CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER No. 95-177

GENERAL WASTE DISCHARGE REQUIREMENTS FOR:

SAND MINING OPERATIONS OCCURRING IN THE SAN FRANCISCO BAY

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

1. This general permit for Waste Discharge Requirements regulates all overflow water discharge from sand mining operations within the San Francisco Bay.

2. Division 7 of the California Porter-Cologne Water Quality Act, section 13263 (d), provides for the issuance of general permits to regulate discharges of waste which result from similar operations, are the same types of waste, require the same effluent limitations, require similar monitoring, and are more appropriately regulated under a general permit than individual permits.

3. Sand mining is regulated by the U.S. Corps of Engineers (Corps) under Section 10 of the Rivers and Harbors Act and as such Section 401 of the Clean Water Act is applicable. A Section 404 permit issued by the U.S. Corps of Engineers is generally not required. The Dischargers must also obtain permits issued by the San Francisco Bay Conservation and Development Commission (BCDC). In addition, the Dischargers must enter into a lease with the State Land Commission for mineral extraction where mining takes place on state sovereign lands.

4. A general permit for existing and proposed surface water discharges to the San Francisco Bay Region (except for direct discharges to the Pacific Ocean) from sand mining operations meets the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, as these discharges and proposed discharges:

   (a) result from similar operations (all involve sand dredging for the eventual use at an upland location),

   (b) are the same types of waste (all produce effluent or overflow containing fine-grain material and suspended particulate matter),

   (c) require similar effluent limitations for the protection of the beneficial uses of surface waters in the San Francisco Bay Region (this general permit does not cover direct discharges to the Pacific Ocean),

(d) require similar monitoring, and

(e) are more appropriately regulated under a general permit rather than individual permits.

Therefore, this Order establishes a general permit regulating dredging and discharges of overflow water resulting from sand mining operations in San Francisco Bay. Entities which fall into this category are hereinafter referred to as discharger(s) and may be regulated by this Order.

5. **Background**

a) Sand mining, reclamation, is the intentional dredging of sand for eventual reuse at an upland location. Sand mining is currently carried out for the express purpose of gathering sand to be used and sold for commercial purposes. Sand is dredged from various shoals in the San Francisco Bay Estuary and is transported to upland facilities ("yards") for processing and storage.

b) Dischargers known to operate in the San Francisco Bay region, to which this permit applies are: Tidewater Sand and Gravel Company (also known as Moe Sand Company), Bell Marine Company, Inc., Olin Jones Sand Company, and Jerico Dredging.

c) The Dischargers have applied for a federal permit which will allow sand mining from the San Francisco Bay on a daily basis at various locations including the following:

- Middle Ground shoal in Suisun Bay
- Alcatraz shoal in Central San Francisco Bay
- Benecia shoal in the Carquinez Strait
- Point Knox shoal in Central San Francisco Bay
- Presidio shoal in Central San Francisco Bay

d) The effluent, also known as "return-flow", "decant water" or "overflow" is known to contain high concentrations of fine-grain material and suspended particulate matter, including: silt and clay particles and detritus. This effluent may cause a visible plume (turbidity) when Bay waters are relatively unperturbed by natural conditions.

e) MEC Analytical Systems, Inc., conducted a study for Tidewater Sand and Gravel Company, Report on Sand Mining in San Francisco Bay, dated November 1990. Another study, entitled Dungeness Crabs (Cancer Magister) and Sand Mining Operations in the Central San Francisco Bay, dated July 1992, was performed for Tidewater Sand and Gravel Company by the San Francisco Bay-Delta Aquatic Habitat Institute. A subsequent analysis by MEC

Analytical Systems, Inc., entitled, Special Studies for Sand Mining Discharges of the Tidewater Sand and Gravel Company, dated November 1993, as well as observations by Regional Board staff, indicated that there is a low likelihood for entrainment of macro-invertebrates and fish during normal mining operations. This latest study also demonstrated that discharged effluent quality is acceptable under normal sand mining conditions. A report by Hanson (Corps) and Kline (Advanced Biological Testing), entitled Evaluation of Potential Adverse Effects of Sand Dredging Activity Within Suisun Bay (Middle Bar Shoal) on Delta Smelt, dated October 1993, found no significant potential adverse impact to delta smelt as a result of sand dredging at Middle Ground Shoal.

f) Two factors serve as a foundation for the decision to handle sand mining operations under a general Waste Discharge Requirement permit. First, the barge is small and the daily volumes minimal compared to dredging operations for harbor and channel maintenance, which involve disposal of large quantities of dredged material. Second, the sediment collected by sand miners is largely sand, which is recognized as an unlikely repository of pollutants.

g) The placement of sandy sediment into the barge results in an "overflow" of water and fine-grain sediment. This overflow water was determined to be a discharge of waste into waters of the state; hence the effluent is regulated under the Porter-Cologne Water Quality Act, and is processed pursuant to the provisions of Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403) and Sections 404/401 of the Clean Water Act.

6. **Basin Plan Requirements**
The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on June 21, 1995 and was approved by the State Board on July 20, 1995. This Order implements the water quality objectives for the Basin Plan currently in effect.

7. **Beneficial Uses**
The existing and potential beneficial uses of Central, Suisun and San Pablo Bays include:

a) Water contact recreation
b) Non-contact water recreation
c) Wildlife habitat
d) Preservation of rare and endangered species
e) Fish migration and spawning
f) Navigation
g) Estuarine Habitat
h) Industrial Service Supply

8. **Basin Plan Prohibitions**
The Basin Plan prohibits discharge of waste water which has "particular characteristics of concern to beneficial uses" (a) at any point in San Francisco Bay and (b) "at any point where the waste water does not receive a minimum initial dilution of at least 10:1 or into any non-tidal water, dead end slough, similar confined water, or any immediate tributary thereof". All shoals presently mined for sand, as listed under C, are expected to have a dilution ratio of at least 10:1. To avoid disturbance of delta smelt habitat in the Suisun Bay (Middle Ground Shoal), a special condition to the permit should preclude dredging within 200 feet of any shoreline and 250 feet of any water 4 feet or less during MLLW.

