STATE OF CALIFORNIA – THE RESOURCES AGENCY
GRAY DAVIS, *Governor*

CALIFORNIA COASTAL COMMISSION
45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200

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STAFF RECOMMENDATION

ON CONSISTENCY DETERMINATION

Consistency Determination No.	**CD-108-99**
Staff:	MPD-SF
File Date:	11/10/1999
45th Day:	12/25/1999
60th Day:	1/9/2000
Commission Meeting:	12/10/1999

FEDERAL AGENCY: **U.S. Army Corps of Engineers**

DEVELOPMENT LOCATION: Ventura Harbor Mouth, between north jetty and offshore breakwater, City and County of Ventura (Exhibits 1-2).

DEVELOPMENT DESCRIPTION: Temporary closure of gap between existing breakwater and north jetty spur, using sand-filled geotextile tubes (Exhibits 2-4)

SUBSTANTIVE FILE DOCUMENTS: See page 10.

EXECUTIVE SUMMARY

The U.S. Army Corps of Engineers ("Corps") proposes to temporarily close the gap between the north jetty spur and the offshore breakwater at the mouth of Ventura Harbor, in order to gather information about a future proposal for a sand bypass system at the harbor. The gap would be filled for 2 years with sand-filled geotubes, during which time the Corps would study and evaluate alternatives for sand bypassing. At the end of the two year period the sand would be removed from the bags, the empty bags would be removed from the marine environment, and the sand left in the littoral system. The project supports coastal development harbor activities and is an allowable use for fill of open coastal waters and for shoreline structures, and would not affect shoreline processes to the extent that they would alter sand supply to the coast. The project is therefore consistent with Sections 30235 and 30233(b) of the Coastal Act.

The project would be timed to avoid effects on least terns and would not affect water quality. Therefore the project is consistent with the marine resources, water quality, and environmentally sensitive habitat policies (Sections 30230, 30231, 30223(a), and 30240) of the Coastal Act. A fence would be placed at the end of the north jetty adjacent to the sandbags, to deter people from walking across the bags and to the offshore breakwater at low tide, when the top of the sand bag pile would be partially exposed. This fence would not affect existing access and is necessary for public safety. Therefore the project is consistent with the public access and recreation policies (Sections 30210-30214) of the Coastal Act.

STAFF SUMMARY AND RECOMMENDATION

I. Project Description. The U.S. Army Corps of Engineers (Corps) proposes to temporarily close the gap between the Ventura Harbor north jetty spur and the offshore breakwater, using sand-filled geotextile tubes (geotubes). Geotubes are fabricated from a high strength woven geotextile that is formed into tubes, filled with clean sand, and used for temporary erosion control in rivers and along coastal shorelines. The Corps states that construction of the gap closure may occur in one of two ways :

> *Option 1: Empty geotubes would be laid on a previously constructed rock sill, between the two structures, and anchored down for stability. ... One or two tubes would cover the entire 40-meter length of the gap between the structures. The 25 meter bottom width of the gap closure would be filled with several tubes, laid side by side. (Each tube has an approximate 13 meter circumference when filled.) When the bottom tubes are filled, additional layers of geotubes will be placed on top, in a pyramid fashion (see Figure 2 [Exhibit 3]). When completed, the top of the geotube pyramid will reach an elevation of +3 meters MLLW, and contain less than 10,000 cubic meters of sediment (total). Neither wave action, nor changing tidal conditions, are expected to affect the geotubes' structure or stability during this experiment. Only a few trucks would be required to bring in and later remove the empty geotube liners.*
>
> *The tubes would be filled by direct coupling to a hydraulic pumping system that will convey material from the sand trap (Sand Trap B, in Figure 1 [Exhibit 2]), to an entry port on the tube (see Figure 3). Pipe would extend from the sand trap, over a barge positioned between the sand trap and the construction area, and connect to the entry port. A submersible pump would be used to move material out of the sand trap. If necessary, another pump may be placed on the barge. The woven geotextile fabric will allow water and some fine sediments to filter out, while trapping sandy material.*

If needed, the contractor may use a staging area for construction equipment that has historically been used for that purpose (see Figure 1). The staging area is an empty lot owned by the Port District, previously used for many Corps dredging and rockwork projects.

