

CALIFORNIA COASTAL COMMISSION

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W 142



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Hearing Date: 03/11/98

STAFF REPORT
REGULAR CALENDAR

APPLICATION NUMBER: 3-98-001

APPLICANT: CITY OF MORRO BAY HARBOR DEPARTMENT

PROJECT LOCATION: Mooring areas A1-1 through A1-5, Morro Bay Harbor

PROJECT DESCRIPTION: Dredge up to 300,000 cubic yards of sediment per year over a five year period for a total of up to 1,500,000 cubic yards in the federally designated mooring areas to restore to design depths and widths, and create an eelgrass mitigation bank area (for possible future use as a mitigation bank).

LOCAL APPROVALS RECEIVED: Negative Declaration SCH # 95111002, approved by City of Morro Bay on December 4, 1995

SUBSTANTIVE FILE DOCUMENTS: *Eelgrass (Zostera marina) Habitat Survey and Impact Analysis and Mitigation Plan to Compensate for Eelgrass Habitat Loss, City of Morro Bay Mooring Area A Dredge Project; Southern California Eelgrass Mitigation Policy; Draft Eelgrass (Zostera marina) Mitigation Bank Document; Proceedings of the California Eelgrass Symposium*

SUMMARY OF STAFF RECOMMENDATION

Staff recommends that the Commission **approve** the proposed project, subject to standard and special conditions. The City of Morro Bay proposes to dredge an existing mooring area to restore it to its design depth so that it will be available for more boaters. Coastal Act Section 30233 generally limits dredging of estuaries, but specifically allows dredging to maintain or restore previously dredged mooring areas where there is no feasible less environmentally damaging alternative and where feasible mitigation measures are provided. Sections 30230 and 30231 require that marine resources be maintained, enhanced, and, where feasible, restored; and that the biological productivity and quality of estuaries be maintained and, where feasible, restored. Alternatives include no dredging and creating a totally new mooring area. No dredging would mean a continuing reduction in the available mooring area; creation of a

totally new mooring area would be both more expensive and more environmentally damaging. The harbor dredging would impact an area of eelgrass habitat. To compensate, the project includes dredging to restore a 0.4 acre area of eelgrass habitat according to the policy of the National Marine Fisheries Service, which has proved successful both at this site in the 1980's and elsewhere. The mitigation would result in an enhanced eelgrass meadow which would maintain the biological productivity of the estuary. In addition, another 2.2 acre eelgrass bed would be created. The City hopes to use this restored eelgrass habitat as part of a mitigation banking agreement. However, a separate, future action by the Commission will be needed to approve such a mitigation banking agreement. Therefore, as conditioned, the proposal is consistent with the Coastal Act.

Exhibits

- A. Standard Conditions
 - B. Location Map
 - C. Vicinity Map
 - D. Dredging and Mitigation Bank Area
 - E. Dredge Material Disposal Areas
-

I. STAFF RECOMMENDATION

Staff recommends that the Commission adopt the following resolution:

Approval with Conditions

The Commission hereby approves a permit, subject to the conditions below, for the proposed development on the grounds that the development will be in conformity with the provisions of Chapter 3 of the California Coastal Act of 1976 and will not have any significant adverse impacts on the environment within the meaning of the California Environmental Quality Act.

II. STANDARD CONDITIONS (See Attachment A)

III. SPECIAL CONDITIONS

1. Approved Development

This approval authorizes dredging of up to 300,000 cubic yards of sediment per year up to a total of 1,500,000 cubic yards over a period of five years in mooring areas A1-1 through A1-5, and associated eelgrass mitigation in the Morro Bay harbor, as described in this report and in the *Eelgrass Habitat Survey and Impact Analysis and Mitigation Plan* prepared for the City of Morro Bay by Coastal Resources Management dated February 4, 1996, and the National Marine Service's *Southern California Eelgrass Mitigation Policy*. This authorization includes the

proposed dredging and mitigation for dredging impacts to eelgrass and the creation of additional eelgrass habitat which the City proposes for potential future use as a mitigation bank. This permit does not include authorization to use new eelgrass habitat as a mitigation bank (see Special Condition 5, below), nor does it include approval of any eelgrass habitat maintenance dredging (see Special Condition 2, below)

2. Eelgrass Habitat Maintenance Dredging

Should it become necessary to conduct limited dredging of wind-blown sand to maintain the eelgrass habitat, the permittee shall submit details of such proposed dredging to the Executive Director for review and approval. The submittal shall include plans which show the area to be dredged, location of dredge material disposal, and the amount of dredge material. Depending on the nature of the habitat maintenance dredging, the Executive Director may require an amendment to this permit, or a separate permit, to approve the habitat maintenance dredging.

3. Mitigation

Restoration techniques for eelgrass shall be according to the latest version of the National Marine Fisheries Service's *Southern California Eelgrass Mitigation Policy*.

4. Eelgrass Mitigation Monitoring

Monitoring shall be conducted as described in the *Southern California Eelgrass Mitigation Policy* at 3, 6, 12, 24, 36, 48, and 60 months after completion of transplant. Thereafter, annual monitoring shall continue for the life of the mitigation bank. Monitoring reports shall be submitted to the Executive Director for review at the same time that the reports are submitted to the other permitting agencies.

