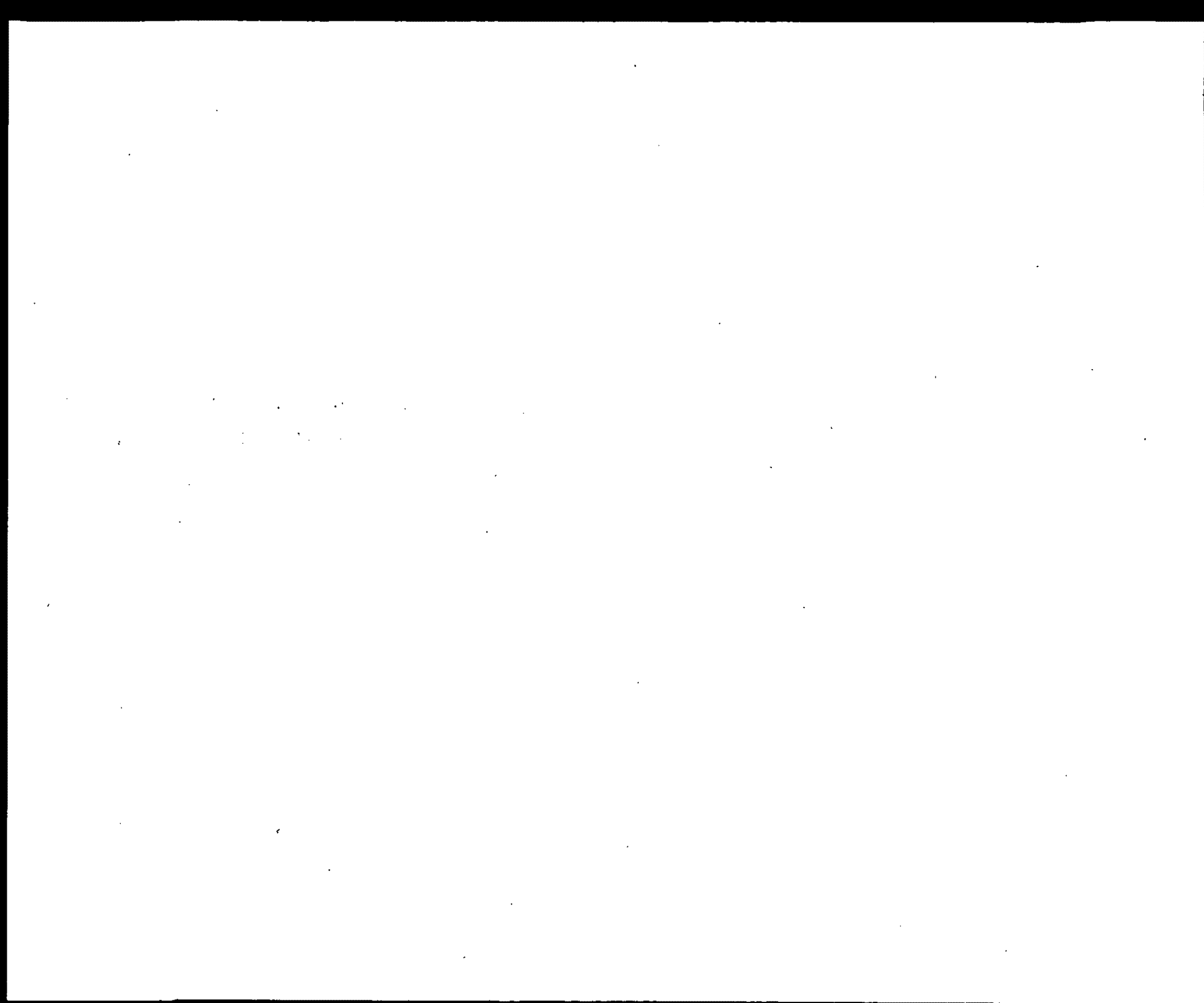
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• City of Milpitas, Milpitas Sanitary District Board of Directors - EPA No. (HE-149)7	64-65	• U.S. Department of Agriculture - EPA No. (HE-149)12	85
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• Paul N. McCloskey, Jr., U.S. Congress - EPA No. (HE-149)14	66	• Santa Clara Valley Water District - EPA No. (HE-149)15	88-89
• U.S. Department of Transportation - EPA No. (HE-149)16	67	• California Department of Fish and Game - EPA No. (HE-149)17a	90-95
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Section 1

SUMMARY OF COMMENTS PRESENTED AT
16 MAY 1979 PUBLIC HEARING



RESPONSE TO COMMENTS SUBMITTED BY THE
PUBLIC AND BY AGENCIES REGARDING THE
DRAFT EIR/EIS

In accordance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), comments from the public have been solicited by the South Bay Dischargers Authority (SBDA) and by Region IX of the Environmental Protection Agency (EPA) on the Treated Wastewater Disposal Program Draft EIR/EIS. This solicitation took three forms:

- Mailout on 29 March 1979 of Draft EIR/EIS or Summary to those individuals or agencies listed in Section VII.4 (pages 335-353) of the Draft EIR/EIS Technical Volume
- Publication of notices in the Federal Register on 30 March 1979, and in local newspapers
- Public Hearing, 16 May 1979, 7:30 p.m., at City of Santa Clara

This appendix summarizes the comments received at the public hearing (including the transcript of that hearing) as well as copies of, and responses to, letters received as a result of public and agency review.

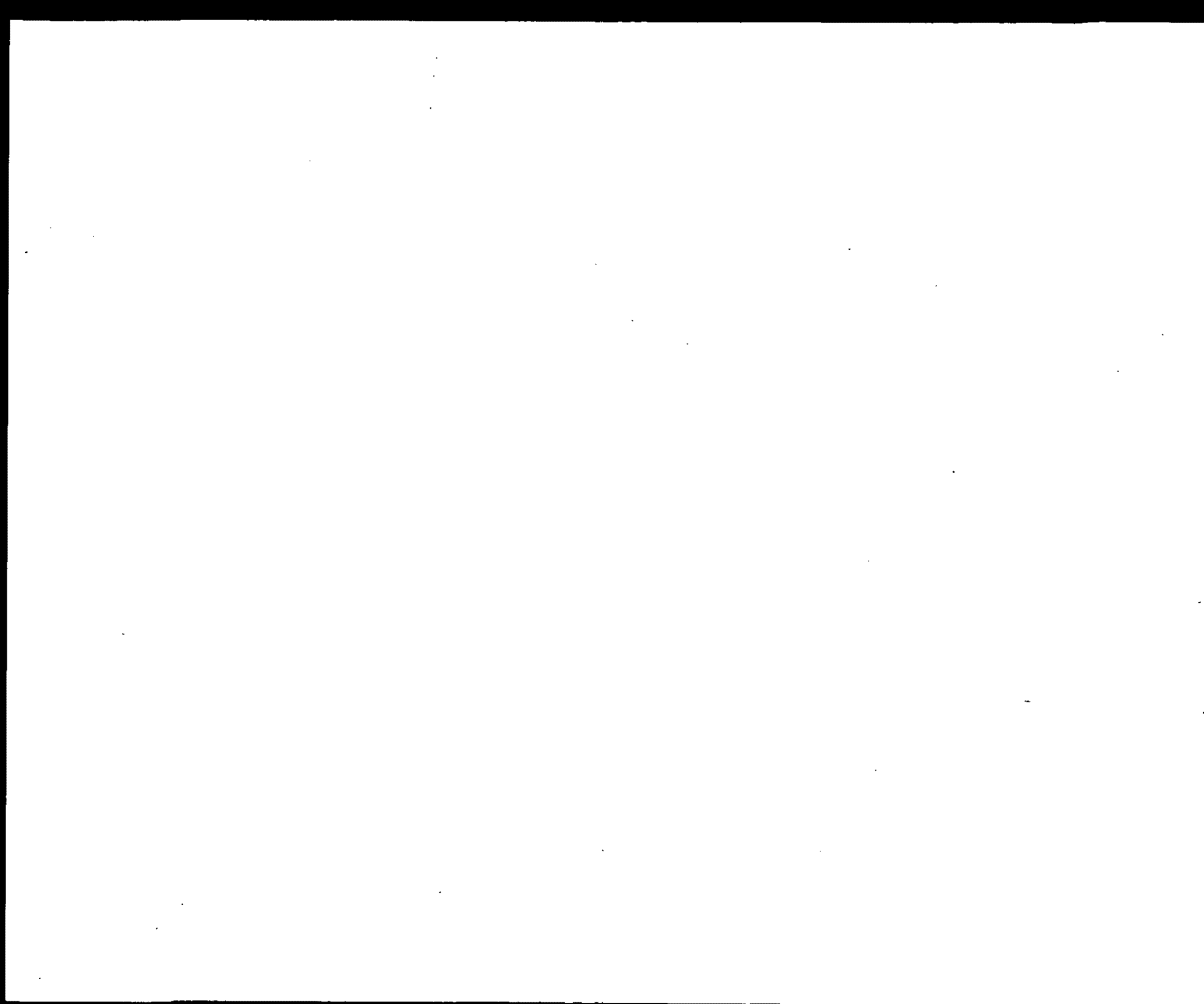
1. TRANSCRIPT OF 16 MAY 1979 PUBLIC HEARING

The following individuals testified at the public hearing, held in May 1979, in the City of Santa Clara Council Chambers:

- Mr. R. Diridon, Supervisor, County of Santa Clara (transcript pages 26-30)
- Mr. S. Goodman, Santa Clara County District Four (transcript pages 30-31)

- Ms. D. Wulforth, Council Member, City of Sunnyvale (transcript pages 31-33)
- Mr. R. R. James, Chief Executive Officer, San Jose Chamber of Commerce (transcript pages 33-35)
- Mr. L. F. Cournoyer, Santa Clara Valley Water District (transcript pages 35-36)
- Mr. J. Quintal, Santa Clara County Cannery Association (transcript pages 36-39)
- Mr. B. E. Schoppe, Santa Clara Chamber of Commerce (transcript pages 40-41)
- Mr. M. Pearl (transcript pages 41-42)
- Mrs. M. Brendler, Sunnyvale Chamber of Commerce (transcript pages 42-43)
- Mr. B. Martin, Citizens Advisory Committee, City of Santa Clara (transcript pages 44-45)
- Mr. P. Ferraro (transcript pages 45-49)
- Mr. C. Harrison, Director, Cupertino Sanitary District (transcript pages 49-50)

Issues raised in this testimony are addressed on pages following the full transcript of the hearing.



1 JOINT PUBLIC HEARING
2 By the
3 U.S. ENVIRONMENTAL PROTECTION AGENCY
4 and
5 THE SOUTH BAY DISCHARGERS AUTHORITY

6
7
8 COMBINED DRAFT ENVIRONMENTAL IMPACT
9 STATEMENT-ENVIRONMENTAL IMPACT REPORT
10

11
12 MAY 16, 1979

13 7:30 p.m.

14
15
16 ~~MICHAEL~~ S. WALKER, CHAIRMAN
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TELEPHONE: (408) 908-0899

1 MR. GISSLER: The South Bay Dischargers
2 Authority started their meeting at 7:00 p.m. and then
3 adjourned to this time and I would now like to formally
4 declare the public hearing on the draft EIR/EIS
5 for this project officially open.

6 I would like to turn the meeting over to
7 Matthew S. Walker a Senior Attorney Hearing Officer for
8 the Environmental Protection Agency.

9 MR. WALKER: Thank you, Mayor. Good evening.
10 my name is ~~Michael~~ ^{MATTHEW} S. Walker and I've been appointed
11 to act as Hearing Officer for the purposes of these
12 proceedings.

13 This hearing is a joint hearing between the
14 Environmental Protection Agency and the South Bay
15 Dischargers Authority. Pursuant to the federal regula-
16 tions, a notice of this hearing was published on
17 April 2nd, 1979, in Volume 44 of the ^{Federal} Register at page
18 19241. As we all know it is the ^{presumption of} ~~the~~ statutory law
19 that everybody reads ~~in~~ the Federal Register every day.
20 So in addition to that, a notice of this hearing was also
21 given by publication in newspapers in this vicinity and
22 I have here a copy of the Notice of Joint Public Hearing
23 by the U.S. Environmental Protection Agency and the South
24 Bay Dischargers Authority.

25 For the purpose of this record I am going to
26 mark this copy of the Notice as Exhibit 1. We will have
27 other exhibits later on to talk about.
28

///

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3
1 (Thereupon, a four-page document
2 entitled Notice of a Joint Public
3 Hearing by the U.S. Environmental
4 Protection Agency was marked Exhibit
5 1 for identification.)

6 MR. WALKER: This hearing being a joint hearing
7 is being held pursuant to two different statutes; the
8 National Environmental Policy Act of 1969, which is often
9 called NEPA, requires that a detailed statement be made
10 on the environmental impact and effects of any
11 recommendation or reports of any major federal action.

12 The Federal Water Pollution Control Act, also
13 known as the Clean Water Act, requires the administrator
14 of the Environmental Protection Agency to encourage waste
15 treatment management that results in desirable
16 environmental impact effects to the extent it is
17 possible on an area wide basis.

18 Title 40 of the Code of Federal Regulations
19 requires the Environmental Protection Agency to hold a
20 public hearing. Pursuant to those regulations the
21 Regional Administrator publicly announced the ~~intention~~
22 of the Environmental Protection Agency to prepare an ~~protection~~
23 environmental impact statement in compliance ~~with~~
24 Section 102 of the National Environmental Policy Act. ~~of the~~

25 In addition to these requirements, Resolution
26 Number 73-16 of the South Bay Dischargers Authority
27 requires preparation of an environmental impact report for
28 the SBDA treated water disposal program. This resolution
further requires that a public hearing be held during
and before which any and all interested persons shall be

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4
1 given an opportunity to be heard on the proposed
2 environmental impact report.

3 This is that hearing. A combined environmental
4 impact statement, environmental impact report, has been
5 prepared. It is entitled "Draft Environmental Impact
6 Report and Statement, Treated Wastewater Disposal Program."
7 These four volumes constitute that report, and for the
8 purposes of this record they will be marked as Exhibit 2.

9 (Thereupon, a report entitled
10 Draft, Environmental Impact Report
11 and Statement, Treated Wastewater
12 Disposal Program, Summary, dated
13 September 1978 was marked Exhibit 2
14 for identification.)

15 MR. WALKER: This hearing has been called to
16 receive public comments on this Draft Environmental
17 Impact Report. The notice states that the hearing may
18 be continued from time to time or to a different place
19 to accommodate the needs of witnesses or the Environmental
20 Protection Agency.

21 In order to bring the matter to some sort of
22 a conclusion, so that a final Environmental Impact
23 Statement can be prepared, the Environmental Protection
24 Agency proposes at the end of this public hearing to close
25 the record for the receipt of oral statements, but to
26 leave the record open for three weeks, that is fifteen
27 working days, for the receipt of supplemental written
28 statements.

Several people have requested permission to file
supplemental written statements. It is expected that the

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1 supplemental statements will amplify and enlarge the
2 positions that are taken tonight.

3 If for any reason the supplemental statements
4 take new positions, or bring substantially new facts to
5 the attention of the hearing bodies, it may be necessary
6 to schedule a new public hearing so that everybody can
7 have an opportunity to comment on those statements.

8 Now, this being a formal hearing, we are
9 making a record of the hearing, and Mrs. Valerie Fitch
10 of the firm of Fitch and Associates is a certified
11 shorthand reporter and is making a stenographic record of
12 all of the comments made here tonight.

13 We are going to request that all persons come
14 to the podium, use the microphone, tell us their name
15 and if they are appearing in a ~~represented~~ ^{representative} capacity, also
16 tell us in what capacity they are appearing. We will
17 not entertain questions from the floor, because it is
18 impossible to keep an orderly record in such circumstances.

19 However, if people in the audience feel the
20 need for it, we will take a recess after the hearing
21 has been going on for some time for a question and answer
22 period.

23 Mr. Helphingstine, who is on my left, will be
24 glad to assist anyone in answering questions that may
25 occur to you. However, I have to note that the comments
26 that are made in a question and answer period are not a
27 part of the official record and may not be considered
28 when the final report is drafted and prepared. That

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1 question and answer period is for your assistance and help.
2 However, if anything comes up during that period that you
3 feel should be on the record, it would be necessary for
4 you later on to take the podium and recite it for the
5 record.

6 Now, I have certain tedious work to do here,
7 and if you will bear with me, I will announce some of the
8 notices that have been received and the publications that
9 have been made.

10 I have an Affidavit of Publication of the
11 Notice in the San Jose News on the 12th of April, which
12 will be Exhibit 3.

(Thereupon, a one-page document
entitled Proof of Publication dated
May 1st, 1979, was marked Exhibit 3
for identification.)

13 MR. WALKER: It was published in the San Jose
14 Mercury on the 12th of April, and the Affidavit of
15 Publication will be Exhibit 4.

(Thereupon, a one-page document
entitled Proof of Publication dated
May 1st, 1979, was marked Exhibit 4
for identification.)

16 MR. WALKER: It was published in the San Jose
17 Sun on April 11th, and that Affidavit of Publication will
18 be Exhibit 5.

(Thereupon, a one-page document
entitled Proof of Publication dated
April 11, 1979, was marked Exhibit 5
for identification.)

19 MR. WALKER: It was published in the East San

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1 Jose Sun on the 11th of April and that Affidavit will be
2 Exhibit 6.

3 (Thereupon, a one-page document
4 entitled Proof of Publication dated
5 April 11, 1979, was marked Exhibit
6 6 for identification.)

7 MR. WALKER: It was published in the South
8 San Jose Sun on the 11th of April and that Affidavit
9 of Publication will be Exhibit 7.

10 (Thereupon, a one-page document
11 entitled Proof of Publication dated
12 April 11, 1979, was marked Exhibit
13 7 for identification.)

14 MR. WALKER: It was published in the Santa
15 Clara Sun on the 10th of April and that Affidavit will be
16 Exhibit Number 8.

17 (Thereupon, a one-page document
18 entitled Proof of Publication dated
19 April 10, 1979, was marked Exhibit
20 8 for identification.)

21 MR. WALKER: It was published in the Campbell
22 Press on the 12th of April and that Affidavit of
23 Publication will be Exhibit 9.

24 (Thereupon, a one-page document
25 entitled Proof of Publication dated
26 April 12, 1979, was marked Exhibit
27 9 for identification.)

28 MR. WALKER: It was published in the Cupertino-
Monta Vista Courier on the 10th of April and that
Affidavit of Publication will be Exhibit 10.

(Thereupon, a one-page document
entitled Proof of Publication dated
April 10, 1979, was marked Exhibit
10 for identification.)

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1 MR. WALKER: It was published in the Los
2 Gatos Times-Saratoga Observer on the 10th of April, and
3 that Affidavit of Publication will be Exhibit 11.

4 (Thereupon, a one-page document
5 entitled Proof of Publication dated
6 April 10, 1979, was marked Exhibit
7 11 for identification.)

8 MR. WALKER: In the Milpitas Post on the 10th
9 of April and that Affidavit will be Exhibit 12.

10 (Thereupon, a one-page document
11 entitled Proof of Publication dated
12 April 10, 1979, was marked Exhibit
13 12 for identification.)

14 MR. WALKER: The Sunnyvale Scribe on the ¹¹10th
15 of April, and that Affidavit will be Exhibit 13.

16 (Thereupon, a one-page document
17 entitled Proof of Publication dated
18 April 11, 1979, was marked Exhibit
19 13 for identification.)

20 MR. WALKER: In The Town Crier in Los Altos
21 on the 11th of April and that Affidavit will be Number 14.

22 (Thereupon, a one-page document
23 entitled Proof of Publication dated
24 April 11, 1979, was marked Exhibit
25 14 for identification.)

26 MR. WALKER: In the Menlo-Atherton Recorder
27 on the 10th of April and that Affidavit will be Number 15.

28 (Thereupon, a one-page document
entitled Affidavit of Publication
dated April 10, 1979, was marked
Exhibit 15 for identification.)

MR. WALKER: The San Mateo Times on the 12th
of April, 1979, and that Affidavit will be Number 16.

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1 MR. WALKER: In the Valley Journal on the 11th
2 of April, and that Affidavit will be Number 17.

3 (Thereupon, a one-page document
4 entitled Proof of Publication dated
5 April 11, 1979, was marked Exhibit
6 17 for identification.)

7 MR. WALKER: In the San Francisco Chronicle
8 on the 12th of April and that Affidavit will be Number 18.

9 (Thereupon, a one-page document
10 entitled Declaration of Publication
11 dated April 13, 1979, was marked
12 Exhibit 18 for identification.)

13 MR. WALKER: I have also a press release that
14 was issued by the Environmental Protection Agency and to
15 keep the record complete, that will be Exhibit 19.

16 (Thereupon, a one-page document
17 entitled EPA Environmental News.
18 For Immediate Release, Where Should
19 All the Wastewater Go, was marked
20 Exhibit 19 for identification.)

21 MR. WALKER: And there was a notice of this
22 given by mailing to a large mailing list of interested
23 persons, the publication is dated May 30, 1975?

24 MR. HELPHINGSTINE: This was a Notice of
25 Intent to prepare it.

26 MR. WALKER: Oh, excuse me, this was the
27 Notice of Intent when we were first starting on this
28 journey. And that will be Exhibit Number 20.

(Thereupon, a two-page document
entitled To All Interested Agencies,
Public Groups and Concerned
Individuals dated May 30, 1975, was
marked Exhibit 20 for identification.)

MR. WALKER: Thank you for bearing with me on

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1 that.

2 Now we have a procedure for the Environmental
3 Protection Agency that we use in conducting public
4 hearings, and in this procedure we take people more or
5 less in the order in which they have registered. There
6 were certain cards that look like this (indicating) as
7 you came in the door and you may have been asked to sign
8 a registration card. If you wish to make a statement,
9 you were asked to check the box. I have several cards
10 here of people who have checked the boxes, stating that
11 they want to make a statement.

12 Now, in our procedure we ordinarily call on
13 elected officials first. Thereafter we call on people
14 in different groups: Interested public citizens, people
15 representing public agencies, people representing
16 Chambers of Commerce, people representing industries and
17 we rotate the call among those various groups.

18 However, this evening, since we don't have many
19 requests for people to be heard, I propose to take them
20 just in the order in which the cards were received. If
21 you would like to make a statement, and I do not have
22 your card, I suggest that you go to the young lady at the
23 door, just outside the door, and ask to have a card checked
24 with the box that says you would like to make a statement.

25 Now, what is going to happen next? After the
26 conclusion of this oral part of the public hearing, the
27 Environmental Protection Agency will receive public comments
28 as I said, for three weeks, and that would be until the

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1 6th of June. Any comments that people want to make
 2 subsequent to this oral part of the hearing must be
 3 received in the Environmental Protection Agency, 213
 4 Fremont Street, San Francisco, before the close of business
 5 on the 6th of June. At that time our records will be
 6 closed.

7 As I earlier mentioned, if the comments are
 8 in amplitude or supplemental to the statements made
 9 tonight, there will be no further part of our public
 10 hearing. The record will be closed and it will be reviewed.
 11 a staff recommendation will be made, and that will be
 12 made to the Regional Administrator who will approve
 13 or disapprove or take some other action with respect to
 14 the environmental impact statements, so far as federal
 15 action is concerned.

16 Other action may be taken by the South Bay
 17 Dischargers Authority, and there will be other comments
 18 on that a little later on.

19 Now, I don't know whether everybody knows who
 20 all the people are here. Mr. Mayor, would you like to
 21 introduce the people? I have some notes here but you
 22 know them better than I.

23 MR. GISSLER: All right, from the City of
 24 Palo Alto, Councilmember Al Henderson. From the City
 25 of San Jose, Mayor Janet Gray Hayes. On my far left
 26 from the City of San Jose, Councilman Jerry Estruth.
 27 And next to him from the City of Sunnyvale, still mayor?

28 MR. GUNN: Yes.

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1 MR. GISSLER: Mayor Gil Gunn. I guess you will
 2 be changing soon, I guess.

3 MR. WALKER: Thank you very much. Mr.
 4 Helphingstine has a brief statement to make about this,
 5 and then we will call on the consultants and then we will
 6 be calling on the public. Mr. Helphingstine?

7 MR. HELPHINGSTINE: Good evening, ladies and
 8 gentlemen. My name is Bill Helphingstine. I am the
 9 Project Officer for the Environmental Protection Agency.
 10 The Environmental Protection Agency and the South Bay
 11 Dischargers Authority have jointly prepared this
 12 Environmental Impact Statement and Report in order to
 13 disclose the impacts of the proposed project alternatives
 14 for the construction of treated wastewater disposal
 15 facilities to serve the greater Santa Clara County area.

16 I would like to take this opportunity to mention
 17 the water quality problem in south San Francisco Bay and
 18 to summarize the purpose of this project and the Draft
 19 Environmental Impact Statement and Report.

20 Waste load accumulations over the years have
 21 caused depression of dissolved oxygen concentrations,
 22 high concentrations of toxic heavy metals in sediments,
 23 and localized problems of fish kills and waterfowl
 24 botulism outbreaks. Lack of freshwater inflow during
 25 the dry season and subsequent flushing of the estuary have
 26 further aggravated these conditions.

27 The purpose of this project is to provide a
 28 treated wastewater disposal system for the San Jose/

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1 Santa Clara, Sunnyvale and Palo Alto wastewater treatment
2 plants. These plants presently discharge their treated
3 effluents into sloughs or a drainage canal which drain
4 into south San Francisco Bay.

5 The treated wastewater disposal program was
6 initiated because the California Water Quality Control
7 Board's Basic Plan prohibits the discharge of any plant
8 effluents into South San Francisco Bay below the
9 Dumbarton Bridge.

10 The Environmental Impact Statement and Report
11 has been prepared because significant impacts could
12 result from the implementation of several of the project
13 alternatives. These alternatives include wastewater
14 reclamation, further advanced treatment, a long outfall
15 extending to north of the Dumbarton Bridge.

16 By the way, you notice there are some large
17 maps to the left, my left, by the seal. Those indicate
18 some of the major routes considered in this Environmental
19 Impact Report and Statement.

20 The other alternatives considered would be
21 individual outfalls to the South Bay and a no-project
22 alternative. Environmental impacts of the basin plan
23 alternative would include disruption of rare and
24 endangered species; the salt marsh harvest mouse, and
25 the California clapper rail; and also possible improve-
26 ments in the beneficial uses of the South Bay, such as
27 fishing and recreation. These alternatives range in
28 estimated cost from \$86 million for a sixteen mile

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1 pipeline and outfall to discharge effluent approximately
2 one mile north of the Dumbarton Bridge, to \$323 million
3 for a water reclamation and reuse alternative. And these
4 costs are based on a couple of years ago. The construction
5 costs of either of these alternatives would now be
6 higher to incorporate the inflation which has been going
7 on during the last several years and the next several
8 years it would take to actually construct to get those
9 alternatives.

10 The project alternative has not been selected.
11 However, the Environmental Protection Agency and the
12 South Bay Dischargers Authority recommend a no project
13 alternative because the degree to which increased dilution
14 resulting from a discharge north of the Dumbarton Bridge
15 will mitigate the adverse impacts of toxicants on the
16 biota of the South Bay cannot be predicted.

17 Modeling studies have not shown that a
18 substantial improvement in dissolved oxygen concentrations
19 would result if the discharge were moved north of the
20 Dumbarton Bridge.

21 The viability of future full reclamation is
22 being investigated in the Regional Wastewater Reclamation
23 Study. Such an alternative, if it proves to be feasible,
24 would meet the planning requirements of the San Francisco
25 Bay Basin Plan.

26 The Environmental Protection Agency and the
27 South Bay Dischargers Authority recognize that compre-
28 hensive receiving water monitoring will be needed to

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to document the impacts of wastewater discharges in the South Bay. This decision is being recommended based on present knowledge. However, if the final selection is a no project alternative, we will continue to evaluate results of the monitoring program and will reconsider our selection, if appropriate.

That concludes my comments.

MR. WALKER: Thank you, Mr. Helphingstine.

I will say that the maps on the wall that have been referred to in his statement are, I am told, reproductions of maps or diagrams that earlier appeared in the Draft Environmental Impact Statement Report. For that reason they will not be marked as exhibits or incorporated in the record physically. They are already there in another form.

Now, the next person I will call on to explain the project here is Dr. Carol Harper of Bechtel National, Incorporated. I believe you were representing the consultants on this matter.

DR. HARPER: Mr. Chairman, I am with the South Bay Dischargers, my name is Carol Harper and I am the Project Engineer for the Environmental Impact Statement for Bechtel National, Inc., and we are the consulting firm for the South Bay Dischargers Authority on this project.

My purpose tonight is to present a summary of the Draft Impact Report and Statement and the associated work that contributed to it.

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The South Bay Dischargers Authority has a service area of Santa Clara County and for the most part encompasses the cities of San Jose, Santa Clara, Sunnyvale and Palo Alto and their tributary agencies.

These facilities in 1973 and '74 began work on advanced waste treatment, for their three treatment plants. This Environmental Impact Statement-Environmental Impact Report is concerned solely with disposal alternatives for that advanced treated wastewater.

At any time the estimates for the quantities of this disposed wastewater are about 370 million gallons a day in the year 1995. And that's a peak flow.

The alternatives are described in detail, a number of alternatives are described in detail in the Environmental Impact Statement and Report which has been put into the record. In order to provide a comparative analysis in this report so a decision can be made, a number of field studies were initiated. I would like to list these off and indicate who did these studies.

The first one was a detailed study on sediment quality and engineering bearing strength of the Bay muds by R.C. Harlan and Associates. There were two separate studies by Mr. Harlan.

The second study was a surface archaeological survey by Archaeological Consulting and Research Services, Inc., of Mill Valley.

The third was a series of water quality and biological surveys by E.H. Smith and Associates of

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Bodega Bay.

The fourth was a laboratory water quality survey by Pacific Environmental Laboratory of Kennedy Engineering.

The fifth was a water quality modeling study performed by Hydrosience, Inc. with offices in New Jersey and in Walnut Creek, California.

In addition, a Technical Advisory Committee was formed consisting of representatives from thirty-four federal, state and local agencies. These individuals regularly met, reviewed draft material, commented on this material, provided data and also provided contacts with experts in the area across the country as well as in California.

I will briefly refer to some of the maps on the wall. It might be easier for you to look at them during the recess. But all of the alternatives for disposal that were considered by us were located in what is considered the Bay Lands of San Francisco Bay.

The dominant feature of the area is the San Francisco Bay, south of Dumbarton Bridge and the associated marshes, mud flats and open waters. In the past hundred years much of the marsh and mud flat area has been filled and has undergone extensive urban, industrial and governmental development. But the unique qualities of the bay continue to dominate the characteristics of the area and many natural areas persist in parks and in open space surrounding the west side of South San Francisco Bay.

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In these areas have been found as many as five endangered species and a number of threatened plants and animals on the federal and state listings. At both the cities of San Jose and Palo Alto the wastewater discharges resulted in the creation of a fresh water aquatic habitat. In particular, wading birds, such as herons and egrets, which are considered species of concern by official wildlife services of the United States government and much fresh water vegetation are now common in Artesian Slough which is the discharge location for the City of San Jose and the City of Santa Clara.

This slough is within the National Wildlife ~~Federation's park system and refuge system and is called~~ *Wildlife* in the ~~South~~ San Francisco Bay National ~~Water~~ *Wildlife* Refuge.

And the fresh water communities contribute to the diversity within that wildlife refuge.

In the years since World War II, as I mentioned, the region has changed markedly from an agricultural center to an industrial center. And increases in population have accompanied this change and contributed to the degradation of water quality in the Bay such as Mr. Helphingstine has outlined. Other sources of degradation include reduction of flows to the South Bay by the damming, diking and channelizing of various natural waterways and by the filling of marshlands thereby reducing water surface area and restricting flows south.

The Bay Water Quality Control Plan addressed the problem in South San Francisco Bay and recommended

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1 increasing treatment to the secondary level and by limiting
2 wastewater discharges to areas with good mixing and
3 dilution potential.

4 In the Basin Plan it was recommended that this
5 area be north of Dumbarton Bridge. The South Bay
6 Dischargers has complied with the secondary treatment
7 limit but they still have not determined the appropriate
8 disposal system to meet the secondary restriction. And
9 that, as I mentioned also, is the purpose of this report.

10 In the study there were five alternatives
11 which were thought to be cost-effective responses to the
12 state and federal requirements. These were: No further
13 action, which constitutes continuing to dispose at the
14 present treatment plant sites, Artesian Slough for San
15 Jose-Santa Clara, Guadalupe Slough for Sunnyvale, and
16 a discharge canal that comes out of the Palo Alto Treat-
17 ment Plant near Mayfield Slough.

18 The second alternative is termed "The Basin
19 Plan Alternative" in the EIS. This is the plan specified
20 in the study as a disposal pipeline to the San Francisco
21 Bay north of Dumbarton Bridge to the deep water area.

22 The third alternative was individual deepwater
23 outfalls. These will be outfalls to deep water south of
24 Dumbarton Bridge and would consist of two individual
25 pipelines, one from the City of Palo Alto and the other
26 a joint Santa Clara-San Jose-Sunnyvale pipeline.

27 The fourth alternative would be to further
28 upgrade treatment. In this case it would include treatment

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1 beyond the present wastewater treatment and I will go
2 into that in a little more detail later. And the disposal
3 would continue at site much like in no further action.

4 In the fifth alternative reclamation and reuse
5 where wastewater would be further treated, or reclaimed
6 and then distributed on a large scale or on several
7 small scale projects to various users throughout the
8 service area or even outside the service area for the
9 South Bay Dischargers.

10 As Mr. Helphingstine has mentioned, no project
11 alternative has been selected but the recommendation
12 has been towards a no further action alternative.
13 I can go into more detail on what the no further action
14 and the other alternatives consist of and I can tell you
15 what the impacts were determined to be in the EIS.

16 First, the no further action alternative
17 requires no reconstruction and imposes no increased
18 operational costs on the dischargers or their service
19 areas. While wastewater would continue to be discharged
20 to the tributaries of the South Bay, contributing to
21 oxygen demand and the potential build-up of toxic
22 substances, the use of advanced waste treatment at each
23 plant will reduce these loadings from past levels. In
24 addition, mathematical modeling has shown that while the
25 quantity of wastewater flowing through the tributaries
26 as a result of discharge actually contributes to the
27 flushing, in South Bay, reducing the effect of pollutants
28 at the discharge site and distributing it over the open

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1 water portion of the Bay. This flushing reduces the
2 net effect of the water discharge by keeping oxygen
3 levels higher than might occur if there were no flows
4 in the tributaries.

5 The Basin Plan Alternative consists of a
6 nominal ten foot inside diameter concrete pipe connecting
7 the three treatment plants and associated pumping
8 stations and running along one of several alternatives to
9 a discharge point about one mile north of Dumbarton Bridge
10 in a ship channel, in the deep ship channel. Located
11 entirely within the Baylands, construction of this
12 sixteen mile long pipeline would alter the topography,
13 disrupt biological systems, temporarily degrade air and
14 water quality and increase noise and traffic levels
15 locally.

16 The operation of the system would remove the
17 wastewater discharge from the sloughs and the South Bay,
18 decreasing the contribution of pollutants to that area,
19 while reducing the inflow to the South Bay in terms of
20 total water input.

21 The mathematical model indicates that water
22 quality would improve in open water slightly but
23 tributaries south of the Dumbarton Bridge would continue
24 to suffer oxygen depletion due to the loss of flushing.

25 The capital cost of the system was estimated
26 to be about \$86 million in 1979 dollars. This was
27 assuming a midpoint construction of 1970 and the first
28 year operation of 1981. As was mentioned earlier, the

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1 study was started some time ago and this cost would have
2 to be updated.

3 The first year operating costs in 1981 was
4 estimated to be about \$280,000 and the majority of this
5 cost would be consumption of energy, pumping station
6 estimated to be about 7.9 million kilowatt-hours in the
7 year 1985. This is about forty-nine hundred barrels of oil
8 consumed.

9 The third alternative, individual deepwater
10 outfalls consists of a joint San Jose/Santa Clara and
11 Sunnyvale disposal line running to a location off Coyote
12 Point and a separate disposal line for Palo Alto, dis-
13 charging to the main channel off of their present discharge
14 location. The construction of this alternative would have
15 effects similar to the Basin Plan Alternative although
16 more extensive effects would occur in the water itself,
17 on the marshes and the mud flats and in the open water
18 habitat and less effects would occur on dry land.

19 Operation of this alternative would remove
20 pollutant discharges from the tributaries but not from
21 the South Bay and improvement in open waters and the
22 tributaries would be no different than is in the Basin
23 Plan Alternative.

24 The capital investment is estimated to be
25 about \$69 million in 1979 dollars. This is about 20
26 million less than the Basic Plan Alternative with the first
27 year cost approximately the same, \$280,000.

28 The fourth alternative, Upgraded Treatment,

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1 consists of the addition of carbon absorption to reduce
2 toxicity and oxygen demands and to breakpoint chlorination
3 for residual ammonia removal at the Santa Clara/San Jose
4 plant only. Each treatment plant would continue to
5 dispose at the present locations as in the No Further
6 Action Alternative and construction impacts would be
7 limited to the San Jose/Santa Clara plant site.

8 Operation of such a facility would improve
9 water quality in both open water and tributaries with the
10 amount of improvements small compared to the increased
11 consumption of chemicals and energy typical of such plants.
12 In addition, violations of both dissolved oxygen
13 standards and toxicity guidelines would still occur in the
14 tributaries during periods of stress, such as high water
15 temperatures or discharges due to the canning season.