9. For each shoal area, either the State Lands Commission acts as lead agency and prepares a Negative Declaration (CEQA) for each sand mining lease, or the Bay Conservation and Development Commission (BCDC) issues a permit which is "functionally equivalent". Issuance of these Requirements is catagorically exempt from CEQA, as the proposed activity is considered a "minor alteration to land" (Resources Agency Guidelines, Section 15304, Title 14, Code of California Regulations).

10. **Notifications**
The Regional Board has notified dischargers potentially subject to this Order and interested agencies and persons of its intent under Division 7 of the California Water Code to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

11. The Regional Board, in a public meeting on August 23, 1995, heard and considered all comments pertaining to the discharge.

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

A. <u>DISCHARGE PROHIBITIONS</u>

1. The discharge shall not cause degradation of any water supply.

2. The discharge shall not cause a nuisance as defined in Section 13050(m) of the California Water Code.

B. <u>CONDITIONS</u>

1. The Dischargers shall not operate outside the bounds of the permitted area described below. Dredging in areas other than those described by this permit is prohibited.

2. The Dischargers shall not operate in areas designated under 5.c of this document which are less than ten feet in depth, MLLW.

3. The Dischargers shall not conduct operations on weekends or recognized holiday periods.

C. SPECIFICATIONS

1. Location:

The Dischargers shall operate sand mining dredges only within the following areas as shown on current National Oceanic and Atmospheric Administration (NOAA) charts:

a. Specific Locations (see Appendix B)

Central Bay: Alcatraz Shoal, Point Knox Shoal, Presidio Shoal
Suisun Bay: Middle Ground Shoal
Carquinez Strait: Benecia Shoal

b. Other

Any other shoal location composed predominantly of sand, has been approved in writing by the Executive Officer of the Regional Board, and has received all other applicable federal and state permits.

2. Waste Minimization:

The Dredge and/or barge shall be operated in such a way as to minimize dredging of non-marketable sediments and the discharge of floating, suspended or deposited macroscopic particulate matter or foam fine-grain material, detritus and any foreign matter.

D. RECEIVING WATER LIMITATIONS

1. The dredging and/or disposal of waste (i.e., sediments) shall not cause waters of the State to exceed the following quality limits downstream of the zone of initial discharge:

Dissolved Oxygen	5.0 mg/l minimum (when natural factors cause concentrations, then this discharge shall not cause further reduction in the concentration of dissolved oxygen).
Dissolved Sulfide	0.1 mg/l maximum.

pH	A variation of natural ambient pH by more than 0.2 pH units.
Toxic or other deleterious substances	None shall be present in concentration or quantities which may cause deleterious effects on aquatic biota, wildlife or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentrations.

E. PROVISIONS

1. The applicant proposing to discharge shall submit an application to undertake sand mining operations within San Francisco Bay to the Regional Board. The application for the proposed discharge shall contain the information on the proposed location, time, depth, tidal stage, and quantity of proposed material to be dredged to the Regional Board.

2. Upon receipt of a complete application for proposed discharge, the Executive Officer will review the application to determine whether the proposed discharger has shown it will comply with the provisions that follow in this section.

3. If the Executive Officer determines that the proposed discharger is eligible to perform sand mining operations under this general permit, the Executive Officer may (a) authorize the proposed discharge or (b) require the discharge proponent to obtain an individual permit prior to any discharge to inland surface waters in the San Francisco Bay Region. If the Executive Officer authorizes the discharge, a "discharge authorization letter" will be transmitted to the discharge proponent; discharge will be subject to the conditions of this Order and any other conditions necessary to protect the beneficial uses of the receiving water.

4. Routine Monitoring and Reporting

   a. The Dischargers shall measure and record location, depth, tidal stage, and weather data on a daily basis. Effluent flow and sand load information shall also be recorded on a daily basis. Monitoring and reporting shall be conducted in accordance with the Self-Monitoring Program.

   b. The Dischargers shall file with this Board a report of any material change or proposed change in the character, location, or quantity of the effluent discharge.

   c. Dredging operations shall cease immediately whenever violations of requirements are detected through implementation of the Self-Monitoring Program (SMP) and operations shall not resume until

alternative methods of compliance are provided. The Dischargers shall notify the Regional Board immediately whenever violations are detected and operations shall not resume until the Executive Officer of the Regional Board has approved the corrective action plan that will provide alternative methods of compliance.

d. The Dischargers shall file with the Regional Board quarterly self-monitoring reports performed according to any Self-Monitoring Program issued by the Executive Officer.

e. The discharge of effluent which meets the definition of a hazardous, or designated waste as defined in Title 23, Division 3, Chapter 15 of the California Administrative Code is prohibited. Only dredged material that has been demonstrated to be non-hazardous may be mined.

5. The Dischargers shall maintain a copy of this Order on the vessel so as to be available at all times to all vessel personnel.

6. The Dischargers shall maintain all devices or designed features installed in accordance with this Order such that they function without interruption for the life of the operation.

7. For the purposes of this Order, disposal of dredged material is defined as any ultimate use or disposition other than the resale of the sand for construction and other beneficial uses.

8. For dredged material which is not of market grade and is not sold, the ultimate off-site disposal of the material is subject to the approval of the Executive Officer. This approval shall be based upon a demonstration that the ultimate disposal will occur at a site which has Waste Discharge Requirement (WDR) from this Regional Board or a site that has received a waiver of WDR.

9. The Dischargers shall permit the Regional Board or its authorized representative, upon presentation of identification:

    a. Entry onto the premises on-board any and all vessels and into offices where records are kept.

    b. Access to copy any records required to be kept under the terms and conditions of this Order.

    c. Inspection of any treatment equipment, monitoring equipment, or monitoring method required by this Order.

    d. Sampling of any discharge or surface water covered by this Order.

10. This Order does not remove liability under federal, state or local laws, regulations or rules of other programs and agencies nor does this Order authorize the discharge of wastes without appropriate permits from other agencies or organizations.

11. This Order hereby rescinds Order No. 93-008.

12. This Order is issued in place of Water Quality Certification issued by the State Water Resources Control Board (Section 401 of the Clean Water Act) pursuant to Section 3857 of the California Code of Regulations, Title 23.