5. Morro Bay Eelgrass Mitigation Bank (MBEMB)

This approval allows the habitat creation work needed for the proposed MBEMB; but, a future, separate action by the Commission will be required to authorize signature of the mitigation bank agreement document or to use the mitigation bank for off-site credits for any particular project elsewhere in the Morro Bay estuary. Specific mitigation ratios will be determined through future Coastal Commission action based on consideration of the eelgrass habitat quality and quantity of both the impacted and mitigation areas.

A request for future Coastal Commission action on the proposed MBEMB shall be accompanied by an updated draft mitigation agreement which conforms to the latest federal guidelines for mitigation banks and the latest version of the *Southern California Eelgrass Mitigation Policy*.

6. Best Management Practices (BMPs)

In order to reduce impacts to water quality, the City shall ensure that the contractor performing the dredging implements all applicable BMPs as defined by the federal Environmental Protection Agency (EPA) to limit turbidity and to prevent the accidental release of pollutants such as fuels, lubricants, chemicals, or other harmful substances.

7. Eelgrass Donor Stock

Unless there are compelling biological reasons not to, eelgrass from the dredge area shall be removed prior to dredging and stored as nursery stock for replanting the restoration area. Donor stock from other sites should also be used for replanting to ensure genetic diversity. The amount of eelgrass removed from any one donor site shall not endanger the viability of that site.

8. Dredging Mitigation Adjustments

Upon completion of any dredging episodes, permittee shall quantify the actual habitat damage. If actual damage exceeds predicted impacts, the amount of eelgrass replanting shall be increased proportionately. Within 30 days of completion of any such episode of dredging, permittee shall submit a letter report containing this information to the Executive Director for review and confirmation that the required mitigation has been appropriately adjusted..

II. FINDINGS AND DECLARATIONS

A. Project Location and Description

The "bay" in Morro Bay is an estuary, open to the ocean at the northern end but otherwise separated from the ocean by a sandspit several miles long. Los Osos and Chorro Creeks bring fresh water into the estuary on its southern end. The northern part of the estuary has been developed into a harbor, primarily on the east, or inland, shore. The City of Morro Bay maintains mooring areas on the west side of the harbor, which are available to the public. The mooring areas are adjacent to the sandspit which terminates just to the northwest of the northern end of the mooring area, at the estuary mouth (see Exhibit D). As with the channel leading into the estuary from the ocean, the mooring area becomes shallower over time as silt and sand are deposited on the floor of the estuary. Silt enters the estuary by way of streams emptying into its southern end. Sand blows from the sandspit into the mooring area.

The City proposes essentially two projects: **1)** to dredge the mooring area to return it to the depths and width of its original design and create new eelgrass habitat for mitigation of the adverse impacts of dredging on existing eelgrass beds, and **2)** to create an eelgrass mitigation bank which can be used to mitigate impacts to eelgrass beds from future development in the harbor.

The dredging is proposed to occur just after the Corps of Engineers dredging of the main harbor channel is finished. The City plans to utilize the same contractor, equipment (hydraulic dredge with pipeline discharge), and disposal area as the Corps. The dredging method and disposal site would either duplicate the Corps' channel maintenance dredging and project criteria with disposal of the dredge material in the surfzone between Morro Creek and Azure Street, or would be performed with a hopper dredge or clamshell with the dredge material barged out of the estuary into the ocean and deposited downcoast at a previously used, approved off-shore disposal site (see Exhibit E). The City is requesting permission to dredge up to 1,500,000 cubic yards of material over a five-year period, not to exceed 300,000 cubic yards per year. Dredging would extend to a depth of -8 Mean Lower Low Water (MLLW) and cover an area approximately 1600 feet long and from 60 to 300 feet wide. Approximately 0.397 acres (about 17,000 square feet) of eelgrass would be removed. The City proposes a mitigation ratio of 1.2:1 which would result in the re-establishment of just under 0.5 acres (about 20,000 sq.ft.) of eelgrass habitat. The 1.2:1 replacement ratio has been determined by the National Marine Fisheries Service and the Department of Fish and Game to be the necessary mitigation ratio to successfully mitigate for impacts to existing eelgrass beds.

In addition to the mitigation for the immediate project, the City proposes to establish a new eelgrass bed of approximately 2.2 acres of habitat immediately inshore of the anchorage area. This restored eelgrass habitat, upon successful establishment of transplants, would then be utilized to mitigate for eelgrass habitat destruction from future City harbor development at a 1:1 ratio. The City proposes that such mitigation occur pursuant to a mitigation bank agreement, which will require a future, separate action by the Commission. (Approval of this permit does not imply Commission endorsement of the 1:1 ratio, nor any proposed mitigation banking instrument.) Future potential City harbor projects include a 250 foot side tie dock at Tidelands Park at the south end of the Embarcadero, construction of a boat repair facility and eight new slips on Travel Lift Pier, the extension of commercial fishing slips at Anchor Park, and a boat launch ramp and boarding floats along Coleman Drive. Some or none of these projects may be built; none are currently proposed. Any of these potential projects would need approval from the Coastal Commission since they would be located in the estuary waters, where the Commission has retained permit jurisdiction.

B. Standard of Review and Analysis

Although the mooring is located in the City of Morro Bay, the estuary remains in the Commission's permit jurisdiction. Therefore, the standard of review is the Coastal Act, particularly the development policies contained in Chapter 3. For this area, the status of the City's certified Local Coastal Program (LCP) must be considered "advisory" only. The following Coastal Act Policies are applicable.