Option 2: This option would be to fill the same 40 meter x 25 meter area with 2,200 small geotextile bags (see Figure 2 [Exhibit 4]). Each bag would hold approximately 1.5 cubic meters of sediment. The bags could either be filled off-site using material from an approved/permitted borrow site and trucked in to the staging area, or filled on-site using material from the sand trap. Approximately 200-400 truck trips would be required to ship previously filled bags to the project area. As with Option 1, the bags would be stacked to a height of +3 meters MLLW.

The Corps anticipates construction of the gap closure to occur in January or February 2000, after this year's maintenance dredging project is completed, and that it may take two to three weeks to complete. To keep people who now have access to the north jetty from continuing to walk across the geotube pile and gaining access to the offshore breakwater, which the Corps believes would be a public hazard, the Corps also proposes temporary fencing at the end of the north jetty spur. Like the geotubes, the fence will also be removed after the two year period.

The Corps proposes two options for emptying the bags, as follows:

A clamshell bucket could be used to take "bites" out of the geotube fabric. Most of the sand and water would be allowed to drain from the bucket, before the fabric is placed on the barge. Or, a diver could cut the geotube fabric and the sand would drain from the geotubes. A clamshell would then be used to retrieve the empty fabric. In either case, the empty bags would be trucked to an appropriate disposal facility. The removal operation would take approximately one week to complete. The geotubes may be removed prior to September 15, during the least tern nesting season, to allow dredging to begin as soon as possible. (Dredging is permitted to begin only after September 15, to avoid potential impacts to the California least tern.)

The purpose of the experimental gap closure is to provide information for a subsequent feasibility study by the Corps and its local sponsor, the Ventura Port District, who will examine the possibility of installing a sand bypass system at Ventura Harbor. The gap closure is intended to promote increased shoaling within the sand trap, in order to monitor shoaling patterns in that area. This information will potentially be used to properly design a sand bypass system. The purpose of a sand bypass system would be to pump sand from the sand trap, before it enters the harbor entrance channel, to beaches in the vicinity. A sand bypass system could reduce the amount of shoaling in navigation channels, and reduce both the cost as well as the frequency of maintenance dredging.

To maximize its full potential, the Corps states that any sand bypass system is likely to require permanent closure of the narrow gap between the north jetty spur and the breakwater. The Corps states:

> *Currently, sand carried through that gap shoals in the harbor entrance. Closure of the gap is expected to increase the deposition of sand in the sand trap, making more sand available to the bypass system. Within the next few years, the Corps will develop and evaluate a full range of bypass alternatives in a feasibility report and Environmental Impact Statement.*

II. Background. The Commission has reviewed a number of consistency determinations for jetty and breakwater construction, modification and repairs, as well for dredging and beach disposal at Ventura Harbor. The shoreline structure consistency and negative determinations include: CD-168-97, CD-104-96, CD-54-94, ND-21-94, ND-035-92, ND-021-92, and CD-53-91, CD-36-89, CD-30-89, CD-17-89, and CD-14-87. Through those reviews the Commission has authorized, among other improvements and repairs: (1) a 300-foot north jetty spur; (2) a 625-foot South Beach groin, approximately 1,000 feet downcoast of the south jetty; (3) deepening of the entrance channel to -40 feet mean lower low water (MLLW); (4) a 200-foot extension of sand trap A, to the south; (5) a 300-foot extension of the detached breakwater; and (6) repairs to the detached breakwater.

The Ventura Harbor dredging/disposal consistency determinations concurred with by the Commission include CD-64-98, ND-83-97, ND-103-96, ND-051-95, CD-53-91, CD-42-88, CD-51-86, CD-30-85, CD-43-84, CD-25-84, CD-25-83, and CD-2-83. Through these actions, the Commission has authorized annual Corps maintenance dredging of existing Ventura Harbor channels (including a 6-Year authorization in CD-64-98), with nearshore, surf zone, and beach disposal.

III. Status of Local Coastal Program. The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the LCP has been certified by the Commission and incorporated into the CCMP, it can provide guidance in applying Chapter 3 policies in light of local circumstances. If the LCP has not been incorporated into the CCMP, it cannot be used to guide the Commission's decision, but it can be used as background information. The San Buenaventura City LCP has been certified by the Commission and has been incorporated into the CCMP.

IV. Federal Agency's Consistency Determination. The Corps of Engineers has determined the project consistent to the maximum extent practicable with the California Coastal Management Program.

V. Staff Recommendation.

The staff recommends that the Commission adopt the following motion:

MOTION. I move that the Commission **concur** with the Corps of Engineers' consistency determination.