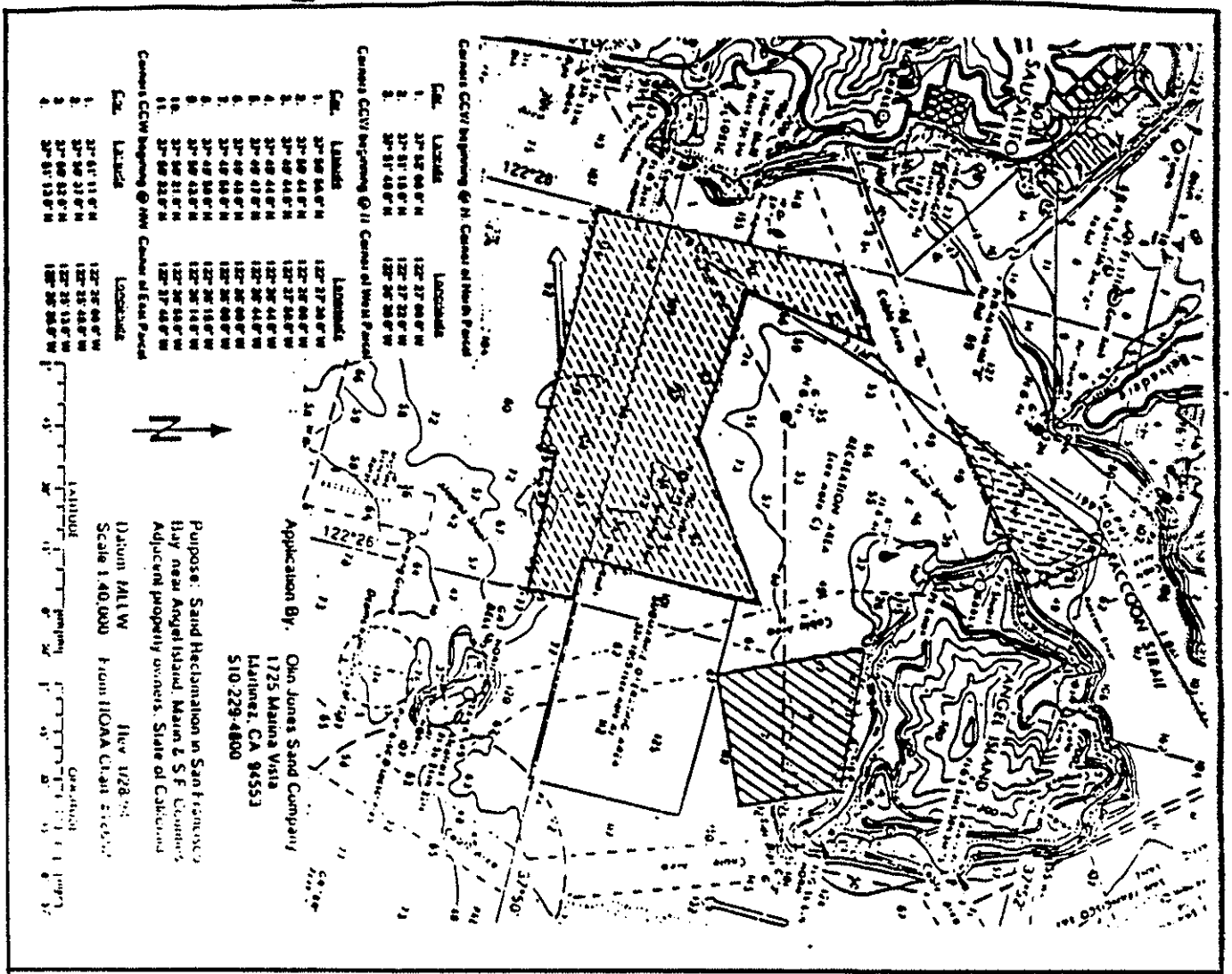
I, Lawrence Kolb, Acting Executive Officer, do hereby certify that the foregoing is a full, complete and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on August 24, 1995.

Lawrence P. Kolb

LAWRENCE KOLB
ACTING EXECUTIVE OFFICER

Attachments: Appendix B: Site Maps-Central and Suisun Bays
Appendix C: Self Monitoring Program (SMP)

APPENDIX B



LOCATION MAP

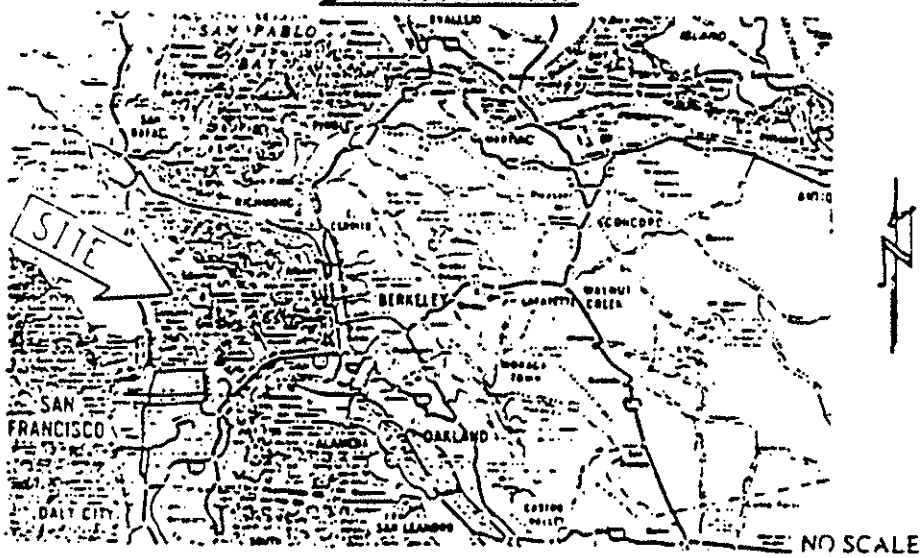


EXHIBIT "A"

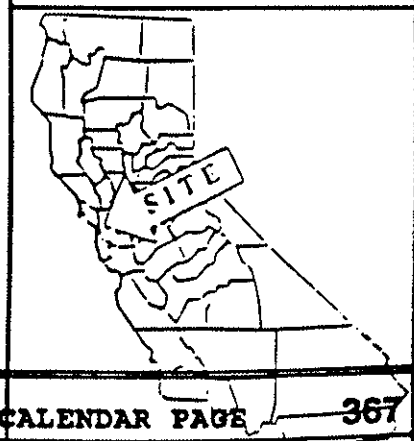
W 25086

Dredging Application

Olin Jones Sand Company

San Francisco Bay

SAN FRANCISCO & MARIN COUNTIES



This Exhibit is solely for purposes of generally defining the lease premises, and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property