1. Dredging

Section 30233.

(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures

have been provided to minimize adverse environmental effects, and shall be limited to the following: . . .

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps. . . .

(7) Restoration purposes. . . .

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

(c) In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. . . .

Alternatives available to the City include no dredging, creating a new mooring area, and the proposed project. The first alternative would not allow for restoring the mooring area to design depths, thus rendering it unusable. Creation of a new mooring area would necessitate dredging other areas where eelgrass and perhaps other sensitive species exist with concomitant resource damage, or creating a new mooring area by excavating the landward shore of the harbor, which would be very expensive, would require relocation of roads and utilities, and might not be possible without purchase of privately owned lands. The City's proposal is for maintenance dredging of an established mooring area and includes proven measures to mitigate for the impacts to eelgrass. The City's proposal will result in an enhanced boating facility and includes feasible mitigation measures to minimize adverse environmental impacts, and is therefore the least environmentally damaging alternative. The dredge spoils will either be barged out of the estuary into the ocean and deposited downcoast at an approved, previously used off-shore disposal site, or at an approved site in the surfzone between Morro Creek and Azure Street on the beach north of the estuary that has been used for many years for disposal of dredge material. Disposal is proposed on appropriate beaches or into suitable longshore current systems. Finally, the project will enhance the functional capacity of the estuary by providing more eelgrass habitat than now exists. Therefore, the proposal is consistent with Coastal Act section 30233.

Section 30234.

Facilities serving the commercial fishing and recreational boating industries shall be protected and, where feasible, upgraded. . . .

The harbor at Morro Bay serves locally based commercial fishing and recreational boating and boaters based elsewhere who are traveling along the coast. Morro Bay harbor is the only all-weather harbor of refuge between Monterey and Santa Barbara. The dredging of the mooring area is needed to provide enough mooring space in the harbor for both resident and transient boats and would help to protect and upgrade boating facilities. Therefore, the proposal is consistent with Coastal Act section 30234.

2. Marine Resources

Section 30230.

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231.

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored. . . .

a. Eelgrass Impact Mitigation: Eelgrass is an unusual flowering plant that forms dense beds on submerged mud flats. These beds provide habitat for numerous forms of marine life in shallower, protected waters. It generally does not grow below about -13 feet MLLW. The City's proposed dredging will destroy almost 0.4 acres of eelgrass, which has become established on silted-in portions of the previously dredged channels. The City is proposing mitigation at a 1.2 : 1 ratio, resulting in planting of a new eelgrass area of just under 0.5 acres. The new planting at a 1.2:1 ratio and the proposed monitoring are consistent with the National Marine Fisheries Service's *Southern California Eelgrass Mitigation Policy*, which establishes mitigation ratios and monitoring parameters to ensure the success of new eelgrass planting as mitigation for destruction of existing eelgrass beds; and the *Eelgrass (Zostera Marina) Habitat Survey and Impact Analysis and Mitigation Plan to Compensate for Eelgrass Habitat Loss, City of Morro Bay Mooring Area A Dredge Project*. The impact analysis and mitigation plan was prepared for the City by Coastal Resources Management, a marine biological consulting firm.

Dredging of the mooring area has occurred in the past, most recently in 1980. Replanting eelgrass was required then if after three years eelgrass had not naturally recolonized the disturbed area. After three years it was found that eelgrass had not recolonized the disturbed area. A transplant program began in 1984 and was accomplished under supervision of the National Marine Fisheries Service and the Department of Fish and Game. After one year, the area of transplanted eelgrass had increased by a factor of 2.5 and the density by a factor of 1.2. After three years the transplanted area had increased by a factor of 3.5 and the transplant was considered successful. Some of that successful eelgrass transplant would be removed by the currently proposed dredging.

Eelgrass transplantation has occurred successfully at this site. However, the site is subject to sedimentation at the rate of about two inches per year from wind-blown sand off of the sand spit which borders the estuary on the west. Over time, this will result in loss of eelgrass on the shoreward edge of the mitigation area since the depth of water will diminish to the point where eelgrass can no longer survive. There may be some amount of compensation for that loss of area if the eelgrass migrates away from the sandspit toward the middle of the estuary as sand deposition lessens the depth of water there. As mentioned previously, eelgrass typically will not

grow below -13 MLLW. That depth is reached at the southern end of the proposed mitigation area about 45 to 50 feet bayward of the bayward edge of the mitigation area, and about 250 bayward from the northern end of the bayward edge of the proposed mitigation bank area. Continued sedimentation could push the -13 MLLW depth farther bayward.

The City proposes to maintain water depths in the mitigation area to support eelgrass for 10 years. This would be accomplished by dredging to an appropriate depth for replanting those areas that become filled with sediments. According to the City, it would be done in the same manner as the initial dredging. Since the amount and frequency of dredging to maintain the eelgrass habitat during the term of the permit is unknown, it will be necessary for the permittee to submit details of such habitat maintenance dredging to the Executive Director for review and approval prior to each dredging episode. The Executive Director may require an amendment to this permit, or a separate permit depending on the circumstances of the habitat maintenance dredging.