The staff recommends a **YES** vote on this motion. A majority vote in the affirmative will result in adoption of the following resolution:

Concurrence

The Commission hereby **concurs** with the consistency determination made by the Corps of Engineers for the proposed project, finding that the project is consistent to the maximum extent practicable with the California Coastal Management Program (CCMP).

VI. Findings and Declarations:

The Commission finds and declares as follows:

A. Shoreline Structures/Sand Supply. Section 30235 of the Coastal Act provides that:

> *Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing marine structures causing water stagnation contributing to pollution problems and fish kills should be phased out or upgraded where feasible.*

Section 30233(b) of the Coastal Act provides:

> *(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.*

Section 30235 of the Coastal Act allows for construction and modifications of shoreline structures under certain conditions. For example, a shoreline structure must be needed to protect coastal-dependent uses or an existing structure, or public beaches, and must include mitigate measures for any adverse effects on local sand supply. The Ventura Harbor shoreline structures were originally constructed in the mid-1960s. The harbor provides berthing and

support for recreational boating and commercial fishing, uses which are clearly coastal-dependent. In reviewing extensive past modifications to the Ventura harbor jetties, groins and breakwater (see page 4), the Commission has determined that the structures serve coastal-dependent boating uses, and that modifications to these structures are allowable under Section 30235. The proposed geotube placement will further support these coastal dependent uses, and the project will not significantly alter natural shoreline processes, given: (1) the short term nature of the geotube placement; (2) the fact that at the completion of the project the sand placed in the tubes will remain in the littoral system; and (3) the fact that any additional sand trapped in the sand traps as a result of the geotube placement will subsequently be dredged and placed on area beaches. The Commission therefore finds the project consistent with the requirements Section 30235 of the Coastal Act.

For similar same reasons, the project is consistent with the second test of Section 30233(b) of the Coastal Act. While the Corps would use sand from the adjacent sand traps to the north jetty to fill the geotubes, this sand would not be lost from the littoral system. The Corps has committed that upon project completion, the bags will be removed and the sand left in place to nourish beaches and/or be dredged from the sand traps and disposed on the beach. The Corps states:

> *Littoral Transport*
>
> *The proposed action would have no significant impact on littoral transport around the harbor. Most material, rather than settling in the harbor entrance, will either shoal in the sand trap, or be carried around the harbor to downcoast beaches. Sediment that shoals either in the sand trap or the harbor will be dredged during the next maintenance project, in approximately two years. At that time, beach-compatible sand will be taken to authorized beach or nearshore disposal sites. When the experimental project is completed, sand from the geotubes will be left in the gap. This sand would eventually be dredged, or transported by natural littoral processes to downcoast beaches.*

The Commission therefore concludes that the project would not adversely affect shoreline processes and is consistent with Sections 30235 and 30233(b) of the Coastal Act.

B. Habitat/Marine Resources. The Coastal Act provides:

> *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 through, among other means, minimizing adverse effects of waste water discharges and entrainment....

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: ...

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

Section 30240. (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on such resources shall be allowed within such areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade such areas, and shall be compatible with the continuance of such habitat areas.

The proposed project involves both dredging of the sand trap to fill the geotubes and the placement of geotubes in the marine environment. As such it must meet the allowable use, alternatives, and mitigation tests of Section 30233(a) of the Coastal Act for dredging and fill within open coastal waters. For the same reasons the project is an allowable use under Section 30235 (to protect coastal dependent boating uses - see pages 5-6), and because it serves commercial fishing uses, the project qualifies as an allowable use under Section 30233(a)(1).

Concerning alternatives, the area to temporarily receive the sand bags is not environmentally sensitive and in fact has already been highly modified though the Corps' construction (and Commission-authorized – see CD-104-96) concrete sill between the north jetty and the breakwater. The project is temporary and easily removed, and there is no less damaging way to fill the gap. The Corps has incorporated avoidance measures to minimize impacts to sensitive species (see discussion below addressing least tern impacts). Thus, as proposed, the project's impacts on marine resources, water quality, and environmentally sensitive habitat would be minimal and temporary. Furthermore, if it leads to less frequent dredging, and/or a

greater amount of sand being retained on the beach upcoast of the north jetty, the project may ultimately benefit coastal resources. The Commission therefore finds the project consistent with the second (alternatives) test of Section 30233(a).