CALENDAR PAGE 367

MINUTE PAGE

CG 2MA

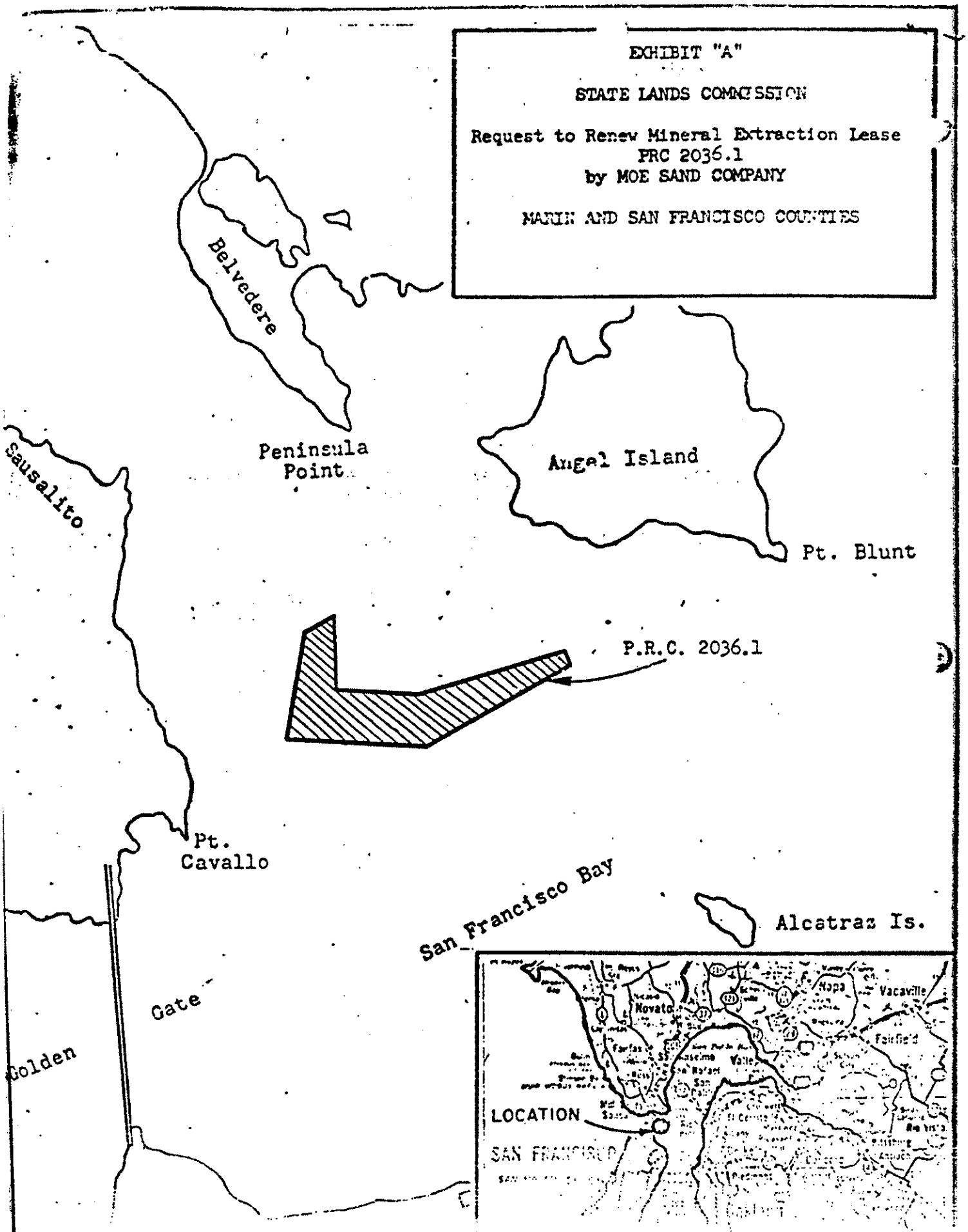
PRC 7779

EXHIBIT "A"