Based on the foregoing findings and as conditioned, the proposal is consistent with Coastal Act sections 30230 and 30231.

b. Eelgrass Mitigation Bank: The proposed project includes creation of an additional 2.2 acre area dredged to the appropriate depth for eelgrass habitat. The City hopes to use this area as a mitigation bank for future harbor projects. Instead of having to find a suitable site within the estuary for eelgrass habitat mitigation, a future harbor project would be credited with part of the mitigation bank area. So, for example, if 1,000 square feet of eelgrass habitat is impacted, and if the mitigation ratio was 1:1, then 1,000 square feet of the mitigation bank would be credited to that project. **The Commission emphasizes that a future, separate action by the Commission will be required to authorize signature of the mitigation bank agreement document or to use the proposed bank for off-site mitigation credits for any particular project within the Commission's jurisdiction.**

Mitigation banking is a concept being advocated by various officials and wetland experts as a way to ensure successful mitigation; it has advantages over piecemeal restoration projects that might not work. The Commission has previously supported mitigation banking as an appropriate method of mitigating certain wetland impacts. Federal guidelines have been published to encourage a consistent approach in applying this mitigation technique.

The City has been working on a mitigation bank agreement, the *Eelgrass (Zostera Marina) Mitigation Bank Document*. The City has mentioned several potential future projects that might take advantage of a mitigation bank, but has not provided a specific list of projects; rather, it has identified the estuary as an area in which such projects would occur. A final *Eelgrass (Zostera Marina) Mitigation Bank* document has not yet been completed, so the details of the mitigation bank are not fixed.

Approval of this permit recognizes that the City may propose to use the proposed 2.2 acre eelgrass habitat restoration area as a mitigation bank for some projects. However, no such project is specifically requested at this time and the Coastal Commission does not and thus can not commit to use of the proposed mitigation bank area as credit for any particular project. Any such authorization can only come as part of the approval process for the project needing mitigation. If the City wants advance approval of the rules governing the mitigation bank, which

is desirable, then the Coastal Commission will need to separately authorize participation in the final mitigation agreement.

3. Environmentally Sensitive Habitat

Section 30240.

(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

The estuary of Morro Bay is an environmentally sensitive habitat. According to the City's *Eelgrass Habitat Survey and Impact Analysis* "Twenty-four taxa of algae, invertebrates, and fishes were observed during" the survey of eelgrass beds and "Eelgrass meadows are refuges, feeding areas, and nursery habitats for many types of coastal and bay invertebrates and fishes, and are a source of detritus and nutrients that are recycled in the coastal ecosystem."

Morro Bay was named California's first State Estuary in 1994 and received National Estuary status in July 1995, one of only 28 such estuaries nationwide. These designations recognize Morro Bay as a rare natural treasure. They require development of a management plan to guide the future of the Morro Bay watershed and especially to reduce pollutants and sediment transport into the estuary, and to enhance the habitat value of the estuary.

The City's proposal would initially disrupt habitat values by destroying eelgrass beds in the dredge area and by causing short-duration turbidity in and near the dredge area which could affect some organisms. However, the City would mitigate for the destruction of eelgrass beds by creating new eelgrass habitat at the National Marine Fisheries Service-approved 1.2:1 ratio. The dredging would make available to the public more of the boat mooring area; the boat mooring area is dependent on being in the waters of the estuary. The proposed work will occur in the waters of the Morro Bay estuary, which is part of the National Estuary Program and is California's first State Estuary, and adjacent to the sandspit, a known snowy plover nesting area. In order to ensure that materials do not enter or damage the estuary or adjacent sandspit, it is necessary to employ best management practices and this permit is so conditioned. Therefore, the proposal is consistent with Coastal Act section 30240(a).

4. Public Access

Section 30211.

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

The dredge equipment will not block the channel from the estuary to the ocean, thus it will not inhibit access to the sea by water. Disposal of the dredge spoils will occur either in the same place as the Corps disposal, north of Morro Creek, about two miles from the dredge site, or off-shore down-coast of the harbor mouth at an approved disposal site. The beach disposal site is

about two miles long and up to 150 yards wide. That site has been used previously and has not interfered with public access to the ocean. Disposal at the off-shore site would have no impact on public access to beaches and the ocean. Therefore, the dredging will not adversely impact public access to the sea and the proposal is consistent with Coastal Act section 30211.

C. California Environmental Quality Act (CEQA)

Section 13096 of the California Code of Regulations requires that a specific finding be made in conjunction with coastal development permit applications showing the application to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(i) of CEQA prohibits a proposed development from being approved if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment. The Commission finds that, based on the findings in this report, and as conditioned, no less-damaging feasible alternatives have been identified, and appropriate mitigation measures have been incorporated. Therefore, as conditioned, the proposed project will not have any adverse impacts on the environment within the meaning of CEQA.