16 The capital cost is estimated to be approxi-
17 mately \$120 million in 1979 dollars, or about \$40 million
18 more than the Basin Plan Alternative and operating cost
19 were not estimated, but are expected to be greater than
20 the Basin Plan Alternative due to increased energy
21 consumption.

22 The fifth alternative is Reclamation and
23 Reuse and was considered both as an alternative to
24 disposal, that is we considered using all of the pro-
25 jected wastewater, and as a supplement to any other
26 disposal alternative whereas only a portion of the waste-
27 water would be reclaimed and the remainder disposed through
28 a Bay disposal system.

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1 Since the technology is available to reclaim
2 wastewater for any use excepting drinking water, because of
3 the restrictions of state law and federal policy, the
4 cost of reclamation and the existence of an available
5 market for the water become the limiting factors in this
6 alternative.

7 A number of studies over the past six years
8 have shown that the cost of reclaiming water is more,
9 both in terms of energy consumption and total dollars
10 than is the cost of treating for disposal only.
11 Reclamation treatment would resemble a freighted treatment
12 and you would still have to figure out some way to get
13 the water to market or to a disposal site, so you are
14 adding a total treatment to a disposal system.

15 If the full capital and operating cost of
16 developing the new water supply, for example, importing
17 water from the Sierra mountains to the Bay Area, were
18 considered, reclamation for most users is competitive.
19 But we say here the true cost, the full cost, not the
20 subsidized cost of developing the water supplies.

21 And thirdly, markets in the South Bay are
22 limited to industrial use, agricultural irrigation, open
23 space irrigation and recreational use such as ponds or
24 parks. And a maximum amount of water which could be
25 consumed in these uses is constrained by the seasonal
26 variation in the Bay area, the needs are reduced to
27 nearly zero in the wintertime for most users and are
28 maximized during the hot summer months.

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1 A 67 MGD facility would supply the majority of
2 the identified markets in Santa Clara County but would
3 only reduce the disposal requirements by approximately
4 twenty percent. In addition, the water would only be
5 needed during the summer dry season and a full disposal
6 system would still be required. In order to increase the
7 market demands, the reclaimed water would have to be
8 transported out of the San Jose marketing area. And this
9 is the subject of the Regional Study that is now being
10 participated in by EPA.

11 The construction impacts of the Reclamation
12 Alternative would include the alterations resulting from
13 construction of a transport and distribution pipeline,
14 from wherever the reclamation plant were built to where-
15 ever the water was being used, as well as construction
16 on site at the treatment plant chosen. And for this
17 project we assumed, San Jose/Santa Clara because it was
18 nearer a central market in Santa Clara County. Operation
19 of this alternative removed a portion of the discharge
20 from the Bay for a portion of the year, and solid waste
21 generation would increase and energy and chemical
22 consumption would increase. Energies and chemical
23 consumption for the purposes of treating the water,
24 energy for transporting the water and solid waste sludges
25 in various chemical wastes are produced in removing the
26 materials from the reclaimed water.

27 The capital cost would vary with the treatment
28 and transport system chosen, but has been estimated to be

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1 as much as \$328 million or approximately four times the
2 Basin Plan Alternative. Operating costs could be as much
3 as for the upgraded treatment and disposal cost would not
4 be significantly reduced. Export and distribution costs
5 could be as much as five to fifteen times the Basin Plan
6 operating costs depending upon the market site, and that
7 means the distance the water has to be transported.

8 That's all I have to say.

9 MR. WALKER: Thank you, Dr. Harper. I'm sure
10 that the County will make a considerable effort to
11 summarize the four volumes in your statements. We
12 appreciate that.

13 Now we are ready to hear from the public.
14 Pursuant to our announced program we will first hear
15 from Mr. Rod Diridon, Supervisor for the County of Santa
16 Clara, Supervisor.

17 MR. DIRIDON: Mr. Walker, I have a presentation
18 from the Board of Supervisors by their consent and
19 unanimous vote. I am also presenting the statement and
20 will be assisted in doing so by Steve Goodman of San Jose
21 District Four, also adopted by unanimous vote, and
22 resolutions from the City of Los Gatos and Campbell, each
23 having been adopted by unanimous vote by those communities.

24 Each of these resolutions endorses the No
25 Further Action Alternative presented by Dr. Harper just
26 concluded. And the reasons for that conclusion, I think,
27 are very well summarized in the EIR as pertaining to that
28 alternative. I will mention briefly a couple of those

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1 that we stressed in the debate at the various bodies that
2 took action as I am describing the action to you today.

3 First is in regard to environmental impact.

4 It is the conclusion of the County Health Department,
5 the County Planning Department that the environmental
6 impact of attempting to construct this long outflow would
7 be much more severe than any impact that could occur from
8 continuing the discharge procedures currently pursued
9 and recognizing the effluent has been upgraded now
10 to tertiary water and does have a marked impact,

11 a point on which I would like to expound in a moment.
12 Therefore, we are opting for a course of action that would
13 minimize the environmental impact. And both in terms
14 of water quality, degradation and in terms of the natural
15 environment destruction that would occur in sanitation
16 and disrupting of the wildlife in the area.

17 The next point is in regard to cost.

18 Sanitation District Four alone has \$1.1 million in reserve
19 for this project. If that \$1.1 million were freed and
20 could be given back to the users of sanitation services
21 in District Four, which includes the cities, at least
22 the majority of the area encompassed by the cities of
23 Saratoga, Monte Sereno, Los Gatos, Campbell and the un-
24 incorporated area adjacent to, some portions of West
25 San Jose, the reduction in fee would be about forty-five
26 cents per month per user, which is not an insignificant
27 reduction.

28 That's an alternative that we would like to

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1 pursue.

2 I understand that the City of San Jose and
3 the City of Santa Clara both have reserves of some amount,
4 also awaiting decision on this project that could be like-
5 wise freed and used for another purpose, or returned to
6 the taxpayers and users that accumulated the fees
7 originally.

8 I would like to comment now briefly on the
9 sequence that we would encourage in terms of the action
10 being proposed. There is a significant amount of federal
11 funds that have been ear-marked for this project. The
12 County of Santa Clara and Sanitation District Four have
13 both commented frequently on the potential of using a
14 portion of those funds or all of those funds for something
15 that may look like your alternative number five but may
16 not be in the detail of your alternative number five.
17 We would hope that in the action taken to abandon the
18 project the funds that have been encumbered by that
19 project would not be released until the potential of
20 using some or all of those funds for an additional
21 reclamation and reuse possibility would be explored.
22 And that procedure I think would be known better by you
23 than by me, the red tape on the federal is something to
24 behold. I had a chance to look at it last week and I
25 don't want to look at it again for a while.

26 That would conclude my statement. I would be
27 happy to answer any questions and I do have a copy of the
28 resolution, except for the County's resolution, which was

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1 adopted only yesterday and that would be submitted, if
2 permissible; it would be offered quickly.

3 MR. WALKER: Thank you. Yes, I would like to
4 have copies of the references you referred to and they
5 will be marked as exhibits. That is an interesting
6 thought about the federal funds already ear-marked for
7 this being held. I am not at all sure how that can be
8 done. I won't want to hold out a lot of hope to you
9 because that is a pretty sticky thing to do. We are
10 rather rigidly restricted about what we can do and not do
11 with the current monies.

12 As you know there is an enormous amount of
13 complicated recommendations on that subject but we will
14 certainly address it and see what can be done.

15 MR. DIRIDON: Let me stress a point. We are
16 growing in this valley at an unprecedented rate both in
17 terms of population expansion but less so than in terms
18 of industrial expansion. The water that you are talking
19 about now pumping out past the Dumbarton narrows and
20 dumping into the Bay has marketability, particularly in
21 terms of agricultural and industrial use.

22 It would seem very logical, maybe a little too
23 logical for government, but very logical if we would take
24 that water and instead of pumping it out into the Bay,
25 use it for washing busses, which we intend to use it in
26 the new county bus yard, use it for agricultural purposes
27 where possible, use it for the other kinds of cleansing
28 purposes where they don't come in contact with human beings.

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1 for the industry that is blossoming directly adjacent to
2 this area along the peninsula.

3 And if there is a way to accomplish that, I
4 know this Board in its good judgment, will attempt to.
5 We are expending literally over maybe hundreds of millions,
6 certainly over a hundred million dollars to bring water
7 into this valley right now, in terms of the San Felipe
8 Project. It seems very peculiar that we would spend a
9 hundred million dollars plus for the various aspects of
10 that project and turn right around and spend another
11 significant number of millions of dollars and pump
12 similar water not quite so pure but similar water out the
13 Bay.

14 And I would ask your good judgment in abolishing
15 the project and attempting to pursue some kind of
16 reclamation and recycling device that might be possible
17 that we can retain some of the grant funds.

18 MR. WALKER: We will certainly undertake to
19 pursue it but as you know when you work for a large
20 organization there are many complex rules and we certainly
21 don't get to make them sometimes.

22 MR. DIRIDON: I understand. Thank you. It
23 might be that Steve Goodman ^{MAN} will have a comment from
24 District Four.

25 MR. GOODMAN ^{MAN}: Steve Goodman, Santa Clara County
26 District Four. We did submit in the mail an accompanying
27 resolution that was referred to by Supervisor Diridon,
28 a series of comments, and unless you felt it was

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appropriate to read them into the record, I would let our written communication stand, Mr. Walker.

MR. WALKER: You certainly may let the written communication stand. They will be given every bit as much consideration as the oral comments. Sometimes it is even better if we haven't been involved in your format.

MR. GOODMAN: We will rest with that.

MR. WALKER: Thank you.

For the purposes of the record, I have marked the resolution of the Town of Los Gatos as Exhibit 21 and the resolution of the City of Campbell as Exhibit 22.

(Thereupon, the aforementioned documents were marked Exhibits 21 and 22 respectively for identification.)

MR. WALKER: Your name, sir?

MR. FERRARO: Pat Ferraro. Is that who you just called?

MR. WALKER: No, my next person to call, I will call on you soon, is Dolowries Wulforth, Councilmember from the City of Sunnyvale.

MS. WULFHORST: Thank you, Mr. Chairman. The City of Sunnyvale, the Council met last night in our regular meeting and adopted a resolution. I will read it and present it to you. I will read it but I will present the formal parts to you now verbally.

The City Council of the City of Sunnyvale reviewed and considered the draft of the EIR/EIS;

Now, therefore, the City Council finds that project alternative number two, No Further Action of the

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draft of the EIR/EIS for the South Bay Dischargers Authority Treated Wastewater Disposal Program is superior to all other alternatives for the following reasons:

During the dry season, the only appreciable amount of freshwater discharged to the sloughs and South Bay is the highly treated effluent from the water pollution control plants in Sunnyvale, Palo Alto and San Jose; without this discharge the freshwater marshes would dry up, adversely affecting the unique biological environment that currently exists.

Transportation of the effluent by pipeline would have little effect on solving the deficient dissolved oxygen levels in the sloughs and would increase salinity.

The pumping station for a pipeline would utilize large amounts of energy that is already in short supply.

The degree to which increased dilution resulting from a discharge north of the Dumbarton Bridge will mitigate the adverse impacts of toxicants on the biota of the South Bay cannot be predicted.

Modeling studies have not shown that a substantial improvement in dissolved oxygen concentrations would result if the discharge were moved north of the Dumbarton Bridge.

The viability of future full reclamation is being investigated in the Regional Wastewater Reclamation Study. Should such an alternative prove to be feasible,

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1 it would meet the planning requirements of the San Fran-
2 cisco Basin Plan.

3 The City Council recommends to the SBDA and
4 the EPA that Project Alternative Number 2, No Further
5 Action of the draft and urges them to adopt this
6 alternative.

7 This was adopted by all members of the City
8 Council and I will hand you a copy of it.

9 MR. WALKER: Thank you. We will mark a copy
10 of that resolution as Exhibit 23 for the purposes of this
11 record.

12 MS. WULFHORST: Thank you.

13 MR. WALKER: Thank you.

14 (Thereupon, a three-page document
15 entitled Resolution No. 232-79
16 dated May 15th, 1979, by the City
17 Council of Sunnyvale was marked
18 Exhibit 23 for identification.)

19 MR. WALKER: The next card that I had in the
20 order that we previously announced is Mr. Ronald R.
21 James, Chief Executive Officer of the San Jose Chamber
22 of Commerce.

23 MR. JAMES: Thank you, Mr. Walker. The San
24 Jose Chamber of Commerce supports the recommendation of
25 no project alternative; and from our standpoint, the
26 no project alternative makes a great deal of sense.

27 It appears that there would really be no
28 benefits from the construction of the super sewer which
could justify the expenditure of some ninety to a hundred
million dollars.

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1 In early 1970 the decision was to ban discharge
2 of sewage into the South Bay and at that time it looked
3 like a good decision, because water quality was poor.
4 Now, however, the water quality levels have improved
5 dramatically and except for the runoff the effluent from
6 the San Jose plant frankly is probably the only steady
7 source of freshwater entering the Bay in this particular
8 area.

9 We believe that the improved water quality
10 not only makes the no project alternative the only
11 course of action, but also lends considerable logic to
12 lifting the Water Quality Control Board's discharge ban
13 all together. As long as the discharge ban exists, the
14 specter of a super sewer or its alternatives will still
15 face us. Recycled water is projected to become a major
16 source of water for industrial use within the next twenty
17 years and a new study by the Santa Clara Valley Water
18 District has indicated that by 1990 valley industries,
19 electronics, paper products and other manufacturing,
20 could be using twenty thousand acre feet of reclaimed
21 wastewater per year.

22 If this area is going to use a significant
23 amount of reclaimed wastewater, building a super sewer
24 to transport that same water out of the area makes no
25 sense at all.

26 Finally, these same industries, along with the
27 canning industry which employs more than some thirteen
28 thousand people, have been hit hard by increases in sewer

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1 service charges over the past few years in order to pay
 2 for the increased water quality that we now all enjoy.
 3 At that time those treatment processes were justified in
 4 our opinion. However, at this point in time they are not
 5 justified and any new rate increases that this investment
 6 would bring would have a negative impact on the canning
 7 industry in particular. And that industry is particularly
 8 important in this area to maintain a balance in our
 9 economy, and the canners should be encouraged in every
 10 way to remain in the valley.

11 Thank you.

12 MR. WALKER: Thank you, sir.

13 The next card in order of the proceedings
 14 previously announced would be Mr. Leo F. Cournoyer,
 15 Santa Clara Valley Water District.

16 MR. COURNOYER: My name is Leo Cournoyer. I
 17 am with the Santa Clara Valley Water District. The
 18 District has prepared written comments on the report and
 19 these comments are in the mail to EPA. At this time I
 20 would like to simply briefly summarize the main point
 21 that we made in our written comments.

22 The alternative that was recommended by EPA
 23 and the South Bay Dischargers in their EIS/EIR is
 24 acceptable on the basis that the South Bay Dischargers
 25 agree, one, that while the dischargers are being made,
 26 that significant and extensive monitoring take place so
 27 that any significant adverse impacts on the water quality
 28 of the South Bay be measured.

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1 Two, that if it is found that the discharges
 2 do cause a significant adverse impact on the water
 3 quality of the South Bay, then construction of some other
 4 alternative be considered.

5 The third item is that if wastewater reclamation
 6 is found feasible, then the use of the water, we strongly
 7 recommend that it be strongly considered for reclamation.

8 As I mentioned, these are really a summary of
 9 our comments, as I mentioned, and others are in the mail
 10 to the EPA.

11 MR. WALKER: Thank you, sir.

12 Mr. Jim Quintal, Santa Clara County Canners
 13 Association.

14 MR. QUINTAL: Mr. Walker and members of the
 15 South Bay Dischargers Authority, my name is Jim Quintal
 16 and I am here tonight to present a statement that has
 17 been prepared by the Santa Clara County Canners Association.
 18 It is in the mail and you people will be receiving it
 19 shortly.

20 Our association is a non-profit organization
 21 formed forty years ago to provide a forum for discussion
 22 of problems and opportunities common to our industry.
 23 Currently most of our activities center around the ever
 24 expanding load of federal, state and local regulations
 25 that adversely effect our capacity to efficiently produce
 26 food products.

27 Our association represents eight companies
 28 operating fourteen canneries in the Santa Clara Valley,

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1 employing approximately twelve thousand people and having
2 a 1.4 billion dollar economic impact on Santa Clara County.

3 So there could be no confusion as to our
4 position, we will state at the outset that we are adamantly
5 opposed to the construction of a deep water outfall or
6 any other alternative being evaluated that would force the
7 South Bay into compliance with the State Water Quality
8 Control Boards resolution 74-73, which bans discharges
9 to the San Francisco Bay south of Dumbarton Bridge. It
10 is this resolution which needs evaluation not methods of
11 implementing it.

12 The discharge ban in question was adopted by
13 the State Board five years ago and is responsible for
14 over 100 million dollars of advanced waste treatment
15 facilities being constructed in the cities of San Jose,
16 Sunnyvale and Palo Alto. Now we are being asked to
17 evaluate an additional 100 million dollars for a pipeline
18 or some other alternative to comply with an arbitrary
19 and capricious ruling.

20 The EPA, in order to further evaluate advance
21 waste treatment programs, commissioned the Vertex
22 Corporation of McLean, Virginia, to prepare a report on
23 quote "An Analysis of Planning for Advanced Wastewater
24 Treatment." The report, published in July of 1977,
25 covers the planning that went into decisions to construct
26 advanced wastewater treatment facilities in six areas of
27 the United States, of which San Jose and Santa Clara
28 was one.

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1 We quote from that report: "Costly pollution
2 control projects are commonly built with almost no real
3 knowledge of the waters that are to be protected by the
4 generous investment in treatment facilities."

5 Referring specifically to the South Bay, we
6 quote further from the Vertex Report. "December, 1975,
7 Hydrosience publishes another mathematical model. Like
8 the last (February 1972), it is a mosaic of over-
9 simplifications and guesswork."

10 Further quotation, "When the earlier models
11 showed that construction could solve a problem they were
12 accepted at face value. However, when the 1975 model
13 showed that no amount of construction would work, State
14 officials began to examine the model for unwarranted
15 assumptions, inadequate verification, and skimpy data.
16 This belated discovery of weaknesses in mathematical
17 models has been costly."

18 "The San Francisco Bay Regional Water Quality
19 Control Board could scarcely be expected to rejoice in
20 Hydrosience's new conclusion; all previous planning for
21 the south bay has been fundamentally wrong. For the first
22 time the Board has critically examined a mathematical
23 model for the South Bay and it is found wanting. Had
24 the Regional Board been equally critical of the earlier
25 models and studies, it might never have gotten into its
26 present fix."

27 Today we find ourselves saddled with advanced
28 wastewater treatment facilities in San Jose that are in

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1 themselves environmentally unsound due to their enormous
2 electrical energy requirements. They consume more than
3 our fourteen canning factories combined. Much of what
4 has occurred in the South Bay has taken on the appearance
5 of a "Gold Rush" by consultants and municipalities for
6 EPA funds. It is about time we pause and evaluate the
7 damages and possible benefits that have accrued from this
8 uncoordinated and uncontrolled growth in waste treatment.

9 The Food Preserving and Canning industry has
10 long been a vital and important segment of Santa Clara
11 County's business community. We have actively and
12 supportively participated in the past wastewater programs
13 in San Jose and Sunnyvale; primary treatment in 1956,
14 secondary treatment in 1964 and expanded secondary treat-
15 ment in 1974. In each of these cases the need was
16 apparent and benefits well identified. However, with
17 advanced waste treatment and now this potential "Super
18 Sewer," the need and benefits have never been demonstrated
19 or justified.

20 Thank you.

21 MR. WALKER: Thank you, sir. I note that you
22 have a copy of your remarks. Perhaps you and Mr.
23 Cournoyer can furnish the reporter with a copy of them.
24 You ~~postulated~~ ^{stated} that we are to receive a copy in the mail
25 to be included in the records, so I will not make them
26 exhibits at this time. However, I am sure it will assist
27 the reporter in getting the record straight if you can
28 furnish her with a copy.

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1 Mr. Cournoyer, would you be able to do the same?

2 MR. COURNOYER: Yes.

3 MR. WALKER: Thank you.

4 The next card is Mr. Bruce E. Schoppe,
5 S-c-h-o-p-p-e, Santa Clara Chamber of Commerce.

6 MR. SCHOPPE: Thank you, Mr. Walker. I am
7 Bruce Schoppe, representing this evening the Santa Clara
8 County Chamber of Commerce. We are opposed to the
9 construction of the so-called super sewer and support the
10 conclusion and position, rather, taken by EPA and the South
11 Bay Dischargers Authority favoring the no further action
12 alternative.

13 Measured against the full of this entire
14 program, that is the improvement of water quality in the
15 South Bay, it is clear that construction of this pipeline
16 is unnecessary. The advanced wastewater treatment
17 capability now or soon to be in operation at all of the
18 municipal treatment facilities involved will for all
19 practical purposes achieve this goal.

20 We view this as a situation in which the real
21 benefits must be measured against the real cost.
22 Mathematical modeling has shown that given these advance
23 treatment plants, very little difference will result in
24 South Bay water quality with the project versus no project.
25 In fact, there may very well be a net negative result
26 due to the removal of the fresh water flows from
27 Artesian Slough and the other treatment plant outfalls.

28 The Chamber of Commerce is, of course, an

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1 organization of business people and we recognize that
2 if constructed, we will pay the costs of this project not
3 only through our businesses but also through our homes
4 and those of our employees. Quite honestly, we don't
5 need another source of additional cost in this inflationary
6 era. Especially when in our view it has been clearly
7 shown that the project is unnecessary.

8 Adoption of the no further action alternative
9 makes a great deal of sense to us, both environmentally
10 and economically.

11 MR. WALKER: Thank you, Mr. Schoppe. Do you
12 have a copy of your comments for the reporter?

13 MR. SCHOPPE: No, I don't, but I will send
14 them to you.

15 MR. WALKER: Thank you. I have neglected to
16 ask the members of the panel if they have any questions,
17 but I hope they will not be ^{reluctant} about asking. *ask*

18 MRS. HAYES: I am very pleased to say that I
19 was the one that initiated the name of super sewer and
20 I have heard it used here a number of times tonight and
21 I dubbed it that way a number of years ago and I still
22 think it is that way.

23 MR. WALKER: Thank you. It is always nice to
24 be right in your own time.

25 The next card that I have is Manny Pearl
26 representing himself.

27 MR. PEARL: I am Manny Pearl, representing
28 myself, an interested citizen. From 1949 to May of '76 I

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1 was the Santa Clara County Public Health Engineer, and
2 until I retired I was the member of the Advisory Committee
3 that was referred to.

4 I strongly recommend the no further action
5 alternative.

6 MR. WALKER: Thank you, sir.

7 Mr. Merle Brendler. Excuse me.

8 MR. BRENDLER: Mr. Chairman, members of the
9 Board, just for the record, it is Mrs. Merle Brendler,
10 I am here tonight to represent the Sunnyvale Chamber
11 of Commerce. I serve on their Board of Directors as
12 Vice President for Governmental Affairs.

13 This is their message and the thoughts they
14 wanted me to convey to you. The Board of Directors of
15 the Sunnyvale Chamber of Commerce at their Executive
16 Committee Meeting of May 8, 1978, and their full Board
17 Meeting of May 15, 1979, unanimously voted to urge that
18 no action beyond currently approved improvements at
19 treatment plants be taken and that the three Santa Clara
20 County treatment plants continue to discharge treated
21 effluent into the South Bay. This position is based on
22 the following key considerations, there are three of
23 them:

24 Number one, actions taken or being taken by
25 the Cities of San Jose, Santa Clara, Sunnyvale and Palo
26 Alto are proving to be highly successful in improving the
27 water quality of the South Bay. It is reasonable under
28 these circumstances to defer action on the super sewer

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1 project, monitor the rate of improvement and subsequently
2 take corrective steps, if necessary.

3 Number two, given the current and continuing
4 improvement of water quality, the fresh water marshes in
5 the South Bay can be retained and the undesirable
6 transition to salt water marshes and its adverse effect
7 upon existing vegetation and wildlife will be avoided.

8 Number three, the investments made and being
9 made in the wastewater treatment plants of South Bay
10 cities are proving to be cost effective thus avoiding the
11 cost of constructing and operating the super sewer project.
12 The estimated \$86 million for construction, the \$320,000
13 annual operating costs and significant energy demands
14 can all be saved.

15 In conclusion, the Sunnyvale Chamber of
16 Commerce urges alternative two of the Draft Environmental
17 Impact Report and Statement, Treated Wastewater Disposal
18 Program dated September 1978 be adopted and that no
19 further action be taken at this time.

20 And we do have copies for you.

21 MR. WALKER: Thank you, Mrs. Brendler. We
22 would appreciate it if you could give a copy to the
23 reporter.

24 MR. JAMES: Mr. Walker, I neglected to leave a
25 copy. I would like to supply the Sunnyvale Chamber
26 with copies of my remarks as well.

27 MR. WALKER: Thank you, sir.

28 Also for the record I would like to add that I

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1 still contend that I am a young person and in tune with
2 all the modern ideas with the subject of nomination of
3 pronouns and whenever I use a pronoun in the masculine
4 form it is clearly to be understood to be intended to
5 include both sexes, now known as uni-sex.

6 I have three more cards here of people who
7 wish to speak. There may be others who will later on
8 appear. We announced at the outset that we would take a
9 recess for the purpose of having a question and answer
10 period off the record. Also, the stenographer has been
11 beating on that machine for some time now and is entitled
12 to a little respite, so we will now take a little recess
13 for twenty minutes, or until 9:00 o'clock.

14 (Thereupon, a recess was had.)

15 MR. WALKER: The time is now 9:00 p.m. and our
16 recess is over and we can go back to work.

17 The next card that I have is Mr. Bert Martin.

18 MR. MARTIN: Mr. Chairman, members of the Board,
19 my name is Bert Martin. I represent the Citizens Advisory
20 Committee, City of Santa Clara. A few months back we
21 initiated a study on this after we had done much the
22 same thing four or five years ago when the super sewer
23 first came up. We were opposed to it at that time and our feelings
24 haven't changed. After our last study the Committee took
25 a stand in the form of a letter which we had sent to your
26 Board, and I have a copy of it here. I am ready to pass
27 it around or can, if you would like to have one now or
28 just put it in your file.

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1 We feel that the growth of our valley and our
2 district overloads the present plant that we have and we
3 feel that it would serve our interests better if the
4 water fluid and so forth were returned to our environment
5 in a matter that didn't pollute the environment. We
6 don't feel that pumping partially cleansed water out into
7 the Bay is the answer. We feel that that would be a waste
8 of money. We feel that this money can best be spent by
9 upgrading our present plant so that it could handle our
10 needs for years to come, bearing in mind that our valley
11 is filling up with people, industry and so forth.

12 This is our feeling. If there are any questions
13 I would be happy to answer them.

14 MR. WALKER: Any questions from the panel?

15 (No response.)

16 MR. WALKER: Thank you, sir.

17 MR. MARTIN: Thank you, Mr. Chairman.

18 MR. WALKER: Mr. Patrick Ferraro.

19 MR. FERRARO: Thank you, Mr. Walker. Fellow
20 members and Councilmen of the South Bay Discharge. I
21 have put before you a letter that I wrote to Senator
22 Muskie and copies to our congressional delegates when I
23 was in Washington about a month or so ago. At that time
24 I was made aware that EPA had before it a proposed
25 regulation change which would eliminate all funding for
26 wastewater reclamation projects that went beyond the needs
27 of, quote, effluent discharge quantities.

28 As I have outlined in that letter, I strongly

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1 oppose the EPA grant legislation changes, and not knowing
2 the prospects of successfully reversing these proposed changes
3 even with the Congressional power that I am trying to bring
4 to bear by EPA, I think it is crucial that we approach the
5 situation of South Bay Dischargers with extreme care and
6 awareness that all the funding for wastewater reclamation
7 could be lost if it is implied that the receiving waters
8 of the South Bay can now or in the future accept the
9 discharge of the treated effluent of the cities of north
10 and south Santa Clara County.

11 I strongly agree and support the previous
12 statements made by the Canning Association that whether
13 it be by mathematical models or physical models, we can't
14 absolutely predict the quality of the San Francisco Bay
15 under future conditions, especially since we have the
16 unknowns, including the Delta outflow and whether or not
17 the Peripheral canal will be constructed and when, whether
18 or not that will benefit the south San Francisco Bay.

19 For this reason I do support the continued
20 monitoring with an increased emphasis on the potential
21 for eutrophication of the estuary at its southern extremity.
22 Obviously if algal blooms should occur in the future or
23 become prevalent, all our efforts to assure the high
24 dissolved oxygen content levels in the bay would probably
25 just fail because, as the decaying biomass of the algal
26 blooms is consumed by the organisms, they would consume
27 the oxygen present which was so dearly guarded and
28 assured by the constructing of millions of dollars of

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1 treatment facilities to remove the oxygen level from
2 the waste water. This is algal bloom. If it should occur
3 by some later date it could in effect turn the Bay back
4 to the subject of zero oxygen levels that we did have in the
5 last decade before we constructed our advance waste
6 treatment facilities.

7 Now, while the above position seems to be
8 somewhat implied, if not stated in the environmental
9 impact statement, there is still this continuous pride
10 of people here today supporting the no project alternative
11 and I realize many of them may not be aware of EPA's
12 grant regulations. But if the local monitoring is
13 continued, I fail to see the reason why we have to reach
14 a decision at this point in time and run the risk of
15 forfeiting the construction grants which provide the
16 only logical and feasible method of financing plant and
17 wastewater reclamation for this county.

18 Since considerable market studies are under way
19 by Santa Clara Valley Water District in cooperation with the
20 California Department of Water Resources, which is funded
21 primarily by EPA, that is to the tune of about a five
22 hundred thousand dollar study, in addition to that there
23 is a two million dollar study going on which is beyond
24 Santa Clara County to serve the reclaimed water from
25 the entire San Francisco basin, these two studies both
26 have preliminary conclusions that as was stated before,
27 the costs are competitive with new water supplies.

28 The \$328 million figure that the draft EIR/EIS

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1 includes upsets me somewhat, because again, it makes
2 an assumption, I don't know if it's verified, and the
3 verification in my mind is questionable also by the
4 Bay models, of whether or not, if we reclaimed the entire
5 flow for re-use during the irrigation season, whether or
6 not we have outfall can affect the winter flows to the
7 north of the Dumbarton Bridge, which is during the
8 winter, we do have a natural outflow from the streams
9 and run off and automatically assume that you have to
10 build a conservation facility on top of the reclamation
11 facility that would cost in excess of \$328 million,
12 which would seem to be a good way to just knock it
13 right out of the ballpark right away.

14 But please don't lock in on that figure,
15 because if we reclaim the water, I think we will cer-
16 tainly find that no Bay outfall north of the Dumbarton
17 Bridge will ever be needed just to handle winter dis-
18 charge.

19 So in view of the myriad of unknowns regarding
20 both the environmental and economic, as well as the
21 institutional problems we face in implementing reclamation,
22 it seems that the residents of the Santa Clara County,
23 the water users and the water dischargers, would best be
24 served if we did not reach a decision at this point in
25 time, and delay the decision on what our project should
26 be until such time as we work out some of these questions,
27 especially whether or not the EPA is going to stay locked
28 in and not fund anything which does not meet effluent

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1 discharge requirements.

2 The alternative may be that we run the risk of
3 losing reclamation as a potential water service for Santa
4 Clara County.

5 I will draft my comments up and have them in
6 the mail to you tomorrow.

7 MR. WALKER: Thank you, sir.

8 Are there any questions from the panel?

9 (No response.)

10 MR. WALKER: I have a copy of a subsequent
11 letter addressed to Senator Muskie and for the purposes
12 of this record we will mark that as Exhibit 24.

13 (Thereupon, a four-page letter
14 dated April 4, 1979, addressed to
15 The Honorable Edmund S. Muske
was marked Exhibit 24 for
identification.)

16 MR. WALKER: Curtis B. Harrison. Is that
17 H-a-r-r-i-s-o-n?

18 MR. HARRISON: That is correct, Mr. Walker.

19 I am Curtis Harrison. I am a Director of the
20 Cupertino Sanitary District. The District is a tributary
21 agency to the San Jose/Santa Clara treatment plant. The
22 District Board has instructed me to advise you and the
23 EPA that they are in favor of the no project alternative.
24 I think if I were to come up here and say I favored this
25 project, I would be drummed out of the valley by the
26 sound of things tonight.

27 But all kidding aside, I think it is very
28 important that the no project alternative be pursued as

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1 has been recommended here. There is a cost savings,
2 the further evaluation of advanced waste treatment that
3 is now the capability in the San Jose plant, the Sunnyvale
4 plant and the Palo Alto plant, I think is really in further
5 need of evaluation to test its impact on the South Bay.
6 Thank you very much.

7 MR. WALKER: Thank you, sir.

8 This now completes all of the cards that I have
9 before me of people who wish to address the panel. Is
10 there anyone else here who marked a card saying that they
11 did wish to address the panel and who has not been heard
12 from?

13 (No response.)

14 MR. WALKER: I see no one rise. Is there any-
15 one here who has changed his mind and would now like to
16 address the panel?

17 (No response.)

18 MR. WALKER: I see no one rise. I guess then
19 that we have come to that time of the evening. I will
20 announce again that as far as EPA is concerned, we will
21 keep the record of this open for written comments to be
22 transmitted to the Environmental Protection Agency, 215
23 Fremont Street, San Francisco, 94105, and you might
24 include in the address HE-149, that is the code for this
25 particular hearing and it will assist in getting your
26 comments into the right record.

27 If the comments that are hereafter received
28 are along the same line as the comments that we've already

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received, they will be considered as part of the record and final action will be taken on that.

The action that will be taken is a collegial effort. That means that many people on the staff will review all of the transcript, all of the records, all of the comments that have been received and make recommendations to the Regional Administrator in a briefing document and then he will then do as he sees fit.

There is also in this matter a parallel local action of the South Bay Dischargers Authority. They will have authorities in this subject and they are also going to be required to take action on the subject.

Mr. Atkinson, do you have any comments to make at this time.

MR. ATKINSON: Yes, I would recommend that the South Bay Dischargers Authority continue the hearing on their meeting of July, which will be the second Wednesday in July, at Room 300, at 4:00 o'clock, at San Jose City Hall at North First and Mission Streets, at which time further evidence can be considered and action thereon taken.

MR. WALKER: Thank you, sir.

MR. ATKINSON: I would like to have a motion by the Board to that effect.

MR. GISSLER: Is there a motion to that effect? Motion by Mayor Hayes, seconded by Mr. Henderson. All those in favor say aye. All those opposed? So ordered.

MR. ATKINSON: I'd further like the record to

indicate that South Bay Dischargers Authority, Mr. Estruth, has absented himself at the end of the recess after the 9:00 o'clock continuance and has not come back thus far.

MR. GISSLER: What action of the Board do you want?

MR. ATKINSON: I just want the record to indicate that.

MR. HENDERSON: Does this indicate no meeting at all?

MR. ATKINSON: No, it does not indicate that. I conferred with staff and I was told that there was no way that the matter could be gotten together by the June meeting and for that reason the first that we could possibly take any action would be at our July meeting, in fact we may not be able to take action until August, but this at least preserves our action for us.

MR. GISSLER: All right.

MR. WALKER: A lot of questions were asked tonight for which we don't have answers. We hope we will have some answers by then.

MR. GISSLER: That's all we have.

MR. WALKER: Thank you. As far as we are concerned this EPA section of the hearing is concluded, Mr. Mayor.

MR. ATKINSON: Just to be careful here, I am sorry to keep interrupting, but I would also like -- well, I think what we've done is sufficient. Nothing

1 further.

2 MR. GISSLER: So the South Bay Dischargers
3 Authority will not hold a meeting, then, on June the 13,
4 the next meeting will be in July?