STATE LANDS COMMISSION

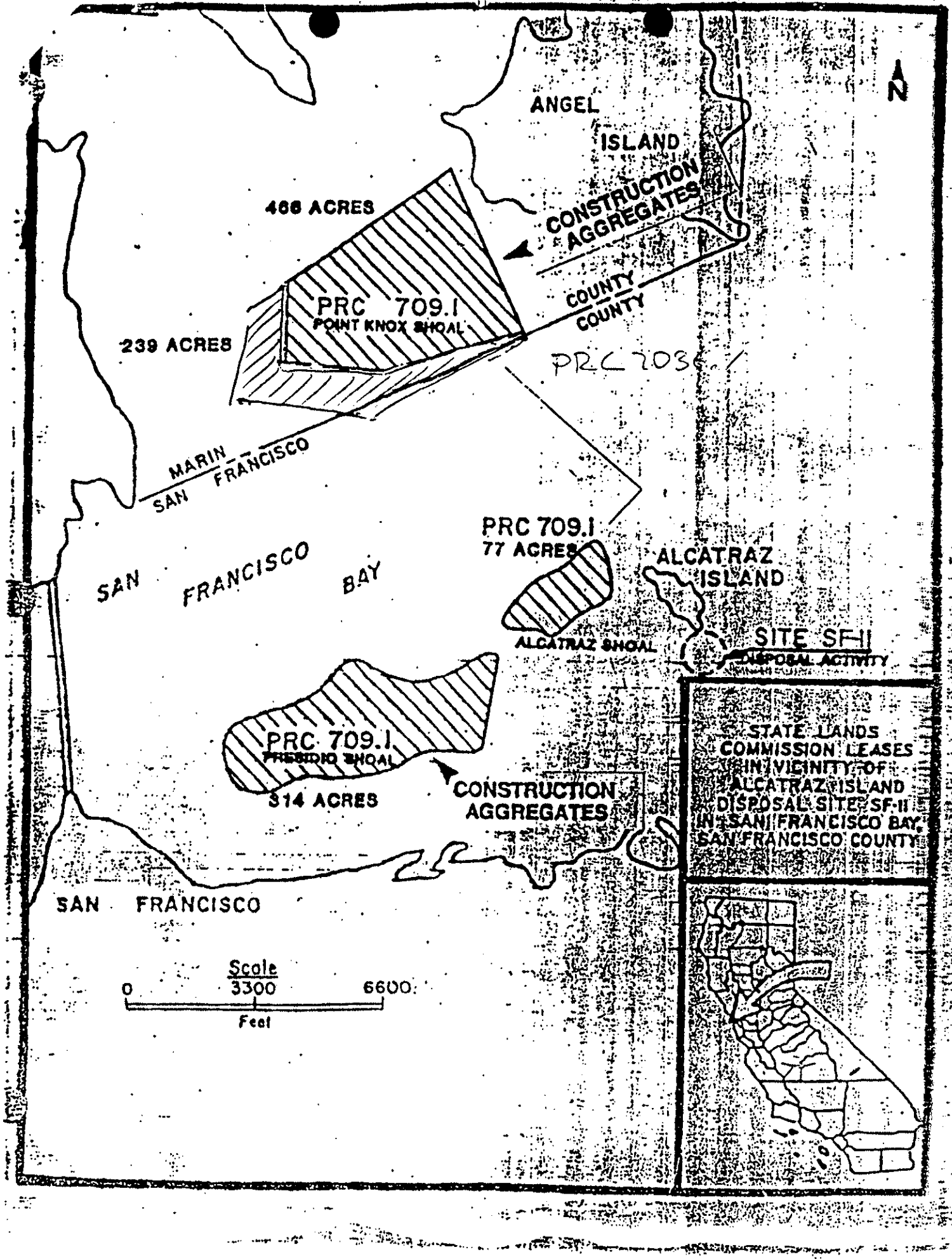
Request to Renew Mineral Extraction Lease
PRC 2036.1
by MOE SAND COMPANY

MARIN AND SAN FRANCISCO COUNTIES



PRC 2036

CALENDAR PAGE 85
ARCHIVE PAGE 3916


ANGEL
ISLAND
N
466 ACRES
CONSTRUCTION
AGGREGATES
PRC 709.1
POINT KNOX SHOAL
239 ACRES
COUNTY
COUNTY
PRC 703
MARIN
SAN FRANCISCO
PRC 709.1
77 ACRES
ALCATRAZ
ISLAND
SAN FRANCISCO BAY
ALCATRAZ SHOAL
SITE SF-11
DISPOSAL ACTIVITY
PRC 709.1
FRESIDIO SHOAL
314 ACRES
CONSTRUCTION
AGGREGATES
STATE LANDS
COMMISSION LEASES
IN VICINITY OF
ALCATRAZ ISLAND
DISPOSAL SITE SF-11
IN SAN FRANCISCO BAY,
SAN FRANCISCO COUNTY
SAN FRANCISCO
Scale
0
3300
6600
Feet