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EXHIBIT A **STANDARD CONDITIONS**

1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
2. Expiration. If development has not commenced, the permit will expire two years from the date this permit is reported to the Commission. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
3. Compliance. All development must occur in strict compliance with the proposal as set forth in the application for permit, subject to any special conditions set forth below. Any deviation from the approved plans must be reviewed and approved by the staff and may require Commission approval.
4. Interpretation. Any questions of intent or interpretation of any condition will be resolved by the Executive Director or the Commission.
5. Inspections. The Commission staff shall be allowed to inspect the site and the project during its development, subject to 24-hour advance notice.
6. Assignment. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
7. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

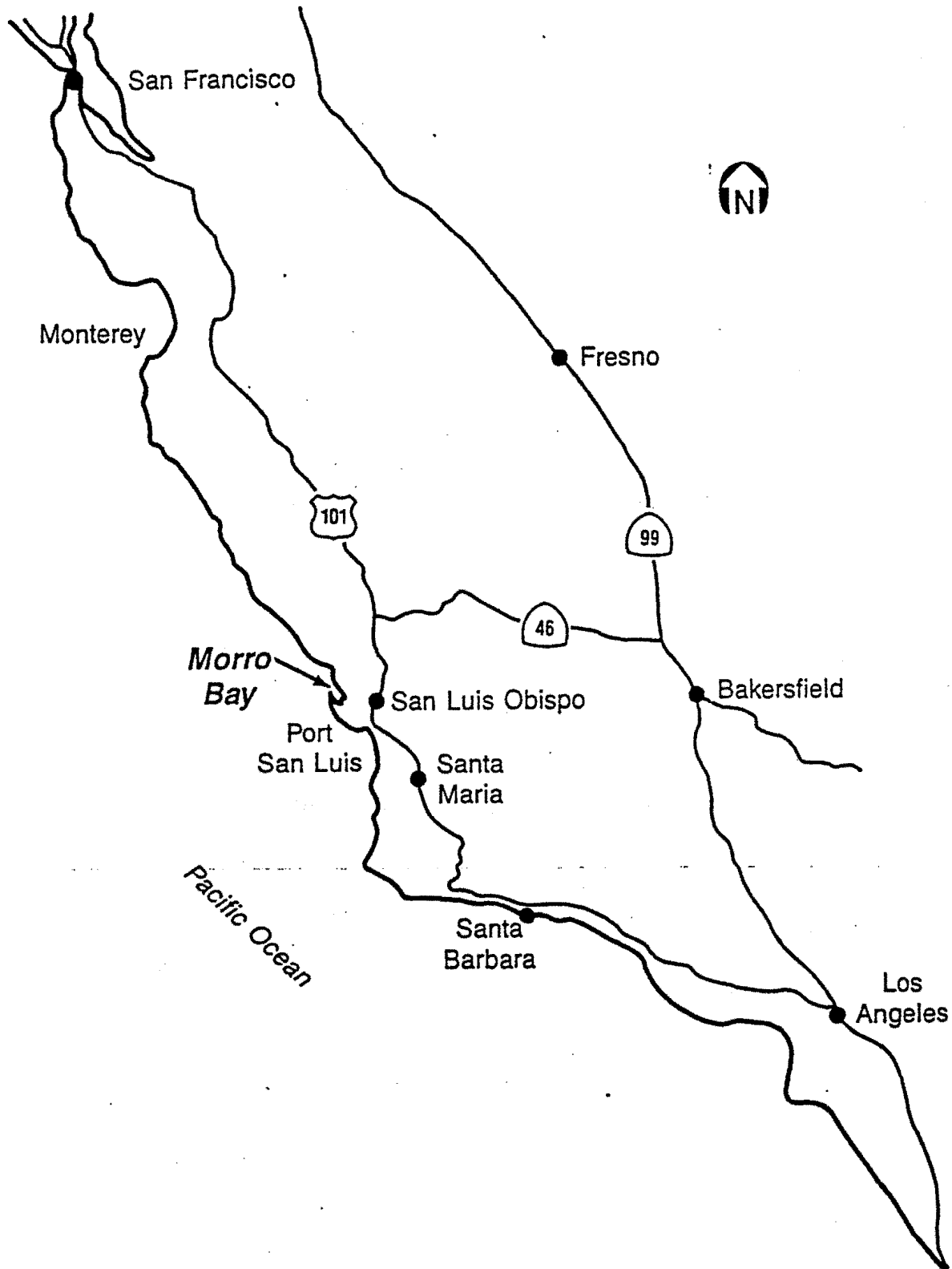
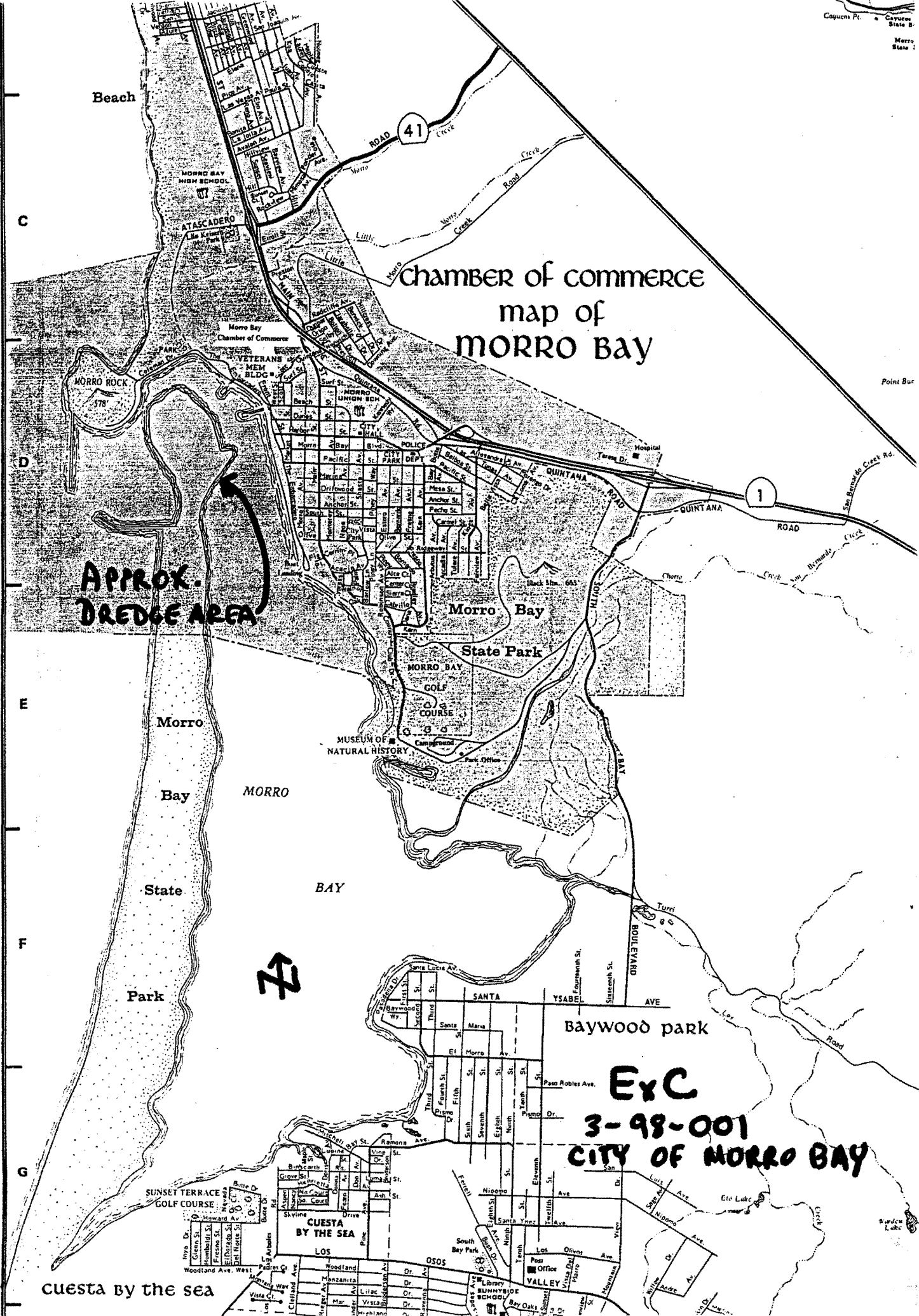