5 MR. ATKINSON: No, you can hold your regular
6 meeting then, that will go forward.

7 MR. GISSLER: So we should adjourn this
8 meeting of the South Bay Dischargers Authority to the 13th?

9 MR. ATKINSON: You could do that, that would
10 be in order.

11 Motion by Mr. Gunn and seconded by Mr.
12 Henderson. We are adjourned to June 13. Thank you.

13 ---oOo---

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1 STATE OF CALIFORNIA }
2 COUNTY OF SANTA CLARA } ss.
3
4
5

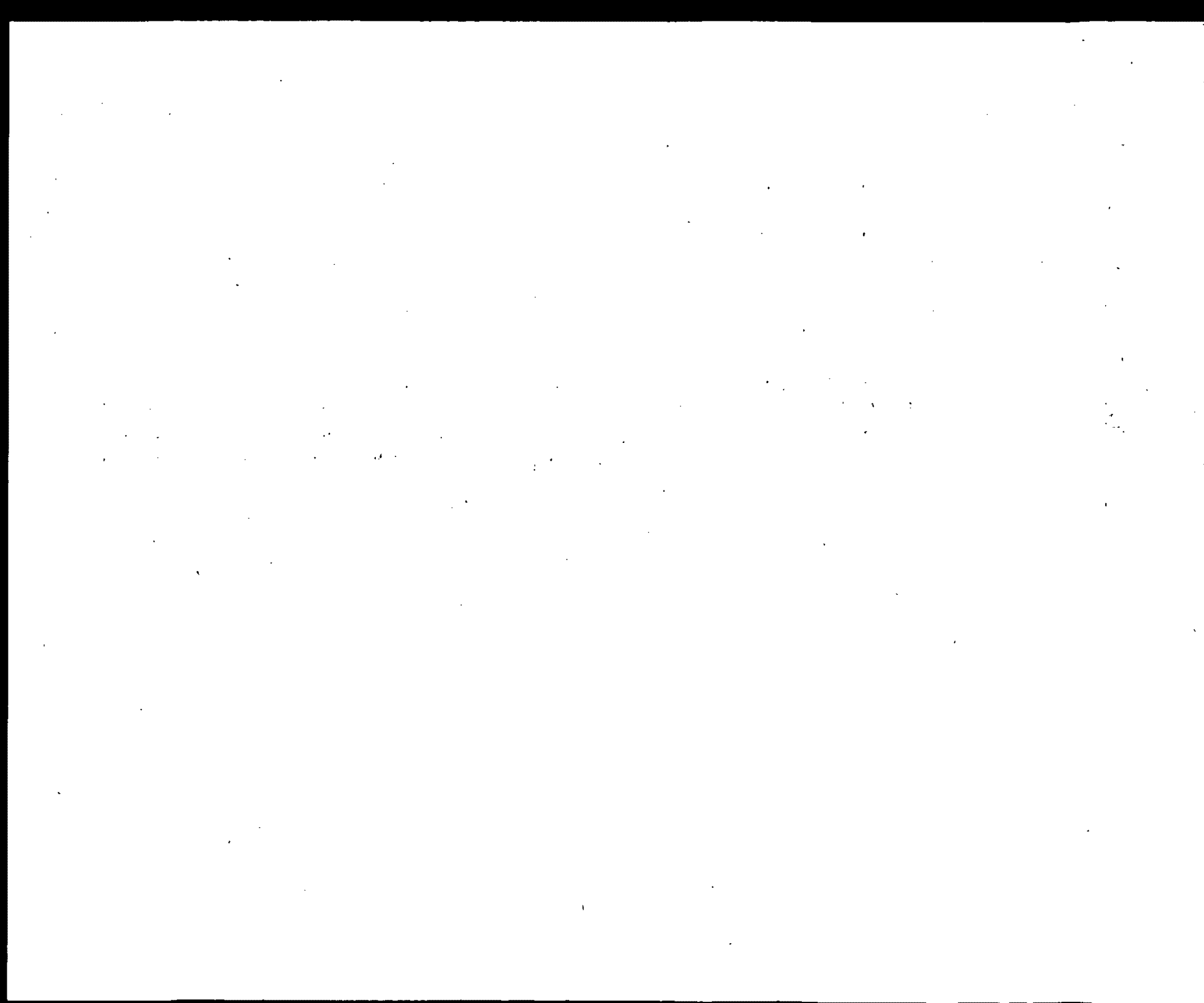
6 I HEREBY CERTIFY: That I was appointed to
7 act as Official Reporter in the within-entitled action;
8 that I reported the same in machine shorthand and
9 thereafter caused the same to be transcribed into
10 typewriting under my direction and supervision as appears
11 by the foregoing transcript; and that said transcript
12 is a full, true and correct statement of the proceedings
13 and evidence in said matter, to the best of my ability.

14 IN WITNESS WHEREOF, I have hereunto set my
15 hand and affixed my seal of office this 16th day of
16 May, 1979.

17
18 
19 NOTARY PUBLIC

20 In and for the County of Santa Clara,
21 State of California
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TESTIMONIES REQUIRING NO SPECIFIC RESPONSE

1.1

1.1 TESTIMONIES REQUIRING NO SPECIFIC RESPONSE

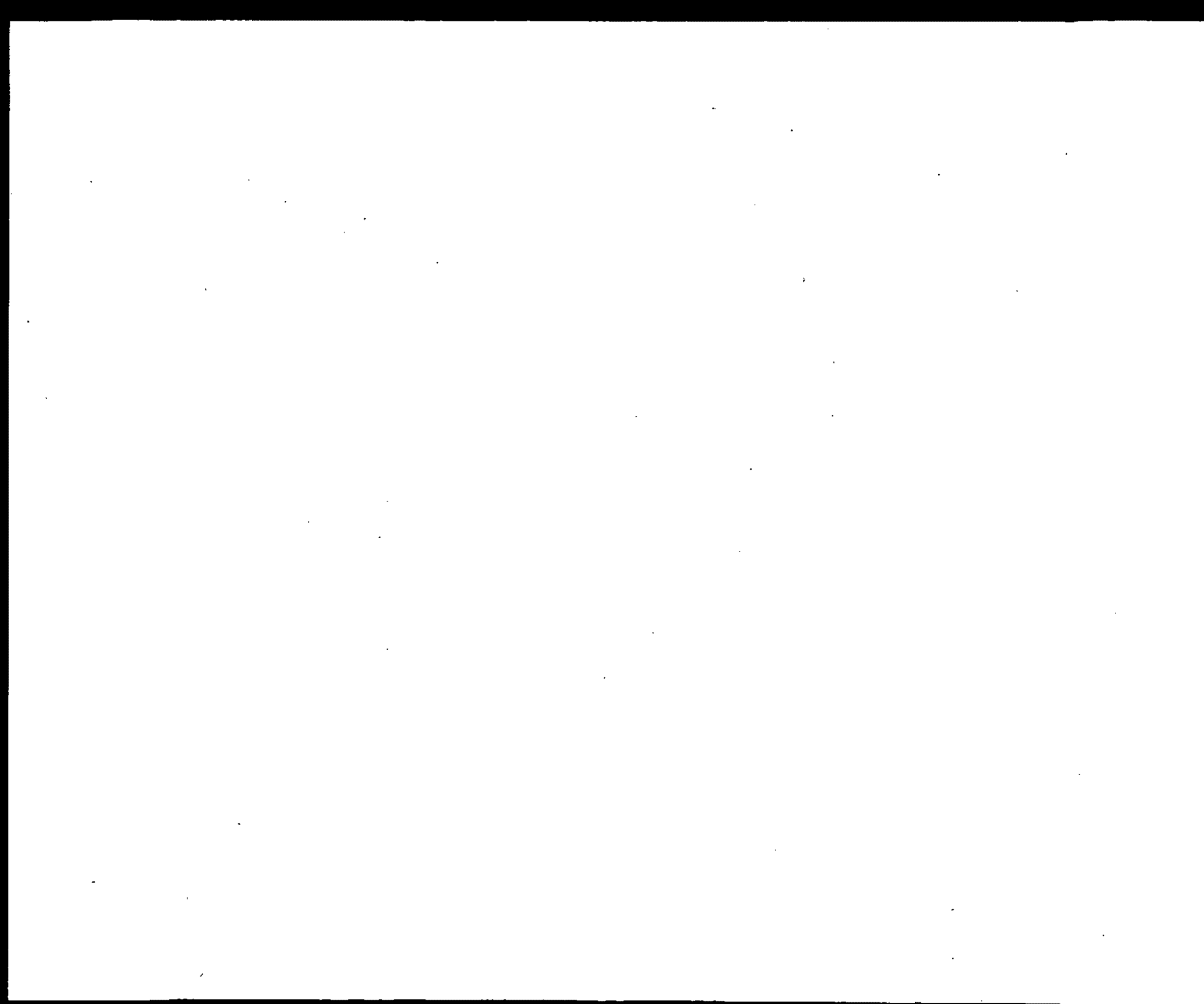
Statements by Ms. D. Wulforth, City of Sunnyvale and Mr. M. Pearl consisted of resolutions of support for selection of the "No Further Action" alternative - the alternative recommended by EPA and SBDA. No issues or questions regarding this or other alternatives were raised.

Testimony by Ms. D. Wulforth
Councilmember, City of Sunnyvale

The resolution by the City of Sunnyvale, recommending No Further Action, has been taken into consideration by EPA and SBDA in making the project selection.

Testimony by Mr. M. Pearl

The recommendation for No Further Action has been taken into consideration by EPA and SBDA in making a project selection.



1.2

TESTIMONIES ADDRESSED IN OTHER SECTIONS OF THIS REPORT

1.2 TESTIMONIES ADDRESSED IN OTHER SECTIONS OF THIS REPORT

Several individuals summarized, in their testimony, letters of comment previously sent to EPA and SBDA. These letters are addressed in Section 2 of this report, as stated below.

Testimony by: Mr. S. Goodman
Santa Clara County Sanitation District 4

Letters from County Sanitation District 4, EPA No. (HE-149) 1 and (HE-149) 29, are addressed in Sections 2.2 and 2.3 of this report.

Testimony by: Mr. L. F. Cournoyer
Santa Clara Valley Water District

A letter from the Santa Clara Valley Water District, EPA No. (HE-149)15, is addressed in Section 2.2 of this report.

Testimony by: Mr. J. Quintal
Santa Clara County Cannery Association

A letter from the Santa Clara County Cannery Association, EPA No. (HE-149) 11, is addressed in Section 2.2. of this report.

Testimony by: Mr. B. E. Schoppe
Santa Clara Chamber of Commerce

A letter from the Santa Clara Chamber of Commerce, EPA No. (HE-149)18, is included in Section 2.1 of this report.

Testimony by: Mrs. M. Brendler
Sunnyvale Chamber of Commerce

A letter from the Sunnyvale Chamber of Commerce, EPA No. (HE-149)30, is addressed in Section 2.3 of this report.

Testimony by: Mr. B. Martin
Citizens Advisory Committee
City of Santa Clara

A letter from the Citizens Advisory Committee, EPA No. (HE-149)2, is addressed in Section 2.2 of this report.

Testimony by Mr. P. Ferraro

A letter from Mr. Ferraro, EPA No. (HE-149)22, is addressed in Section 2.2 of this report.

Testimony by: Mr. C. Harrison
Director, Cupertino Sanitary District

A letter from the Cupertino Sanitary District, EPA No. (HE-149)19, is included in Section 2.1 of this report.

1.3

TESTIMONIES REQUIRING SPECIFIC RESPONSE

1.3 TESTIMONIES REQUIRING RESPONSE

Two individuals, Messrs. R. Diridon and R. R. James, gave testimony which raised issues not specifically addressed in Section 2 of this report. These issues have been considered in making the project selection.

Testimony by: Mr. R. Diridon
Supervisor, County of Santa Clara

A letter from the County of Santa Clara, Board of Supervisor, EPA No. (HE-149)26, is included in Section 2.1 of this report.

Transcript page 28, lines 8-25.

Funds planned for this SBDA project may only be used for an alternative of the project. However, the San Francisco Regional Reclamation/Reuse Study may result in a large-scale reclamation project for the area, independently of the SBDA EIR/EIS.

Transcript pages 29, lines 15-28.

Bus washing and some agricultural irrigation is the subject of a project now in the facilities planning stage. Several local, small-scale reclamation projects are under study throughout the SBDA service area.

Testimony by: Mr. R. R. James
Chief Executive Officer, San Jose Chamber of Commerce

The recommendation of No Further Action, as supported by the San Jose Chamber of Commerce, has been considered by EPA and SBDA in making a project selection.

Transcript page 34, lines 9-25.

Changing the Enclosed Bays and Estuaries Policy or the Basin Plan to alter the prohibition against the discharge south of Dumbarton Bridge is in the purview of the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB), respectively. These agencies will have to determine conditions for such changes; the data in the Draft EIR/EIS may, in part, provide information necessary to these Boards to make their decisions. However, the Draft EIR/EIS is not intended to result in such a change.

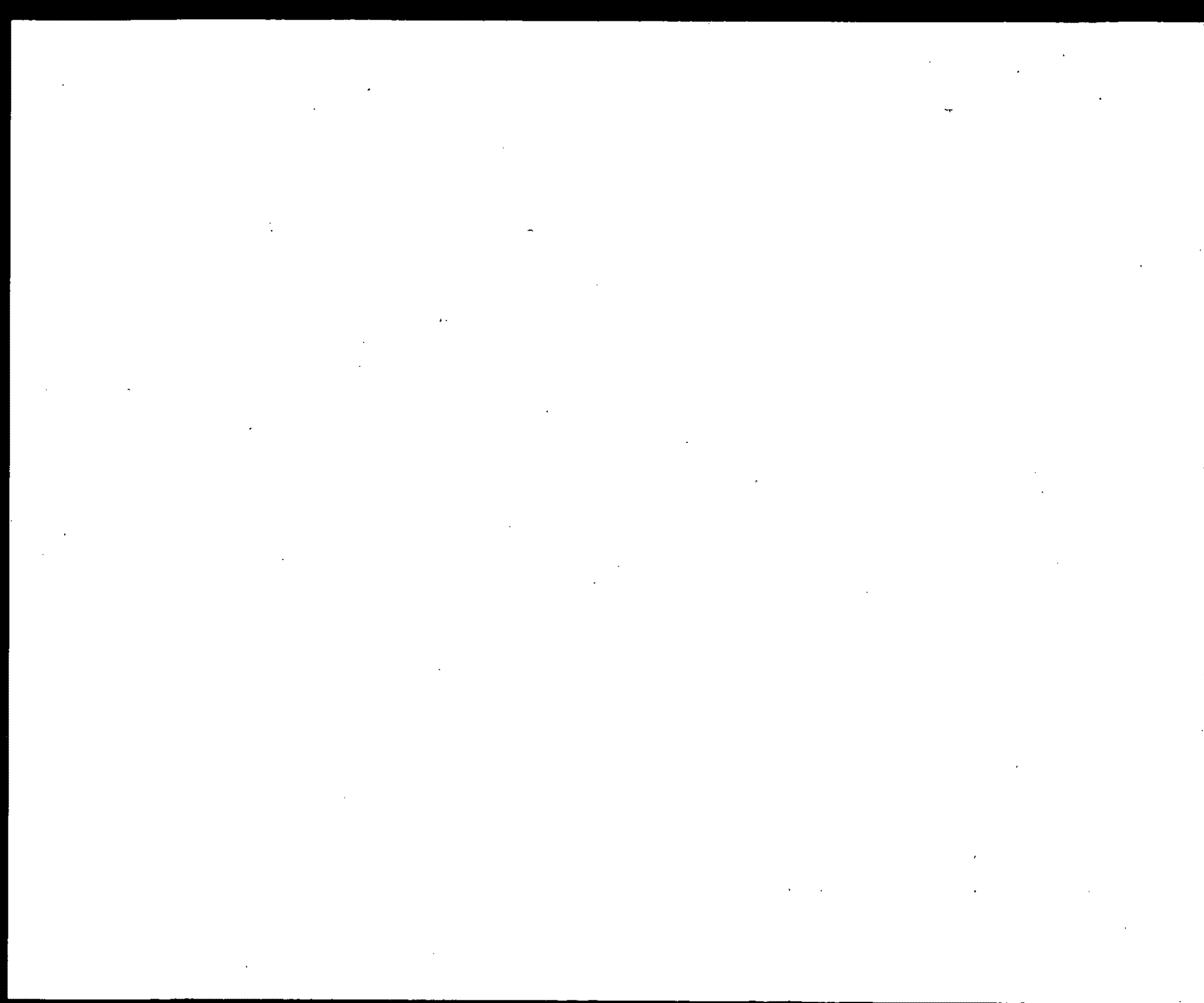
It should be noted that each alternative, discussed as viable in the Draft EIR/EIS, was compatible to some extent with large-scale reclamation (the Basin Plan Alternative and Individual Deepwater Outfalls provide a collection system which can be revised to supply the south valley area with water; Upgraded Treatment, in effect, treats effluent to the same high degree which might be required for highest use of reclaimed water).

Transcript pages 34-35, lines 26-28, 1-10.

A discussion of the potential economic impact of the disposal system on the canning industry is presented in Chapter III.1.3 (Technical Volume, Draft EIR/EIS). Advanced waste treatment (AWT) is not the subject of this draft and mitigation of the negative impact of rates due to implementing AWT is beyond the scope of this study.

Section 2

RESPONSES TO WRITTEN COMMENT
RECEIVED DURING THE REVIEW PERIOD
ENDING 6 JUNE 1979



2.1

LETTERS REQUIRING NO SPECIFIC RESPONSE

Twenty-eight letters of comment were received by SBDA and EPA during the review and comment period. These letters are reproduced on the following pages along with specific responses to each point or issue raised or question asked. SBDA and EPA appreciate the interest taken by the public and agencies in the SBDA treated wastewater disposal EIR/EIS.

2.1 LETTERS REQUIRING NO SPECIFIC RESPONSE

The following submittals consisted of resolutions or letters supporting the "No Further Action" alternative - the alternative recommended by SBDA and EPA - or letters raising no specific issues regarding this or other alternatives. SBDA and EPA thank the reviewers for their interest and acknowledge the stated preferences. These letters have been considered in making the project selection.

- Office of the Governor, Office of Planning and Research, State Clearinghouse - 7 April 1979 - EPA No. (HE-149) 3
- City of Saratoga - 8 May 1979 - EPA No. (HE-149) 4
- Town of Los Gatos, - 8 May 1979 - EPA No. (HE-149) 5
- City of Milpitas, Milpitas Sanitary District Board of Directors - 14 May 1979 - EPA No. (HE-149) 7
- City of Campbell - 15 May 1979 - EPA No. (HE-149) 10
- Paul N. McCloskey, Jr., U.S. Congress - 16 May 1979 - EPA No. (HE-149) 14
- U.S. Department of Transportation, Federal Highway Administration, Region Nine - 16 May 1979 - EPA No. (HE-149) 16
- Santa Clara Chamber of Commerce - 18 May 1979 - EPA No. (HE-149) 18
- Cupertino Sanitary District - 21 May 1979 - EPA No. (HE-149) 19
- Norman Y. Mineta, U.S. Congress - 6 June 1979 - EPA No. (HE-149) 25
- County of Santa Clara, Board of Supervisors - 11 June 1979 - EPA No. (HE-149) 26

OFFICE OF THE GOVERNOR
OFFICE OF PLANNING AND RESEARCH
STATE CLEARINGHOUSE
1400 - 10TH STREET
SACRAMENTO, CA 95814

(HE-149) 3

RECEIVED
EPA REGION IX

MAY 13 10:06 AM '79



CITY of SARATOGA

13777 FRUITVALE AVENUE • SARATOGA, CALIFORNIA 95070
(408) 867-3438

May 8, 1979

U.S. ENVIRONMENTAL PROTECTION AGENCY
215 FREMONT ST
SAN FRANCISCO CA 94105
ATTENTION: PAUL DEFALCO

ACKNOWLEDGEMENT

04/07/79
REPORT IMD45A

PROJECT NOTIFICATION AND REVIEW SYSTEM
OFFICE OF THE GOVERNOR
(916) 445-0613

PROJECT: SOUTH BAY DISCHARGE AUTHORITY

STATE CLEARINGHOUSE NUMBER (SCH) 79040905

PLEASE USE THE STATE CLEARINGHOUSE NUMBER ON FUTURE CORRESPONDENCE
WITH THIS OFFICE AND WITH AGENCIES APPROVING OR REVIEWING YOUR PROJECT

DATE RECEIVED: 79/03/30

DATE REVIEW PERIOD ENDS: 79/05/17

THIS CARD DOES NOT VERIFY COMPLIANCE WITH PREAPPLICATION AND/OR
ENVIRONMENTAL DOCUMENT REVIEW REQUIREMENTS. A LETTER CONTAINING THE
STATE'S COMMENTS OR A LETTER CONFIRMING NO STATE COMMENTS WILL BE
FORWARDED TO YOU AFTER THE REVIEW IS COMPLETE

PLEASE CONTACT THE CLEARINGHOUSE IMMEDIATELY IF YOU DO NOT RECEIVE
THE LETTER BY THE END OF THE REVIEW PERIOD.

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Agency
215 Fremont Street
San Francisco, California 94105

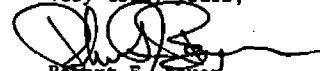
Gentlemen:

Please be advised that the City Council of the City of Saratoga
at its regular meeting on May 2, 1979, approved Resolution 900
as follows:

A Resolution of the City of Saratoga Urging
Implementation of the "No Action Beyond
Currently Approved/Improvements at Treatment
Plants" Alternative as Set Forth in the Draft
Environmental Impact Report and Statement for
the Treated Wastewater Disposal Program of the
South Bay Dischargers Authority.

A Certified copy of the above-mentioned resolution is enclosed.

Very truly yours,


Robert F. Beyer
City Manager

RFB/ck

Enclosure

CC: South Bay Dischargers Authority

RESOLUTION NO. 900

(HE-149) 4

A RESOLUTION OF THE CITY OF SARATOGA URGING IMPLEMENTATION OF THE "NO ACTION BEYOND CURRENTLY APPROVED IMPROVEMENTS AT TREATMENT PLANTS" ALTERNATIVE AS SET FORTH IN THE DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT FOR THE TREATED WASTEWATER DISPOSAL PROGRAM OF THE SOUTH BAY DISCHARGERS AUTHORITY

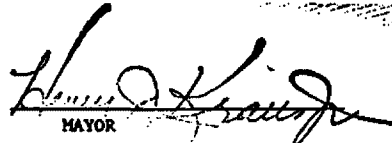
WHEREAS, County Sanitation District No. 4 of Santa Clara County, California, provides for the collection, treatment and disposal of the wastewater emanating from the City of Saratoga; and

WHEREAS, the District has reviewed the DRAFT ENVIRONMENTAL REPORT AND STATEMENT, SOUTH BAY DISCHARGERS AUTHORITY TREATED WASTEWATER DISPOSAL PROGRAM, commented thereon and requested implementation of the no action alternative set forth in the said DRAFT REPORT.

NOW, THEREFORE, BE IT RESOLVED that the City of Saratoga does hereby concur in the comments and request of the said District and does similarly request that the Environmental Protection Agency and the South Bay Dischargers Authority undertake the appropriate measures to implement the no action alternative set forth in the DRAFT ENVIRONMENTAL REPORT AND STATEMENT.

Passed and adopted at a regular meeting of the City Council of the City of Saratoga held on the 2nd day of May, 1979, by the following vote:

AYES: Councilmen Kalb, Matteoni, Kraus & Corr
NOES: None
ABSENT: Councilwoman Callon


MAYOR

ATTEST:

/s/ Robert F. Bayar

CITY CLERK

THIS IS TO CERTIFY THAT THE WITHIN INSTRUMENT IS A TRUE AND CORRECT COPY OF THE ORIGINAL ON FILE IN THIS OFFICE.

ATTEST May 8 1979
CITY CLERK OF THE CITY OF SARATOGA
BY Robert F. Bayar
DEPUTY CITY CLERK



TOWN of LOS GATOS
Department of Public Works
354-6863

(HE-149) 5

U.S.E.P.A.
REGION 9
COMM CENTER

MAY 11 12 30 PM '79

May 8, 1979

U. S. Environmental Protection Agency
215 Fremont Street
San Francisco, California 94105

Gentlemen:

South Bay Dischargers Authority
Common Conveyance Facility

Attached is a copy of Town Council Resolution No.1979-69 which was adopted May 7, 1979. Please consider these recommendations at your hearing May 16, 1979 concerning the Combined Draft Environmental Impact Statement-Environmental Impact Report for the South Bay Dischargers Authority Facility.

Very truly yours,


R. L. WARNICK
Director of Public Works

RLW/jh
Enc.

CIVIC CENTER • 110 EAST MAIN STREET • P.O. BOX 949 • LOS GATOS, CALIFORNIA 95030

(HE-149) 5

RESOLUTION NO. 1979-69

A RESOLUTION OF THE TOWN OF LOS GATOS URGING IMPLEMENTATION OF THE "NO ACTION BEYOND CURRENTLY APPROVED IMPROVEMENTS AT TREATMENT PLANTS" ALTERNATIVE AS SET FORTH IN THE DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT FOR THE TREATED WASTEWATER DISPOSAL PROGRAM OF THE SOUTH BAY DISCHARGERS AUTHORITY

WHEREAS, County Sanitation District No. 4 of Santa Clara County, California, provides for the collection, treatment and disposal of the wastewater emanating from the Town of Los Gatos; and

WHEREAS, the District has reviewed the DRAFT ENVIRONMENTAL REPORT AND STATEMENT, SOUTH BAY DISCHARGERS AUTHORITY TREATED WASTEWATER DISPOSAL PROGRAM, commented thereon and requested implementation of the no action alternative set forth in the said DRAFT REPORT.

NOW, THEREFORE, BE IT RESOLVED that the Town of Los Gatos does hereby concur in the comments and request of the said District and does similarly request that the Environmental Protection Agency and the South Bay Dischargers Authority undertake the appropriate measures to implement the no action alternative set forth in the DRAFT ENVIRONMENTAL REPORT AND STATEMENT.

PASSED AND ADOPTED by the Town Council of the Town of Los Gatos this 7th day of May, 1979, by the following vote:

AYES:	COUNCIL MEMBERS	Ruth Cannon, Mardi Gualtieri, Peter W. Siemens and Thomas J. Ferrito
NOES:	COUNCIL MEMBERS	None
ABSTAIN:	COUNCIL MEMBERS	None
ABSENT:	COUNCIL MEMBERS	John S. Lochner

SIGNED: Thomas J. Ferrito
VICE-MAYOR OF THE TOWN OF LOS GATOS

ATTEST:
Rene E. Alder
CLERK OF THE TOWN OF LOS GATOS



City of Milpitas REGION IX
455 E. Calaveras Blvd.
Milpitas, California 95035
(408) 262-2310



(HE-149) 7

May 14, 1979

Environmental Protection Agency
Region 9
215 Fremont Street
San Francisco, California 94105

ATTN: Hearing Officer

SUBJECT: South Bay Dischargers Authority Treated
Wastewater Disposal Program EIR/EIS

Gentlemen:

Enclosed please find a resolution of the Milpitas Sanitary District Board of Directors supporting the "No Action" alternative outlined in the draft EIR/EIS for the subject project.

Very truly yours,

Wesley D. Smith

Wesley D. Smith
Director of Planning and Engineering

cc: Board of Directors,
Milpitas Sanitary District
South Bay Dischargers Authority

WDS/PHC/law

(HE-149) 7

RESOLUTION NO. 499

A RESOLUTION URGING IMPLEMENTATION OF THE "NO ACTION BEYOND CURRENTLY APPROVED IMPROVEMENTS AT TREATMENT PLANTS" ALTERNATIVE AS SET FORTH IN THE DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT FOR THE TREATED WASTEWATER DISPOSAL PROGRAM OF THE SOUTH BAY DISCHARGERS AUTHORITY

MILPITAS SANITARY DISTRICT

WHEREAS, the Milpitas Sanitary District has reviewed the DRAFT ENVIRONMENTAL REPORT AND STATEMENT and has attached its comments thereon to this Resolution; and

WHEREAS the DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT, SOUTH BAY DISCHARGERS AUTHORITY TREATED WASTEWATER DISPOSAL PROGRAM develops a strong case for adoption of a no further action, beyond currently approved improvements at treatment plants, as an alternative to the Basin Plan.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of the Milpitas Sanitary District does hereby request that the Environmental Protection Agency and the South Bay Dischargers Authority undertake the appropriate measures to implement the no action alternative set forth in the DRAFT ENVIRONMENTAL REPORT AND STATEMENT.

PASSED AND ADOPTED by the Board of Directors of the Milpitas Sanitary District this 10th day of May, 1979 by the following vote:

AYES: DIRECTORS: Ramey, Garcia, Scales and Moore.
NOES: DIRECTORS: None.
ABSENT: DIRECTORS: Herriott.

APPROVED:

G. M. O. - P.D.

CITY OF CAMPBELL
75 NORTH CENTRAL AVENUE
CAMPBELL, CALIFORNIA 95008
(408) 378-8141

Department: City Clerk

May 15, 1979

Mr. Steve Goodman, Manager
Sanitation District No. 4
100 East Sunnyoaks Avenue
Campbell, Ca 95008

Dear Mr. Goodman:

We are enclosing certified copy of Resolution No. 5590 as adopted by the Campbell City Council at its regular meeting Monday, May 14th, urging implementation of the "no action beyond currently approved improvements at treatment plants" alternative as set forth in the draft environmental impact report and statement for the treated wastewater disposal program of the South Bay Dischargers Authority.

Very truly yours,

Phyllis O. Acker
Phyllis O. Acker, City Clerk

POA:JS
Encl. (1)

cc: South Bay Dischargers Authority
✓ U. S. Environmental Protection Agency

(HE-149) 10
10 E. E. A.
REGION IX
CIVIL CENTER

MAY 15 1979

(HE-149) 10

GOVERNMENT OPERATIONS
BY
COMMITTEE ON
NUTRIENT DISBURSE
AND FINANCIAL

Congress of the United States
House of Representatives
Washington, D.C. 20515

DISTRICT OFFICE
305 GUNN AVENUE
PALM BEACH, CALIFORNIA 92061
(415) 321-7241

(HE-149) 14

RESOLUTION NO. 5590

May 16, 1979

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF CAMPBELL
URGING IMPLEMENTATION OF THE "NO ACTION BEYOND CURRENTLY
APPROVED IMPROVEMENTS AT TREATMENT PLANTS" ALTERNATIVE
AS SET FORTH IN THE DRAFT ENVIRONMENTAL IMPACT REPORT
AND STATEMENT FOR THE TREATED WASTEWATER DISPOSAL
PROGRAM OF THE SOUTH BAY DISCHARGERS AUTHORITY

South Bay Dischargers Authority
810 First Street
San Jose, California 95110

Dear Sirs:

I support the recommendation made in the Environmental Impact Report/
Statement prepared by the Environmental Protection Agency and the South
Bay Dischargers Authority, with technical assistance from Bechtel Inc.,
that no further action on the proposed deep water pipeline is necessary
at this time.

The cost of the pipeline, both in terms of construction and subsequent
increased energy demand for operation, is prohibitive and I am satisfied
that protection of the South Bay environment, in particular the fresh
water marsh, is best served by upgraded treatment of wastewater and con-
tinued monitoring of Bay water quality.

It is my hope that the Water Quality Control Board will agree to
take no further action on the proposed pipeline.

Sincerely,

Paul N. McCloskey
Paul N. McCloskey, Jr.

PNMcC-Jg

WHEREAS, County Sanitation District No. 4 of Santa Clara County,
California, provides for the collection, treatment and disposal of
the wastewater emanating from the City of Campbell; and

WHEREAS, the District has reviewed the DRAFT ENVIRONMENTAL
REPORT AND STATEMENT, SOUTH BAY DISCHARGERS AUTHORITY TREATED WASTEWATER
DISPOSAL PROGRAM, commented thereon and requested implementation of the
no action alternative set forth in the said DRAFT REPORT.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the
City of Campbell that the City of Campbell does hereby concur in the
comments and request of the said District and does similarly request
that the Environmental Protection Agency and the South Bay Dischargers
Authority undertake the appropriate measures to implement the no action
alternative set forth in the DRAFT ENVIRONMENTAL REPORT AND STATEMENT.

PASSED AND ADOPTED this 14th day of May, 1979, by the
following roll call vote:

AYES: Councilmen: Doetsch, Hammer, Chamberlin, Podgorsek, Paul

NOES: Councilmen: None

ABSENT: Councilmen: None

APPROVED:

Norman Paul, Mayor

ATTEST:

Phyllis O. Acker, City Clerk

THE FOREGOING INSTRUMENT IS A TRUE
AND CORRECT COPY OF THE ORIGINAL
ON FILE IN THIS OFFICE.

ATTEST: PHYLLIS O. ACKER, CITY CLERK
CITY OF CAMPBELL, CALIFORNIA

Phyllis O. Acker
BY

DATED MAY 15, 1979



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION NINE
COMM CENTER

Two Embarcadero Center, Suite 530
San Francisco, California 94111

MAY 16, 1979

IN REPLY REFER TO

HED-09

(HE-149) 16

ARIZONA
CALIFORNIA
HAWAII
IDAHO
MONTANA
NEVADA
NEW MEXICO
OREGON
UTAH
WASHINGTON
WYOMING



**SANTA CLARA
CHAMBER OF COMMERCE**

1515 EL CAMINO REAL • SANTA CLARA • CALIFORNIA
408/296-6863 • P.O. BOX 387 • 95052

(HE-147) 18

U.S.E.P.A.
REGION 9
COMM CNTR

MAY 21 12 00 PM '79

May 18, 1979

Mr. Paul De Falco, Jr.
Regional Administrator, Region IX
Environmental Protection Agency
215 Fremont Street
San Francisco, California 94105

Dear Mr. De Falco:

We have reviewed the Draft Environmental Impact Statement for the South Bay Dischargers Authority Treated Wastewater Disposal Program in Santa Clara and San Mateo Counties, California, and have no specific comments to offer.

We appreciate this opportunity to review the subject Draft Statement.

Sincerely yours,

F. E. Hawley
F. E. Hawley
Regional Administrator

U.S. Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, California 94105

Attn: Hearing Office (HE-1X1)

Gentlemen:

Attached are three copies of the statement of the Santa Clara Chamber of Commerce presented at the Public Hearing on the EIR/EIS for the Treated Wastewater Disposal Program, held May 16, 1979 in the Santa Clara City Council Chambers.

Sincerely,

Bruce E. Schoppe
Bruce E. Schoppe, Vice President
Legislative Action Division

BS:mb

Enclosure



SANTA CLARA CHAMBER OF COMMERCE

1515 EL CAMINO REAL • SANTA CLARA • CALIFORNIA
408/296-6863 • P.O. BOX 367 • 95052

(HE-149) 18

CUPERTINO SANITARY DISTRICT SANTA CLARA COUNTY

DISTRICT MANAGER-ENGINEER

MARK THOMAS & CO. INC.
JOHN E. FLEMING
20065 STEVENS CREEK BLVD.
CUPERTINO, CA. 95014
(408) 253-7071

DISTRICT COUNSEL

PHILIP D. ASBAF
630 N. SAN MATEO DRIVE
P. O. BOX 155
SAN MATEO, CA. 94401
(415) 342-9553

CUPERTINO SANITARY DISTRICT OF SANTA CLARA COUNTY OFFICE OF THE DISTRICT MANAGER AND ENGINEER

20065 STEVENS CREEK BLVD.
SUITE 204
CUPERTINO, CALIFORNIA 95014

BOARD OF DIRECTORS

MAURICE F. LA BRIE, PRES.
CURTIS S. HARRISON, SEC.
EDWARD J. HANAMIAN
DR. JOS. F. BROWN
ROY M. RUSHTON

(HE-149)

May 21, 1979
File: CuSD - MOP
South Bay Dischargers
Authority

I am Bruce E. Schoppe representing the Santa Clara Chamber of Commerce.

We are opposed to the construction of the so called "super sewer" and support the position of the EPA and South Bay Dischargers Authority favoring the "no further action" alternative.

Measured against the goals of this entire program--that is, the improvement of water quality in the south Bay, it is clear that construction of this pipeline is unnecessary. The advanced wastewater treatment capability now or soon to be in operation at the municipal treatment plants involved will, for all practical purposes, achieve that goal.

We view this as a situation in which the real benefits must be measured against the real costs. Mathematical modeling has shown that, given these advanced treatment plants, very little difference in south Bay water quality results with the project vs. no project. In fact, there may well be a net negative result due to the removal of these fresh water flows from Artesian Slough and the other treatment plant outfalls.

The Chamber of Commerce is an organization of business people. We recognize that, if constructed, we'll pay the cost of this project through our businesses as well as our homes and those of our employees. Quite honestly, we don't need something else adding to our costs in this inflationary era--especially when, in our view, it has been clearly shown there is no need.

Adoption of the "No further action" plan makes a great deal of sense to us--environmentally and economically.

Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, Ca. 94105

Atten: Hearing Office (HE-149)

Re: South Bay Dischargers
Authority Conveyance
Facility

Gentlemen:

On May 16, 1979, the Cupertino Sanitary District Board of Directors adopted the enclosed Resolution No. 657, after reviewing the various alternative plans for the South Bay. Please keep us informed of future activities on this project.

Very truly yours,

MARK THOMAS & CO. INC.
District Manager-Engineer

John E. Fleming
John E. Fleming

JEF:dh

cc: South Bay Dischargers Authority
cc: City of Cupertino
cc: Cupertino Chamber of Commerce
Enc. Resolution No. 657

(HE-149) 19

RESOLUTION NO. 657

A RESOLUTION URGING IMPLEMENTATION OF THE "NO ACTION BEYOND CURRENTLY APPROVED IMPROVEMENTS AT TREATMENT PLANTS" ALTERNATIVE AS SET FORTH IN THE DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT FOR THE TREATED WASTEWATER DISPOSAL PROGRAM OF THE SOUTH BAY DISCHARGERS AUTHORITY

CUPERTINO SANITARY DISTRICT

WHEREAS, Cupertino Sanitary District, Santa Clara County, California, has reviewed the DRAFT ENVIRONMENTAL REPORT AND STATEMENT FOR THE TREATED WASTEWATER DISPOSAL PROGRAM OF THE SOUTH BAY DISCHARGERS AUTHORITY; and WHEREAS said DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT, develops a strong case for adoption of no further action, beyond currently approved improvements at treatment plants, as an alternative to the Basin Plan.

NOW, THEREFORE, BE IT RESOLVED that the Sanitary Board of the Cupertino Sanitary District does hereby request that the Environmental Protection Agency and the South Bay Dischargers Authority undertake the appropriate measures to implement the no action alternative set forth in said DRAFT ENVIRONMENTAL REPORT AND STATEMENT.