PRC 709

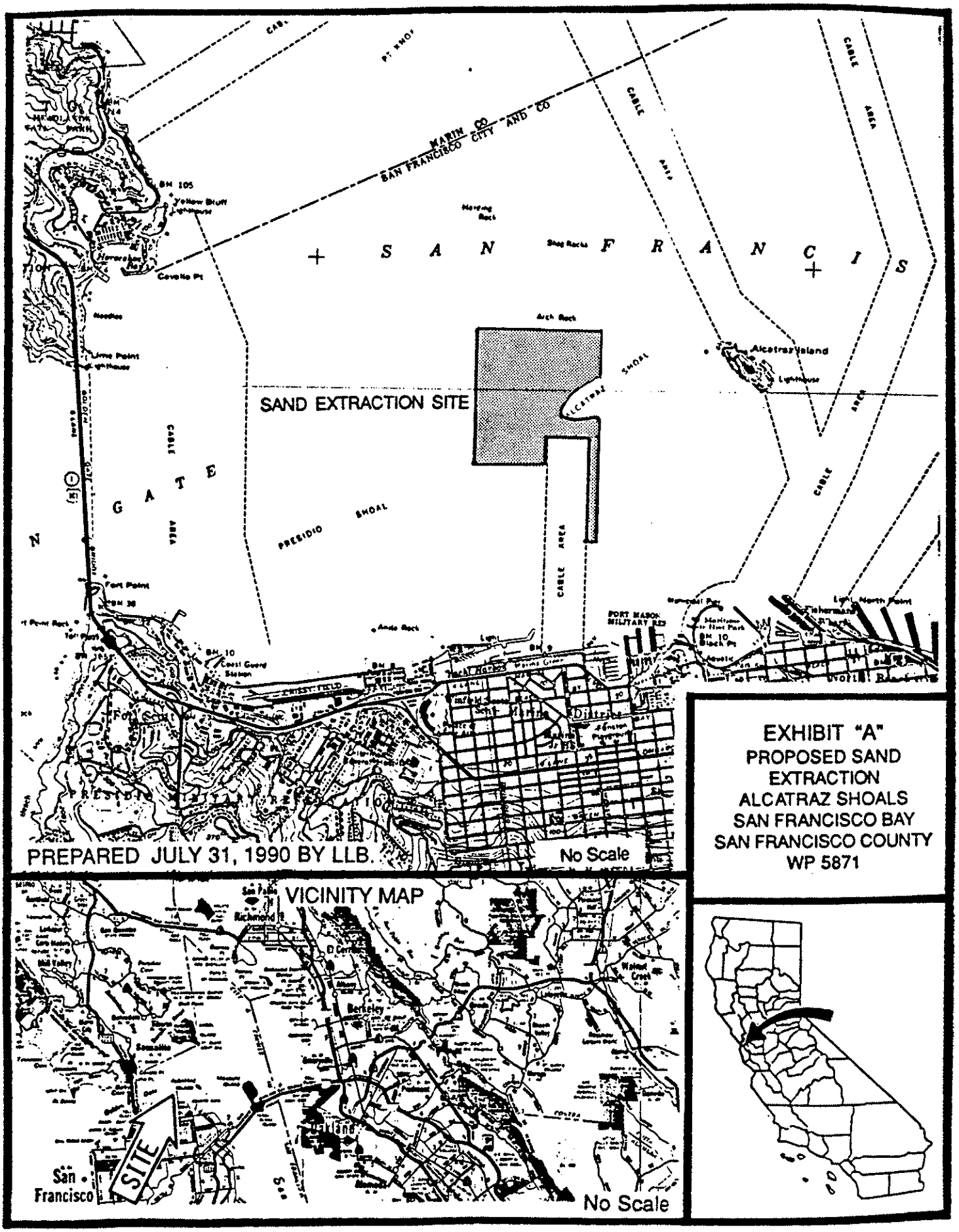
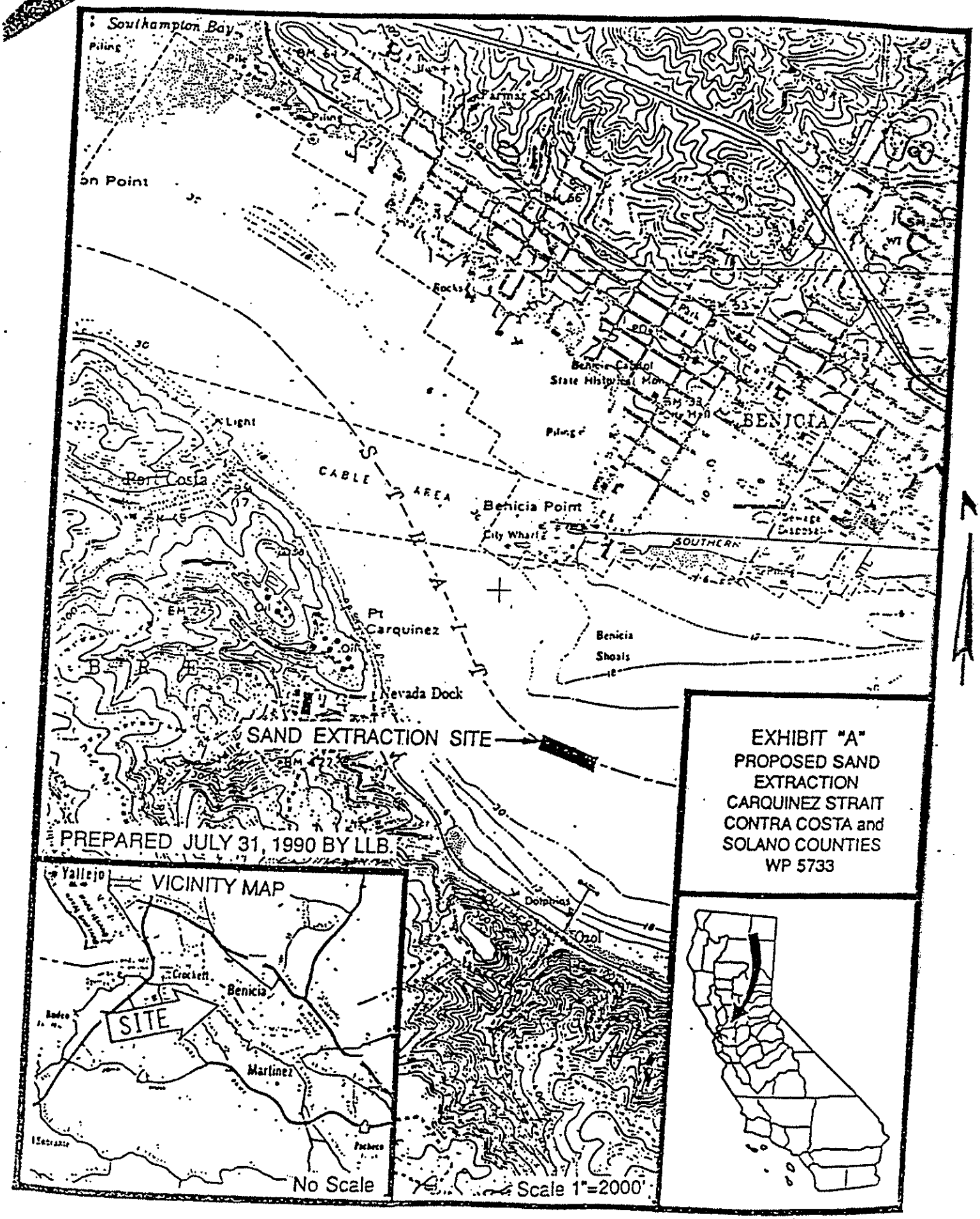


EXHIBIT "A"
PROPOSED SAND EXTRACTION
ALCATRAZ SHOALS
SAN FRANCISCO BAY
SAN FRANCISCO COUNTY
WP 5871

PRC 5871


Southampton Bay
Piling
on Point
Rocks
Benicia Capitol
State Historical Mon
BENICIA
Light
Port Costa
CABLE AREA
STRAIT
Benicia Point
City Wharf
SOUTHERN
Pt Carquinez
Oil
Benicia
Shoals
Nevada Dock
SAND EXTRACTION SITE
PREPARED JULY 31, 1990 BY LLB.
Dolphins
Ozol
VICINITY MAP
Vallejo
Crockett
Benicia
SITE
Martinez
Pacheco
No Scale
Scale 1"=2000'
EXHIBIT "A"
PROPOSED SAND
EXTRACTION
CARQUINEZ STRAIT
CONTRA COSTA and
SOLANO COUNTIES
WP 5733