Figure 2
MORRO BAY HARBOR

Ex. B
3-98-001
CITY OF MORRO BAY



Beach

C

D

E

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CHAMBER OF COMMERCE
map of
MORRO BAY

APPROX.
DREDGE AREA

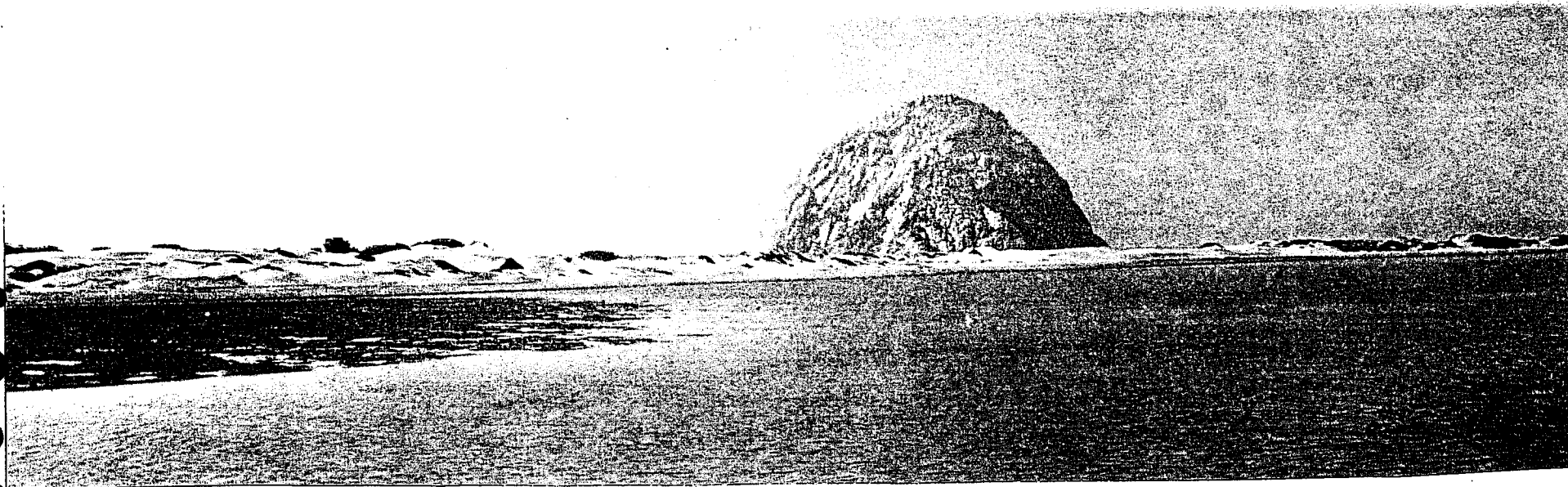
Morro Bay
State Park

Baywood park

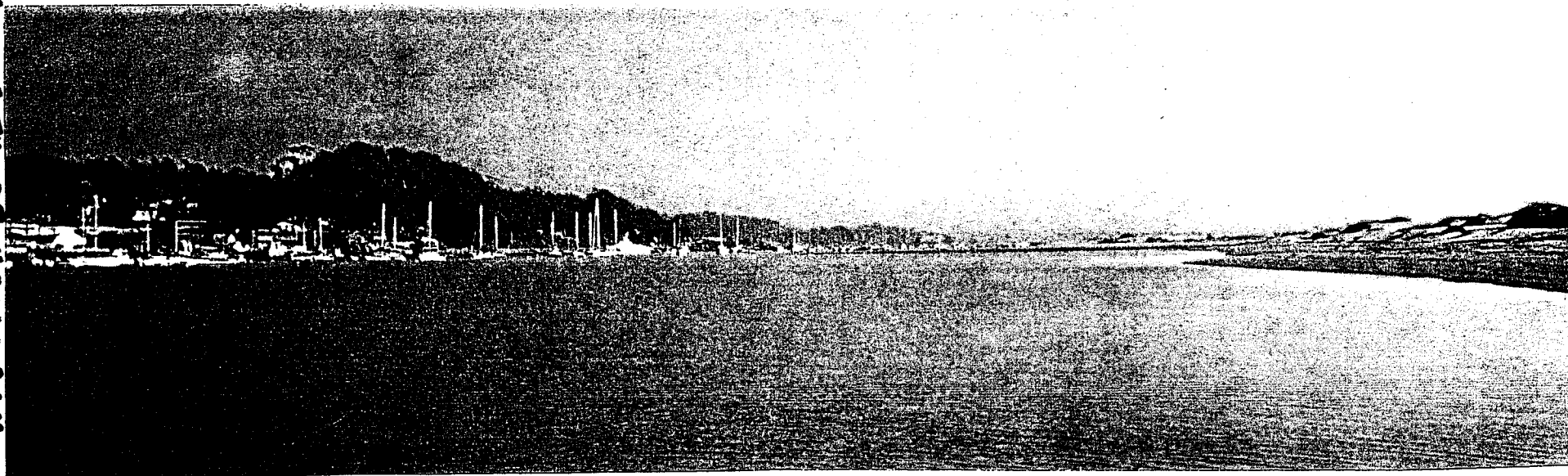
E & C
3-98-001
CITY OF MORRO BAY

cuesta by the sea

EX. D 3-98-001 CITY OF NORTON BAY