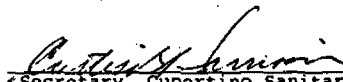
* * * * *

I hereby certify that the foregoing is a full, true and correct copy of a resolution which was duly and regularly passed and adopted by the Sanitary Board of the Cupertino Sanitary District, at a meeting thereof held on the 16th day of May, 1979, by the following vote of the members thereof:

AYES, and in favor thereof, Members: Brown, Harrison, Hahamian, LaBrie, Rushton

NOES, Members: None

ABSENT, Members: None


Secretary, Cupertino Sanitary District

APPROVED:


President

MAILGRAM SERVICE CENTER
MIDDLETOWN, VA. 22645



MAIL CENTER

4-069196E157 06/06/79 ICS IPHANCZ CSP 8FDB
4089846046 MGM TDRN SAN JOSE CA 109 06-06 0542P EST 7 42 PM '79

(HE-149) 25

US ENVIRONMENTAL PROTECTION AGENCY ATTN
HEARING OFFICER (HE-141)
REGION 9-215 FREMONT ST
SAN FRANCISCO CA 94105

DEAR SIR, I WOULD LIKE TO TAKE THIS OPPORTUNITY TO ADVISE YOU OF MY FULL SUPPORT FOR THE "NO PROJECT" ALTERNATIVE RECOMMENDATION CONTAINED IN THE ENVIRONMENTAL IMPACT STATEMENT-REPORT PREPARED BY THE ENVIRONMENTAL PROTECTION AGENCY IN THE SOUTHBAY DISCHARGES AUTHORITY.

IN THIS SITUATION IN WHICH THE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL INTERESTS, SUPPORT A "NO PROJECT" ALTERNATIVE, I BELIEVE THERE IS NO QUESTION THAT THE ENVIRONMENT OF THE SOUTHBAY WILL BE SUFFICIENTLY PROTECTED.

I APPRECIATE THIS OPPORTUNITY TO SHARE MY VIEWS ON THIS MATTER WITH EPA AND HOPE THAT THE WATER QUALITY CONTROL BOARD WILL BE SUPPORTIVE OF THE DECISION TO TAKE NO FURTHER ACTION ON THE PROPOSED PIPELINE.

NORMAN Y MINETA
MEMBER OF CONGRESS

17143 EST

MGMCOMP MGM

County of Santa Clara
California

Office of the Board of Supervisors
County Government Center, East Wing
70 West Hedding Street
San Jose, California 95110
299-4321 Area Code 408

Susanne Wilson, District 1
Dominic L. Cortese, District 2
Dan McCorquodale, District 3
Rod Diridon, District 4
Geraldine F. Steinberg, District 5

June 11, 1979

(HE-149) 26

South Bay Dischargers Authority
c/o Environmental Protection Agency
215 Fremont Street
San Francisco, California 94105

Subject: Resolution Re No Action Alternative for South
Bay Dischargers Authority Treated Wastewater
Disposal Program

Gentlepersons:

The Board of Supervisors, County of Santa Clara, at
its meeting of May 15, 1979 adopted a Resolution urging
implementation of the "No Action Beyond Currently Approved
Improvements at Treatment Plants." The Board authorized
Supervisor Diridon to testify on its behalf at a public
hearing on this matter.

Enclosed please find a conformed copy of the captioned
Resolution.

Sincerely,

BOARD OF SUPERVISORS
Donald M. Rains, Clerk

By: *Robin A. Murren*
Deputy Clerk

vas

Enclosure

CC: County Sanitation District No. 4

An Equal Opportunity Employer

(HE-149) 26

RESOLUTION RE NO ACTION ALTERNATIVE FOR SOUTH BAY
DISCHARGERS AUTHORITY TREATED WASTEWATER DISPOSAL PROGRAM

WHEREAS, the Draft Environmental Impact Report and Statement
for the Treated Wastewater Disposal Program of the South Bay
Dischargers Authority has developed a strong case for adoption of
a no further action, beyond currently approved improvements at
treatment plants, as an alternative to the Basin Plan; and

WHEREAS; County Sanitation District No. 4 has requested that
the Environmental Protection Agency and the South Bay Dischargers
Authority take whatever steps necessary to implement the no action
alternative set forth in the Draft Environmental Impact Report and
Statement;

NOW, THEREFORE, BE IT RESOLVED by the Board of Supervisors of
the County of Santa Clara, State of California, that it hereby
requests that the Environmental Protection Agency and the South
Bay Dischargers Authority undertake appropriate measures necessary
to implement the no action alternative as set forth in the Draft
Environmental Impact Report and Statement for the South Bay
Dischargers Authority Treated Wastewater Disposal Program.

PASSED AND ADOPTED by the Board of Supervisors of the County
of Santa Clara, State of California, on MAY 15 1979,
by the following vote:

AYES: Supervisors CORTESI, MCCORQUODALE, STEINBERG, DIRIDON, WILSON

NOES: Supervisors ~~WILSON~~

ABSENT: Supervisors STEINBERG

Dominic L. Cortese
Dominic L. Cortese
Chairperson, Board of Supervisors

ATTEST: DONALD M. RAINS, Clerk
Board of Supervisors

Donald M. Rains

SB:no

2.2

LETTERS REQUIRING SPECIFIC RESPONSE

2.2 LETTERS REQUIRING SPECIFIC RESPONSE

The following submittals consisted of letters which raised issues or questions about selected alternatives, mitigating measures and/or conclusions drawn in the Draft EIR/EIS. Each letter is reproduced in the order received, and each is followed by a point by point response to the comments. Where more than one letter raises similar issues, the most complete response is provided to the first letter received and each response to succeeding letters is referenced to that first letter. Each letter has been considered in making the project selection.

- County Sanitation District No. 4, Santa Clara County - 30 April 1979 - EPA No. (HE-149) 1
- Santa Clara Citizens Advisory Committee - undated - EPA No. (HE-149) 2
- U.S. Department of Commerce - undated - EPA No. (HE-149) 6
- Drs. Howard S. Shellhammer and H. Thomas Harvey, San Jose State University - 14 May 1979 - EPA No. (HE-149) 8
- Dr. L. Richard Mewaldt, San Jose State University - 14 May 1979 - EPA No. (HE-149) 9
- Santa Clara County Cannery Association - 15 May 1979 - EPA No. (HE-149) 11
- U.S. Department of Agriculture - 8 May 1979 - EPA No. (HE-149) 12
- San Jose/Santa Clara Water Pollution Control Plant - 16 May 1979 - EPA No. (HE-149) 13
- Santa Clara Valley Water District - 17 May 1979 - EPA No. (HE-149) 15
- Department of Fish and Game - 17 May 1979 - EPA No. (HE-149) 17a
- State Water Resources Control Board - 14 May 1979 - EPA No. (HE-149) 17b
- D. E. Myers, Loma Prieta Chapter, Sierra Club - 23 May 1979 - EPA No. (HE-149) 20
- U.S. Department of Interior, Pacific Southwest Region - 22 May 1979 - EPA No. (HE-149) 21

- Patrick Ferraro, District 2, Santa Clara Valley Water District - 22 May 1979 - EPA No. (HE-149) 22
- Regional Water Quality Control Board - 30 May 1979 - EPA No. (HE-149) 23
- ABAG - 1 June 1979 - EPA No. (HE-149) 24
- Advisory Council on Historic Preservation - 8 June 1979 - EPA No. (HE-149) 27

COUNTY SANITATION DISTRICT NO. 4
OF SANTA CLARA COUNTY

100 East Sunnyoaks Avenue
Campbell, California 95008
Telephone 376 2407

April 30, 1979

Environmental Protection Agency
Region IX
Attn: Hearing Office (HE-141)
215 Fremont Street
San Francisco, CA 94105

RE South Bay Dischargers Authority
Common Conveyance Facility

I am enclosing a Resolution adopted by the Board of Directors of County Sanitation District No. 4 at its meeting on April 25, 1979 entitled A Resolution Urging Implementation of the "No Action Beyond Currently Approved Improvements at Treatment Plants" Alternative as set forth in the Draft Environmental Impact Report and Statement for the Treated Wastewater Disposal Program of the South Bay Dischargers Authority. Attached to the resolution are comments in support of the action of the District Board urging the "no action alternative".

This resolution and comments are being submitted pursuant to your notice of hearing to be held on May 16, 1979 and your request for comments.

Very truly yours

Stephen H. Goodman
Stephen H. Goodman
Manager and Engineer

SHG:kk

encls.

CC Mr. A. R. Turturci
Director of Public Works
City of San Jose

(HE-149) 1
RECEIVED BY E.P.A.
REGIONAL HEARING OFFICE
SERVING RESIDENTS OF
CITY OF CAMPBELL
CITY OF LOS GATOS
CITY OF MONTE SERENO
CITY OF SAN JOSE
CITY OF SANTA CLARA
CITY OF SARATOGA
UNINCORPORATED AREA

RECEIVED
REGIONAL HEARING CLERK

MAY 1 1979

REGION IX

RESOLUTION NO. 79.4.51

(HE-149) 1

A RESOLUTION URGING IMPLEMENTATION OF THE "NO ACTION BEYOND CURRENTLY APPROVED IMPROVEMENTS AT TREATMENT PLANTS" ALTERNATIVE AS SET FORTH IN THE DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT FOR THE TREATED WASTEWATER DISPOSAL PROGRAM OF THE SOUTH BAY DISCHARGERS AUTHORITY

WHEREAS, County Sanitation District No. 4 of Santa Clara County, California, has reviewed the DRAFT ENVIRONMENTAL REPORT AND STATEMENT and has attached its comments thereon to this Resolution; and

WHEREAS the DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT, SOUTH BAY DISCHARGERS AUTHORITY TREATED WASTEWATER DISPOSAL PROGRAM develops a strong case for adoption of a no further action, beyond currently approved improvements at treatment plants, as an alternative to the Basin Plan.

NOW, THEREFORE, BE IT RESOLVED that the Board of Directors of County Sanitation District No. 4 does hereby request that the Environmental Protection Agency and the South Bay Dischargers Authority undertake the appropriate measures to implement the no action alternative set forth in the DRAFT ENVIRONMENTAL REPORT AND STATEMENT.

PASSED AND ADOPTED by the Board of Directors of County Sanitation District No. 4 of Santa Clara County, California, this 25th day of April, 1979 by the following vote:

AYES:	Directors	DIRIDON, GISSLER, ^{CANALAN} LOCHTER, HAYES, CODY, KRAUS, PAUL
NOES:	Directors	NONE
ABSENT:	Directors	NONE

Attest:

Patricia J. Moore
Secretary of the Board

Ruth Canalan
Chairperson of the Board
The foregoing instrument is a correct copy of the original on file in this office
COUNTY SANITATION DISTRICT NO. 4
Attest: *Patricia J. Moore*
Secretary

COMMENTS OF COUNTY SANITATION DISTRICT NO. 4 OF SANTA CLARA COUNTY, CALIFORNIA, CONCERNING THE DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT, SOUTH BAY DISCHARGERS TREATED WASTEWATER DISPOSAL PROGRAM

The following comments of the County Sanitation District No. 4 of Santa Clara County, California, concerning the DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT, SOUTH BAY DISCHARGERS TREATED WASTEWATER DISPOSAL PROGRAM are being submitted to the Environmental Protection Agency pursuant to the Agency's notice of a joint public hearing on May 16, 1979.

- ① Statement (EIS/EIR TECHNICAL Page 147): "The transport project without currently approved treatment improvements would improve water quality in the South Bay, with a corresponding decrease in water quality near the point of discharge north of the Dumbarton Bridge (BASSA, 1975). Since upgraded treatment would accompany the transport system, however, a severe decrease in water quality at the discharge point would not occur (Appendix C).

The most drastic alteration in water quality would occur in those sloughs in the South Bay now receiving point source discharges."

Comment: There appears to be no assurance that there will be a significant increase in the South Bay water quality as a result of constructing the transport project in addition to the upgraded treatment.

- ② Statement (EIS/EIR TECHNICAL Page 147): "However, except for the lower two or three miles of the Bay, the Basin Plan Alternative is not significantly different from a no further action alternative (see also Section IV.2.9), in that DO standards will not be met in all extremities of the Bay.

In the lower two or three miles of the Bay, DO concentrations would be expected to deteriorate somewhat in the headwaters of Artesian Slough, due to lack of flushing (now allowed by wastewater flows) and a resultant expression of background oxygen demand in the sloughs."

Comment: Construction and operation of the Basin Plan Alternative, at a considerable expense, dollars and energy, will not significantly improve the DO concentration of waters of the South Bay above that provided by the no further action alternative and may cause deterioration of the DO concentrations in the headwaters of major South Bay sloughs.

- ③ Statement (EIR/EIS TECHNICAL Page 148): "The South Bay would lose a significant portion of its annual freshwater input when the treated wastewater is diverted northward. The diversion would result in salinity increases in the South Bay, especially in the southern reaches."

Comments of County Sanitation District No. 4
Page 2

Comment: The overall quality of the water in the South Bay may be better as a result of discharging treated wastewater simulating natural freshwater discharges into the major sloughs as compared with their diversion out of the South Bay.

- ④ Statement (EIR/EIS TECHNICAL Page 148): "The toxicity levels in the South Bay would decrease with the removal of waste loads. Hydrosience (Appendix C) calculate the difference in toxicity with a no further action alternative and implementation of the Basin Plan Alternative to be as much as an order of magnitude (ten times the relative toxicity for no further action as for the Basin Plan Alternative) in the South Bay."

Comment: The magnitude of toxicity resulting from adoption of the no further action alternative could be reduced by improvement of the South Bay dischargers toxicity source control programs.

- ⑤ Statement (EIR/EIS TECHNICAL Page 154): "The presence of the diffuser in the deep water north of Dumbarton Bridge will result in the presence of a mixing zone with salinities ranging from nearly fresh water to saltwater concentrations. While the mixing zone will not significantly affect the salinity of the open waters of the Bay, it may present a barrier to passage of fish not tolerant to salinity variations."

Comment: The enhancement of the conditions in the waters of the South Bay for aquatic life may be offset by the aquatic barrier that may be created by the Basin Plan Alternative.

- ⑥ Statement (EIR/EIS TECHNICAL Page 165): "An outfall project alone would not impose significant economic cost to individual users or industries. However, further analysis of final outfall users charges together with user charges for advance waste treatment should be made in order to assess the combined economic impact."

Comment: The full impact of the user charges for fully implemented advance waste treatment by the South Bay dischargers to be closely followed by additional user charges for sludge solids handling and disposal facilities has not occurred and the further cost of the Basin Plan Alternative appears to be unwarranted in light of its questionable benefits.

- ⑦ Statement (EIS/EIR TECHNICAL Page 169): "Discontinuing a significant portion of the freshwater inflow into the South Bay will permanently remove the existing freshwater habitat in the area south of Dumbarton Bridge."

Comment: This adverse operational effect of the Basin Plan Alternative provides a significant reason to adopt the no further action alternative with a monitoring program to determine the effect of the discharge of highly treated effluent into the South Bay.

- ⑧ Statement EIR/EIS TECHNICAL Page 188): "This (no further action) alternative can be viewed as a phase of a 'deferred action' alternative that would allow an interim monitoring program and analysis of the effects of approved upgraded treatment on the Bay environment. Should water quality be shown to improve markedly under this alternative, a case could then be made for no additional action. If, however, the rate of improvement were not satisfactory to regulatory agencies, additional treatment, reclamation, or disposal methods could be implemented as needed, and evaluation could be made for each treatment plan separately for SBDA as a joint discharger. During the phasing of treatment and disposal, alternatives not now considered viable may be developed to a level of reliability, cost-effectiveness, and public acceptance that would allow their implementation."
- Comment: This statement is fully supported by other statements set forth in the EIR/EIS and is fully endorsed by County Sanitation District No. 4 and serves as the basis for the request that the proposed Basin Plan Alternative be abandoned and the no further action alternative and South Bay water quality monitoring program be approved for use by the South Bay Dischargers Authority.

Submitted by: County Sanitation District No. 4 of Santa Clara County
100 East Sunnyoaks Avenue
Campbell, California 95008

Dated: 30 April 1979

Response:

SBDA and EPA have noted the attached resolution and have considered it in making a project selection. Specific issues have been raised which require some responses.

1. No response required
2. No response required
3. No response required
4. It may be true that source control programs now planned by SBDA would reduce the magnitude of toxicity in the effluent and, hence, the receiving water. However, data on metropolitan wastewaters from several sources indicate that domestic sources, storm sewers, and nonpoint sources contribute more than half of the heavy metals (which constitute a major portion of the toxicity potential). For example, the Association of Metropolitan Sewerage Agencies (AMSA), in the AMSA Monthly Report, May 1979, Volume 4, Issue 5, page 3, shows that while many member cities confirm the assumption that full-scale industrial pretreatment will eliminate most of these substances from the sewer systems, others (Dallas, Texas; Seattle, Washington; Chicago, Illinois) indicate that domestic, storm runoff, and nonpoint sources may be as significant. Also, Robert Pitt of Woodward-Clyde Consultants, in "Demonstration of Nonpoint Pollution Abatement Through Improved Street Cleaning Practices" (EPA Grant S-804432, May 1979), used the City of San Jose as an example in comparing urban runoff and wastewater plant effluents (Table 2-1). He indicates that improved treatment may not

be as cost-effective as street cleaning with regard to heavy metals. Therefore, it may be concluded that source control must be extensive, including nonindustrial sources, and that some sources (nonpoint, for example) may override the improvement provided by pretreatment and other source control approaches. In addition, regardless of the success of source control, at this time it is not possible to estimate the percentage reduction in toxicity, nor is it possible to predict compliance with the 40 ml/l toxicity guideline as a result of source control.

5. No response required

6. No response required

7. No response required

8. SBDA has not designed a monitoring program. SBDA will, upon completion and approval of the Final EIR/EIS, petition the SWRCB in order to establish conditions for exemption from the prohibitions against discharge expressed in both the Basin Plan and the Enclosed Bays and Estuaries Policy. Information will be submitted to the Regional Water Quality Control Board and the State Water Resources Control Board to justify such exemption in that petition.

TABLE 2-1. COMPARISON OF URBAN RUNOFF AND WASTEWATER TREATMENT PLANT EFFLUENT¹

Parameter	Runoff Concentration (mg/l unless otherwise stated)		STP ^a Effluent Concentration (mg/l unless otherwise stated)	Ratio of Avg. Runoff to STP conc.	Ratio of Peak Runoff to Avg. STP conc.	Street Surface Annual Runoff ^b (tons/yr)	Annual STP Effluent ^c (tons/yr)	Ratio of Street Surface Runoff to STP Annual Yields
	Avg	Peak (1-hr)						
Ca ⁺⁺	13	19	65	0.20	0.29	350	8,000	0.040
K ⁺	2.7	3.5	24	0.11	0.15	73	3,200	0.023
Mg ⁺⁺	4.0	6.2	35	0.11	0.18	110	4,700	0.023
Na ⁺	15	27	220	0.07	0.12	410	30,000	0.014
Cl ⁻	12	18	330	0.04	0.05	330	45,000	0.007
SO ₄ ⁼	18	27	150	0.12	0.18	490	20,000	0.025
HCO ₃	54	150	230	0.23	0.66	1500	32,000	0.047
NO ₃	0.7	1.5	4.9	0.14	0.31	19	660	0.029
BOD ₅	24	30	21	1.1	1.4	480	2,800	0.17
COD	200	350	35 ^d	5.6	10	950	4,700 ^d	0.20
KN	6.7	25	24	0.28	1.1	17	3,200	0.005
OrthoPO ₄	2.4	18	19	0.13	0.92	1.2	2,600	0.0005
Total Solids	350	950	1000	0.34	0.92	9500	140,000	0.07
TDSE	150	380	1000	0.15	0.37	4100	140,000	0.029
Suspended Solids	240	850	26	9.2	32	4700	3,500	1.3
Cd	0.01	0.04	0.002	5	20	0.018	0.27	0.07
Cr	0.02	0.04	0.016	1.3	2.5	3.5	2.2	1.6
Cu	0.03	0.09	0.081	0.37	1.1	5.5	11	0.5
Pb	0.4	1.5	0.0098	41	150	36	1.3	28
Zn	0.18	0.55	0.087	2.1	6.3	3.9	12	0.33
Hg	<0.0001	0.0006	0.0019	<0.05	0.32	0.0032	0.26	0.01
Specific conductance (umhos/cm)	120	660	1900	0.06	0.36	--	--	--
Turbidity (NTU)	49	130	20	2.5	6.5	--	--	--
pH (pH units)	6.7	7.6	7.6	--	--	--	--	--
TOC ^f	110	290	30	3.5	9.7	3000	4,100	0.73

^aSecondary sanitary wastewater treatment plant.^bAbout 200 people correspond to 1 curb-mile (2880 curb-miles in San Jose/575,000 population). Therefore a population of 850,000 corresponds to about 4250 curb-miles, with about 1100 curb-miles of streets surfaced with oil and screens. These annual runoff values were calculated based on a year of the appropriate accumulation rates and these mileage estimates.^cAn estimated population of 850,000 is served by the sanitary wastewater treatment facility.^dEstimated. ^eTotal dissolved solids. ^fTotal organic carbon.¹Source: Pitt, R., 1979. "Demonstration of Nonpoint Pollution Abatement through Improved Street Cleaning Practices." Woodward-Clyde Consultants for Municipal Environmental Research Laboratory, Office of Research and Development, U.S. EPA, Cincinnati, Ohio. Grant No. S-804432.

(HE-149) 2



SANTA CLARA CITIZENS ADVISORY COMMITTEE

Environmental Protection Agency
Attn: Hearing Office, HE-149
Region IX
215 Fremont Street
San Francisco, California

RECEIVED
REGIONAL HEARING CLERK

MAY 3 1979

REGION IX

Gentlemen:

I am presenting the following testimony regarding the EIS/EIR for the South Bay Treated Wastewater Disposal Program on behalf of the Citizens Advisory Committee for the City of Santa Clara. Our committee, which is advisory to the City Council, has long been aware of the proposed pipeline project. In 1975 our representatives attended the workshop held in Sunnyvale regarding the project. At that meeting our former chairman expressed his reservations about the project.

We are grateful to see that the Environmental Protection Agency, along with the South Bay Dischargers Authority, no longer sees the need to construct the pipeline. We also continue to see no need for the project. The money saved by not constructing this pipeline could be applied to improve treatment so the sewage could be reclaimed for a beneficial use.

To reach the above decision our committee recently organized a sub-committee specifically to review in detail the summary Environmental Impact Report and Statement. During this review we contacted our city staff to obtain further information on the project. As you are probably aware, most of the local agency staff members involved in the project also do not support the pipeline project. Our independent review resulted in a similar viewpoint. Basically, our objections to the project are the same as those noted in the EIR/EIS. Namely:

1. No significant improvement in water quality. It is apparent that the advanced sewage treatment plants recently constructed will significantly improve the water quality in the South Bay.
2. Biological damage to the existing freshwater marshes that would result if the pipeline were put into operation.
3. Cost. The \$86 million to construct and another \$320,000 to operate could be better applied to a reclamation project. The savings of the operating costs to the

citizens could be very helpful in these inflationary periods.

4. Energy. This project would consume about the equivalent of 4900 barrels of oil a year to operate. We are already in somewhat of an energy crunch. This project would further the energy problems faced by the country.

Based on the information in the report, we believe the pipeline project, if constructed, could mean the final end to any potential for a future reclamation project in this area.

We believe that since reclamation and reuse is our goal we should continue with an ambitious program to reach that goal.

Sincerely,

Bert Martin

Bert Martin
Citizens Advisory Committee

bm:mc

CITY CLERK
CITY OF SANTA CLARA
City Hall
SANTA CLARA, CALIF. 95050



Submitted by: Santa Clara Citizens Advisory Committee

Dated: undated

Response:

SBDA and EPA recognize that energy consumption has become an even more important concern since the issuance of the Draft EIR/EIS and increased energy costs would further increase predicted operation costs for all upgraded treatment alternatives as well as for all alternatives requiring transport of the effluent.

It was not intended to imply no significant improvement in water quality would occur as a result of implementing any of the project alternatives. Rather, the five "viable" alternatives did not appear to be significantly different in predicted dissolved oxygen levels; actual numbers of NPDES permit violations are expected to decrease with the implementation of advanced waste treatment. The location of oxygen depressions varies with the alternatives, however, and no alternative guaranteed meeting dissolved oxygen goals year-round.

Reclamation and reuse of wastewater, as stated in the Draft EIR/EIS (page 195 of Technical Volume), is a goal of the state and federal governments. However, at this time, reclamation cannot be postulated as a complete disposal alternative but the four viable disposal alternatives are all compatible to some degree with limited reclamation. Regional disposal systems are particularly compatible with large-scale regional reclamation programs. SBDA and its member cities are presently engaged in the Regional Reclamation Study and in several small-scale projects. Therefore, SBDA is continuing to study reclamation as a future option for all or part of the effluent in the area.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

OA/C52x6:JLR

MAY 3 1979

(HE-149) 6

TO: PP - Richard Lehman

FROM: OA/Cx1 *Gordon Lill*
Gordon Lill

SUBJECT: DEIS #7904.04 - Treated Wastewater Disposal Program

The subject statement has been reviewed within the areas of NOS responsibility and expertise, and in terms of the impact of the proposed action on NOS activities and projects.

The following comment is offered for your consideration.

Geodetic control survey monuments may be located in the proposed project area. If there is any planned activity which will disturb or destroy these monuments, NOS requires not less than 90 days' notification in advance of such activity in order to plan for their relocation. NOS recommends that funding for this project includes the cost of any relocation required for NOS monuments.

Submitted by: U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Ocean Survey
Rockville, Maryland 20852

Dated: undated

Response:

No construction activities will occur with the selected project alternative (No Further Action). Therefore, there will be no activity which will disturb geodetic control survey monuments. Thank you for calling these monuments to our attention.



San José State University

WASHINGTON SQUARE
SAN JOSE, CALIFORNIA 95122

SCHOOL OF SCIENCE

Department of Biological Sciences

U.S.E.P.A.
REGION 9
COMM CNTR

(HE-144) 8

MAY 16 12 15 PM '79

(408) 277-2355

May 14, 1979

Environmental Protection Agency
Attn: Hearing Office, HE - 149, Region IX
215 Fremont Street
San Francisco, California 94105

Subject: Comments for the Draft EIR, Treated Wastewater Disposal Program - for inclusion in the public record of the May 16, 1979 hearing.

To members of the U. S. Environmental Protection Agency and the South Bay Dischargers Authority.

We are two biologists who have long been interested in the biology and environmental quality of the San Francisco Bay and especially the southern portions of that bay. Dr. H. Thomas Harvey has been studying the marshes of the Bay since the late 1950's and I have been studying the mammals of those same marshes since the early 1960's. He has carried out the earliest and most of the marsh restoration experiments in the bay while I have specialized in the rodents, especially the endangered Salt marsh harvest mouse. We, and other professors here at San Jose State University, have become aware of how little fresh water marsh has survived the last two hundred years of human occupation. Most of the salt marshes (over 60%) and almost all (over 95%) of the freshwater marshes have disappeared, and with the latter the breeding grounds for such birds as the marsh yellowthroat and the hatching ground for the ducks who attempt to breed in the Bay area. These ducks require freshwater for their young during the first few days of their lives. Without it their clutches are doomed to early deaths. The diversity provided by freshwater marshes are almost a thing lost and forgotten.

There are valuable freshwater or near freshwater areas left such as that at Artesian Slough near Alviso. That area supports large numbers of birds and is freshened by the outfall of the San Jose and Santa Clara Water Quality Control Plant, now an advanced secondary treatment plant. Waters from that plant may someday in the future be used also to create a new freshwater marsh in the New Chicago Marsh, a portion of the San Francisco Bay Wildlife Refuge located adjacent to their new Alviso area educational center. Waste water cleaned to the extent that the San Jose plant now does with its nitrification and multistage filtration appear to be adequate for use in the creation of such a freshwater marsh. It is for these reasons that we support Option #4 of the Draft EIR which we understand to call for the outfalls to remain as they are at the various South Bay plants while the quality of the waste water is to be upgraded, we assume to the level now at the San Jose plant. We request your decision in favor of this fourth option.

Submitted by: Dr. Howard S. Shellhammer and Dr. H. Thomas Harvey
School of Science, Department of Biological Sciences
San Jose State University
Washington Square
San Jose, California 95192

Dated: 14 May 1979

Response:

The selected project alternative (No Further Action) assumes implementation of advanced waste treatment at all member dischargers' facilities which has recently taken place and ensures continued discharge in the area. A further upgrading of treatment (as in Alternative 4 - page 193 of Draft EIR/EIS Technical Volume) could be considered should an approved monitoring program show insufficient protection of beneficial uses (see also response to County Sanitation District 4, item 8, in Section 2.2). At this time, Alternative 4 has not been selected due to its high cost and slight, if any, improvement in water quality over the other alternatives.

Use of San Jose/Santa Clara effluent in the creation of new marshland at the New Chicago Marsh element of the San Francisco Bay National Wildlife Refuge, or elsewhere, is not precluded by selecting No Further Action. As mentioned in the response to County Sanitation District 4, this may be defined as a beneficial use.

Howard S. Shellhammer
Professor of Biology

H. Thomas Harvey
Professor of Biology

THE CALIFORNIA STATE UNIVERSITY AND COLLEGES

San José State University
SAN JOSE, CALIFORNIA 95192

Dr. L. Richard Mewaldt
Avian Biology Laboratory
San Jose State University
San Jose, CA 95192

(HE-149) 9

SCHOOL OF SCIENCE

AVIAN BIOLOGY LABORATORY

14 May 1979

(408) 277-3016

MEMORANDUM

TO: Environmental Protection Agency
Attn: Hearing Office, HE-149 -- Region IX
215 Fremont Street
San Francisco, CA 94105

FROM: L. Richard Mewaldt, Ph.D., Professor Emeritus of Zoology,
Avian Biology Laboratory, San Jose State University

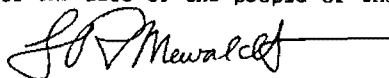
SUBJECT: Resolution No. 73-16 -- South Bay Discharges

I with several of my co-workers, former students, and students have since 1953 concerned myself with several aspects of the biology of the vertebrates, especially birds, of San Francisco Bay and its surrounding marsh lands. These studies have resulted in many agency reports, theses, and papers published in professional journals. These works were accomplished with the cooperation of the California Department of Fish and Game, The U. S. Fish and Wildlife Service, and the Leslie Salt Company.

An overriding concern of these studies has been the acquisition of general and specific knowledge to better manage the wildlife resources of San Francisco Bay. Our goal has been to maximize biological diversity and wildlife values. We have assumed that enhancement of these values will benefit this and future generations of mankind. During this 25-year period of our concern and hopefully constructive influence, progress, although frustratingly slow at times, has been made toward attainment of some of these goals.

However, in the matter of preservation of the primitive and once extensive fresh and brackish water fringe marsh lands of the South Bay and the species of plants and animals which inhabit them, we have continued to lose ground (= marsh). We now have the opportunity to reverse this trend and with careful management restore at least some of the fresh and brackish water marsh lands with the vastly improved quality of water being discharged from the San Jose Sewage Treatment Plant.

I strongly urge adoption of Option Four (4) which I understand calls for staying with present outfalls (at least for the present) and for continued up-grading of water quality to at least advanced secondary treatment. This option will permit the several concerned jurisdictions, including the San Francisco Bay National Wildlife Refuge to variously use this reclaimed water for the restoration and enhancement of our wildlife resources and thus the improvement of the quality of the life of the people of the San Francisco Bay Region.



THE CALIFORNIA STATE UNIVERSITY AND COLLEGES

Submitted by: Dr. L. Richard Mewaldt
Professor Emeritus of Zoology
Avian Biology Laboratory
San Jose State University
San Jose, California 95192

Dated: 14 May 1979

Response:

SBDA and EPA have selected Alternative 2 (No Further Action) and the present outfall locations will remain in use. The present level of treatment is advanced waste treatment at all SBDA facilities. Alternative 4 (Upgraded Treatment) postulates further upgrading but due to increased costs with little, if any, improvement in water quality, this alternative was not selected. (See also response to Drs. Shellhammer and Harvey in Section 2.2.)

SANTA CLARA COUNTY CANNERS ASSOCIATION

1007 "L" STREET
SACRAMENTO, CALIFORNIA 95814
AREA CODE (916) 444-9260

May 15, 1979

U. S. Environmental Protection Agency
Region IX
Attention Hearing Office (HE-14)
215 Fremont Street
San Francisco, California 94105

Gentlemen:

The following statement is being submitted by the Santa Clara County Cannery Association. Our Association is a non-profit organization formed 40 years ago to provide a forum for discussion of problems and opportunities common to our industry.

Currently, most of our activities center around the ever expanding load of federal, state and local regulations that adversely affect our capacity to efficiently produce food products.

Our Association represents 8 companies, operating 14 canning factories, employing approximately 12,000 people and having a 1.4 billion dollar economic impact to Santa Clara County.

So there can be no confusion as to our position we will state at the outset that we are adamantly opposed to the construction of a deep water outfall, or any other alternative being evaluated that will force the South Bay into compliance with the State Water Quality Control Boards resolution 74-73, which bans discharges to the San Francisco Bay south of Dumbarton Bridge. It is this resolution which needs evaluation not methods of implementing it.

The discharge ban in question was adopted by the State Board five (5) years ago and is responsible for over 100 million dollars of advanced waste treatment facilities being constructed in the cities of San Jose, Sunnyvale and Palo Alto.

(HE-149) 11

Now we are being asked to evaluate an additional 100 million dollars for a pipeline or some other alternative to comply with an arbitrary and capricious ruling.

The EPA, in order to further evaluate, advance waste treatment programs, commissioned the Vertex Corporation of McLean, Virginia, to prepare a report on "An Analysis of Planning for Advanced Wastewater Treatment." The report, published in July of 1977, covers the planning that went into decisions to construct advanced wastewater treatment facilities in six (6) areas of the United States, of which San Jose/Santa Clara was one.

We quote from that report:

"Costly pollution control projects are commonly built with almost no real knowledge of the waters that are to be protected by the generous investment in treatment facilities."

Referring specifically to the South Bay, we quote further from the Vertex Report.

"December, 1975, Hydrosience publishes another mathematical model. Like the last (February 1972), it is a mosaic of oversimplifications and guesswork."

* * *

"When the earlier models showed that construction could solve a problem they were accepted at face value. However, when the 1975 model showed that no amount of construction would work, State officials began to examine the model for unwarranted assumptions, inadequate verification, and skimpy data. This belated discovery of weaknesses in mathematical models has been costly."

* * *

"The San Francisco Bay Regional Water Quality Control Board could scarcely be expected to rejoice in Hydrosience's new conclusion; viz, all previous planning for the south bay has been fundamentally wrong. For the first time the Board has critically examined a mathematical model for the South Bay, and it is found wanting. Had the Regional Board been equally critical of the earlier models and studies, it might never have gotten into its present fix."

Today we find ourselves saddled with advanced wastewater treatment facilities in San Jose that are in themselves environmentally unsound, due to their enormous electrical energy requirements (more than our 14 canning factories combined).

Much of what has occurred in the South Bay has taken on the appearance of a "Gold Rush" by consultants and municipalities for EPA funds. It is about time we pause and evaluate the damages and possible benefits that have accrued from this uncoordinated and uncontrolled growth in waste treatment.

The Food Preserving-Canning industry has long been a vital and important segment of Santa Clara County's business community. We have actively and supportively participated in the past wastewater programs in San Jose and Sunnyvale; i.e., primary treatment in 1956, Secondary treatment in 1964 and expanded Secondary treatment in 1974. In each of these cases the need was apparent and benefits well identified. However, with advanced waste treatment and now this potential "Super Sewer", the need and benefits have never been demonstrated or justified.

Respectfully submitted.

Very truly yours,

SANTA CLARA COUNTY CANNERS ASSOCIATION



Robert Ilse
President

RI:am

cc: File

CALIFORNIA CANNERS and GROWERS

P. O. Box 60669, Sunnyvale, California 94086



Submitted by: Santa Clara County Cannery Association
1007 "L" Street
Sacramento, California 95814

Dated: 15 May 1979

Response:

EPA has evaluated the Vertex report and subsequently initiated the policy that any Advanced Waste Treatment (AWT) project(s) costing in excess of one million dollars must be reviewed by both the EPA Regional and Headquarters Offices. If recommended, the proposal(s) would then be submitted to the EPA Administrator for his personal consideration and review. This procedure assures that only AWT projects with special need will be considered for funding through the EPA construction grant program.

The modeling performed as part of this program provided the data which indicate that no outfall relocation is necessary. Our studies show that possible improvements may result from implementation of the Basin Plan Alternative, but that these improvements may not be significantly greater than with other actions. Therefore, SBDA and EPA have selected "No Further Action." We anticipate that future monitoring of the South Bay will establish the level of improvement gained from AWT facilities and any problems still remaining.



United States
Department of
Agriculture

Soil
Conservation
Service

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
2828 CHILES ROAD
DAVIS, CA 95616

2828 Chiles Road
Davis, CA 95616

U.S.E.P.A. (HE-149) 12
REGION 9
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MAY 17 12 25 PM '79

May 8, 1979

Paul DeFalco, Jr.
Regional Administrator
U.S. Environmental Protection Agency
215 Fremont Street
San Francisco, California 94105

Dear Mr. DeFalco:

We acknowledge receipt of the draft environmental impact report and environmental impact statement for South Bay Dischargers Authority Treated Wastewater Disposal Program. We have reviewed this document and we find no apparent conflict with any Soil Conservation Service on-going or planned programs or projects.