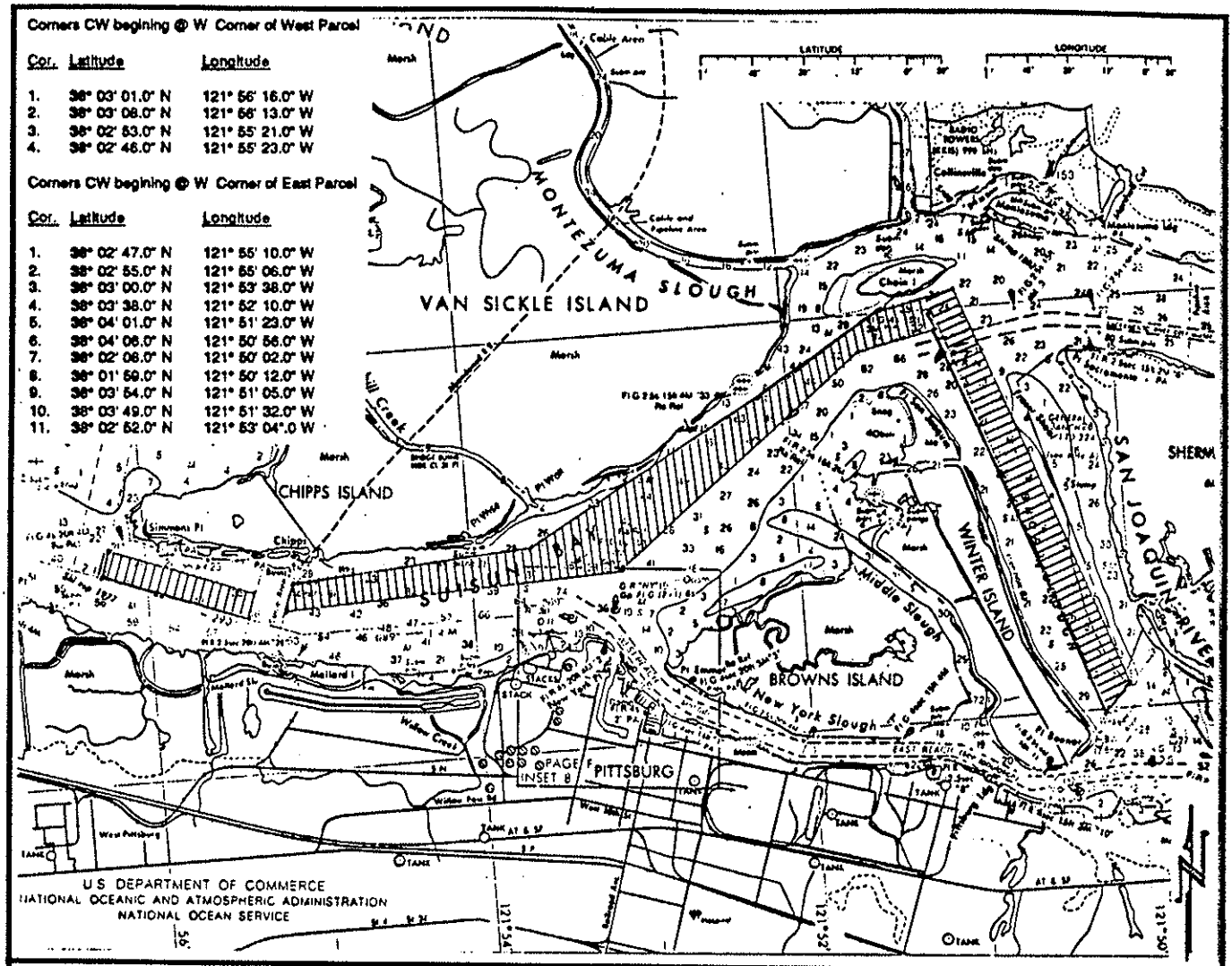
PRC 5733

Corners CW begining @ W Corner of West Parcel

Cor.	Latitude	Longitude
1.	38° 03' 01.0" N	121° 56' 16.0" W
2.	38° 03' 08.0" N	121° 56' 13.0" W
3.	38° 02' 53.0" N	121° 55' 21.0" W
4.	38° 02' 46.0" N	121° 55' 23.0" W

Corners CW begining @ W Corner of East Parcel

Cor.	Latitude	Longitude
1.	38° 02' 47.0" N	121° 55' 10.0" W
2.	38° 02' 55.0" N	121° 55' 06.0" W
3.	38° 03' 00.0" N	121° 53' 38.0" W
4.	38° 03' 38.0" N	121° 52' 10.0" W
5.	38° 04' 01.0" N	121° 51' 23.0" W
6.	38° 04' 06.0" N	121° 50' 56.0" W
7.	38° 02' 06.0" N	121° 50' 02.0" W
8.	38° 01' 59.0" N	121° 50' 12.0" W
9.	38° 03' 54.0" N	121° 51' 05.0" W
10.	38° 03' 49.0" N	121° 51' 32.0" W
11.	38° 02' 52.0" N	121° 53' 04".0 W



LOCATION MAP

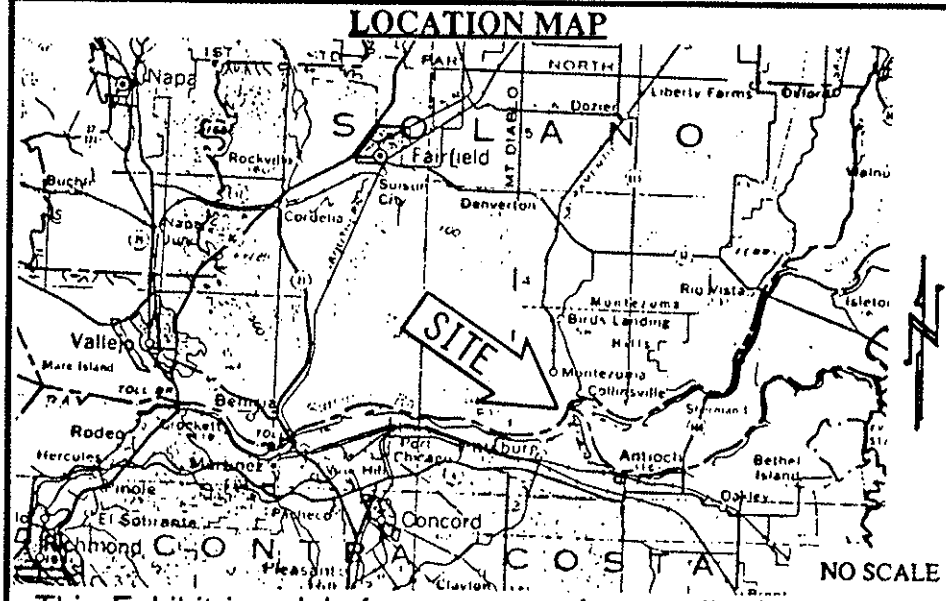


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EXHIBIT "A"

W 25089

Dredging Application

Olin Jones Sand Company

Suisun Bay

SOLANO, SACRAMENTO & CONTRA COSTA COUNTIES

CG 4/94

APPENDIX C

CALIFORNIA REGIONAL WATER QUALITY CONTROL PLAN
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

GENERAL WASTE DISCHARGE REQUIREMENTS

FOR:

SAND MINING OPERATIONS IN THE SAN FRANCISCO BAY ESTUARY

PART A

I. GENERAL

A. Basis

Reporting responsibilities of waste discharges are specified in Sections 13225(a), 13267(b), 13268, 13383, 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16 and the Environmental Protection Agency's Discharge Monitoring Report (Form 3320-1).