View of the dunes, mudflats, and shallow water habitat
LOOKING NW



area View of the proposed dredging area and the anchorage just seaward of the proposed dredging area
LOOKING NW



Ex D, p. 2

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CITY OF MORRO BAY

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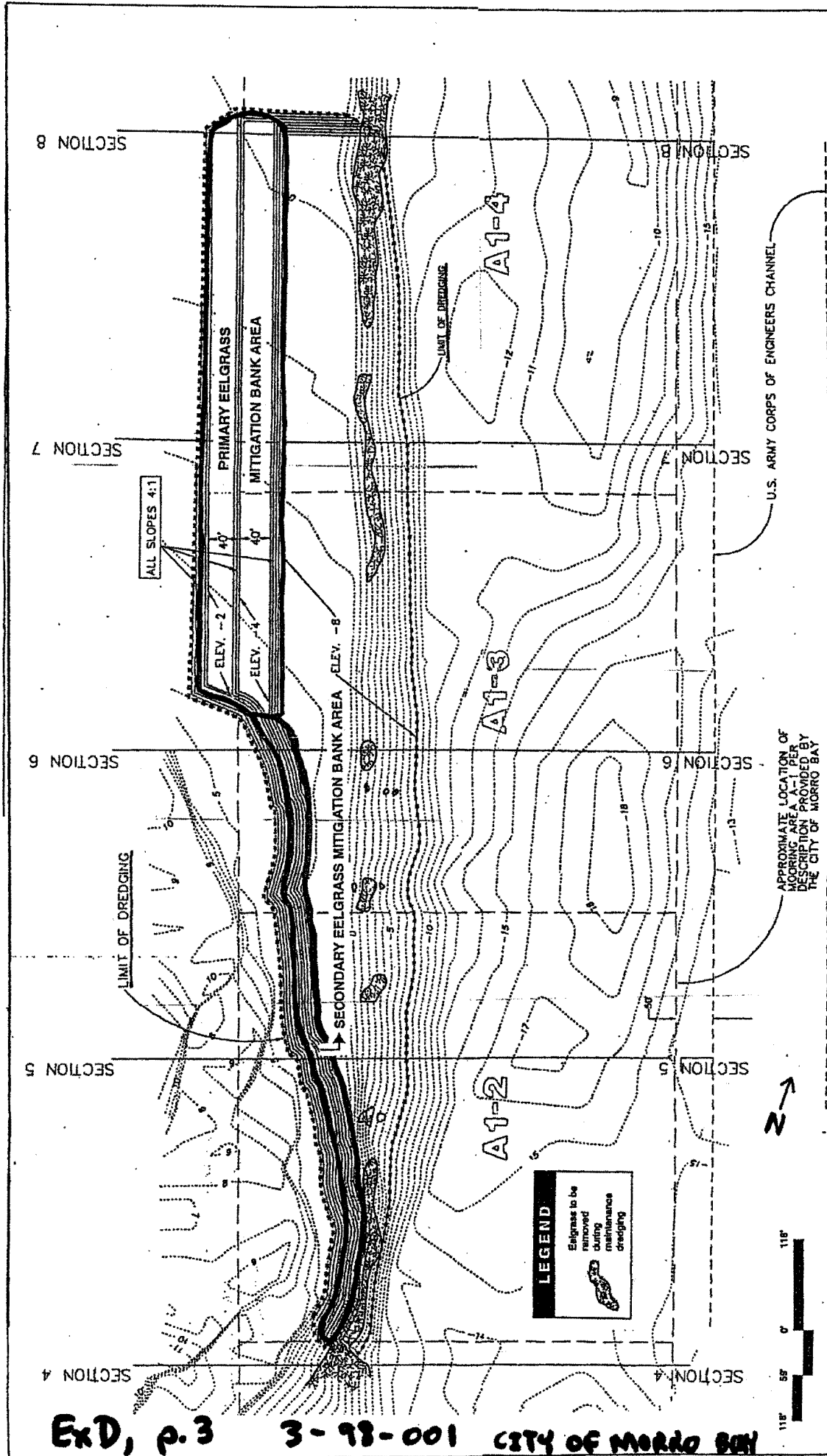