Neither the Basin Plan (Alternative #1) nor Alternatives #2, #3 or #4 will result in the loss of prime agricultural land. However, Alternative #5, reclamation of wastewater from the SBDA treatment system, and the reuse of this water could have a further impact upon prime land and upon existing conservation systems, beyond that discussed in the EIS. If Alternative #5 is chosen, the EIS should be expanded and specifically describe the wastewater reclamation and reuse project in detail.

We appreciate the opportunity to review and comment on this proposed project.

Sincerely,

FRANCIS C. H. LUM
State Conservationist

cc: R. M. Davis, Administrator, USDA, SCS, Washington, D. C. 20250
Director, Office of Federal Activities (Mail Code A-104),
Environmental Protection Agency, Room 537, West Tower,
401 M Street, S. W., Washington, D. C. 20460

Submitted by: U.S. Department of Agriculture
Soil Conservation Service
2828 Chiles Road
Davis, California 95616

Dated: 8 May 1979

Response:

We have selected the "No Further Action" alternative and this alternative will not affect agricultural land. However, SBDA and EPA will look carefully into this and other impacts should they become involved in reclamation projects in the future. Thank you for your advice concerning the potential adverse impacts of reclamation and reuse of wastewater on prime agricultural land.



(HE-149) 13

SAN JOSE / SANTA CLARA
WATER POLLUTION CONTROL PLANT

REC'D BY E.P.A.
REGION IX
COMM. CENTER

MAY 16 10 51 AM '79

ADMINISTERED BY



CITY OF SAN JOSE
DEPARTMENT OF PUBLIC WORKS

CONTRIBUTING AGENCIES

CITY OF SAN JOSE
CITY OF SANTA CLARA
COUNTY SANITATION DIST. NO. 2
COUNTY SANITATION DIST. NO. 3
COUNTY SANITATION DIST. NO. 4
CITIES OF CAMPBELL, LOS GATOS,
SANTA TERESA AND SARATOGA
BURBANK SANITARY DISTRICT
CUPERTINO SANITARY DISTRICT
CITY OF CUPERTINO
MILPITAS SANITARY DISTRICT
CITY OF MILPITAS
SUNOL SANITARY DISTRICT

May 16, 1979

Environmental Protection Agency
Region IX
Attn: Hearing Office (HE-149)
215 Fremont Street
San Francisco, CA 94105

RE: South Bay Dischargers Authority
Common Conveyance Facility

The San Jose/Santa Clara Water Pollution Control Plant provides wastewater treatment for the Cities of San Jose and Santa Clara; the Milpitas, Cupertino, Burbank and Sunol Sanitary Districts; and Santa Clara County Sanitation Districts No's. 2, 3 and 4. In accordance with the terms of various contracts, these agencies are represented on a Treatment Plant Advisory Committee which advises the Administering Agency, i.e., City of San Jose.

The Treatment Plant Advisory Committee at its regular meeting on May 9, 1979, by motion, unanimously approved submission of a statement to the Environmental Protection Agency and the South Bay Dischargers Authority recommending implementation of the "No Action Beyond Currently Approved Improvements at the Treatment Plants" alternative as set forth in the "Draft Environmental Impact Report and Statement for the Treated Wastewater Disposal Program of the South Bay Dischargers Authority." A review of the "Draft Environmental Impact Report and Statement, South Bay Dischargers Treated Wastewater Disposal Program," indicates the following:

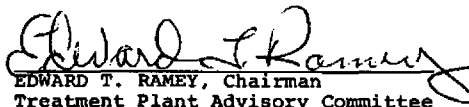
1. There is no assurance that there will be a significant improvement in South Bay water quality as a result of transporting treated final effluent.
2. Diversion of treated final effluent from the South Bay may result in salinity increases detrimental to the South Bay. (EIS/EIR Technical Page 148)
3. "Discontinuing a significant portion of the freshwater inflow into the South Bay will permanently remove the existing freshwater habitat in the area south of the Dumbarton Bridge." (EIS/EIR Technical Page 169)

Environmental Protection Agency
Page 2

4. Improvements in toxicity levels of the South Bay Waters may be achieved more cost effectively through emphasis on toxicity source control programs.

Therefore, in the opinion of the San Jose/Santa Clara Treatment Plant Advisory Committee, there is a minimal cost/benefit relationship for the South Bay Waters to continue the project for construction of transport facilities.

The adoption of the "No Action" alternative is recommended.


EDWARD T. RAMEY, Chairman
Treatment Plant Advisory Committee

cc: A. R. Turturici, Deputy Executive Director
South Bay Dischargers Authority

Submitted by: San Jose/Santa Clara Water Pollution Control Plant
700 Los Esteros Road
San Jose, California 95131

Dated: 16 May 1979

Response:

The studies did not indicate "no improvement" in water quality; in fact, the number of depressed dissolved oxygen episodes would decrease with some alternatives. However, a comparison of alternatives shows no significant difference in improvement among them or any guarantee of compliance with Basin Plan oxygen requirements.

While source control may reduce toxicity (see response to County Sanitary District 4, item 4, in Section 2.2), there is no way to predict the amount of reduction, if any, or whether or not Basin Plan toxicity guidelines can be met with any alternative.

(HE-149) 15

Santa Clara Valley Water District

5750 ALMADEN EXPRESSWAY
SAN JOSE, CALIFORNIA 95118
TELEPHONE (408) 265-2600



May 17, 1979

Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, California 94105

Attention: Hearing Office, HE - 149

Gentlemen:

In the Draft EIR/EIS for the Treated Wastewater Disposal Program for the South Bay Dischargers, the recommended alternative is the "no project alternative". It is our understanding that this alternative includes the following recommendations:

1. The present disposal points would continue to be used to discharge the upgraded (nitrified and filtered) wastewater for the time being.
2. While the discharge continues, extensive monitoring would take place to determine if these upgraded discharges have significant adverse effects on the water quality of the South Bay.
3. The viability of reclamation should continue to be investigated in the Regional Wastewater Reclamation Study.
4. If it is found that these discharges do cause significant adverse impacts on the water quality of the South Bay, or if reclamation is found feasible, then construction of other disposal or reclamation facilities would be considered. While this fourth recommendation is not stated explicitly, it is implied by the wording of the alternative.

This alternative is acceptable as long as the fourth point has, in fact, been agreed to by the members of the South Bay Dischargers' Authority. We agree that the existence of a problem caused by the discharges should be demonstrated before the discharge locations are moved. We also feel that if a problem is demonstrated, then a commitment should exist to move the discharge locations. We, therefore, strongly urge that the final EIR/EIS contain a statement committing the dischargers to take whatever steps are reasonable and necessary to alleviate any substantive problems identified by the monitoring program.

On Section V, "Reclamation and Reuse As A Wastewater Management Option", we wish to make the following comments:

Environmental Protection Agency

-2-

May 17, 1979

The main assumption made in this section of the report is that 50,000 acre-feet of wastewater is to be reclaimed from the San Jose/Santa Clara Plant, and by a 1:1 blending with SBA, San Felipe, or Hetch Hetchy water, will create 100,000 acre-feet of blended water, with one-half of the blended water to be sent to agricultural markets in the South Santa Clara Valley or in the Bolsa area of San Benito County and one-half "returned to the current potable water market".

Pertaining to a 50,000 acre-foot market for wastewater in South Santa Clara County, this figure was apparently based on a draft report published in 1976 by the State Department of Water Resources. Since that time, a 1978 land use study, conducted by the DWR for the Santa Clara Valley Water Reuse Study (DWR/SCVWD Coop Study), indicated that at present there is only, at best, a market for about 20,000 acre-feet in the South Santa Clara Valley and that this market is expected to decrease in the future. In addition, this market includes about 7,000 acres of land comprising parcels of 10 acres or less. It is believed that it would not be cost-effective to extend distribution lines to such parcels.

In terms of blending, the DWR studies indicate that a 4:1 blend with San Felipe would be required to meet the quality requirements of the soils in the South County. We question the overall effectiveness of the alternative of adding acid to your 1:1 blend of SBA or San Felipe water to further reduce the bicarbonates and the SAR of the water and gypsum to the Hetch Hetchy water. Aside from the question of expense, what effect on other water quality parameters would be affected by such treatment?

As far as "returning 50,000 acre-feet of blended water to the potable water market", it is not possible to develop reclaimed water for potable use because of public health department concerns. If the intent (not described) is to use the reclaimed water for acceptable markets thereby releasing potable water for domestic use, we question the location of such a market. The Hetch Hetchy Aqueduct water is used mainly as a potable municipal supply; blended water could not serve as a substitute. In addition, while your indication that "South Bay Aqueduct or San Felipe water could be diverted to supply a portion of the market supplied by Hetch Hetchy water" is physically possible, such an exchange could require either major expansions to the District's import, treatment and distribution system or to the distribution systems of the various retailers now taking Hetch Hetchy water.

In the North County, there does not at this time appear to be a feasible market for 50,000 acre-feet of blended water. The District's Milpitas Reclamation Study identified a maximum potential market of 20,000 acre-feet of direct (unblended) reuse for industrial and landscape irrigation uses, on the assumption that much of the area would be developed with dual water systems.

Concerning the economic considerations, the information which the District provided Bechtel on the costs of projects according to the District's pricing policy is accurately presented in the report. The conclusion of the report that the San Felipe Project alternative is less expensive than the reclaimed water alternative - even with 87.5% financing - is still correct.

Sincerely,


David K. Gill
Water Supply Planning Manager

Submitted by: Santa Clara Valley Water District
5750 Almaden Expressway
San Jose, California 95118

Dated: 17 May 1979

Response:

SBDA will, after completion and approval of the Final EIR/EIS, petition both the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) to establish conditions for exemption to the Enclosed Bays and Estuaries Policy and the Basin Plan (see also response to County Sanitary District 4, item 8, in Section 2.2).

In the analysis of reclamation/reuse, the Blended Water subalternative would result in 100,000 acre-feet of water, 50,000 of which would be used in either the Santa Clara County or San Benito County markets tentatively identified in Chapter V.3.1 (page 218 of Draft EIR/EIS Technical Volume). We recognize that the remaining 50,000 acre-feet could not, under present restrictions, be placed in a potable water supply. As stated on page 245 of the Draft, this blended water supply would be limited to that portion of the San Felipe market now earmarked for irrigation, or a new market would have to be identified. If the identified Santa Clara Valley market were reduced to only 20,000 acre-feet, then additional markets would have to be selected or the reclamation amount proportionally reduced. (This issue is briefly discussed in Section V.6.4 of the Draft, page 266).

Our analyses indicate that 1:1 blending of reclaimed and San Felipe water would be sufficient for most crops now being grown in South Santa Clara County and, in addition, would reduce the cost to the farmer. A 4:1 dilution would further improve water quality but would limit feasibility (see page 245 of Draft Technical Volume) since such a blending would result in 250,000 acre-feet of water limited to irrigation use in an area already limited as discussed above to smaller (about 50,000 acre-feet) markets.

With only small decreases in cost due to:

- Slight decrease in crop damage or limitation
- Slight decrease in cost to the farmer of reclaimed water over subsidized \$17.00 per acre-foot estimated for 1:1 blending

Since Santa Clara Valley would not likely purchase blended water (see Table V-25, page 262 of Draft Technical Volume), the higher blend ratio does not appear on review to be cost-effective.

Addition of acid or gypsum to reduce bicarbonate and adjust the sodium absorption ratio (SAR) allows reduction of the blending ratio to 1:1. In comparing Tables V-9 and V-16 of the Draft Technical Volume (pages 223 and 245, respectively), it can be seen that addition of gypsum to 1:1 Hetch Hetchy blend reduces SAR by half while Ca increases slightly over unblended, untreated waters. Similarly, addition of acid to either 1:1 San Felipe or Hetch Hetchy blends reduces both SAR and bicarbonate significantly; no increases are noted in other elements of concern.

We thank you for your expression of concerns; EPA and SBDA will continue to explore these issues should they ever engage in further reclamation studies.

OFFICE OF THE SECRETARY
RESOURCES BUILDING
1416 NINTH STREET
95814

(916) 445-5656

Department of Conservation
Department of Fish and Game
Department of Forestry
Department of Navigation and
Ocean Development
Department of Parks and Recreation
Department of Water Resources

EDMUND G. BROWN JR.
GOVERNOR OF
CALIFORNIA



THE RESOURCES AGENCY OF CALIFORNIA
SACRAMENTO, CALIFORNIA

Air Resources Board
California Coastal Commission
California Conservation Corps
Colorado River Board
Energy Resources Conservation and
Development Commission
Regional Water Quality Control Boards
San Francisco Bay Conservation and
Development Commission
Solid Waste Management Board
State Coastal Conservancy
State Lands Commission
State Reclamation Board
State Water Resources Control Board

(HE-149)17

State of California

Memorandum

To : Huey D. Johnson
Secretary for Resources
1416 Ninth Street
Sacramento, CA 95814

Attn: L. Frank Goodson
Projects Coordinator

Date: May 17, 1979

From : Department of Fish and Game

Subject: Draft EIR/EIS South Bay District Authority Treated Wastewater Disposal
Program, Santa Clara County SCH 79040905

MAY 17 1979

Mr. Paul De Falco, Jr.
Regional Administrator
Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, CA 94105

Dear Mr. De Falco:

The State of California has reviewed the Summary, Draft, and Appendices--Environmental Impact Report and Environmental Impact Statement South Bay Dischargers Authority Treated Wastewater Disposal Program, which was submitted to the Office of Planning and Research (State Clearinghouse) within the Governor's Office. This review is in accordance with Part II of the U. S. Office of Management and Budget Circular A-95 and the National Environmental Policy Act of 1969.

We have attached copy of all comments received from the Department of Fish and Game, and the State Water Resources Control Board, Division of Water Quality. We appreciate having been given an opportunity to review these documents.

Sincerely,

L. FRANK GOODSON
Assistant Secretary for Resources

Attachment

cc: Director of Management Systems
State Clearinghouse
Office of Planning and Research
1400 Tenth Street
Sacramento, CA 95814
(SCH No. 79040905)

The Department of Fish and Game has reviewed the subject Draft EIR/EIS and finds it to be a well written and complete document with regard to potential fish and wildlife impacts. However, we are concerned with the potential impacts on the South Bay wetlands and that compensation for the impacts of the various alternatives is insufficient to offset construction and/or operational disturbances. In addition, as proposed, the project may conflict with the 1976 Wetlands Preservation Act and the Resources Agency's Basic Wetlands Protection Policy (copies attached). We offer the following specific comments for your consideration:

1.1.5 ALTERNATIVE ALIGNMENT TO BASIN PLAN ALTERNATIVE (page 15)

- ① It is our understanding that although the estuarine alignment from Sunnyvale northward will not significantly add to project costs, it is not currently proposed due to uncertainties of equipment availability, levee integrity and potential delays in construction. It is further stated that "...maintenance an repair of an underwater pipeline would be more difficult than for a land conveyance...". We certainly recognize and appreciate these considerations, yet since the land route alternative transverses valuable marsh-wetland habitats, the uncertainties are just as great, if not greater, for the shore-side alignment. Even though the marshes would be restored after construction, it may take years to return them to their pre-project productivity. With the possibility of periodic maintenance or repair of conveyance facilities, the marshes may never fully recover. For this reason, we recommend further consideration be given to the estuarine alignment. In addition, routing the pipeline through wetland habitat appears to be in conflict with the Basic Wetlands Protection Policy since a less environmentally damaging alternative is available.

1.2.3 CONSTRUCTION OF THE BASIN PLAN ALTERNATIVE (page 25)

- ② "Typically the construction easement would be 150 feet wide, and the trench deep enough to allow four feet of cover over the pipeline. Top soil would be separated and stockpiled for use in restoration of the right-of way after construction is completed." We recommend special consideration be given to

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restricting the construction corridor within marsh areas to not more than 50 feet. Areas set aside for the stockpiling of excess spoil construction equipment and materials should be located outside of any wetland area.

III.1.1 CONSTRUCTION IMPACTS (page 130)

- ③ The report states "...The pipeline corridor storage area and access route will be returned as closely as practicable (emphasis added) to original condition at the completion of construction..." We believe that a more thorough discussion of construction and especially restoration techniques to be employed within marsh areas is warranted to better evaluate short- and long-term impacts to marsh residents.

Page 131 - Water Quality

- ④ Discharge of water from truck dewatering within marsh areas could have a serious impact on fish and invertebrates and thus wildlife as well. We recommend pre-discharge analyses be conducted to determine necessary measures to prevent further degradation of marsh habitat.

Page 134 - Segment I - San Jose/Santa Clara Treatment Plant to Sunnyvale Treatment Plant

- ⑤ The need for "destruction" of one acre of salt marsh harvest mouse habitat should be further explained and offsetting mitigation proposed.

III.1.2 OPERATIONAL IMPACTS (page 152) Biological Impacts

- ⑥ The loss of 2,000 yards of freshwater marsh habitat along Artesian Slough is recognized as a major impact of project implementation. Full compensation of the loss of this resource is essential if there are no less environmentally damaging alternatives available and the project proceeds. Creation of a wetland area equal to that destroyed would be adequate.

III.2.1 ADVERSE CONSTRUCTION EFFECTS (page 168)

- ⑦ According to the report, "...short-term duration of construction activities should permit the restoration of pre-construction conditions after four or five years (with natural revegetation) at most..." We believe a more definite restoration program needs to be developed to significantly reduce the recovery time.

III.2.2 ADVERSE OPERATIONAL EFFECTS (page 169)

- ⑧ The resultant conditions of low or no dissolved oxygen (for perhaps months at a time) in the slough system during the transition period could seriously affect wildlife species by promoting the very conditions which are thought to initiate or prolong the avian botulism problem in the South Bay. Adequate compensation should be proposed to reduce the impacts during the transition period.

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III.3.1 MITIGATION MEASURES (pages 172-173)

- ⑨ If the pipeline alignment is through marsh-wetland habitat, we highly recommend that sheet piling be used as discussed at least within these areas to restrict the construction corridor. We further recommend augmentation of freshwater flows in the slough system be seriously considered to maintain at least a part of the existing freshwater habitat.

⑩ Section VI SBDA-Leslie Salt Company Combined Discharge (page 269)

As we have been concerned with Leslie's proposed discharge of bittern to the South Bay for many years, we find the project analysis contained in Section VI of great interest. Our concerns have related to the extreme toxicity of bittern and the need for at least 100:1 dilution prior to discharge to reduce this affect. We believe that the SBDA outfall north of Dumbarton Bridge provides an excellent opportunity to effectively mitigate the effects of two major problems: Namely the toxicity of bittern through dilution and the effect of low salinity from a major freshwater discharge to a mid-Bay location by the additional salts of the bittern. We believe the data listed in Table VI-6 supports our contention and therefore recommend Leslie join with SBDA in outfall construction.

State EIR Guidelines, Section 15146, requires lead agencies to respond to all comments/recommendations received on the draft EIR and to include them in the final document.

Department of Fish and Game personnel are available to discuss our concerns in more detail. To arrange a meeting, the project sponsor or applicant should contact Mr. E. V. Toffoli, Regional Manager, Region 3, P. O. Box 47, Yountville, CA 94599. The telephone number is (707) 944-2443.

EC Jullerton
Director

Memorandum

Department Directors, Executive
Officers of Boards & Commissions

Date: SEP 19 1977

File No:

Subject: Wetlands Policy for
Proposed Construction Projects

Department Directors, Executive
Officers of Boards & Commissions

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or influencing private or public projects and permit actions taken
by other authorities including federal, state and local agencies.

om : Office of the Secretary

BASIC WETLANDS PROTECTION POLICY

POLICY FOR PRESERVATION OF WETLANDS IN PERPETUITY

The need to raise thinking, policy, and action to the ecosystem level is especially evident as it relates to proposed construction projects on Wetlands of the state.

The value of marshlands and other wetlands to the economy and to the overall long-term quality of life, has been described by many, including Gosselink, Odum, and Pope (1973) in "The Value of the Tidal Marsh"; the Bay Conservation and Development Commission, (BCDC) in "The San Francisco Bay Plan"; and the Department of Fish and Game in, "The Fish and Wildlife Plan". In spite of these and other efforts, filling and other destruction of the State's wetlands has continued at an alarming rate. Most of San Francisco Bay's wetlands are now protected by BCDC. But before the commission came into existence over 225 square miles of Bay wetlands had been filled or destroyed. Still not all of the Bay's wetlands are protected. Over 40,000 acres are not in the commission's jurisdiction.


Portions of other important wetlands still exist along the coast, its estuaries, the Sacramento-San Joaquin Delta and along several natural bodies of water including Clear Lake, the Colorado River and others. Many of these wetlands are not under permit authority from a specific State agency. However, local authority and sometimes federal authority (Corps of Engineers) exists over specific projects and areas.

It is the purpose of this memorandum to establish a basic wetlands policy to be observed by all Departments, Boards, and Commissions of the Resources Agency when developing projects or when authorizing

It is the basic policy of the Resources Agency that this Agency and its Departments, Boards and Commissions will not authorize or approve projects that fill or otherwise harm or destroy coastal, estuarine, or inland wetlands.

Exceptions to this policy may be granted provided that the following conditions are met.

1. The proposed project must be water dependent or an essential transportation, water conveyance or utility project.
2. There must be no feasible, less environmentally damaging alternative location for the type of project being considered.
3. The public trust must not be adversely affected.
4. Adequate compensation for project-caused losses shall be a part of the project. Compensation, to be considered adequate, must meet the following criteria:
 - a. The compensation measures must be in writing in the form of either conditions on a permit or an agreement signed by the applicant and the Department of Fish and Game or the Resources Agency.
 - b. The combined long-term "wetlands habitat value" of the lands involved (including project and mitigation lands) must not be less after project completion than the combined "wetlands habitat value" that exists under pre-project conditions.


Huey D. Johnson
Secretary for Resources

CHAPTER 7. WETLANDS PRESERVATION [NEW]

Sec.

- 5810. Short title.
- 5811. Legislative findings and declaration.
- 5812. Definitions.
- 5813. Acquisition of real property interests of less than fee; furtherance of public interest; determination.
- 5814. Joint study; cooperation with cities, counties and land commission; plan; priority status of projects; submission to legislature.
- 5815. Recognition of plans and programs of local agencies; cooperative means.
- 5816. Wetlands within or adjacent to existing park system; feasibility of acquisitions as to management, protection, preservation and cost.
- 5817. Operating agreements with local agencies; conditions; fish and game regulations.
- 5818. Property Acquisition Law; application to chapter.

Chapter 7 was added by Stats.1976, c. 462, p. 1196, § 1.

§ 5810. Short title

This chapter shall be known and may be cited as the Keene-Nejedly California Wetlands Preservation Act.

(Added by Stats.1976, c. 462, p. 1196, § 1.)

§ 5811. Legislative findings and declaration

The Legislature hereby finds and declares that the remaining wetlands of this state are of increasingly critical economic, aesthetic, and scientific value to the people of California, and that there is need for an affirmative and sustained public policy and program directed at their preservation, restoration, and enhancement, in order that such wetlands shall continue in perpetuity to meet the needs of the people.

(Added by Stats.1976, c. 462, p. 1196, § 1.)

§ 5812. Definitions

As used in this chapter, unless the context clearly requires a different meaning:

(a) "Wetlands" means streams, channels, lakes, reservoirs, bays, estuaries, lagoons, marshes, and the lands underlying and adjoining such waters, whether permanently or intermittently submerged, to the extent that such waters and lands support and contain significant fish, wildlife, recreational, aesthetic, or scientific resources.

(b) "Departments" means the Department of Parks and Recreation and the Department of Fish and Game.

(Added by Stats.1976, c. 462, p. 1196, § 1.)

Asterisks * * * indicate deletions by amendment

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§ 5813

PUBLIC RESOURCES CODE

§ 5813. Acquisition of real property interests of less than fee; furtherance of public interest; determination

Either of the departments may acquire interests in real property less than the fee, including, but not limited to, acquisition of development rights, when it determines that acquisition of such lesser interest will accomplish the purposes of this chapter in furthering the public's interest in the protection, preservation, restoration, and enhancement of wetlands.

(Added by Stats.1976, c. 462, p. 1196, § 1.)

§ 5814. Joint study; cooperation with cities, counties and land commission; plan; priority status of projects; submission to legislature

The departments shall cooperatively conduct a joint study to identify those wetlands of the state which are subject to irreversible modification and which, by their nature, should be acquired and protected and preserved in perpetuity. The departments shall consult and cooperate with cities and counties in the conduct of such study. The departments shall specifically cooperate with the State Lands Commission so as to determine the extent to which the state may have a valid ownership interest in those wetlands identified in the study as meriting protection and those wetlands authorized for acquisition pursuant to this chapter. The study shall be submitted to the Legislature not later than January 15, 1978, and shall set forth, for consideration by the Legislature, a plan for the acquisition, protection, preservation, restoration, and enhancement of wetlands, including funding requirements and the priority status of specific proposed wetlands projects.

(Added by Stats.1976, c. 462, p. 1196, § 1.)

§ 5815. Recognition of plans and programs of local agencies; cooperative means

The departments, in preparing the wetlands priority plan and program pursuant to Section 5814, shall give particular recognition to the conservation, recreation, and open-space plans and programs of local agencies, and shall, whenever feasible and appropriate, identify and decide cooperative means for planning and for the protection and preservation of wetlands by local agencies.

(Added by Stats.1976, c. 462, p. 1196, § 1.)

§ 5816. Wetlands within or adjacent to existing park system; feasibility of acquisitions as to management, protection, preservation and cost

The departments shall give particular recognition to opportunities for protecting and preserving wetlands lying within, or adjacent to, existing units of the state park system, and consider state park acquisition projects and the acquisition of areas in proximity to state park system units which lend themselves to feasible wetlands management and protection and preservation, without creating inordinate additional management cost burdens.

(Added by Stats.1976, c. 462, p. 1196, § 1.)

§ 5817. Operating agreements with local agencies; conditions; fish and game regulations

Either of the departments may enter into operating agreements with cities, counties, and districts for the management and control of wetlands, or interests in wetlands, acquired pursuant to this chapter; provided, however, that any such agreement shall ensure the protection and preservation of the wetlands, and ensure the right to the use and enjoyment of such wetlands by the people of the state; and provided, further, that any such agreement entered into by the Department of Fish and Game pursuant to this section shall provide as well that public use of lands and waters subject to such agreement shall be in accordance with regulations established by the Fish and Game Commission.

(Added by Stats.1976, c. 462, p. 1196, § 1.)

§ 5818. Property Acquisition Law; application to chapter

All acquisitions made pursuant to this chapter shall be subject to the Property Acquisition Law (Part 11 (commencing with Section 15550), Division 3, Title 2 of the Government Code).

(Added by Stats.1976, c. 462, p. 1196, § 1.)

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CHAPTER 8. MENDOCINO WOODLANDS OUTDOOR CENTER [NEW]

- Sec.
 5820. Short title.
 5821. Legislative findings.
 5822. Legislative intent.
 5823. Definitions.
 5824. Jurisdiction and control of center; title to lands and facilities.
 5825. Department plan.
 5826. Consultation and cooperation.
 5827. Operating agreements.
 5828. Advisory committee.
 5829. Sale and cutting of timber.

Chapter 8 was added by Stats.1976, c. 1301, p. 5854, § 1.

§ 5820. Short title

This chapter shall be known and may be cited as the Mendocino Woodlands Outdoor Center Act.

(Added by Stats.1976, c. 1301, p. 5854, § 1.)

Library References

Woods and Forests C.S.
 U.S.S. Woods and Forests § 11, 12.

§ 5821. Legislative findings

The Legislature finds that there is need for a program to enable the children of the state to better comprehend the outdoors, particularly the social and economic importance of the study, conservation, protection, and utilization of natural resources. The Legislature further finds that the location and facilities of the Mendocino Woodlands Outdoor Center are especially well suited to serve primarily as an outdoor education center under the control and management of the Department of Parks and Recreation, as a unit of the state park system.

(Added by Stats.1976, c. 1301, p. 5854, § 1.)

§ 5822. Legislative intent

The Legislature hereby declares its intent that the Mendocino Woodlands Outdoor Center, consisting of land and facilities donated to the State of California by the United States of America for public park, recreational, and conservation purposes, shall hereafter be maintained, provided, and operated for the benefit of the people of the state, primarily as an outdoor environmental education facility.

(Added by Stats.1976, c. 1301, p. 5854, § 1.)

§ 5823. Definitions

As used in this chapter, unless the context clearly requires a different meaning:

- (a) "Department" means the Department of Parks and Recreation.
 (b) "Center" means the Mendocino Woodlands Outdoor Center, consisting of 720 acres, more or less, of state-owned land and improvements located within the east half of the Northeast quarter and the east half of the Southeast Quarter of Section 18 of the east half and southwest quarter of the Northeast Quarter and the east half and southwest quarter of the Southeast Quarter of Section 24 of T. 17 N., R. 17 W., M.D.B.M.; the north half and southwest quarter of the Northwest Quarter and the north half of the Northeast Quarter of Section 18 of, and the west half of the Northwest Quarter of Section 30 of, T. 17 N., R. 16 W., M.D.B.M.

(c) "Area" means the Mendocino Woodlands Special Treatment Area within the Jackson State Forest, consisting of 2,550 acres, more or less, of state-owned lands lying within the south half of Section 12 of, the Northwest Quarter, the west half of the Northeast Quarter, the west half of the Southeast Quarter, and the Southwest Quarter of Section 13 of, the Northeast, Southeast, and Southwest Quarters of Section 14 of, the northeast quarter of the Northeast Quarter of Section 22 of, the north half of Section 23 of, the Northwest Quarter, the northwest quarter of the Northeast Quarter, and the northeast quarter of the Southwest Quarter of Section 24 of, T. 17 N., R. 17 W., M.D.B.M.; and the Southwest Quarter of Section 7 of the southeast quarter of the Northwest Quarter, the south half of the Northeast Quarter, the northwest, northeast, and southwest quarters of the Southeast Quarter and the Southwest Quarter of Section 18 of, and the Northwest Quarter and west half of the Southwest Quarter of Section 19 of, T. 17 N., R. 16 W., M.D.B.M.

(Added by Stats.1976, c. 1301, p. 5854, § 1.)

Submitted by: Department of Fish and Game
 State of California

Dated: 17 May 1979

Response:

EPA and SBDA have selected the "No Further Action" alternative and there is no construction associated with this action. Therefore, no impacts on wetlands will occur.

1. In the Basin Plan Alternative, construction in wetlands would be limited to a total of 1.28 linear miles of salt marsh (Table III-2, page 135 of Draft EIR/EIS Technical Volume). Portions of that marshland - Alviso marsh, El Dorado Street marsh - have been diked, and current use of the area as a landfill is reducing the marsh drastically. This use alone would likely result in a reroute of the pipeline should it ever be built. Sensitive marshland - Palo Alto Baylands - would be affected, but construction would occur in areas already affected by previous construction.

In the alternative Estuarine Alignment, portions of the Palo Alto Baylands would still be affected as would Alviso and El Dorado Street marshes. The decrease in marsh land affected would be about 0.3 miles of previously disturbed, diked marsh in the proposed Bayland Preserve. Additionally, the uncertainty associated with construction in salt ponds and in the Bay (page 185 of Draft EIR/EIS Technical Volume) indicates that the reported roughly comparable cost of the two alignments may underestimate the Estuarine Alignment costs. This decrease in affected marshland, compared with the potential increased cost and potential adverse impacts on Bay and marsh from breaching salt pond A-3, do not appear to be sufficient cause to select the Estuarine Alignment over the Basin Plan Alternative.

2. On pages 134 and 138, we mention that the trench would be limited to 60 feet and 80 feet, respectively, in sensitive marsh lands. This mitigation

measure is restated on page 171, Section III.3.1. Stockpiling would not be in sensitive habitats (page 170, Section III.3.1).

3. Revegetation and surface restoration programs would be implemented (page 171, Section III.3.1) after consultation with experts. However, no revegetation program is instantaneous; therefore, there must be a recovery period allowed for in such plans. For this reason, we stated that the route would be returned as closely as possible to original condition, recognizing that exact and immediate restoration is not practicable.

4. Trench dewatering, if required, would result in a stream of water being diverted to holding ponds for percolation or evaporation (page 170). These ponds would not be in marshland and discharges would not be permitted to marshes. If treatment were indicated, this option would be considered as an alternative.

5. The acre of Alviso Marsh "destroyed" would be that surface area over the trench. It is in potential salt marsh harvest mouse habitat, although trapping activities in that marsh failed to identify any of this endangered species. The degrading character of the marsh due to diking and an encroaching landfill may be responsible for the lack of salt marsh harvest mice; however, Dr. Shellhammer of San Jose University (as reported by Fradkin, P.L., "The Mouse that Snored," Audubon, May 1979, pp 86-93) has recently shown that these mice do occur in places where they have not previously been detected, possibly indicating a highly tolerant nature not previously suspected. Therefore, before any construction would be undertaken in such an area, a second trapping survey might be planned and, as necessary, rerouting of the pipeline should salt marsh harvest mice be identified.

6. On page 173 (Section III.3.2 of the Draft Technical Volume), the possibility of diversion of effluent for maintaining fresh water marsh in Artesian Slough and/or creating fresh water marsh elsewhere is proposed

as a mitigation measure if the Basin Plan Alternative was selected. The quantity of such diversion would have to be worked out between SBDA, Fish and Wildlife Service, and California Fish and Game, and approval of the RWQCB would be required.

7. As stated above, revegetation programs would be formulated should construction be considered, and revegetation would reduce the time for surface restoration. However, complete recovery would not be immediate and would vary with location and the program chosen.

8. Low oxygen levels during a transition period would result only if the discharge were removed from Artesian Slough, and freshwater adapted vegetation died off. A possible mitigation would be harvesting of the freshwater vegetation. Maintaining a discharge as in No Further Action will eliminate this transition period but cannot guarantee that no periods of low oxygen levels would occur.

9. Your suggestions are acknowledged and these mitigation measures will be considered should any construction be contemplated.

10. If SBDA and EPA had selected the Basin Plan Alternative, the participation of Leslie Salt in the project would have been given full consideration. However, selection of No Further Action provides no forum for joint efforts at this time.

Memorandum

(HE-149) 17

To : Mr. L. Frank Goodson
Project Coordinator
Resources Agency
1416 Ninth Street
13th Floor
Sacramento, CA 95814

Date: MAY 14 1978

Mr. L. Frank Goodson

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From : STATE WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY

Subject: REVIEW OF DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT (EIS/EIR) STATE CLEARINGHOUSE NO. 79040905, FOR SOUTH BAY DISCHARGERS AUTHORITY TREATED WASTEWATER DISPOSAL PROGRAM, PROJECT NO. 1135

This office has reviewed the draft EIS/EIR of this project, dated November, 1978. The Division of Water Quality hereby presents preliminary comments on the draft document.

The EIS/EIR analyzes four "viable" alternative solutions to the water quality problems caused by the discharge of treated wastewater to San Francisco Bay south of Dumbarton Bridge. One alternative, the "Basin Plan Alternative", contemplates a large pipeline to collect treated wastewater and discharge it north of Dumbarton Bridge. Other alternatives analyzed are "No action beyond currently approved improvements at treatment plants", "Individual outfalls to Bay south of Dumbarton Bridge", "Upgraded treatment with continued local discharge" and "Reclamation and Reuse" in Santa Clara or in Santa Clara and San Benito Counties. The EIS/EIR also analyzes a disposal system meant to dilute toxic biterms from the operation of salt evaporating ponds.

Comment, General

- ① The EIS/EIR points out that none of the alternatives analyzed, with the possible exception of Alternative 5 (Reclamation and Reuse) will meet all requirements of the Basin Plan. It appears that a reclamation and reuse alternative can meet the national goal set forth in the Clean Water Act of 1977 (PL 95-217) "that the discharge of toxic pollutants in toxic amounts be prohibited." The letter of transmittal quite properly points out that "the viability of future full reclamation is being investigated in the Regional Wastewater Reclamation Study." Comments on the Reclamation and Reuse Alternative are presented below.

Comment, Alternative 5 (Reclamation and Reuse)

- ② The EIS/EIR analyzes reclamation and reuse in-basin and in the San Benito Counties, not elsewhere. The choice of alternative treatment systems, specifically those parts of system B, C, and D that are meant to comply with the Department of Health Services (DOHS) requirements for spray irrigation crops with reclaimed water, lead to over estimates of the cost of reclaimed water. While it is true that Title 22 of the Administrative Code requires coagulation, sedimentation and filtration of effluent for spray irrigation, it also allows for equivalent processes.

Based upon the results of the Pomona Virus Study (PVS), DOHS is accepting in-line coagulation preceding filtration as equivalent.

The DOHS accepted alternative system is much less costly both in terms of capital and operations and maintenance than the one used in the EIS. By using the more costly system, the cost of the reclaimed water is over estimated. We request that the appropriate changes be made and costs be reestimated.

Comment, No Project Alternative

- ③ The draft EIS/EIR tentatively recommends a "no project" alternative, or continuing wastewater discharges at the three present locations which are south of the Dumbarton Bridge. The Water Quality Control Policy for Enclosed Bays and Estuaries adopted by SWRCB in May, 1974, prohibits wastewater discharges to South San Francisco Bay below the Dumbarton Bridge. Although there is no provision for South Bay now, it is conceivable, and would be consistent with other portions of the Bays and Estuaries Policy that SWRCB would allow continued discharges of wastewater effluents if it could be demonstrated that each of the three discharges enhanced the water quality of the South Bay.