In its consistency determination and Draft Environmental Assessment, the Corps analyzed potential project impacts on marine resources and threatened and endangered species present in the greater project area, including: the California brown pelican (Pelecanus occidentalis californicus), western snowy plover (Charadrius alexandrinus nivosus), and California least tern (Sterna antillarum browni), the tidewater goby (Eucyclogobius newberryi), and steelhead trout (Salmo gairdneri). The Corps noted that the project would involve temporary increases in turbidity and other temporary and limited impacts associated with dredging clean sand. The Commission has traditionally found these types of impacts, especially when limited to non-sensitive seasons, to be consistent with applicable Coastal Act policies. According to the Corps, which has coordinated its review with the U.S. Fish and Wildlife Service, the only threatened or endangered species potentially affected by the project is the California least tern. The Corps states:

> ***California Least Tern.*** *Interference with least tern foraging could be a concern if turbidity from dredging or geotube removal operations impacted surface water clarity over a substantial portion of the harbor during the breeding season. Any turbidity associated with removal of the geotubes, however, is expected to be minimal. (Construction will occur outside of the tern's nesting season, after the terns have migrated south for the winter.) Most sediment would settle quickly, and would not spread a significant distance within the tern's foraging area. The entire nearshore environment, outside of the harbor complex, most of the harbor/sand trap area, and the river mouths would be unaffected. The least tern nesting area would also not be affected.*

In order to avoid impacts to California least terns, the Corps has agreed to fill and place the geotubes in the gap outside the least tern nesting season window. The U.S. Fish and Wildlife Service has not raised concerns over the relatively minor impact of sand removal of the bags upon project completion, which could occur at the end of the least tern nesting season. The Commission therefore finds that, with the Corps' timing commitment, no further mitigation is required, and the project is consistent with the allowable use, alternatives, and mitigation tests of Section 30233(a) of the Coastal Act, as well as with the requirements of Sections 30230, 30231 and 30240 to protect marine resources, environmentally sensitive habitat and water quality.

C. Public Access and Recreation. Section 30210 of the Coastal Act provides, in part, that:

> *In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.*

Section 30212 provides in part.

> *(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where:*
>
> *(1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources,*
>
> ...

Section 30214 provides in part:

> *(a) The public access policies of this article shall be implemented in a manner that takes into account the need to regulate the time, place, and manner of public access depending on the facts and circumstances in each case including, but not limited to, the following:*
>
> *(1) Topographic and geologic site characteristics.*
>
> *(2) The capacity of the site to sustain use and at what level of intensity.*

Analyzing public access and recreation impacts, the Corps' consistency determination states:

> *a. Article 2 - Public Access (Sections 30210-30219):*
>
> *Navigation is not currently permitted through the gap between the north jetty spur and the breakwater. The area is marked "keep out" on navigation charts. A hazard marker located on the tip of the north jetty spur warns boaters to avoid the area, which is usually shoaled. This project, therefore, will not affect authorized uses of the harbor. Eliminating unsafe, illegal navigation through the gap would be an*

incidental benefit of this project. To deter unsafe use of the geotube closure for pedestrian access to the detached breakwater, temporary fencing will be placed on the north jetty spur.

b. Article 3 - Recreation (Sections 30220-30224):

Disturbances to recreation-related activities from project construction are expected to be insignificant. The construction barge and associated work boats would use minimal harbor space for a short time period.