FIGURE TWO
EELGRASS MITIGATION BANK AREAS
MORRO BAY, CALIFORNIA

Source: Coastal Resources Management • September 1997

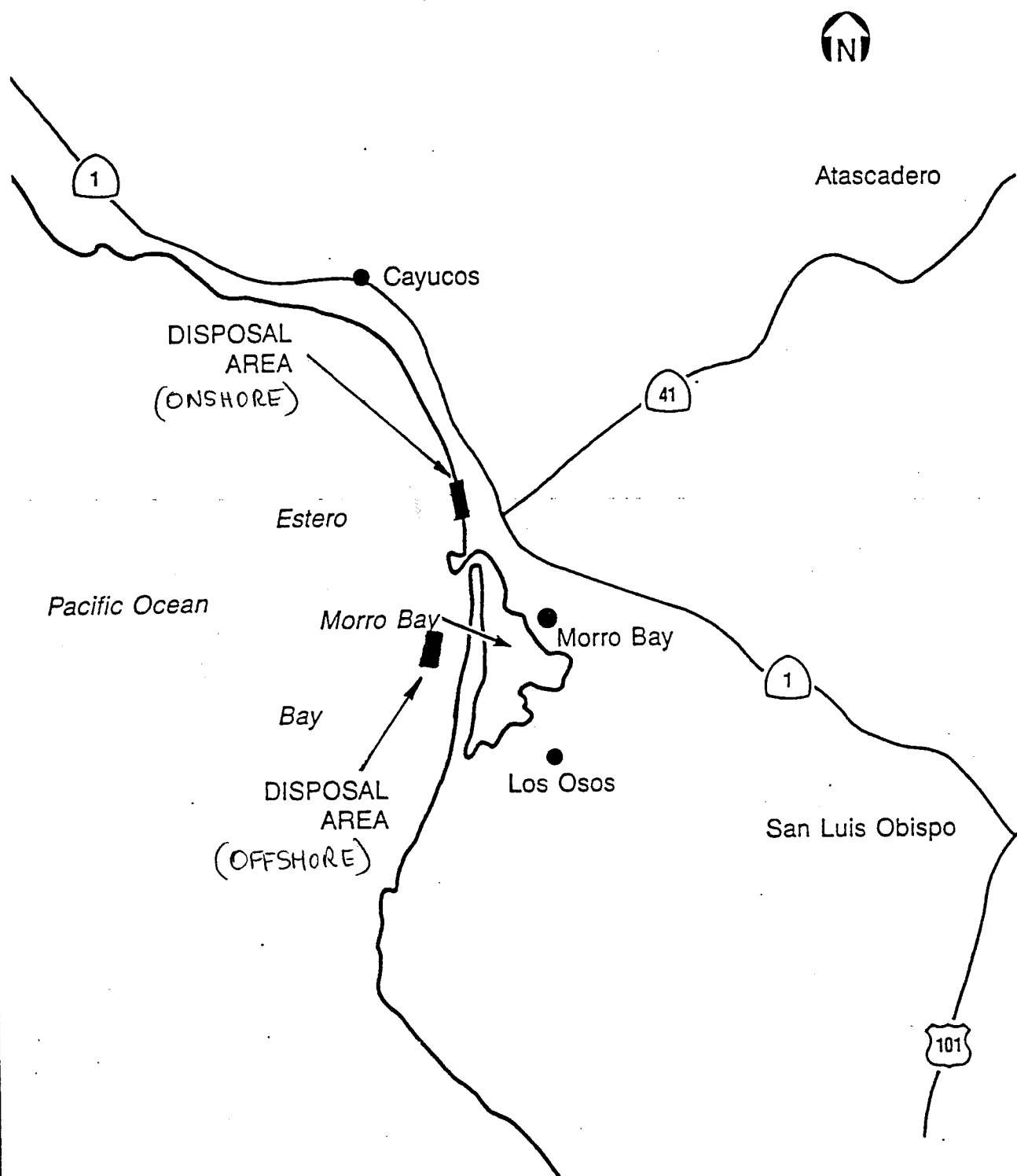


Figure 10
MORRO BAY HARBOR
DISPOSAL AREAS

Ex E 3-98-001
CITY OF MORRO BAY