B. Purpose

The principle purposes of a monitoring program, also referred to as a Self-Monitoring Program, are to 1) document compliance with Waste Discharge Requirements and prohibitions established by this Regional Board, 2) to facilitate self-policing by the waste Discharger in the prevention and abatement of pollution arising from waste discharge, 3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and 4) to prepare water and waste water quality inventories.

C. Sampling and Analytical Methods

Sample collection, storage and analyses shall be performed according to 40 CFR, section 136, or other methods approved by the Executive Officer of this Regional Board.

Water and waste-water analyses shall be performed by a laboratory approved by the Department of Health Services (DHS) or a laboratory approved by the Executive Officer.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

Routine sampling shall follow Quality Assurance/Quality Control procedures including the use of field (trip), equipment and laboratory blanks and laboratory surrogate samples.

All Quality Assurance/Quality Control measures and results shall be reported along with the data.

II. SPECIFICATIONS FOR SAMPLING AND ANALYSES

The Discharger is required to perform sampling and analyses as found in Part B of this SMP in accordance with the following conditions:

A. Effluent

1. Grab samples of effluent shall be collected during periods of maximum discharge.

2. Total ammonia nitrogen shall be analyzed and un-ionized ammonia calculated whenever bioassay test results fail to meet specified percent survival. All testing shall be conducted in accordance with ASTM protocol and shall include measurement and reporting of pH and temperature.

B. Receiving Waters

1. Receiving water sampling shall be conducted coincident with composite sampling of effluent.

2. Receiving water samples shall be collected at all stations within the shortest reasonable time period.

C. Sampling Records

1. Records shall include notes and observations for each samples as follows:

   a. Identity of each sampling and observation station by number.

   b. Date and time of sampling.

   c. Method of composite sampling.

   d. Type of bioassay used.

   e. Date and time analyses are started and completed and the name of person conducting analyses.

f. Complete procedure used, including method of preserving sample and identity and volumes or reagents used. A reference to a specific section of Standard Methods is satisfactory.

g. Calculations of results.

h. Results of analyses and/or observations.

IV. REPORTS TO BE FILED WITH THE REGIONAL BOARD

A. Report of Permit Violation

In the event that this permit is violated, the Discharger shall notify the Regional Board by telephone immediately and shall notify the Board in writing within seven working days. A written report shall include time and date of incident, duration and estimated volume of discharge or bypass. The report shall include a detailed discussion of the reasons for the non-compliance and what steps were or will be taken to correct the failure and prevent it from occurring again.

Additionally, the Discharger shall accelerate the monitoring program immediately after the violation has been detected.

B. Self-Monitoring Reports

1. Written reports shall be filed regularly for each quarter (unless specified otherwise) and filed no later than the fifteenth of the following month. The reports shall be comprised of the following:

   a. Transmittal Letter: to include identification of violations found during the reporting period, details and magnitude, frequency and dates of all violation, cause of the violations and a corrective actions taken or planned and the time schedule for completion.

   b. Monitoring reports and the letter transmitting reports shall be assigned by a principal executive officer or ranking elected official of the Discharger, or by a duly authorized representative of that person.

   c. The transmittal letter shall contain the following certification:

      "I certify under penalty of law that this document and all attachments are prepared under my direction or supervision and that the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant

penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

2. By January 30 of each year, the Discharger shall submit a quarterly report to the Regional Board covering the activities of the previous year. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the report shall contain a comprehensive discussion of the compliance record and the corrective actions taken place or planned which may be needed to bring the Discharger into full compliance with this permit.

3. Special studies shall be submitted to the Regional Board upon completion of the studies and in accordance with the schedule set forth in Part B of this Self-Monitoring Program.

C. The Self-monitoring program quarterly reports and studies shall be filed with the Regional Board as follows:

Executive Officer
California Regional Water Quality Control Board
San Francisco Bay Region
Suite 5002101 Webster Street
Oakland, CA 94612

CALIFORNIA REGIONAL WATER QUALITY CONTROL PLAN
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

GENERAL WASTE DISCHARGE REQUIREMENTS

FOR:

SAND MINING OPERATIONS IN THE SAN FRANCISCO BAY ESTUARY

PART B

I. DESCRIPTION OF ROUTINE MONITORING AND REPORTING PROGRAM

The following information shall be recorded by the dischargers on the vessel(s) in operation on a daily basis. A summary of the information logged shall be submitted to the Board as part of the Quarterly Reports.

A. Identification
   1. Name and address of dredging company.
   2. Name and registration number of dredging vessel.

B. Standard Observations
   1. Receiving Water
      a. Geographical location of vessel during dredging.
      b. Location of the dredge, reported as longitude and latitude.
      c. Time of day and duration of dredge operation.
      d. Number of loads obtained per week.
      e. Volume of wet material (in cubic yards) obtained per load.
      f. Hydrographic condition including: time and height of low and high tides and depth of water column.
      g. Weather condition including: wind direction estimated velocity and precipitation.
      i. Location of where sand was off-loaded.
   2. Sand Quantity
      a. Number cubic yards sand dredged per quarter.
      b. Approximate amount of available sand remaining at dredged location.

C. Non-standard Observations
   1. Any collisions, near collisions or other navigation problems or conflicts encountered during the year's dredging operations.

I, Lawrence Kolb, Acting Executive Officer, do hereby certify that the foregoing Self-Monitoring Program has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 95-177 and was adopted by the Board on August 24, 1995.

This Self-Monitoring Program may be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger, and revisions will be ordered by Executive Officer or Regional Board.

Lawrence P. Kolb

LAWRENCE KOLB
ACTING EXECUTIVE OFFICER