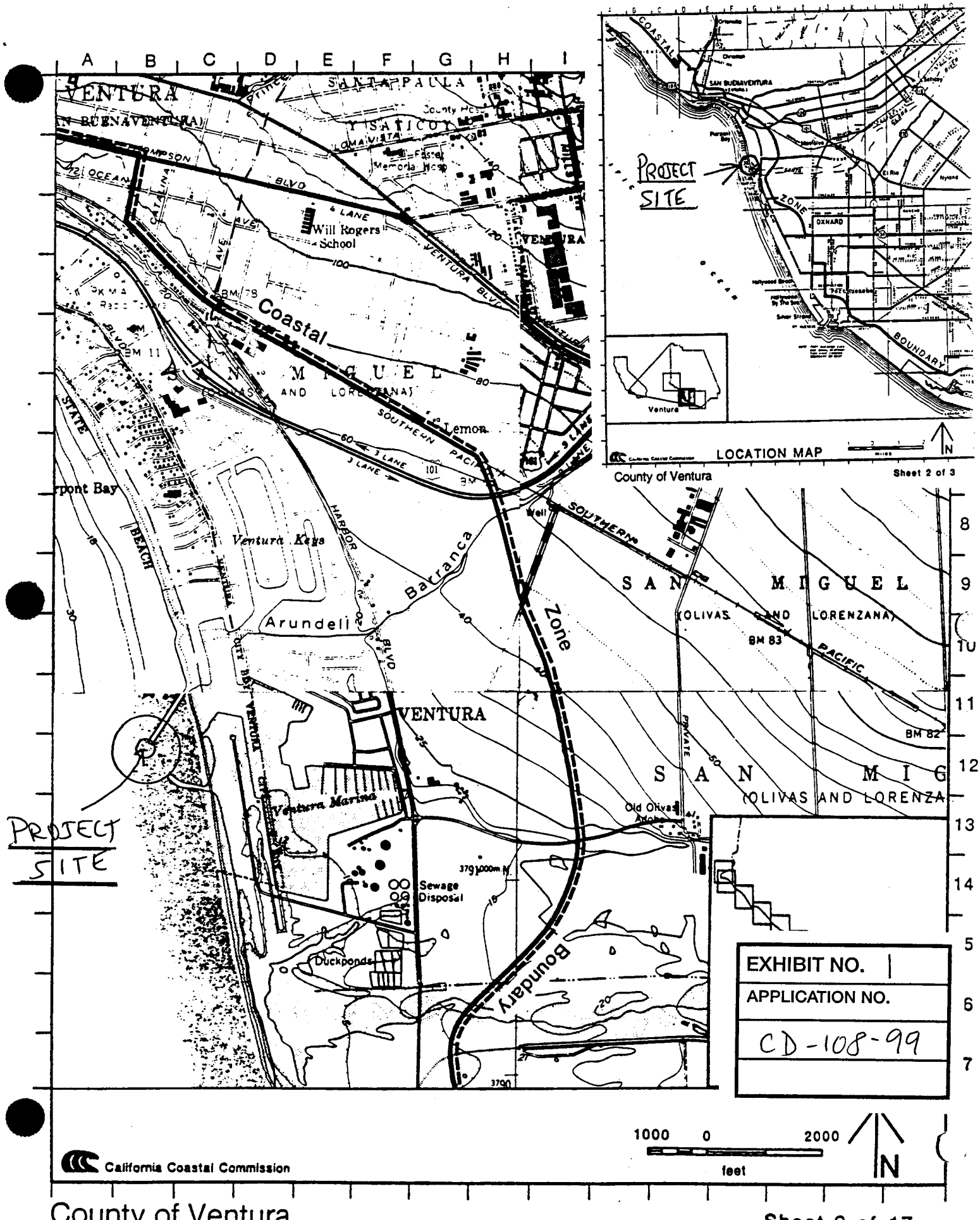
When and if the information gathered through this experiment is used to construct an efficient sand bypass operation, beach and harbor recreational uses would be enhanced. Shoaling within the harbor entrance would be reduced, and a nearly constant supply of sand would be provided to area beaches.

Because it will not adversely affect sand supply, as discussed on pages 5-6 above, the proposed project will avoid adverse recreational effects on area beach use. Furthermore, construction activities timed to avoid least tern impacts mean that the construction will not occur during the peak recreational season. A fence would be placed at the end of the north jetty adjacent to the sandbags, to deter people from walking across the bags and to the offshore breakwater at low tide, when the top of the sand bag pile will be exposed above the water line. The Commission agrees with the Corps' assertions that: (1) the temporary construction of this fence would not diminish existing access; and (2) without a fence the public could be exposed to hazardous conditions seaward of the end of the north jetty; therefore the fence is necessary to protect public safety. For these reasons the Commission finds the project consistent with the public access and recreation policies (Sections 30210-30214) of the Coastal Act.

VII. Substantive File Documents.

1. Consistency Determination and Draft Environmental Assessment for the Ventura Harbor Temporary Gap Closure Project at Ventura County, California, U.S. Army Corps of Engineers, Los Angeles District, November 1999.

2. Army Corps of Engineers Ventura Harbor shoreline structure and dredging Consistency and Negative Determinations: CD-64-98, CD-168-97, ND-83-97, CD-104-96, ND-103-96, ND-51-95, CD-54-94, ND-21-94, ND-35-92, ND-021-92, CD-53-91, CD-36-89, CD-30-89, CD-17-89, CD-42-88, CD-014-87, CD-51-86, CD-030-85, CD-025-84, and CD-2-83.