Enhancement is defined as: 1) full uninterrupted protection of all beneficial uses which could be made of the receiving water body in the absence of all point source waste discharges along with 2) a demonstration by the applicant that the discharge, through the creation of new beneficial uses or a fuller realization, enhances water quality for those beneficial uses which could be made of the receiving water in the absence of all point source discharges.

The enhancement of South Bay water quality by continued wastewater discharges should be discussed in the EIS/EIR. Recommendations for a monitoring program to demonstrate enhancement should also be included.

Comment, Water Quality Model

- ④ Review of the Hydrosience Water Quality Model by SWRCB staff and Dr. Gerald Orlob has revealed that the model has significant limitations for evaluation of wastewater discharge alternatives. In lieu of the predictions of the water quality model, selection of a project alternative must be based on a comparison of the South Bay with other similar estuaries. It would be beneficial to include in the EIS/EIR a discussion of the long-term impacts of wastewater discharges and removal of wastewater discharges exemplified by other estuaries in the United States or Europe.

Comment, Operation Impacts

- ⑤ One adverse impact of removing the wastewater discharges from their present locations is the elimination of freshwater flushing and consequently, the disruption of freshwater habitat in the South Bay. What level of flow would be required to maintain this freshwater habitat?

Comment, Economic Impacts

- ⑥ The service charges listed in Chapter 3 of the EIS/EIR are only for those costs associated with the Basin Plan Alternative. To understand the full economic impacts on the South Bay area, the existing service charges for each SBDA member agency should also be included in the EIS/EIR.

As a funding agency the SWRCB reserves the right to make further comments on this report prior to granting an EIS/EIR approval pursuant to the Clean Water Grant Regulations.

Should you have any questions regarding this review, please contact Howard Wright at (916) 322-7734.

Raymond H. Ash
for Neil Dunham
Division Chief
Manager - Clean Water Grant Program

cc: Mr. Bill Helphingstine, EPA, Region IX

Submitted by: State Water Resources Control Board
Division of Water Quality

Dated: 14 May 1979

Response:

Thank you for your comments on the Draft EIR/EIS. You have raised several issues which we feel require in-depth response; however, the funding of additional studies which might answer these questions more fully is not appropriate at this time.

1. No response required

2. Section V of the Draft EIR/EIS was meant to expand on the option of partial diversion for reclamation in addition to another disposal system. In Section V, a range of treatment schemes was selected to reflect both Title 22 and agricultural requirements. This selection was not all-inclusive nor could it be in the context of an EIR/EIS. However, it does provide a range of costs and water qualities available in such an option to the extent that the environmental impacts could be identified and disclosed.

The DOHS system you describe would be less expensive than subalternative B (but not less than subalternative A), reducing the cost of component 2 (Coagulation and Sedimentation Treatment) by some amount less than 20 percent of the total capital costs (see Table V-15, page 243, component 2). It would be necessary to redesign and reestimate the DOHS system to provide actual cost reductions as well as expected water quality. This type of calculation would be an integral portion of any SBDA project for reclamation for irrigation. SBDA is participating in the Bay Regional Reclamation Study and detailed design, costing, and assessment of acceptable reclamation treatment systems will be a part of that study. In addition, a program to reclaim 2 mgd of San Jose/Santa Clara effluent for irrigation in the Milpitas area (Phase I initiated by SCVWD) has been undertaken and appropriate treatment measures are being considered in this study as well.

3. This EIR/EIS does not define enhancement of beneficial uses, although it does state that the existence of the freshwater marsh in Artesian Slough is a benefit to the San Francisco Bay National Wildlife Refuge. As such, maintaining this marsh might be considered as a condition for exception to the prohibition against discharge south of Dumbarton Bridge for San Jose/Santa Clara (page 188, Section IV.2.2 in Draft EIR/EIS Technical Volume).

SBDA or its member cities, after completion and approval of the Final EIR/EIS, will have to petition SWRCB and RWQCB for exceptions to the Bays and Estuaries Policy and Basin Plan, respectively. In this petition, a claim of enhancement might be made, and the details of such enhancement would have to be spelled out. No specific monitoring program is being proposed at this time (see also response to County Sanitation District 4, item 8, in Section 2.2).

4. As stated in Exhibit III-1 (pages 145-146 of Draft EIR/EIS Technical Volume), there are limitations to using a model to predict the effects of wastewater discharges. The model uses average values for inputs, is two dimensional in a four-dimensional system, and does not predict biological interactions. Its use in this EIR/EIS was not intended for prediction; rather, using the same assumptions varied only changes in effluent and in discharge location, it was to be used to compare alternatives. If the assumptions are internally consistent, then the differences between alternatives might be perceived. In this case, no significant differences could be shown for DO levels. This lack of difference may be due to one of two factors:

- The model is not sensitive to the variation of inputs.
- The Bay is not sensitive to the variation of effluent (AWT vs Upgraded) or discharge locations.

Dr. G.T. Orlob, in a review and evaluation of the model which was conducted under a contract to the SWRCB, makes the following statements about the capabilities and limitations of the model:

- "The model has many attributes that make it a useful tool, among these ... its utter simplicity and the ease with which it can be applied."
- This simplicity and ... "the idealizations made in constructing the model are limitations in its usefulness for study of South San Francisco Bay."
- "The most severe restraint ... is the assumption of steady state."
- "The model is dependent on prejudgment of the patterns of net tidal circulation and on the corresponding water balance assumptions that must be made to satisfy continuity."
- "The kinetics of the model are much improved (over the 1968 model) and ... are consistent with the best theoretical and empirical evidence available."
- "... the tradeoff between benthic demand and reaeration is still in need of resolution."
- "Calibration of the model to the mean salinity profile does not confirm the general circulation pattern in the South Bay ... since by adjustment of dispersion coefficients one can obtain virtually any profile desired."
- "Improvements in the techniques of calibration and sensitivity testing are needed so that the relative importance of the various factors affecting model performance can be objectively assessed."
- "The most serious shortcoming of the model that compromises its usefulness as an analytical tool is its inability to discriminate between alternatives ... simply because the model ... is not sensitive to alternatives in the same way as is its prototype."

Therefore, Dr. Orlob has concluded that the model is not as sensitive to the variation of inputs as is the Bay. However, he also states that there is insufficient information at this time to demonstrate the validity of this contention, and that his professional judgment is that alternative or supplementary techniques could resolve this issue.

A literature review was conducted to identify reports of biological and water quality improvements that have occurred in estuaries where wastewater treatment has been upgraded. This search was selective, being tailored to estuaries or bays having physical and chemical characteristics reasonably similar to South Bay. Within this limitation, literature documenting upgrading of water quality and biological conditions is not available. A vast number of studies are available documenting deterioration of water quality that has occurred due to urbanization of watersheds and increasing waste discharge. The literature dealing with upgrading does not discuss locations having much in common with South Bay.

W.T. Edmondson (1972) described the response of Lake Washington in Seattle, Washington, to removal of secondary sewage effluent. During the period 1941-1963 Lake Washington received increasing amounts of effluent from secondary sewage treatment plants. From 1963-1968, these effluents were diverted in a series of steps, and discharge of effluent to the lake was halted entirely in 1968. The condition of the lake improved rapidly and sensitively with the changes in waste input. In summer 1971, transparency exceeded the 1950 condition and hypolimnetic dissolved oxygen was close to the level of 1950. The improvement of the lake is greater than demonstrated by data only.

Lake Washington and South Bay differ in several respects: salinity, climate, freshwater inflow, and volume of wastewater discharge. The latter two are of particular importance. South Bay experiences a dry season and a rainy season. Average annual precipitation is 13 inches. In Seattle, precipitation averages 32 to 48 inches and occurs more evenly throughout the year. The quantity and seasonal distribution of runoff have an important influence on water quality in urbanized watersheds where flood control has reduced surface water discharge and where storm water runoff is typically of poor quality. Finally, wastewater discharge to South Bay comprises 40 percent of the annual freshwater inflow and is the only freshwater inflow in summer. Lake Washington now has no wastewater inflow, and experiences a high degree of natural flushing compared to South Bay.

Recovery of the Thames River Estuary has been monitored. A major improvement in the quality of waste discharged occurred when a secondary treatment plant was installed. The condition of the middle, most polluted reach of the estuary, as judged by the dissolved oxygen content of the water, showed a marked improvement in 1964, a few years after the installation of the secondary treatment plant. In 1964-65 there was no anaerobic reach established at any time, a situation that had not existed for decades.

The Thames Estuary differs considerably from South Bay physically, chemically and biologically.

Other types of improvement are discussed by Pryblek (1977) for the Houston Ship Channel and Galveston Bay. In addition to improvement in BOD, dissolved oxygen, fecal and total coliform, phosphorus, suspended solids, and volatile solids, waste treatment implemented since 1968 has reduced discharges of cyanide, ammonia, phenol, metals, and sulfides. The latter group includes many compounds that exert toxicity on aquatic organisms. Among the effects of waste treatment that have been noted in the Houston Ship Channel is the apparent increase in the variety and abundance of aquatic life.

Again, however, there are many dissimilarities between the Houston Ship Channel and South Bay. This report, as well as the others previously cited, may be read as a general indication of water quality improvements resulting from upgrading of waste discharges. Due to the differences mentioned between these water bodies and South Bay, as well as differences in the nature of the upgrading situations from that of South Bay, predictive interpretation of these reports is not possible.

Selected references to which the reader might refer are:

- Edmonson, W.T., 1972. "The Present Condition of Lake Washington," *Verhandlungen Internationale Vereinigung Limnologie* 18: 284-291.

- Gameson, A.L.H. and I.C. Hart, 1966. "A Study of Pollution in the Thames Estuary," Chemistry and Industry, p. 2117-2123.
- Pryblek, W., 1977. "Texas Waterway Proves Cleanup Tide is Turning," Chemical Engineering 84(17): 98-102.

5. In 1974, the low flow was 65.1 mgd, occurring in February and in December. The low flow during the dry summer months was 66.0 mgd, occurring in May. (Flows in 1974 were similar to 1971 flows and were down from 1973.) It was at about this time that Bechtel and Fish and Wildlife Service staff noticed the presence of breeding snowy egrets in the rushes. In 1977, August low flows were 75.8 mgd in a 24-hour period, a greater flow which possibly reflects the growth in area water consumption and use by the canners (a seasonal peak) even during a drought period. And in this season, up to 250 pairs each of the black-crowned night herons and snowy egrets were observed (Rigney, personal communication, 16 June 1978). It is evident that the marsh persists in relatively good condition during these low-flow conditions. However, it is not possible to estimate whether or not these are the minimum flows necessary to sustain the habitat. For example, the vegetation now in the Slough is salt tolerant - tidal influx as well as residual salts in the slough sediments subject these plants to "high-salt" conditions. Therefore, the vegetation might be able to withstand prolonged exposure to salty water without visible loss although the bird colony might not be as tolerant. Therefore, in order to determine minimum flows necessary, flows would have to be reduced in stages over long periods of time, during which observations of colony behavior and on plant species composition could be made. This experimental procedure would likely endanger the well-being of the colony.

If a marsh that is in poor condition (e.g. does not contain vigorous plant growth or animal life) were to be converted to a high-quality marsh, it would be attractive to waterfowl, a host of other migratory birds, and other wildlife. To speed the restoration of such a marsh, such plants as brass buttons (Cotula coronopifolia), alkali bulrush (Scripus robustus), and hard

stem bulrush (Scripus acutus) might be planted to encourage their establishment. Other plants such as dock, fat hen, wild radish, other forbes, and grasses would invade parts of the uplands. Pondweeds would become established in the water area. It would be necessary to be able to regulate the water flow, controlling frequency, duration, and depth of flooding. At least 3 to 4 months of flooding, coupled with substantial soil moisture throughout most of the year, would be needed for the marsh to retain its vigor.

The actual amount of water needed would depend on the soil type, salt in the soil, microclimate of the area, the amount of suitable land available, and desired or required detention time. For example, a shallow-water seasonal wetland could be established that would be flooded only during the late fall and winter months. However, it would have wildlife-open space values throughout the year.

On the other hand, a permanent marsh, partly or fully contained within dikes, could be created. The water depth would be a minimum of 3 feet, with depths ranging between 4 to 6 feet. This depth is needed to control the growth of cattails and hardstem bulrush. This emergent vegetation would be a fringe marsh at the waterland interface of the dikes, nesting islands, or other upland areas and selected areas. The open water areas would contain pondweeds, which are excellent waterfowl foods. Widgeon grass also would be common. Some stands of emergent vegetation would occur in selected areas designed for that purpose by modifying the bottom elevation relative to designed water levels.

The deep water and narrow interface limits the extent of emergent vegetation, thereby providing suitable conditions for mosquito fish to control mosquitoes. In addition, threadfin shad could be introduced to the area to feed on the zooplankton and phytoplankton as well as provide a cash crop-fish bait. Each diked cell would be a pond-marsh ecosystem. The actual type and extent of vegetation could be controlled by total water management including water level, the salinity of the water in the marsh, and the bottom configuration at time of design and construction.

It might also be desirable to have both freshwater-type marshes and brackish water-type marshes. The brackish marshes could have a salinity range of between 4 and 8 ppt. The vegetation on the uplands, such as the nesting islands, baffles, and dikes, would be a mixture of pickleweed, dock, fat hen, salt grass, wild radish, gum plant, and thistles. The diversity of terrestrial and aquatic plants and yearlong water supply could provide very good habitat conditions for numerous species of wildlife.

6. The existing service charges and the charges attributed to Basin Plan Alternative are compared for each city in Tables 2-2 through 2-4. These values were calculated using the data presented on pages 162 and 163 (Tables III-10, III-11, and III-12) of the Technical Volume of the Draft EIR/EIS and various rate schedules provided by the cities of:

- San Jose. Sewer Service and Use Charge for Fiscal Year 1978-79, dated 2 May 1978
- Santa Clara. Resolution No. 3967 of the City Council, effective 20 June 1978
- Sunnyvale. Resolution No. 413-77 of the Council, adopted 13 December 1977
- Palo Alto. Utility Rate Schedules S-1 and S-2, effective 1 July 1979

It should be noted that charges to specific dischargers may vary with quantity and quality of waste discharged (see Table 2-4) and may differ from actual yearly billings. However, from the three tables it can be seen that Basin Plan Alternative charges as calculated for the EIR/EIS could account for as much as a 21.9 percent increase in charges (canners in San Jose, not accounting for BOD, SS, or NH_3 surcharges) or as little as a 0.5 percent increase for commercial users (restaurants) in San Jose, Santa Clara, and Sunnyvale.

TABLE 2-2
COMPARISON OF ANNUAL SERVICE CHARGES FOR SAN JOSE,
SANTA CLARA, SUNNYVALE AND PALO ALTO - SINGLE FAMILY RESIDENCES

City	1979	1981/1982
	Average User Charge Per Single Family Residence (\$ for Sewer and Waste- water Treatment	Average User Charge Per Single Family Residence (\$ for Implementation of Basin Plan Alternative ¹ Only
San Jose	40.20	3.05
Santa Clara	31.20	3.37
Sunnyvale	39.00	4.94
Palo Alto	39.60	2.24

¹Taken from Table III-10, Technical Volume of Draft EIR/EIS.

TABLE 2-3
COMPARISON OF ANNUAL REVENUE REQUIREMENTS
FOR SAN JOSE, SANTA CLARA, SUNNYVALE AND PALO ALTO -
COMMERCIAL ESTABLISHMENTS

City/Category	1979	1981/1982
	Charge (\$) Per Hundred Cubic Feet of Sewage Discharged	Charge (\$) Per Hundred Cubic Feet of Sewage Discharged ¹
San Jose		
Total Commercial	<u>2</u>	0.04
Restaurant	6.12	0.03
Domestic Laundry	2.76	0.04
Santa Clara		
Total Commercial	<u>2</u>	0.04
Restaurant	5.52	0.03
Domestic Laundry	2.28	0.04
Sunnyvale		
Total Commercial	<u>2</u>	0.05
Restaurant	7.80	0.04
Domestic Laundry	4.20	0.04
Palo Alto		
Total Commercial	3.24 ₃	0.03
Restaurant	<u>3</u>	0.02

¹Calculated from Table III-11, Technical Volume of Draft EIR/EIS by converting annual flow to hundred cubic feet and dividing into annual revenue required.

²Total commercial rates not available.

³No breakdown given for commercial users in current rate structure.

TABLE 2-4

COMPARISON OF ANNUAL REVENUE REQUIREMENTS FOR SAN JOSE,
SANTA CLARA, SUNNYVALE AND PALO ALTO - INDUSTRIAL USERS

City/Industry	1979	1979	1981/1982
	Charge (\$) Per Hundred Cubic Feet Discharge - Noncritical Users ¹	Charge (\$) Per Hundred Cubic Feet Discharge - Critical Users ²	Charge (\$) Per Hundred Cubic Feet Discharge ³
San Jose			
Total Industrial	<u>4</u>	1.08 ₄	0.12
Electrical	3.48	<u>4</u>	0.06
Canneries	8.28	0.73	0.16
Santa Clara			
Total Industrial	<u>4</u>	1.96 ₄	0.09
Electrical	2.28	<u>4</u>	0.05
Canneries	5.40		0.09
Sunnyvale			
Total Industrial	3.36 ₄	3.03 ₄	0.23
Electrical	<u>4</u>	<u>4</u>	0.10
Canneries		2.78	0.53
Palo Alto			
Total Industrial	<u>4</u>	<u>4</u>	0.05
Electrical	<u>4</u>	<u>4</u>	0.05 ₅
Canneries	<u>4</u>	<u>4</u>	<u>0</u>

¹Includes Industrial Cost Recovery effective mid-1979. Noncritical user is one who uses less than 50,000 gallons per day or discharges wastes of uniform strength.

²Assumes average and annual flows shown in Table III-12, Technical Volume, Draft EIR/EIS. Actual costs would be calculated on a discharger-by-discharger basis and may also include charges for NH₃, BOD, suspended solids, etc. (these latter charges not included here). A critical user is one who discharges more than 50,000 gallons per day or wastes of varying strength.

³Calculated from Table III-12, Technical Volume, Draft EIR/EIS, by converting annual flows to hundred cubic feet and dividing into annual revenue required.

⁴Values or rates not provided in rate schedules.

⁵No canneries in Palo Alto (see Table III-12 of Technical Volume, Draft EIR/EIS).



Letter to Environmental Protection Agency
Re: Draft EIR South Bay Discharges

May 23, 1979
Page 2

May 23, 1979

Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, CA 94105

Attention: Hearing Officer HE-149

Subject: Draft EIR South Bay Discharges

Dear Sirs:

I attended the hearing at Santa Clara on May 17, 1979, and heard many points of view as to why this project should not go forward. I would like to offer another, and that is from the viewpoint of the fish.

The current situation in the South Bay is that of an estuarine environment. Freshwater from the treatment plants meets with the saltwater of the bay. It is a place where life starts. Small microorganisms thrive and support larger animals such as shrimp and so on up the food chain to major sport fish. Evidence of these fish returning to the South Bay is accumulating. A steelhead was taken at Palo Alto last year and there is evidence of striped bass as far as San Jose.

Recent modification of the South Bay sewage treatment plants has significantly improved the water quality of the South Bay. That improvement continues and should be thoroughly evaluated in a stabilized condition over a long period of time before further tinkering with the Bay.

Shutting off this major flushing action of freshwater will significantly affect the salinity and biological activity of the South Bay. This is important to fish. Looking at page 11 of the Summary EIR to see what the adverse impacts of losing that freshwater flow would be, we find:

Environmental Aspect	Impact	Beneficial or Adverse
Biology	Potential change in Biota in South Bay as a result of changed oxygen levels, salinity	Primary** Undefined

From the viewpoint of the fish, we must know the adverse affects. "Undefined" makes this environmental impact report deficient in that this is a very major change which could have disastrous consequences. The report indicates salinity will reach that of open water. I don't believe that and neither do the fish. The South Bay is not open. The tidal flow is not adequate. The salinity in the summer will increase to some unknown level above the salinity of open water and the environment will change from that of an estuary to a saline lake. The biological impact is enormous, yet the EIR totally fails to address it.

I recently visited the Everglades where I saw the results of this kind of tinkering. A boat channel was opened into an inland freshwater lake. The tidal saltwater changed the lake to saltwater and the biology changed completely. Then the lake, due to large surface area, became more saline and nearly all species of life died out except migratory fish tolerant of extra salty water. It took them many years to learn what they had done. The error is now being reversed and it will take many more years to recover.

The fish don't care about money or they might like to make a bet with the person who indicated that short-term impacts will only be "two weeks at any point along the conveyance" (pg. 8 Summary). If they cared about money they would wince at the heavy price tag for a monstrous facility that has no real benefit and plenty of environmental risk. They would laugh at the logic on page 16 of doing it now because inflation will make it more expensive in the future. They would suggest if you really care about water quality in the Bay you would take the \$86 million initial cost and the \$320,000 annual cost and buy back tideland from the salt companies to restore the original tidal flushing action.

The Loma Prieta Chapter (Santa Clara and San Mateo) of the Sierra Club and all fish urge a no project for the South Bay.

Sincerely,

Daniel E. Myers
Daniel E. Myers
Conservation Committee
Sierra Club

DM:wp

Enc: 2 Copies

cc: Olive Mayer
Mary Ann Mark
Chapter Office

Submitted by: D.E. Myers
Conservation Committee, Loma Prieta Chapter
Sierra Club

Dated: 23 May 1979

Response:

We appreciate your comments, and your recommendation for "No Further Action" has been considered by EPA and SBDA in project selection. Issues have been raised in this letter and specific responses are noted below.

The definition of changed salinities as "Primary, Undefined" was used for the following reasons. While it is clear that freshwater and estuarine species would be lost (page 11 of Summary, Draft EIR/EIS) and that this loss is a direct (primary) effect of removal of effluent flows, the conclusion as to whether or not this is adverse cannot be made without a definition of the preferred aquatic system. The change in salinity could be considered beneficial to salt-tolerant vegetation, birds, and marine fishes. It is definitely adverse to freshwater species and to anadromous species such as steelhead and striped bass.

In the Technical Volume, Figure III-2 (page 150), it is shown that salinity will increase significantly, particularly during the dry season in the sloughs. This elevated salinity (expressed as greater than 16,000 mg/l chloride) is greater than open water north of Dumbarton Bridge. During wet seasons, the salinity is projected to decrease to a low of 9000 mg/l chloride in sloughs, resulting in a highly variable environment which would likely be conducive to populations of only the most euryhaline species.

This impact is significant although the magnitude of impact can only be qualitatively described and, again, the degree of adversity depends on what the refuge and the public desire to occur in the area.

The description of "short-term" (i.e. two-week) effects refers only to construction impacts. Operational effects would be long-term, indeed permanent, unless the system were abandoned at some future date.

The discussion under "No Further Action" as to the potential increased cost and possible loss of grant subsidies with delay does point out a disadvantage of this alternative. Should monitoring demonstrate continued problems with water quality requiring new construction (treatment or discharge), the SBDA member cities would have to consider cost to their residents of such a corrective action. Therefore, as there are insufficient data at this time to select an alternative which guarantees protection of beneficial uses, SBDA, its member cities, and the residents of the area are making a project alternative selection based on the assumption that they will not have to build a new, more costly system at a future date, without state or federal assistance to lessen the burden on the consumers.

The U.S. Fish and Wildlife Service now manages many of the Leslie Salt Company ponds on the east side of the Bay and has plans for marsh restoration and/or creation in some units of the refuge. While this may result in some improvements in habitat quality, increased tidal flushing would require opening the Dumbarton Narrows where fill has been placed for bridge approaches. In addition, channelization and damming of streams for water supplies in the Santa Clara County area results in reduced stream flows to the Bay, even during the wet season. It is not likely that any modifications could be made to South Bay at this time which would restore the original tidal flushing action.



UNITED STATES
DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY

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May 22, 1979

Paul De Falco, Jr.
Regional Administrator
Environmental Protection Agency
Region IX
San Francisco, California

Dear Mr. De Falco:

We have reviewed the draft EIS for the Treated Wastewater Disposal Program for South Bay Dischargers Authority, Santa Clara County, California, and include the following comments for your consideration.

General Comments

We are pleased that efforts are continuing to further improve the water quality of South San Francisco Bay. We note that the water quality of the South Bay has improved significantly in recent years, and it now supports fish species that have been absent for many years.

- ① The study mentions a number of existing and proposed park and recreation areas which could be indirectly impacted by one or more of the various construction activities for the proposed alternatives. We suggest that siting and effluent discharge routes be selected which would minimize such impacts to the fullest extent. It should be noted that both the Mountain View Shoreline Park and the Menlo Park Baylands Area have been funded through the Federal Land and Water Conservation Fund Act (Public Law 88-578, as amended). Section 6(f) of the Act states, "No property acquired or developed with assistance under this section shall, without the approval of the Secretary (of the Interior), be converted to other than public outdoor recreation uses." If any of the alternatives affects such parks, there should be consultation with Mr. Russell Cahill, Director, California Department of Parks and Recreation, who is the State Liaison Officer for the Land and Water Conservation Fund in California. His address is 1416 Ninth Street, P.O. Box 2390, Sacramento, California 95814.
- ② We notice that the Wastewater Disposal Program should not adversely affect mineral development in the South Bay area. A benefit will accrue to the salt industry by allowing some disposal of the bitern salts that now are being stockpiled.

- ③ We observe that implementation of alternative I, the deep water outfall, would preclude any potential for local and national environmental and economic benefits that may accrue from other alternatives. On the other hand, alternative II, continued discharge but with completion of plant improvements that are underway, may produce improvements in wastewater quality that will provide benefits that will make alternative I unnecessary. The San Francisco Bay Area Regional Municipal Wastewater Reclamation Study, now underway, may identify wastewater reclamation and reuse projects that will require transport facilities to areas away from the Bay and eliminate a need for a deep water outfall. The national interest would be better served if the funds proposed for the deep water outfall were used to assist in construction of wastewater reclamation and reuse transport and storage facilities.

- ④ In general, projects that would result in improved water quality receive our support and encouragement. Occasionally, however, special circumstances come into play which complicate our evaluation. The freshwater inflow from the San Jose-Santa Clara Treatment Plant into Artesian Slough is such a case. Most of the freshwater marshes in the San Francisco Bay area have been lost because of diking, filling, channelization, intensified but short-term runoff from developed areas, and upstream reservoir storage. The few remaining freshwater wetlands are extremely important because of their scarcity and because several wildlife species depend on this type of habitat for portions of their life cycle. The discharge of treated wastewater to Artesian Slough has resulted in the development of a narrow band of freshwater wetland about 6,000 feet long consisting primarily of bulrush and cattail. This freshwater wetland is one of the few locations in the San Francisco Bay area where ducks have been successful in rearing broods. The combination of adequate cover and a source of freshwater (young ducklings need freshwater until their salt glands develop) is necessary for survival. A rookery used by black-crowned night heron, great blue heron, snowy egret, and common egret within the Artesian Slough environs is the only rookery, other than the one at Blair Island, in the South Bay. This freshwater marsh is also the breeding area for a rare bird, the salt marsh yellowthroat.

In addition, the San Francisco Bay National Wildlife Refuge's master plan includes the development of the New Chicago Marsh Unit near Alviso. The Refuge's Environmental Education Center would be used by local school and environmental groups in marsh and bay ecology as the water progresses from fresh to saline conditions. It is hoped that treated wastewater from the Santa Clara - San Jose Treatment Plant would be available for use in the development of New Chicago Marsh.

Under the selected project alternative, the cessation of wastewater flow to Artesian Slough would result in the return of saline conditions. Salt-tolerant plant species would replace the existing

- ⑤ vegetation and would provide for a reduced level of habitat diversity. Alternative 4, which calls for upgraded treatment and continued discharge to existing locations, would preserve the freshwater marsh area. This is our preferred alternative assuming the implementation of advanced treatment measures to meet the 5 mg/l dissolved oxygen requirement (receiving water minimum) and to eliminate the input of toxicants through source control and pretreatment processes rather than by utilizing the receiving water as part of the treatment process, i.e., discharging wastewater to deepwater locations because of the greater dilution potential. We believe our view is consistent with the objectives of the Clean Water Act which states that "It is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985."

We believe the freshwater marsh along Artesian Slough is important to wildlife in terms of productivity and diversity and that the removal of the freshwater source will greatly reduce, if not completely eliminate, the existing values. We believe advanced treatment methods are available and can protect the beneficial uses of the receiving water. In the event that the "basin plan" alternative (discharge north of the Dumbarton Bridge) is selected, provisions for the release of enough freshwater to Artesian Slough to maintain the freshwater marsh should be included.

Specific Comments

- ⑥ Appendix J. In reference to cultural resources, we strongly support the recommendations of Research Services, Incorporated (Appendix J), particularly that sub-surface examinations be conducted prior to trenching activities in sensitive areas. Also, in the event that historic landings are encountered during excavation, we recommend immediate consultation with the State Historic Preservation Officer, Dr. Knox Mellon. He can be contacted at 1220 K Street, Box 2390, Sacramento, California 95811.

Sincerely yours,

Patricia A. Port

Patricia Port
Regional Environmental Officer

cc: Director, OEPR
Director, Heritage Conservation and Recreation Service
Director, Bureau of Reclamation
Director, Bureau of Mines
Reg. Dir., HCRS
Reg. Dir., BR
Reg. Dir., BM

cc: Director, Fish & Wildlife Service
Director, National Park Service
Director, Geological Survey
Director, Office of Surface Mining
Director, Bureau of Land Management
Reg. Dir., FWS
Reg. Dir., NPS
Asst. Dir., GS
Reg. Dir., OSM
Reg. Dir., BLM
SHPO

Submitted by: U.S. Department of Interior
Pacific Southwest Region
450 Golden Gate Avenue
San Francisco, California 94102

Dated: 22 May 1979

Response:

Thank you for your comments on the Draft EIR/EIS, in which a number of issues were raised. These issues are addressed below in the context of a decision to select the "No Further Action" alternative.

1. The Basin Plan Alternative routing (both on land and estuarine) crosses only the proposed Palo Alto Baylands Reserve in an area previously disturbed by the construction of the Mountain View Connecting Sewer. No other parklands would be affected with those routings, although the alignment is near a number of proposed parklands. Should EPA or SBDA consider further activities in the area, we will consult with Mr. Cahill as you suggest.

2. Since no disposal system will be built, it will not be possible for Leslie Salt Company to dispose of bittern through the SBDA system. This is a potential disbenefit to both the company and the San Francisco Bay National Wildlife Refuge unless these entities can arrive at their own independent alternative to stockpiling.

3. The improvements in wastewater quality described for No Further Action would accrue to all alternatives; in fact, Upgraded Treatment and Reclamation/Reuse would further increase effluent quality in San Jose. However, selection of "No Further Action" precludes action on reclamation/reuse under this grant program. Should SBDA decide to initiate such a program in the future as a disposal alternative, the Authority would have to reapply for funding.

4. Reclamation/reuse in maintaining Artesian Slough or in marsh building or enhancement may be acceptable to the State and Regional Boards (see

also responses to Drs. Shellhammer and Harvey, California Fish and Game and State Water Resources Control Board in Section 2.2).

5. Modeling studies do not show compliance with the 5.0 mg/l oxygen requirement after upgrading treatment of San Jose/Santa Clara (see Figure IV-8, page 194 of Draft EIR/EIS Technical Volume). Additionally, this alternative - Upgraded Treatment - calls for addition of treatment beyond currently implemented advanced waste treatment (see responses to Drs. Shellhammer, Harvey, and Mewaldt in Section 2.2).

6. Should any construction be undertaken in this area, the recommendations in Appendix J and, as stated on pages 92-93 of the Draft Technical Volume, will be followed by EPA and SBDA, and contact with Dr. Mellon will be established in the event of any archaeological or historic discoveries.

(HE-149) 22 RAE

Santa Clara Valley Water District

REGION 5
COMM CNTR

patrick FERRARO
Director, District 2
351 Brookwood Drive
San Jose, Calif. 95116
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REGION IX

May 22, 1979

Environmental Protection Agency
Region IX, 215 Fremont Street
San Francisco, California 94105

Attention: Mr. Paul DeFalco, Regional Director

Dear Mr. DeFalco:

Subject: South Bay Dischargers Project

Since the Draft EIR/EIS for The Treated Wastewater Disposal Program for South Bay Dischargers Authority is under review at this time, I feel that it is imperative that several broader points be considered concurrently with the finalization of the subject report:

1. As outlined in the attached letter, I have already expressed opposition to the proposed EPA regulation changes concerning the funding of reclamation projects which go beyond the existing effluent discharge requirements. Not knowing the prospects of successfully reversing these proposed funding restrictions, it is crucial that we approach the situation in the South San Francisco Bay with an awareness that all funding for reclamation could be lost if it is implied that the receiving waters can now, or in the future, accept the discharge of treated effluent from the cities of North Santa Clara County.

2. I do not believe the capabilities of the Bay mathematical or physical models can absolutely predict the quality of the Bay under future conditions (including Delta outflow and the Peripheral Canal) that are as yet unknown. For this reason, I support a continued and increased monitoring program with a major emphasis on the potential eutrophication of the estuary at its southern extremity. Obviously if algal blooms became prevalent under future conditions, all the efforts to date to assure high dissolved oxygen levels in the Bay would have failed, as the decaying biomass began to consume all oxygen present, returning the South Bay to a septic condition.

3. While the above position seems to be implied though not stated in the Draft EIR/EIS for the project, a recommendation for a "No Project Alternative" continues to be proposed. While I believe

Mr. Paul DeFalco

-2-

May 22, 1979

that State and local monitoring should continue, I fail to see the need to reach this decision at this point and run the risk of forfeiting the construction grants which provide the only logical and feasible method of financing reclamation of Santa Clara County's treated effluent. Since considerable market studies are underway by the Santa Clara Valley Water District in cooperation with the California Department of Water Resources, and funded primarily by E.P.A., it appears to be premature to reach a final conclusion on the ultimate disposition of the treated effluent at this time. It does however appear that reclamation or land disposal of effluent would be more cost effective than an outfall disposal system or further physical/chemical treatment with its inherent energy demands and sludge disposal problems. Both the County and Regional Reclamation studies indicate that conveyance of these treated effluents to major markets are competitive with the costs of alternative new water sources.

In view of the myriad of unknowns regarding the environmental, economic and institutional problems facing the residents of Santa Clara County's Water Users and Dischargers, I believe it is in the best interest for all that this decision be delayed until a more definitive and positive program can be implemented.

Very truly yours,

Patrick T. Ferraro
Chairman
Board of Directors

Attachment

cc: Members, South Bay Dischargers Authority

Mr. Tom Harris, San Jose Mercury & News
750 Ridder Park Drive, San Jose, CA 95190

District Office 5750 Almaden Expressway San Jose, 95118 265-2600

Submitted by: Patrick Ferraro
Director, District 2 Santa Clara Valley Water District
351 Brookwood Drive
San Jose, California 95116

Dated: 22 May 1979

Response:

Delay of a decision on disposal alternatives would be in violation of existing NPDES permits for the members of SBDA. In addition, SBDA is participating in the Regional Reclamation Study independent of this EIR/EIS work, as well as several small (2 mgd) local studies including Milpitas irrigation study initiated by SCVWD. This regional study may well find cost-effective markets for wastewater but funding for the disposal system cannot be transferred to such a study. Should SBDA decide to implement reclamation/reuse as an alternative to disposal, it may reapply for grant funds at that time.

Memorandum

(HE-149) 23

To : U. S. Environmental Protection Agency
Region IX, Attn: Hearing Office (HE-149)
215 Fremont Street
San Francisco, CA 94105

Date: May 30, 1979
File No. 2428.8056 (MJA) vjw

U. S. Environmental Protection Agency

- 2 - May 30, 1979

From : San Francisco Bay Regional Water Quality Control Board
1111 Jackson Street, Oakland 94607

RECEIVED
REGIONAL HEARING CLERK

JUN 1 1979

REGION IX

Subject: SBDA EIR/EIS - Treated Wastewater Disposal Program

We have reviewed the subject draft EIR/EIS, and are not satisfied with the thoroughness of the report with regard to discussions of the San Francisco Bay Water Quality Control Plan (Basin Plan), heavy metal impacts, botulism, and water quality monitoring. Our concerns regarding the above issues have been explicitly discussed in previous correspondence (April 21, 1978) to the State Water Resources Control Board (attached).

We cannot accept the current EIR/EIS as being satisfactory until the following issues have been adequately addressed:

Conformance with the Basin Plan (page 4)

Our previous comments regarding conformance with the Basin Plan were as follows:

"The following requirements are identified in the Basin Plan."

"It shall be prohibited to discharge any wastewater which has particular characteristics of concern to beneficial uses:

- 1) At any point at which the wastewater does not receive a minimum initial dilution of at least 10:1.
- 2) Into any nontidal water or dead-end slough or similar confined water areas or their immediate tributaries.
- 3) Into San Francisco Bay south of the Dumbarton Bridge."

"Exceptions to each of these will be considered where the discharge is approved as part of a reclamation project or where it can be demonstrated that a net environmental benefit will be derived from such a discharge."

"We request that the discharge prohibitions as given in the Basin Plan be identified in the EIR/EIS. In addition, as part of the analysis of those alternatives which do not conform to the discharge prohibitions, consideration should be given to the conditions necessary for exceptions to the Basin Plan. Please note that these analyses should be done on an individual basis for the San Jose/Santa Clara, Palo Alto, and Sunnyvale treatment plants."

- ① Although the current draft EIR/EIS discusses the prohibitions of discharges identified in the Basin Plan, no mention is made of the conditions necessary for exceptions to the prohibition of discharge and how alternatives not conforming to the discharge prohibitions will meet those conditions. We request that your commitment to these exception conditions be identified and discussed in the final EIR/EIS.

Heavy Metals (page 57)

Our prior comments regarding heavy metals were:

"There is no discussion of heavy metal concentrations and their potential impacts on receiving water biota included in the EIR/EIS."

"The highest concentrations of dissolved metals in the Bay regularly occur below the Dumbarton Bridge. It is estimated that 51% (52 metric tons annually) of the heavy metal loading to the Bay south of Hunters Point is discharged into this area. This corresponds to only about 8% of the water volume of the Bay below Hunters Point."

"The metals of principal concern, as expressed by Dr. Girvin in a preliminary report to the Regional Board, are copper and silver. It is our recommendation that the level of observed concentrations of heavy metals in the South Bay be compared with chronic toxicity levels identified in the literature and that their potential for biomagnification be assessed."

- ② A discussion of heavy metals, similar to our comments, has been included in the current draft EIR/EIS. Nevertheless, the discussion is not sufficient since there is no mention of the relationship of observed concentrations of heavy metals in the South Bay and chronic toxicity levels identified in the literature and their potential for biomagnification by the continued discharge of heavy metals. We request that these issues be discussed in the final EIR/EIS and that necessary mitigation measures be included. These should include a discussion of the source control programs and their costs necessary to reduce the discharge of heavy metals.

Botulism (pages 76 and 152)

Our concern about the history of outbreaks of botulism in the South Bay and the potential causes of avian botulism were expressed in our previous comments.

"It is noted in the EIR/EIS that in 1975 a moderately severe outbreak of botulism occurred in Artesian Slough, Coyote Creek, and Mud Slough. About 2000 birds contracted the disease. In 1974 nearly 13,200 waterfowl died. The extent of the discussion of the causes of botulism is limited to the following sentence: 'No data exist at this time as to the exact cause of botulism outbreaks, although they are clearly related to anaerobic sediment conditions that may be aggravated by waste discharge.'"

"The decision to only identify the botulism problem and not to discuss its potential causes is apparently based on the fact that the "exact cause of botulism outbreaks" is not known. We do not believe this to be acceptable rational for overlooking the botulism question. A thorough analysis of the potential causes of botulism should be included in the EIR/EIS."

"The following is a brief summary of the available information concerning botulism. A brief discussion with respect to implications in the South Bay is included."

"Botulism is a paralytic disease induced by the ingestion of food which contains toxin from the bacterium Clostridium Botulinum. The Bacillus is divided into seven types. Type C₂ is a soil bacterium and is responsible for waterfowl botulism found in the western United States. It is an obligate anaerobe. Its optimum growth temperature is generally between 25 & 30°C with production of toxin greatest at 28°C. C. botulinum does not grow well in salinities above 30 ppt."

"Decaying anaerobic organic matter is required by C. botulinum for growth and the production of toxin. The organic matter may be vertebrates, invertebrates, submerged grain, or possibly other decomposing bottom material. Birds eat these materials, accumulate the toxin, and die. The important point is that anaerobic conditions must occur either in a microenvironment such as in the dead bodies of vertebrates & invertebrates or in a more widespread environment such as bottom sediments."

"The initial cause of botulism may be an environmental change that kills aquatic invertebrates or fish. The accidental death of a waterfowl or fish from natural causes also can trigger a botulism outbreak. In such cases fly larvae infest a dead fish or bird, concentrate the toxin and being a favored food of waterfowl result in poisoning. Thus death of a single bird can lead to a botulism outbreak as more birds in turn die and are fed upon."

"Besides the proper medium for the growth of Clostridium botulinum, temperature and salinity are important and may be controlling in the South Bay. As mentioned above a temperature of 25 to 30°C is optimal. Also, C. botulinum apparently will not grow well in salinities greater than 30 ppt."

"Outbreaks of botulism in the South Bay have been for the most part localized in Artesian Slough, Mud Slough and the upper end of Coyote Creek. Numerous dead birds have also been taken from the Sunnyvale oxidation ponds."

"Below the confluence of Mud Slough and Coyote Creek water temperatures consistently average about 20.5°C in August and September. From that point in towards the San Jose outfall water temperature rises at a rate of about 2°C per mile reaching about 27°C at the outfall, the temperature of the San Jose effluent. At the same time low salinity levels are created by the fresh water discharge. It therefore appears that the San Jose discharge may create an environment favorable for the growth of C. botulinum and that it may be a significant factor in the botulism outbreaks which occur in the South Bay. Fresh water in the Sunnyvale oxidation pond may also provide favorable conditions for toxin production."

- ③ The current EIR/EIS does include a discussion of probable causes of avian botulism which concludes that depressed salinities and dissolved oxygen, elevated temperatures, and treated sewage are factors which may contribute to outbreaks of avian botulism. However, given the factors that are thought to be linked to outbreaks to avian botulism, no attempt has been made to assess how each of the alternatives may influence the probability of future outbreaks of avian botulism in South San Francisco Bay. We recommend that such an assessment be made in the final EIR/EIS and that necessary mitigation measures be identified.

④ Water Quality Monitoring

In the discussion of alternatives to the basin plan (page 181), it is briefly mentioned that for no action beyond currently approved improvements at the treatment plants, a water quality monitoring program would be needed to determine "the effect of the approved upgraded treatment on the Bay environment" (page 188). However, no attempt has been made to elaborate on the scope of such a monitoring program.

- ⑤ In order to fully evaluate the impacts on aquatic biota of a continuing wastewater discharge (with upgraded treatment) at the present locations, several questions would need to be answered. For example, what are the acute and chronic (long-term) effects of the discharge on aquatic organisms? What are the effects of the discharge on primary productivity? To what extent are the behavioral patterns (spawning, migration, avoidance reactions) of fish and macroinvertebrates affected by the discharge? What is the potential for bioaccumulation of toxicants by aquatic organisms? To what extent are harbor seals affected by the discharge? Furthermore, no attempt has been made to (1) discuss the physical and biological analyses to be done; (2) estimate the economic costs of conducting an intensive monitoring program of the scope that would be needed to determine the impacts of a discharge of tertiary-treated wastewater on aquatic organisms; (3) estimate the length of time that would be needed for an adequate monitoring program in order to make an assessment of the impacts of the discharge; or (4) describe methods of data evaluation.

May 30, 1979

Conclusion

The Regional Board staff is of the opinion that the current EIR/EIS is not satisfactory since relevant information regarding heavy metals - the relationship of observed heavy metal concentrations in the South Bay and chronic toxicity levels identified in the literature, and their potential for bioaccumulation associated with the continued discharge of heavy metals - and avian botulism - an assessment of the potential for outbreaks of avian botulism with each of the wastewater disposal alternatives - has not been discussed or evaluated. The requested information is essential if an adequate assessment of the impacts of effluent discharges on aquatic biota is to be made.

Also, a discussion of the conditions necessary for exceptions to the Basin Plan's prohibition of discharge, and how alternatives which do not conform to the prohibitions of discharge will meet those conditions, is not included in the EIR/EIS. The lack of adequate information or commitments on the latter point precludes us from considering exceptions to the discharge prohibitions in the Basin Plan at this time.

Finally, relevant information (i.e., cost, total time devoted to monitoring, data evaluation) regarding water quality monitoring of the effects on aquatic organisms of a discharge of advanced treated wastewater for the "no project alternative" has not been included in the EIR/EIS.

We request that all of our concerns expressed herein be identified and adequately addressed in the final EIR/EIS.

Should you have any questions regarding this matter, please contact Mike Ammann at (415) 464-1357 or Steve Morse at (415) 464-0618.


FRED H. DIERKER
Executive Officer

Attachment: Comments of April 21, 1978, to State Board

cc: without attachment

Neil Dunham, State Water Resources Control Board
Mike Rugg, Department of Fish and Game, Yountville

May 30, 1979

cc: (continued)

City of Sunnyvale
City Hall
P. O. Box 607
Sunnyvale, CA 94088

City of Palo Alto
250 Hamilton
Palo Alto, CA 94301

City of San Jose
City Hall
San Jose, CA 95110

City of Santa Clara
City Hall
1500 Warburton Avenue
Santa Clara, CA 95050

South Bay Dischargers Authority
c/o A. R. Turturici
Department of Public Works
City of San Jose
City Hall, Room 408
San Jose, CA 95110

REGIONAL WATER QUALITY CONTROL BOARD

SAN FRANCISCO BAY REGIO..

INTERNAL MEMO File No. 2428.8056 (RJR) vjw

(HE-149) 23

TO: Neil Dunhum
 Chief, Division of Water Quality

FROM: Fred H. Dierker, Executive Officer
 Region 2

DATE: April 21, 1978

SIGNATURE: *[Signature]*

SUBJECT: SBDA EIR/EIS - Treated Wastewater Disposal Program

Neil Dunhum
 Chief, Division of Water Quality

- 2 -

April 21, 1978

At our meeting of March 29, 1978 with staff of the Division of Water Quality and the Division of Planning and Research we were requested to provide additional information on the inadequacies of the South Bay Discharge Authority's EIR/EIS. Hopefully this further amplification of our concerns will be useful in the development of the EIR/EIS and will lead to a consensus on the best means of wastewater disposal for the South Bay dischargers.

It is our opinion that adequate information with respect to the following items has not been presented in the current draft of the EIR/EIS. We cannot accept the EIR/EIS as being complete until each item has been thoroughly addressed. These include:

1. Conformance with Basin Plan
2. Dissolved oxygen modeling predictions
3. Toxicity
4. Heavy metals
5. Botulism

Conformance with the Basin Plan

The following requirements are identified in the Basin Plan.

It shall be prohibited to discharge any wastewater which has particular characteristics of concern to beneficial uses:

- 1) At any point at which the wastewater does not receive a minimum initial dilution of at least 10:1.
- 2) Into any nontidal water or dead-end slough or similar confined water areas or their immediate tributaries.
- 3) Into San Francisco Bay south of the Dumbarton Bridge.

Exceptions to each of these will be considered where the discharge is approved as part of a reclamation project or where it can be demonstrated that a net environmental benefit will be derived from such a discharge.

The prohibition of discharges to San Francisco Bay south of the Dumbarton Bridge has been noted in the EIR/EIS. However, no mention is given of the 10:1 initial dilution requirement or the prohibition of discharges to dead-end sloughs. Also, the conditions required to be granted exceptions to the three discharge prohibitions have not been identified or discussed.

We request that the discharge prohibitions as given in the Basin Plan be identified in the EIR/EIS. In addition, as part of the analysis of those alternatives which do not conform to the discharge prohibitions, consideration should be given to the conditions necessary for exceptions to the Basin Plan. Please note that these analyses should be done on an individual basis for the San Jose/Santa Clara, Palo Alto, and Sunnyvale treatment plants.

Dissolved Oxygen Modeling Predictions

The current draft of the EIR/EIS incorporates without discussion the Hydro-science modeling results for dissolved oxygen. Because dissolved oxygen is of primary importance in the evaluation of alternative disposal sites, it is necessary that the accuracy of predicted D.O. concentrations be carefully delineated. This is of particular importance in the case of the South Bay Dischargers disposal study due to the fact that the type of model used and corresponding assumptions needed to approximate observed D.O. concentrations in the Bay do not represent the physical system. Of particular significance in this respect is the inability of the model to incorporate tidal effects or biological productivity.

It is our recommendation that a discussion of the assumptions and the accuracy of the model be included in the EIR/EIS. The current Hydroscience sensitivity analysis and Dr. Orlob's review of the model are sources of this information. Where used, the modeling results for dissolved oxygen should be carefully qualified. Because use of the Hydroscience modeling is limited, it should not be used as the sole tool to predict water quality. There is a need, therefore, for a more qualitative evaluation of discharges and their impacts on the South Bay which includes consideration of the factors the water quality model does not address. Dr. Smith's evaluation of his monitoring activities this last summer is one source of such information.

Toxicity

It is noted in the EIS that "since segments of the Bay exhibiting relatively greater toxicities are often areas where major municipal or industrial waste outfalls are located, potential cause and effect relationships exist. Certainly undiluted sewage effluent is toxic to most aquatic animals. Much research is necessary, however, to determine the nature of the potential interaction between the general toxicity of waste effluents and the Bay system."

Further on in the report in section III.1.2., the toxicity question is again addressed. It is stated here that "while there are no water quality standards for toxicity and while components of toxicity cannot be readily defined, if the assumption is made that wastewater contains a certain amount of toxic material and that this toxic material is evenly distributed throughout the wastewater, then the toxicity levels in the South Bay will decrease with the removal of waste loads. Hydrosience calculated the decrease from no action to implementation of the recommended project would be as much as an order of magnitude in the extremities of the South Bay."

These two sections include the entire discussion of toxicity in the EIS. The first statement concludes that undiluted wastewater is definitely toxic to most aquatic animals. The second statement indicates that if a series of assumptions are made concerning the existence of toxicity, a discharge north of the Dumbarton Bridge will reduce toxicity levels in the South Bay. It is apparent that further analysis of toxicity is needed. To facilitate this discussion background information with respect to the concerns the Regional Board has regarding toxicity follows.

The toxicity of wastewaters is often considered only in terms of the survival of indicator fish in bioassay testing. In many cases, however, the differences are great between lethal concentrations of toxicants and concentrations which will permit reproduction and growth. The correlation between bioassay results based on a single test organism and the actual impact on receiving water biota is further obfuscated by the variety of fish, invertebrate species, and lower food chain organisms found in a receiving water body, each having its own distinct susceptibility to toxicants. In addition, the variability of toxic waste discharges introduces further uncertainty in the quantification of toxic impacts on a receiving water.

Toxicity data are generally reported in terms of a median tolerance limit (TL_m), the concentration that kills 50 percent of the test organisms within a specified time span, usually in 96 hours. Most bioassays are thus a measurement of acute toxicity. The step from estimation of the acute toxicity of a waste on a test species to the quantification of its chronic effects on receiving water organisms cannot be made directly. A certain amount of subjective judgement is necessary. This does not provide justification to overlook the toxic effects of a waste discharge but rather requires that careful consideration be given to the subject. It is important to note that while chronic toxicity cannot be precisely quantified, a number of independent investigators have determined the threshold toxic concentrations of municipal wastes at strikingly similar levels.

The toxicity guideline given in the Basin Plan is 40 ml/l (0.04 toxic units). This was based on work done by Kaiser Engineers in the "San Francisco Bay - Delta Water Quality Control Report" (1969). Their analysis was based on a correlation between benthic species diversity and receiving water conservative toxicity. Threshold effects were noted at a calculated toxicity concentration of 0.04 tu in the receiving water.

The series of reports titled "A study of Toxicity and Biostimulation in S. F. Bay Delta Waters" prepared by representatives of the Department of Water Resources, Fish and Game, and U. C. Berkeley, generally supported the toxicity limitation recommended by Kaiser Engineers.

Dr. Alex Hurn's work at SERL as reported in "Long-term Effects of Toxicants and Biostimulants on the Waters of Central San Francisco Bay" (1974) showed that toxicity concentrations above 0.12 tu consistently affected aufwuchs growth and that a threshold effect at 0.05 toxic units was often observed.

Finally, the National Technical Advisory Committee on Water Quality (1968) recommended that the 24-hour average concentrations of toxicants after mixing in a receiving water should not exceed 1/20th of the 96 hour TL_m for degradable, non-cumulative substances and 1/100th for conservative, cumulative or unidentified toxicants. These recommendations are based on wastes in the midrange of relative toxicity and correspond to receiving water toxicity limits of 0.05 to 0.01 toxic units respectively.

The Basin Plan toxicity guideline of 0.04 toxic units is thus supported by a substantial body of data which is specific to San Francisco Bay as well as by the judgement of a recognized group of water quality experts with nationwide experience. The EIS for all intents and purposes has dismissed toxicity as a significant factor in the analysis of alternative disposal sites. Because the prohibition of discharges to waters south of the Dumbarton Bridge is based largely on high toxicity levels in the South Bay and because no decision as to an appropriate outfall location for the South Bay Dischargers can be made without thorough discussion of toxicity, the EIS will not be complete until that information is provided.

Heavy Metals

There is no discussion of heavy metal concentrations and their potential impacts on receiving water biota included in the EIR/EIS.

The highest concentrations of dissolved metals in the Bay regularly occur below the Dumbarton Bridge. It is estimated that 51% (52 metric tons annually) of the heavy metal loading to the Bay south of Hunters Point is discharged into this area. This corresponds to only about 8% of the water volume of the Bay below Hunters Point.

April 21, 1978

The metals of principal concern, as expressed by Dr. Girvin in a preliminary report to the Regional Board, are copper and silver. It is our recommendation that the level of observed concentrations of heavy metals in the South Bay be compared with chronic toxicity levels identified in the literature and that their potential for biomagnification be assessed.

Botulism

It is noted in the EIR/EIS that in 1975 a moderately severe outbreak of botulism occurred in Artesian Slough, Coyote Creek, and Mud Slough. About 2000 birds contracted the disease. In 1974 nearly 13,200 waterfowl died. The extent of the discussion of the causes of botulism is limited to the following sentence: "No data exist at this time as to the exact cause of botulism outbreaks, although they are clearly related to anaerobic sediment conditions that may be aggravated by waste discharge."

The decision to only identify the botulism problem and not to discuss its potential causes is apparently based on the fact that the "exact cause of botulism outbreaks" is not known. We do not believe this to be acceptable rational for overlooking the botulism question. A thorough analysis of the potential causes of botulism should be included in the EIR/EIS.

The following is a brief summary of the available information concerning botulism. A brief discussion with respect to implications in the South Bay is included.

Botulism is a paralytic disease induced by the ingestion of food which contains toxin from the bacterium Clostridium Botulinum. The Bacillus is divided into seven types. Type C2 is a soil bacterium and is responsible for waterfowl botulism found in the western United States. It is an obligate anaerobe. Its optimum growth temperature is generally between 25 & 30°C with production of toxin greatest at 28°C. C. botulinum does not grow well in salinities above 30 ppt.

Decaying anaerobic organic matter is required by C. botulinum for growth and the production of toxin. The organic matter may be vertebrates, invertebrates, submerged grain, or possibly other decomposing bottom material. Birds eat these materials, accumulate the toxin, and die. The important point is that anaerobic conditions must occur either in a microenvironment such as in the dead bodies of vertebrates & invertebrates or in a more widespread environment such as bottom sediments.

April 21, 1978

The initial cause of botulism may be an environmental change that kills aquatic invertebrates or fish. The accidental death of a waterfowl or fish from natural causes also can trigger a botulism outbreak. In such cases fly larvae infest a dead fish or bird, concentrate the toxin and being a favored food of waterfowl result in poisoning. Thus death of a single bird can lead to a botulism outbreak as more birds in turn die and are fed upon.

Besides the proper medium for the growth of Clostridium botulinum, temperature and salinity are important and may be controlling in the South Bay. As mentioned above a temperature of 25 to 30°C is optimal. Also, C. botulinum apparently will not grow well in salinities greater than 30 ppt.

Outbreaks of botulism in the South Bay have been for the most part localized in Artesian Slough, Mud Slough and the upper end of Coyote Creek. Numerous dead birds have also been taken from the Sunnyvale oxidation ponds.

Below the confluence of Mud Slough and Coyote Creek water temperatures consistently average about 20.5°C in August and September. From that point in towards the San Jose outfall water temperature rises at a rate of about 2°C per mile reaching about 27°C at the outfall, the temperature of the San Jose effluent. At the same time low salinity levels are created by the fresh water discharge. It therefore appears that the San Jose discharge may create an environment favorable for the growth of C. botulinum and that it may be a significant factor in the botulism outbreaks which occur in the South Bay. Fresh water in the Sunnyvale oxidation pond may also provide favorable conditions for toxin production.

Conclusion

It is the opinion of the Regional Board staff that the environmental portion of the EIR/EIS is a general summary of existing information. It lacks both depth and interpretive evaluation. Many rather disjointed facts are presented but little attention has been given to interrelating and comparing impacts. The argument against greater detail and interpretive judgement is the Bechtel position that incorporation of these would require the EIR/EIS process to become a research project. No research is needed to provide the information that is requested in this memo. What is required, however, is the incorporation of more complete information and, as noted, interpretive evaluations of project alternatives based on this information.

If you have any questions please contact Bob Roche at 8-561-1255.

Submitted by: Regional Water Quality Control Board

Dated: 30 May 1979

Response:

1. The purpose of the Draft EIR/EIS is to disclose the environmental impacts of project alternatives in order to choose among the alternatives. It is not intended that the EIR/EIS provide the basis for exceptions to either the Enclosed Bays and Estuaries Policy or the Basin Plan, although elements in the report might be used as support for a petition for exception. Only after definition of beneficial uses and the evaluation of present and future reclamation activities can SBDA move to meeting such conditions (page 188 includes a statement describing a benefit which might accrue by continued discharge to Artesian Slough; this is not meant to infer claim of enhancement).

2. On Page 56, it is stated that chronic toxicity cannot be precisely quantified, while page 57 indicates a potential for biomagnification. This potential would continue, regardless of discharge location since heavy metal concentrations would likely not be reduced by treatment. Further dilution does not preclude biomagnification, although the rate of biomagnification and actual tissue levels of toxic materials may be reduced. It is possible that implementation of pretreatment will eliminate or reduce some industrial sources of heavy metals to the SBDA water pollution control plants. However, the introduction of heavy metals to the Bay is not a result of an action contemplated or being taken by SBDA (i.e. is not an impact of a disposal project). It is therefore inappropriate to develop mitigation (i.e. source control methodologies) for heavy metals in this EIR/EIS. (See also response to County Sanitation District 4 in Section 2.2.)

On May 18, 1979 (43 FR 21506), the EPA published a series of technical guidelines which set forth a methodology for deriving water quality criteria. These guidelines included standards to calculate acute and chronic toxicity

for both fish and invertebrates, as well as calculations of Application Factors (AF) and Bioconcentration Factors (BCF). The May 18, 1979 test procedures were corrected on December 18, 1979 (44 FR 75028).

Using these guidelines, the EPA began promulgating criteria for the 65 toxic pollutants identified by the Clean Water Act of 1977. On March 15, 1979 (44 FR 15926), criteria for the first 27 toxic pollutants were published. The March 15, 1979 criteria were corrected in notices issued May 16, 1979 (44 FR 28716) and June 19, 1979 (44 FR 35289). The criteria for an additional 26 pollutants were issued in draft form on July 25, 1979 (44 FR 43660), and the draft criteria for the last 12 substances were issued on October 1, 1979 (44 FR 56628). On January 3, 1980 (45 FR 803), EPA proposed that ammonia be added to the toxic pollutant list. None of these notices has been finalized at this time.

The metal, silver — of critical concern to Dr. Girvin in memorandum dated April 21, 1978 (p. 5 of that memorandum) — is discussed on pages 15964-15965 of the Federal Register for March 15, 1979. Both chronic and acute toxicity levels have been developed to protect freshwater and saltwater aquatic life, and a separate concentration is presented to protect human health. Twenty-four hour average values are presented to protect against chronic effects, while the maximum value, based on 96-hour flowthrough LC50 data, is used to protect against acute effects. The following table summarizes the proposed criteria for silver:

	Chronic (24-Hour Average)	Acute (Maximum)
Freshwater aquatic life	0.0090 µg/l	1.9 µg/l
Saltwater aquatic life	0.26 µg/l	0.58 µg/l

The criterion for protection of human health was set at 10 µg/l, based on studies on rats and rabbits.

A second metal of concern, identified in the RWQCB internal memorandum of April 21, 1978, is copper. This element is discussed on page 43666 of the Federal Register for July 25, 1979. The following table summarizes proposed criteria for copper:

	Chronic (24-Hour Average)	Acute (Maximum)
Freshwater aquatic life	(0.65 in {hardness}-1.94)	(0.88 in {hardness}-1.03)
Saltwater aquatic life	0.79 µg/l	1.8 µg/l

The criterion for protection of human health was set at 1 µg/l.

Although an attempt has been made to standardize data on acute and chronic toxicity, EPA recognizes that variability in toxicity levels may be due to conditions that are specific to each water body. In developing water quality standards to be based on these criteria, specific circumstances affecting the toxicity of various compounds in the South Bay, such as synergistic complexes, salinity, pH, and oxygen levels, should be investigated in more detail. However, the proposed EPA guidelines should be available in providing a set of standard methodologies for conducting such studies and in preparing appropriate implementation plans for the criteria.

Full documentation on the summary data from which the criteria were derived is published by the National Technical Information Service (Silver - NTIS #PB 292 441 and Copper - NTIS #PB 296 791).

3. Avian botulism is discussed in detail on page 76 of the Draft Technical Volume. In this discussion, we state that the cause of outbreaks is not fully understood. However, it should be noted that anaerobic sediment conditions persist in the South Bay due to the high organic content, much of which can be attributed to past sewage discharges (untreated as well as treated). Usually, this anaerobic state is shielded from the water column by a thin oxidized surface - hence the need to agitate samples to determine

benthic oxygen demand (Appendix H, page H-444). Ducks, like shovellers, may disturb this layer and become exposed (or even ingest) anaerobic muds which may contain toxin from anaerobically respiring *C. botulinum*. Ducks may also carry *C. botulinum* spores in their intestinal tracts, with outbreaks of the disease following death by other causes and decay of the carriers' bodies. It may well be that disturbance to the oxidized layer is induced by increased temperature (resulting in a reducing environment and less oxygen in solution), decreased salinity (resulting in animal die-off with an accompanying oxygen demand), or decreased oxygen levels in the water (equilibrium to be established between water column and muds leading to oxygen demand). It also is possible that discharge of sewage contributes to both decreased oxygen and salinity, although it is not clear that these conditions persist long enough to encourage anaerobic growth of the bacterium and accumulation of toxin in the sediments. As treatment is improved to the level of AWT, the effect on oxygen by the effluent may be lessened while salinity decreases may continue to be aggravated. However, urban runoff and storm drainage may also result in these changes and, indeed, some of the sloughs studied in Appendix H.3 showed strong salinity and DO variations in the water column without waste discharges occurring (pages H-429 through H-436).

A summary of available information on avian botulism indicates that three conditions must be met for optimum growth and toxin formation by *C. botulinum*: warm temperature (25-30°C), a suitable animal protein substrate, and a high moisture content. These three conditions may be met in the South Bay during the late summer when temperatures are high and there is a decrease in invertebrate populations. Ongoing studies at the Bear River Refuge in Utah by Jensen and Allen confirm the belief that an increase in invertebrate mortality preceded an outbreak. In each outbreak studied, a precipitous decline in dipterous larvae and oligochaetes preceded botulism. However, the authors found great variability in the ability of strains of the bacterium to produce toxin and also found that living invertebrates are sometimes toxic, presumably

by having ingested cells of *C. botulinum*. It has also been found that the death of a bird or fish, and its subsequent infestation by maggots, may initiate an outbreak.

There is presently incomplete information on invertebrate population dynamics in the South Bay, so no conclusions may be drawn concerning the initiation of outbreaks. In many ponds and marshes where other outbreaks have occurred, either recent increases or decreases in water level have been linked with invertebrate dieoffs, but no such indications are available for the South Bay. It may well be that increased summer temperatures, in conjunction with BOD loading from the discharges, might cause a sufficient decrease in oxygen levels in the South Bay to initiate a dieoff of invertebrates but, in that case, we might expect severe outbreaks every year. In fact, available data indicates a decrease in numbers of dead birds from 1974-1978. Although much of this observed decrease in mortality is undoubtedly due to intensive management by the California Department of Fish and Game and the Fish and Wildlife Service in picking up dead and sick birds, there is no clear implication that waste discharge has led to outbreaks of avian botulism in the South Bay.

No quantitative or qualitative prediction of reduction or stimulation of botulism outbreaks can be made from available data. The potential for outbreak may remain, regardless of the alternative chosen.

Two recent references may be consulted for more specific information:

- Allen, J.P. and S.S. Wilson, 1977: "A Bibliography of References to Avian Botulism." U.S. Department of Interior, Fish and Wildlife Service, Special Scientific Report - Wildlife No. 204.
 - A fairly complete list of literature published through 1975.
- Smith, L. DS., 1977. "Botulism: The Organism, Its Toxins, The Disease." Charles C. Thomas, Springfield, Illinois. 236 pp.
 - An excellent monograph by a leader in the field of anaerobic bacteriology, with a chapter on botulism in birds.

4. Until definitions of conditions necessary for exemption are agreed upon, no monitoring program can be delineated. This activity will commence following approval of the Final EIR/EIS, and a selection of conditions will be worked out with SWRCB and RWQCB (see also responses to County Sanitation District 4 and Santa Clara Valley Water District in Section 2.2).

5. Although all of the issues presented in your comments are important to the improvement of the water quality of South San Francisco Bay, and the need for their eventual resolution is acknowledged by SBDA and EPA, the funding of studies for their actual resolution is outside the scope of this EIR/EIS.

(HE-149) 24

ABAG
Association of Bay Area Governments

Hotel Claremont • Berkeley, California 94705 • (415) 841-8730

June 1, 1979

U.S. Environmental Protection Agency
Attn: Hearing Office, HE-149
Region IX
215 Fremont Street
San Francisco, CA 94105

Dear Sirs:

Thank you for the opportunity to review the DEIR/S for the South Bay Dischargers Authority effluent disposal project. ABAG staff has reviewed this document and is forwarding the following comments. ABAG's Executive Board has not taken a position on this document or the proposed project.

The DEIR/S states that facilities will be sized on the basis of the Department of Finance's E-0 population projections. In view of California State Office of Planning and Research's approval of ABAG's population projection for use by the State Water Quality Control Board, we urge that the latter set of projections be substituted for those now used in the text. Please contact Stan Hoffman, Principal Regional Planner, to obtain the projections for the service area of the project.

Thank you again for the opportunity to comment.

Sincerely,



Charles Q. Forester
Director of Planning

RECEIVED
4. REGION IX

JUN 4 10 16 AM '79

RECEIVED
REGIONAL HEARING CLERK

JUN 6 1979

REGION IX

Submitted by: ABAG
Hotel Claremont
Berkeley, California 94705

Dated: 1 June 1979

Response:

The Draft EIR/EIS description of the Basin Plan Alternative was based on plant capacity approved by the EPA and the State in 1974, and operating at the time of report printing. The cost of the Basin Plan Alternative did use the DOF E-zero basis, the approved number at the time of Step 1 funding. The DOF E-zero was used to allocate nongrant fundable capital costs (see page 160, Table III-5 in Draft EIR/EIS Technical Volume) since the existing capacity of the water pollution control facilities already exceeded E-zero levels. It was necessary to size the disposal system to fit the water pollution control facilities in order to ensure system compatibility and reliability. Use of another population figure will not alter the disposal system size; it could affect computation and allocation of nongrant fundable costs.

Using the ABAG projections (Table 2-5), it can be seen that projections for the service area are declining with each revision, reflecting recent declines in average household size, migration rates, and regional employment growth rates. If a disposal system were to be selected and grant funding were to be requested, the required funding would be estimated based on the projection in effect at the time of funding. If such projections continue to decline, the discrepancy between treatment facility capacity and E-zero population will increase, resulting in a proportional increase in ineligible costs for San Jose/Santa Clara (Table III-5, page 156 of Technical Volume, Draft EIR/EIS allocates all ineligible costs due to capacity to San Jose/Santa Clara). It is also possible that Palo Alto and/or Sunnyvale could incur ineligible costs due to these revisions. As stated on page 21 of the Technical Volume, these new revisions would be taken into account in the final design phase, should a structural alternative, such as the Basin Plan Alternative, be selected.

TABLE 2-5

Projected Population on the SBDA Service Area
(in thousands)

	<u>1970</u>	<u>1975</u>	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>2000</u>
DOF ¹							
E-zero	1047.8	1152.2	-	1362.2	-	1564.2	-
DOF/DWR ²							
D/150	1041.0	-	1348.0	-	1909.0	-	1697.0
E-zero	1041.0	-	1273.0	-	1635.0	-	1507.0
ABAG/MTC ²							
D/150	1033.8	-	1268.6	-	1751.3	-	1528.2
E-zero	1033.8	-	1203.7	-	1422.8	-	1360.1
DOF revised ³							
E-zero	-	-	1270.7	-	1560.7	-	1426.1
ABAG Series 3 Rev ⁴							
E-zero	-	1145.1	1211.8	-	1324.5	-	1429.4

¹These projections taken from Table 3-2, page 3-6 of Financial Plans and Revenue Programs, Water Pollution Control Facilities in South San Francisco Bay, prepared for SBDA by Bechtel Incorporated March 1, 1974.

²These projections taken from Table II-15, page 87, Technical Volume of Draft EIR/EIS (DOF/DWR, 1974; ABAG/MTC, 1974)

³These projections calculated from text, page 87, Technical Volume of Draft EIR/EIS

⁴These projections from Charles Q. Forester, Director of Planning to U.S. EPA Region IX. Personal communication with ABAG: letter dated 23 October 1979.



Association of Bay Area Governments

Hotel Claremont • Berkeley, California 94705 • (415) 841-9730

October 23, 1979

U.S. Environmental Protection Agency
Attn: Hearing Office, HE-149
Region IX
215 Fremont Street
San Francisco, California 94105

To Whom It May Concern:

In our letter of June 6, 1979, we commented upon the DEIR/EIS for the South Bay Dischargers Authority Treated Wastewater Disposal Program. We informed you that we were revising our population projections and would provide you with the revised projections in the near future.

These figures have now been revised and adopted by the ABAG Executive Board.

The revised figures follow:

<u>Year</u>	<u>Population</u>
1975	1,145,147
1977*	1,171,821
1980	1,211,832
1990	1,324,495
2000	1,429,354

Sincerely yours,

Charles Q. Forester
Director of Planning

*linear interpolation between 1975 and 1980

Representing City and County Governments in the San Francisco Bay Area

Advisory
Council On
Historic
Preservation

(4E-149) 27

U.S.E.P.A.
REGION 9
COMM CNTR

1522 K Street NW.
Washington D.C.
20005

Reply to: F. C. Box 2585
Denver, Colorado 80225

June 8, 1979

Mr. Paul De Falco, Jr.
Regional Administrator
Environmental Protection Agency
Region IX
215 Fremont Street
San Francisco, California 94105

Dear Mr. De Falco:

This is to acknowledge receipt of the draft environmental statement for the South Bay Dischargers Authority Treated Wastewater Disposal Program, California on March 30, 1979. We regret that we will be unable to review and comment on this document in a timely manner pursuant to Section 102(2)(C) of the National Environmental Policy Act of 1969.

Nevertheless, the Environmental Protection Agency is reminded that, if the proposed undertaking will affect properties included in or eligible for inclusion in the National Register of Historic Places, it is required by Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f, as amended, 90 Stat. 1320) to afford the Council an opportunity to comment on the undertaking prior to the approval of the expenditure of any Federal funds or prior to the issuance of any license. The Council's regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800.4) detail the steps an agency is to follow in requesting Council comment.

Generally, the Council considers environmental evaluations to be adequate when they contain evidence of compliance with Section 106 of the National Historic Preservation Act, as amended. The environmental documentation must demonstrate that either of the following conditions exists:

Page 2
Mr. Paul De Falco, Jr.
Treated Wastewater Disposal Program
June 8, 1979

1. No properties included in or that may be eligible for inclusion in the National Register are located within the area of environmental impact, and the undertaking will not affect any such property. In making this determination, the Council requires:

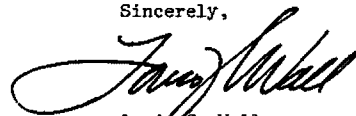
--evidence that the agency has consulted the latest edition of the National Register (Federal Register, February 6, 1979, and its monthly supplements);

--evidence of an effort to ensure the identification of properties eligible for inclusion in the National Register, including evidence of contact with the State Historic Preservation Officer, whose comments should be included in the final environmental statement.

2. Properties included in or that may be eligible for inclusion in the National Register are located within the area of environmental impact, and the undertaking will or will not affect any such property. In cases where there will be an effect, the final environmental statement should contain evidence of compliance with Section 106 of the National Historic Preservation Act through the Council's regulations, "Protection of Historic and Cultural Properties".

Should you have any questions, please call Jane King at (303) 234-4946, an FTS number.

Sincerely,



Louis S. Wall
Chief, Western Office
of Review and Compliance

Submitted by: Advisory Council on Historic Preservation
1522 K Street, NW
Washington, D.C. 20005

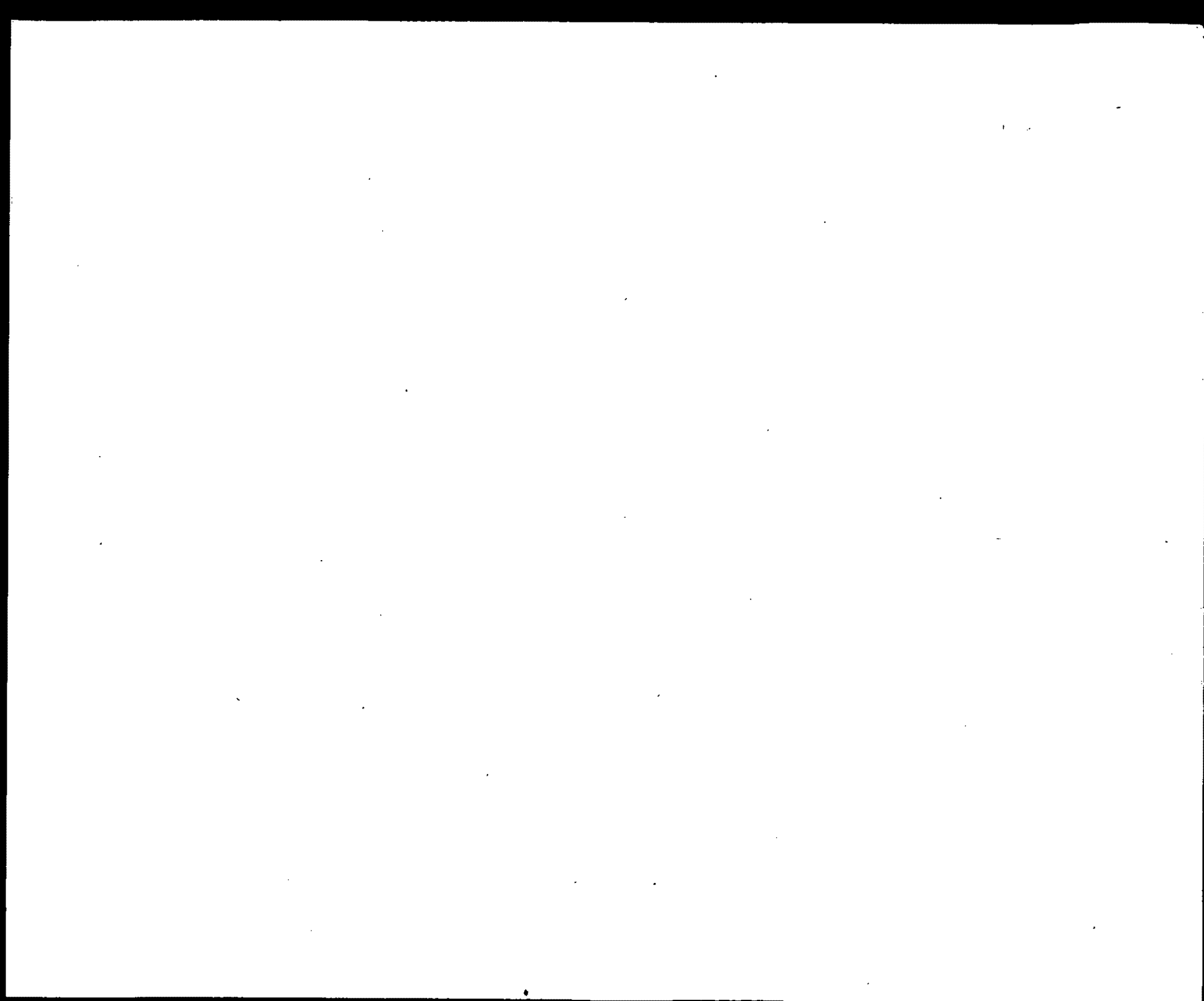
Dated: 8 June 1979

Response:

As stated on page 92 of the Draft EIR/EIS Technical Volume, EPA and SBDA will comply with Executive Order 11593 should any action affect historic, cultural, or archaeological sites. Although "No Further Action" has been selected and this alternative requires no construction, should EPA or SBDA consider any other activity in the area in the future, we will comply with 36 CFR 800.4; 16 U.S.C. Sec. 470f, as amended, 90 Stat, 1320; and any equivalent state, regional, or local regulations.

Section 3

RESPONSES TO WRITTEN COMMENT
RECEIVED AFTER 6 JUNE 1979



3. RESPONSES TO WRITTEN
COMMENT RECEIVED AFTER 6 JUNE 1971

Three letters of comment were received by EPA and SBDA after the close of the review and comment period. They are included here along with responses because issues were raised in these three letters which warrant comment.

- Florence M. LaRivere - 1 July 1979
- County Sanitation District No. 4, Santa Clara County - 3 July 1979
- Sunnyvale Chamber of Commerce - 15 May 1979

433 Tennessee Lane
Palo Alto, California
July 1, 1979

(HE-149)28
94306
U.S. E.P.A.
REGION IX
CIVIL CENTER

United States Environmental Protection Agency
215 Fremont
San Francisco, California

Attn: Hearing Office HE #44
re: Grant #CA 06-1135

Dear Sir:

During the 28 years we have lived in Palo Alto, we have frequented the shores of the bay for recreation - sailing, hiking, and wildlife enjoying. Since the opening of the dikes many years ago for walking, we have become especially fond of the airport runway dike, where it parallels the Palo Alto sewer out fall.

It is quite evident that wildlife is, particularly abundant in that area. Gulls, shorebirds and ducks are in heavy concentrations there, and it is apparent from the terns fishing up and down that slough that fish life is rich in it. Fresh water intake to the South Bay has been

shockingly diminished in the last century, and by some projects (for example, Mountain View Shoreline Park's blockage of fresh water runoff) within the last few years. Catching those waters in flood basins leads to evaporation. In the bay adjoining runoff areas that have been maintained, steelhead and other fish life persists.

It appears to us that the South Bay Discharger Project will most likely lead to deterioration in the water quality of the South Bay. Sincerely,
Florence M. LaRiviere

(Retyped from original with Ms. LaRiviere's permission.)

453 Tennessee Lane
Palo Alto, California 94306
July 1, 1979

United States Environmental Protection Agency
215 Fremont
San Francisco, California

Attn: Hearing Office HE
re: Grant #CA 06-1135

Dear Sir:

During the 28 years we have lived in Palo Alto, we have frequented the shores of the bay for recreation - sailing, hiking, and wild-life enjoying. Since the opening of the dikes many years ago for walking, we have become especially fond of the airport runway dike, where it parallels the Palo Alto sewer out fall.

It is quite evident that wildlife is particularly abundant in that area. Gulls, shorebirds and ducks are in heavy concentrations there, and it is apparent from the terns fishing up and down the slough that fish life is rich in it.

Fresh water intake to the south bay has been shockingly diminished in the last century, and by some projects (for example, Mountain View Shoreline's blockage of fresh water runoff) within the last few years. Catching those waters in flood basins leads to evaporation. In the bay adjoining runoff areas that have been maintained, steelhead and other fish life persists.

It appears to us that the South Bay Discharger Project will most likely lead to deterioration in the water quality of the South Bay.

Sincerely,

Florence M. LaRiviere

Submitted by: Florence M. LaRivere
433 Tennessee Lane
Palo Alto, California 94306

Dated: 1 July 1979

Response:

No blockage of natural runoff would occur with any of the viable disposal alternatives since each would consist of buried pipelines in existing dikes. However, with selection of the No Further Action Alternative, maintenance of "freshwater" flows into the channel near the Palo Alto Airport would result since the Palo Alto effluent would continue to that channel.

COUNTY SANITATION DISTRICT NO. 4
OF SANTA CLARA COUNTY

100 East Sunnyoaks Avenue
Campbell, California 95008
Telephone 378-2407

SOUTH BAY DISCHARGERS
REGION IX
COMMON CENTER
JUL 6 3 25 PM '79

(HE-149) 29
SERVING RESIDENTS OF
CITY OF CAMPBELL
TOWN OF LOS GATOS
CITY OF MONTE SERENO
CITY OF SAN JOSE
CITY OF SANTA CLARA
CITY OF SARATOGA
UNINCORPORATED AREA

July 3, 1979

Environmental Protection Agency
Region IX
Hearing Officer, HE-149
215 Fremont Street
San Francisco, CA 94105

Re Governmental Agencies
Regional, South Bay Dischargers
Authority

The Board of Directors of County Sanitation District No. 4 of Santa Clara County, California is on record as favoring the "no action alternative" set forth in the DRAFT ENVIRONMENTAL IMPACT REPORT AND STATEMENT for the SOUTH BAY DISCHARGERS AUTHORITY TREATED WASTEWATER DISPOSAL PROGRAM.

The District Board of Directors has also discussed the feasibility of large volume water reclamation as a partial alternative for disposal of the wastewater discharge from the San Jose/Santa Clara Water Pollution Control Plant and take the following position with respect to this alternative:

- o The Clean Water Act Grant designated for the South Bay Dischargers Authority Common Conveyance Facility should not be redesignated for use in funding a water reclamation alternative.
- o The feasibility of large volume water reclamation requires further study, which, with respect to Santa Clara County, should be administered by the Santa Clara Valley Water District.
- o The financing, administration and operation of any systems for the transportation and distribution of large volume water reclamation should also be under the direction of the Santa Clara Valley Water District.

Sincerely

Stephen H. Goodman
Stephen H. Goodman
Manager and Engineer

SHG:kk

cc: South Bay Dischargers Authority
Room 320, 801 No. First St., San Jose 95110
Frank M. Belick; Board of Directors

Submitted by: County Sanitation District No. 4 of Santa Clara County
100 East Sunnyoaks Avenue
Campbell, California 95003

Dated: 3 July 1979

Response:

1. Clean Water Act Grant funds designated for wastewater disposal cannot be redesignated to reclamation or any other alternative unless it is selected as a disposal alternative. Should a wastewater reclamation program be implemented at a later date, SBDA would have to reapply for funding (see also responses to U.S.D.I. and to P. Ferraro in Section 2.2).

2, 3. A feasibility study of large-scale reclamation is now underway. A joint venture, comprised of SBDA, City and County of San Francisco, Central Contra Costa Sanitary District, Santa Clara Valley Water District, EBDA, Contra Costa County Water District, and EBMUD, has hired the consulting firm CH₂M Hill to perform the study. Administration, financing, transportation, and distribution of reclaimed water are to be covered in this study.

Responses to your earlier letter supporting No Further Action are included in Section 2.2.

Received 16 May 79
WBY

(HE-149)30

- Page 2 -

Environmental Protection Agency
ATTENTION: Hearing Office, HE-149

May 15, 1979

In conclusion, the Sunnyvale Chamber of Commerce urges Alternative 2 of the Draft Environmental Impact Report and Statement (Treated Wastewater Disposal Program dated September 1978 be adopted and that no further action be taken at this time.

Environmental Protection Agency
ATTENTION: Hearing Office, HE-149
Region IX
215 Fremont Street
San Francisco, CA 94105

SUBJECT: SUNNYVALE CHAMBER OF COMMERCE POSITION ON
THE SOUTH BAY DISCHARGERS AUTHORITY'S TREATED
WASTEWATER DISPOSAL PROGRAM

The Board of Directors of the Sunnyvale Chamber of Commerce at their Executive Committee Meeting of May 8, 1979 and their full Board Meeting of May 15, 1979 unanimously voted to urge that "no action beyond currently approved improvements at Treatment Plants" be taken and that the three Santa Clara County treatment plants continue to discharge treated effluent into the South Bay. This position is based on the following key considerations:

1. Actions taken or being taken by the Cities of San Jose, Santa Clara, Sunnyvale and Palo Alto are proving to be highly successful in improving the water quality of the South Bay. It is reasonable under these circumstances to defer action on the "Super Sewer Project", monitor the rate of improvement and subsequently take corrective steps, if necessary.
2. Given the current and continuing improvement of water quality, the fresh water marshes in the South Bay can be retained and the undesirable transition to salt water marshes and its adverse effect upon existing vegetation and wildlife will be avoided.
3. The investments made and being made in the wastewater treatment plants of South Bay Cities are proving to be cost effective thus avoiding the cost of constructing and operating the "Super Sewer Project." The estimated \$86 million for construction, \$320,000 annual operating costs and significant energy demands can all be saved.

Sincerely,


E. H. Millson
Executive Director

EHM:imb

- continued -

Submitted by: Sunnyvale Chamber of Commerce
499 South Murphy Avenue
Sunnyvale, California 94086

Dated: 15 May 1979

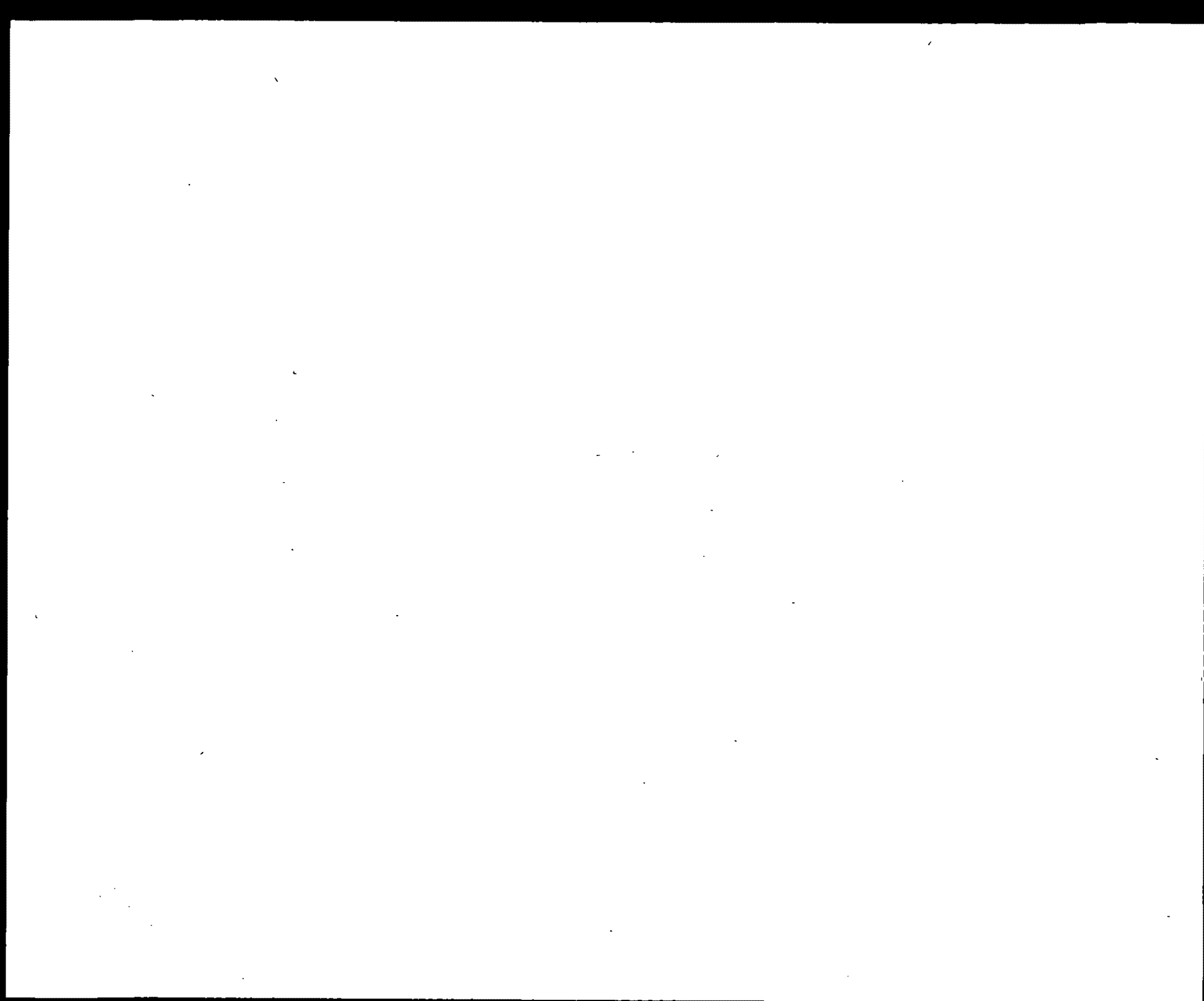
Response:

SBDA and EPA have noted your resolution and considered it in making a project selection. Specific issues in your letter do require response:

1. Monitoring and taking subsequent corrective steps, if necessary, is inferred in selection of the No Further Action Alternative. SBDA will, after completion and approval of the Final EIR/EIS, have to position SWRCB and RWQCB to establish conditions for exemption to the Enclosed Bays and Estuaries Policy and the Basin Plan before monitoring and/or corrective action can be defined. (See also responses to County Sanitation District No. 4 and Santa Clara Valley Water District in Section 2.2.)
2. Retaining a disposal system in Artesian Slough and at Palo Alto will result in maintenance of freshwater marshes or vegetation; conversely, removal of the discharge will result in loss of this vegetation. However, although freshwater marshes are considered a benefit to some (e.g. U.S. Fish and Wildlife Service: Drs. Shellhammer, Harvey, and Mewaldt), the transition to saltwater marshes may not be considered undesirable to others. At this time, no definition of the preferred ecosystem has been made by regulatory agencies (see also response to D. E. Myers in Section 2.2).
3. Of the estimated \$86 million capital and \$320,000 annual operating costs, only that local portion (12.5 percent capital and all operating costs) can be considered "saved." The remaining 75 percent federal and 12.5 percent state shares will likely be committed to another applicant. Energy demands of transport and/or upgraded treatment would be saved although no decrease in energy use is anticipated for "No Further Action."

Section 4

ERRATA



4. ERRATA

The following typographical and editing errors occurred in the Draft EIR/EIS. These errors have not been corrected in a reprinted volume; rather, the corrections are noted below with each error as clarification to the reader.

<u>Volume, Page Column and Line</u>	<u>Error</u>	<u>Correction</u>
TECHNICAL, 8 column 1, line 2	spelling: ... criteria, exception dissolved...	... criteria, except- ing dissolved...
TECHNICAL, 12 column 1, lines 8-9	editing; spacing between lines	close spacing, result- ing in one paragraph
TECHNICAL, 15 column 1, line 24	spelling: ... residentts would be...	... residents would be...
TECHNICAL, 24 column 2, line 35	spelling: ... 16:1 for a conservation ...	... 16:1 for a conser- vative...
TECHNICAL, 25 column 1, lines 31-32	editing: Figure I-11 shows typical construction details	delete sentence: "Figure I-11 presents ... of the project."
column 2, line 14	editing: ... over the pipe- line (Figure I-10)...	... over the pipeline (Figure I-11)...
TECHNICAL, 28 column 1, line 9	spelling: ... to which Synnyvale flows...	... to which Sunnyvale flows...
column 2, lines 15-21	editing: misplaced para- graph	insert lines 15-21, after page 26, column 1, line 28
TECHNICAL, 29 column 2, line 2	editing: ... the recom- mended project...	... the Basin Plan alternative...
TECHNICAL, 33 column 1, line 25	spelling: ... forms the surface statum along...	... forms the surface stratum along...
TECHNICAL, 36 column 2, line 19	editing: ... become a plastic when...	... become plastic when...

<u>Volume, Page Column and Line</u>	<u>Error</u>	<u>Correction</u>
Table II-1, line 4	punctuation: (SWRCB 1974)	(SWRCB, 1974)
TECHNICAL, 39 column 2, lines 14-18	editing: misplaced foot- note	insert lines 14-18 after page 1, column 40
TECHNICAL, 45 Table II-4	editing: table not com- pletely lined	add vertical line between the first two columns
TECHNICAL, 49 column 1, lines 17-18	editing: ... assuming the disposal project is not operational.	... assuming selection of No Further Action or Upgraded Treatment alternatives.
TECHNICAL, 53 column 1, line 34	editing: ... in the lower Bay is	... in the Lower Bay is
column 2, lines 34-40	editing: spacing between lines and indentation of lines 35-40	close spacing, result- ing in one paragraph; adjust left margin of column one space
TECHNICAL, 54 column 2, line 27	punctuation: ... of the South Bay, (Consoer- Bechtel...	... of the South Bay (Consoer-Bechtel...
TECHNICAL, 56 column 1, lines 35-37	spelling: ... by Dr. Horn at... 1977). Dr. Horn's studies...	... by Dr. Horne at... 1977). Dr. Horne's studies...
TECHNICAL, 57 column 1, line 8	punctuation: ... July, 1978. May be	... July, 1978). May be...
column 2, line 18	punctuation: ... 1976-77. (RWQCB...	... 1976-77 (RWQCB...
column 2, line 41	punctuation: recreational facilities.	... recreational facilities
TECHNICAL, 58 Table II-9, line 14	spelling: Nickle	Nickel
TECHNICAL, 61 Table II-10	editing: Notes (1), (2) and (3) are for Table II-10	add line below note (3), column 2, line 15, to separate table from text

Volume, Page Column and Line	Error	Correction	Volume, Page Column and Line	Error	Correction
TECHNICAL, 63 Figure II-14	printing page 63 has incorrect yellow pattern	replace with new page 63 supplied with EPA transmittal dated 3 July 1979	column 2, line 35	punctuation:... Hunter 1979; Hunter 1969; Hunter...	...Hunter, 1979; Hunter, 1969; Hunter...
TECHNICAL, 64 column 1, line 38	editing: ... in Table II-10; the...	... in Table II-11; the...	TECHNICAL, 77 column 1, line 9	editing: Table II-11 does not show Guadalupe Slough station	replace reference to station 13, Table II- 11 with Station 14, pages H.39 - H.40, H.87 - H.89, H.260, in Appendix H.
TECHNICAL, 68 column 1, line 14	editing: ... include <u>Asychis Elongata</u>...	... include <u>Asychis elongata</u> ...	TECHNICAL, 82 column 2, line 34	editing:... Slough in <u>San Mateo</u> County...	... Slough in <u>Alameda</u> County...
column 2, line 25	editing:... or <u>S. Leiantha</u>).	... or <u>S. leiantha</u>).	TECHNICAL, 89 column 2, line 25	...biostratigraphic...	...biostratigraphic...
column 2, line 30	editing:... <u>Algal</u> "mats" or "films".	... <u>algal</u> "mats" or films.	TECHNICAL, 91 Figure II-20	printing: page 91 has incorrect yellow pattern	replace with new page 91 supplied with EPA transmittal dated 3 July 1979
TECHNICAL, 69 column 1, line 2	editing:... pickleweed (<u>Salicornia</u> sp.) is...	... pickleweed (<u>Salicornia</u> sp.) is...	TECHNICAL, 92 column 1, line 36	editing: Figure II-22 does not show the middens	delete: ... (A and B in Figure II-22).
column 1, line 23	spelling:... from the pickleweed zone.	... from the pickle- weed zone.	TECHNICAL, 97 Figure II-22	printing: page 97 has incorrect yellow pattern	replace with new page 97 supplied with EPA transmittal dated 3 July 1979
column 1, line 32	spelling:... <u>Alameda</u> song sparrow...	... <u>Alameda</u> song sparrow...	TECHNICAL, 98 column 1, lines 27-32	editing: <u>Ranch Rincon</u> del Arroyo de San Francisquito	<u>Rancho Rinconada</u> del Arroyo de San Francisquito
column 2, line 23	punctuation:... salt grass, (<u>Distichlis</u>...	... salt grass (<u>Distichlis</u> ...	TECHNICAL, 103 Figure II-23	punctuation: By 1974, the... 30 percent manu- facturing employees in 1974, 102,800... manu- facturing industries	By 1974, the... 30 percent manufacturing employees. In 1974, 102,800... manufactur- ing industries.
TECHNICAL, 70	editing: Figure number omitted	add Figure II-16 to legend		printing: page 103 has incorrect yellow pattern	replace with new page 103 supplied with EPA transmittal dated 3 July 1979
TECHNICAL, 76 column 1, line 25	editing: Table II-11 does not show Coyote Creek stations	replace reference to Station 11, Table II- 11 with stations 1-6, pages H.31 - H.34, H. 79 - H.83, H.109 - H. 111, H.254 - H.256, H.269 - H.270, H.276 - H.277 and H.284 - H. 285 in Appendix H.			
column 2, line 11	spelling: ... dieoff of aquatic invertebrates...	... dieoff of aquatic invertebrates...			

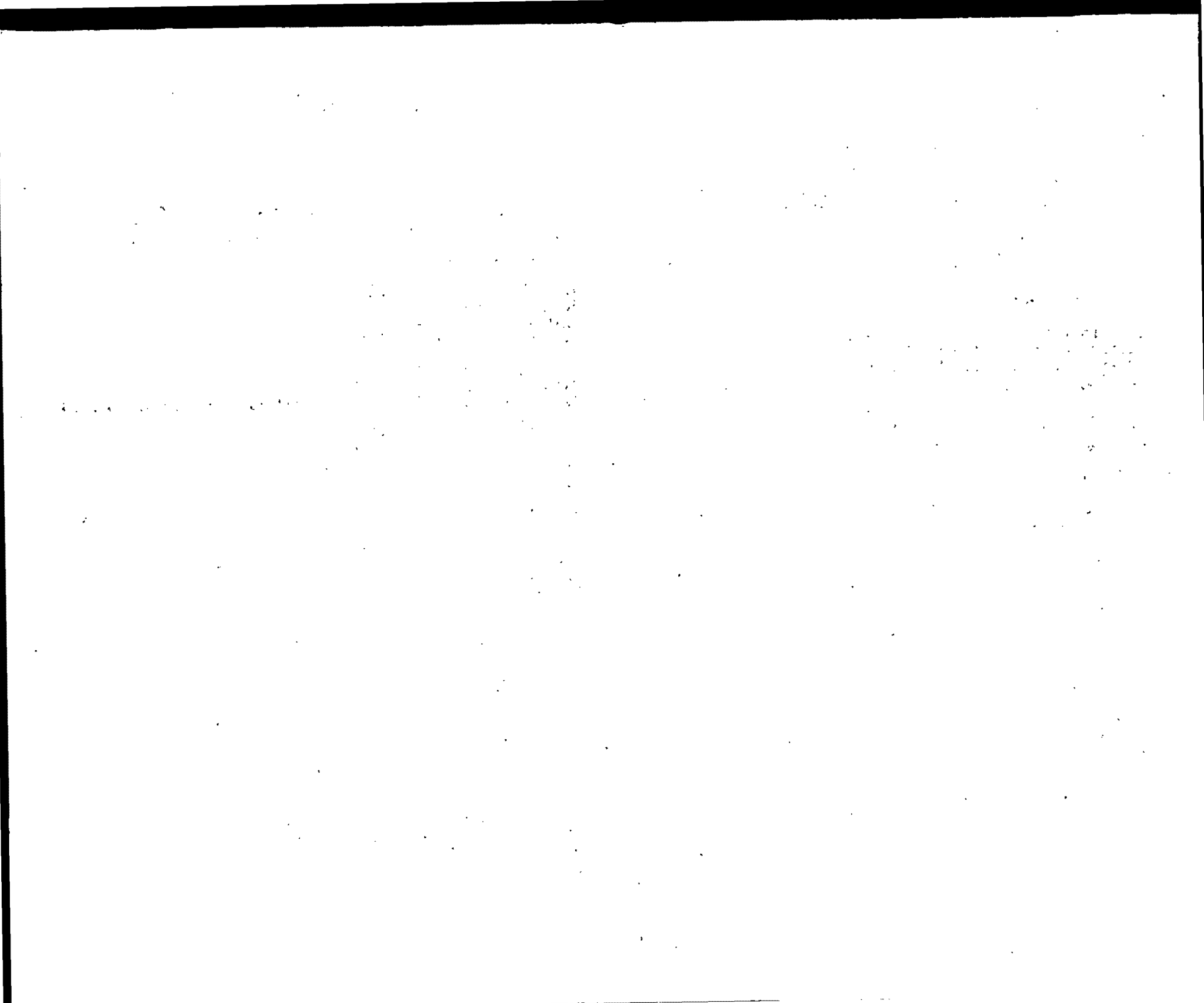
Volume, Page Column and Line	Error	Correction	Volume, Page Column and Line	Error	Correction
TECHNICAL, 109 column 1, line 18	editing: ... the Palo Alto <u>Wetland Preserve</u>...	... the Palo Alto <u>Baylands Reserve</u> ...	TECHNICAL, 130 column 1, line 9	punctuation: ... erosion problems; removal...	... erosion problems; removal...
column 1, lines 32-33	editing:... Palo Alto Flood Retention Basin is...	... Palo Alto <u>Baylands Reserve</u> is...	column 1, line 26	punctuation: ... will include (revegetation...	...will include; revegetation...
column 2, line 7	editing:... the <u>Flood Retention Basin</u> is ...	... the <u>Baylands Reserve</u> is...	TECHNICAL, 133 column 1, line 3	editing: ... equipment (Section III.2).	... equipment (Section III.3).
TECHNICAL, 110 column 2, lines 15-16	editing:... to the proposed pipeline outfall north...	... to the <u>Basin Plan alternative outfall location</u> north...	column 1, lines 32-36	editing: misplaced footnote	insert lines 32-36 after line 39, column 2 of page 132
TECHNICAL, III column 2, line 26	editing: Figure II-24 does not show refuge	change reference to Figure II-20	TECHNICAL, 148 column 1, line 12	spelling:... and partially insulated...	...and partially insulated...
TECHNICAL, 112 column 1, line 18	punctuation: ... and enjoyment	... and enjoyment.	TECHNICAL, 155 column 1, line 39	spelling: ... <u>at</u> Santa Clara County.	...of Santa Clara County.
column 2, lines 35-36	editing: ... the <u>Flood Retention Basin</u> to...	... the <u>designated Baylands Reserve</u> to...	TECHNICAL, 157 column 2, line 16	editing:... which the <u>authority</u> operates...	...which the <u>Authority</u> operates
TECHNICAL, 114 column 2, line 39	editing: • Palo Alto <u>Flood Basin</u>	• Palo Alto <u>Baylands Reserve</u>	TECHNICAL, 167 column 1, lines 20-36	editing: misplaced paragraph	insert lines 20-36, page 168 before column 1 line 1
TECHNICAL, 115 column 2, line 34	editing: The Palo Alto <u>Flood Retention Basin</u> , a...	The Palo Alto <u>Baylands Reserve</u> , a...	TECHNICAL, 176 column 1, line 3	spelling:... violate standard, even...	...violate <u>standards</u> , even...
TECHNICAL, 116-117 Figure II-25	printing: Figure II-25 has incorrect blue pattern	replace with new pages 115-116 supplied with EPA submittal dated 3 July 1979	TECHNICAL, 204 column 1, line 20	spelling:... <u>at</u> the South Bay...	...of the South Bay...
TECHNICAL, 118 column 1, line 33	spelling: ... is <u>concrened</u> :	... is concerned:	TECHNICAL, 206 column 2, line 2	spelling:... Bay <u>have</u> been...	...Bay <u>has</u> been...
TECHNICAL, 123, column 1, line 4	editing: Table II-24 does not show South Bay Aqueduct monthly deliveries	change reference to Table II-25	TECHNICAL, 207 column 2, line 31	spelling:... Contra Costs County...	...Contra Costa County...
TECHNICAL, 129 column 2, line 40	editing: ... (see Section III.1.2, Study ...	... (see Section III.1.3, Study...	TECHNICAL, 214 column 1, line 17	editing: misplaced footnote	insert after page 213, column 1, line 39
			column 2, lines 34-37	editing: the sentence "For detailed...Bechtel Inc., 1974." is a not to Table V-3	add number (4) to beginning of lines 34-37

Volume, Page Column and Line	Error	Correction	Volume, Page Column and Line	Error	Correction
TECHNICAL, 218 column 2, lines 5-6 and	editing:... irrigable productive lands† During the design...	insert lines 6-42, column 2, p 219; 1-15, column 1, p 220; 36-39, column 1, p 220; and 1-3 column 2, p 220 between "...lands" and "During..."	TECHNICAL, 268 column 1, line 4	spelling:... erosion at the...	...erosion <u>of</u> the...
TECHNICAL, 219 column 2, lines 5-42	...irrigation. Require- ments† are irrigated...		TECHNICAL, 272 column 2, lines 7-8	editing:... of the <u>pro- posed disposal project</u> , and...	of the <u>Basin Plan alternative</u> , and...
TECHNICAL, 220 column 1, lines 1-15			TECHNICAL, 273 column 1, line 22	editing:... pumped to the...	...pumped to <u>a</u>
column 1, lines 36-39	...January.	close line 5, column 2, page 219 with line 4, column 2, page 220 to read:	column 1, line 27	editing:... tie-in to <u>the SBDA</u>...	...tie-in to <u>a SBDA</u>
column 2, lines 1-4	†for irrigation...	...irrigation. Require- ments for irrigation...	TECHNICAL, 281 column 1, line 12	editing:... <u>salt marsh</u> song sparrow	... <u>Alamenda</u> song sparrow
TECHNICAL, 218 column 2, lines 6-42 and	editing: 5 misplaced paragraphs	place lines 6-42, column 2, p 218 and 1-36	TECHNICAL, 287 column 2, line 12	spelling:... change <u>on</u> present land-use...	...change <u>in</u> present land-use...
TECHNICAL, 219 column 1, lines 1-36		column 1, page 219, after line 14, column 1, page 218	APPENDIX, H-1 Figure H-1	editing: stations incorrect	disregard Figure H-1; use Figure 1, page H-6 instead
TECHNICAL, 222 column 1, line 2	spelling:... recharged tanks. An...	...recharge tanks. An...	APPENDIX, H-2 Figure H-2	editing: stations incorrect	disregard Figure H-2; use Figure 2, page H-10 instead
column 1, line 19	spelling:... domestic <u>recycle</u> (e.g., grey...	... domestic <u>recycling</u> (e.g., grey...			
TECHNICAL, 224 column 2, line 10	grammar:... effects of percolation through the soil <u>is</u> assumed...	...effects of percola- tion through the soil <u>are</u> assumed			
TECHNICAL, 225 column 1, line 1	punctuation:... alter- natives discussed below) were...	...alternatives dis- cussed below), were...			
TECHNICAL, 260 column 1, line 12	editing:... to the <u>SCVWD</u> price of...	...to the <u>San Felipe</u> price of...			
TECHNICAL, 262 Table V-25, Note (2)	spelling:... for San <u>Filipe</u>for San <u>Felipe</u> ...			

The arrow (†) indicates point of insertion.

Section 5

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2220 Moorpark Avenue
San Jose, CA 95128

San Benito County Board of Supervisors
Attn: George E. Shore, Chairman
Courthouse, Room 204
Hollister, CA 95023

South Bay Dischargers Authority
Attn: Mr. A.R. Turturici, Director
City of San Jose Public Works Department
801 North First Street
San Jose, CA 95110

City of San Jose
Attn: City Manager
801 North First Street
San Jose, CA 95110

City of San Jose
Planning Department
801 North First Street
San Jose, CA 95110

City of Santa Clara
Attn: Robert R. Mortenson
1500 Warburton Avenue
Santa Clara, CA 95059

City of Hayward
Planning Department
22300 Foothill Blvd.
Hayward, CA 94541

City of Campbell
Planning Department
75 N. Central Avenue
Campbell, CA 95008

City of Newark
Planning Department
37101 Newark Blvd.
Newark, CA 94560

City of Fremont
Planning Department
39700 Civic Center Drive
Fremont, CA 94538

City of Palo Alto
Attn: City Manager
250 Hamilton Street
Palo Alto, CA 94301

City of Mountain View
Attn: Norman H. Lougee
540 Castro Street
Mountain View, CA 94041

City of Sunnyvale
Attn: City Manager
456 Olive Avenue
Sunnyvale, CA 94088

South Santa Clara Valley Water Conservation District
Attn: Mike Sheehy
7951-B Wren Avenue
Gilroy, CA 95020

Agricultural Extension Service
University of California
County of San Benito
Attn: Edward Lydon
P.O. Box 820
Hollister, CA 95023

Santa Clara Valley Water District
Attn: Lloyd Fowler, Chief Engineer
5750 Almaden Expressway
San Jose, CA 95118

San Jose/Santa Clara Treatment Plant
Advisory Committee
Waste Pollution Control Plant
700 Los Esteros Road
San Jose, CA 95131

East Bay Dischargers Authority
Attn: Wayne Bruce
22300 Foothill Blvd.
Hayward, CA 94541

Menlo Park Sanitary District
500 Laurel Street
Menlo Park, CA 94025

Cupertino Sanitary District
20065 Stevens Creek Blvd.
Cupertino, CA 95014

Santa Clara County Sanitation District No. 4
100 E. Sunnyside Drive
Campbell, CA 95008

Santa Clara County Board of Supervisors
Attn: County Executive
70 West Hedding Street
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Union Sanitary District
4057 Baine Avenue
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666 Elm Street
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590 Hamilton Street
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Planning Department
1 N. San Antonio Road
Los Altos, CA 94022

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Director of Community Development
Civic Center
Menlo Park, CA 94025

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1017 Middlefield Road
Redwood City, CA 94063

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Milpitas, CA 95035

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Planning Department
City Hall, 10300 Torre Avenue
Cupertino, CA 95014

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26379 Fremont Road
Los Altos Hills, CA 94022

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1154 Wipple Road
Union City, CA 94587

City of Los Gatos
Planning Department
P.O. Box 949
Los Gatos, CA 95030

City of Monte Sereno
Planning Department
18041 Saratoga-Los Gatos Road
Monte Sereno, CA 95030

City of Palo Alto
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250 Hamilton Avenue
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City of Sunnyvale
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456 West Olive Avenue
P.O. Box 607
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County Government Center
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Alameda County Planning Department
399 Elmhurst
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County of San Benito
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Hollister, CA 95023

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c/o Herbert Grench
745 Distell Drive
Los Altos, CA 94022

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300 Garden Hill Drive
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Hollister, CA 95023

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26650 St. Francis Drive
Los Altos Hills, CA 94022

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186 E. Gish Road
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