A B C D E F G H I
VENTURA
SANTA PAULA
YSATICO
Will Rogers School
Coastal
SAN MIGUEL
(OLIVAS AND LORENZANA)
Lemon
Ventura Keys
Arundell
Batranca
Zone
VENTURA
Ventura Marina
Sewage Disposal
Duckponds
Boundary
SAN MIGUEL
(OLIVAS AND LORENZANA)
Old Olivas
PROJECT SITE
PROJECT SITE
LOCATION MAP
Venture
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BOUNDARY
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N
California Coastal Commission
EXHIBIT NO.
APPLICATION NO.
CD-108-99
County of Ventura
Sheet 2 of 3

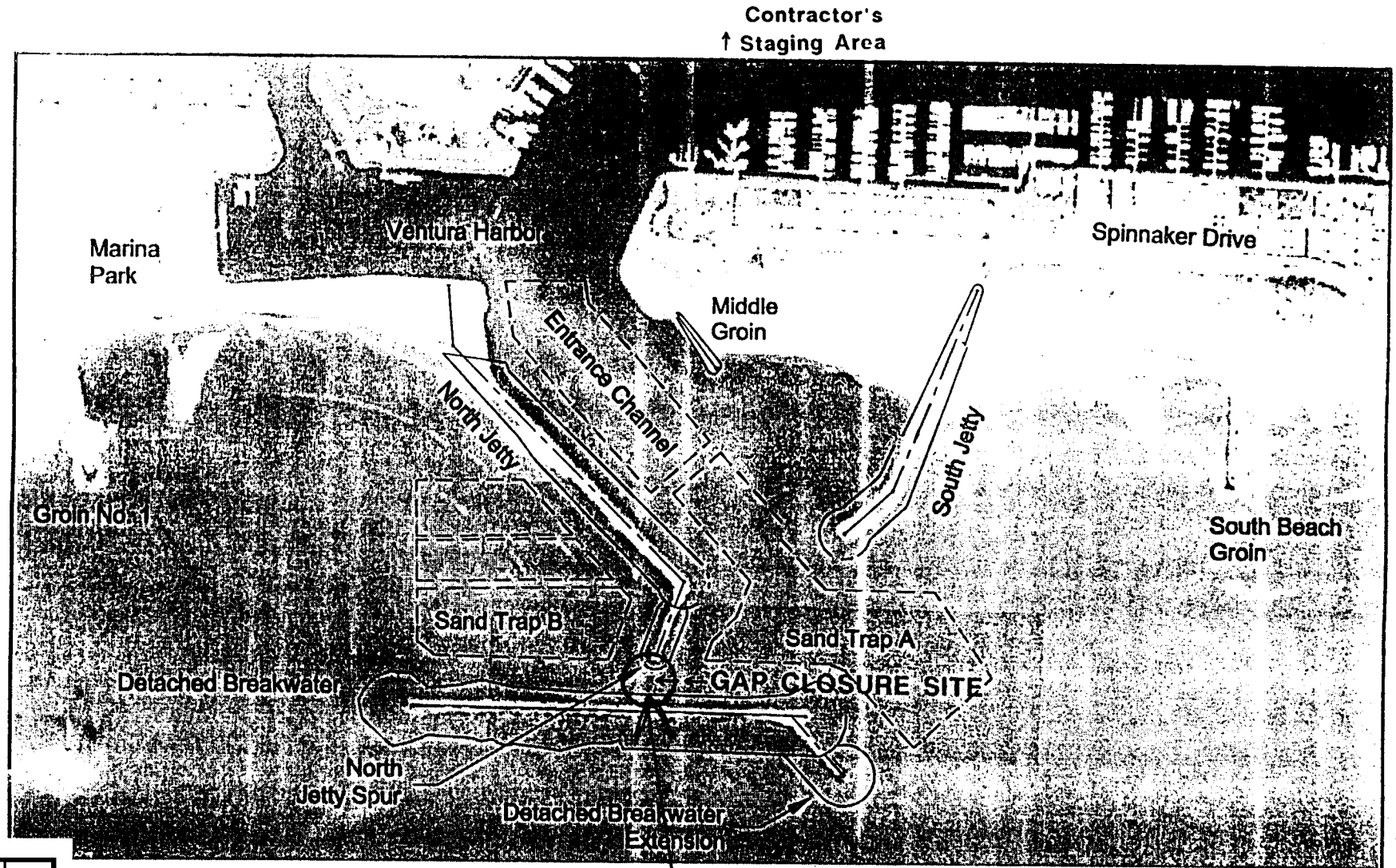


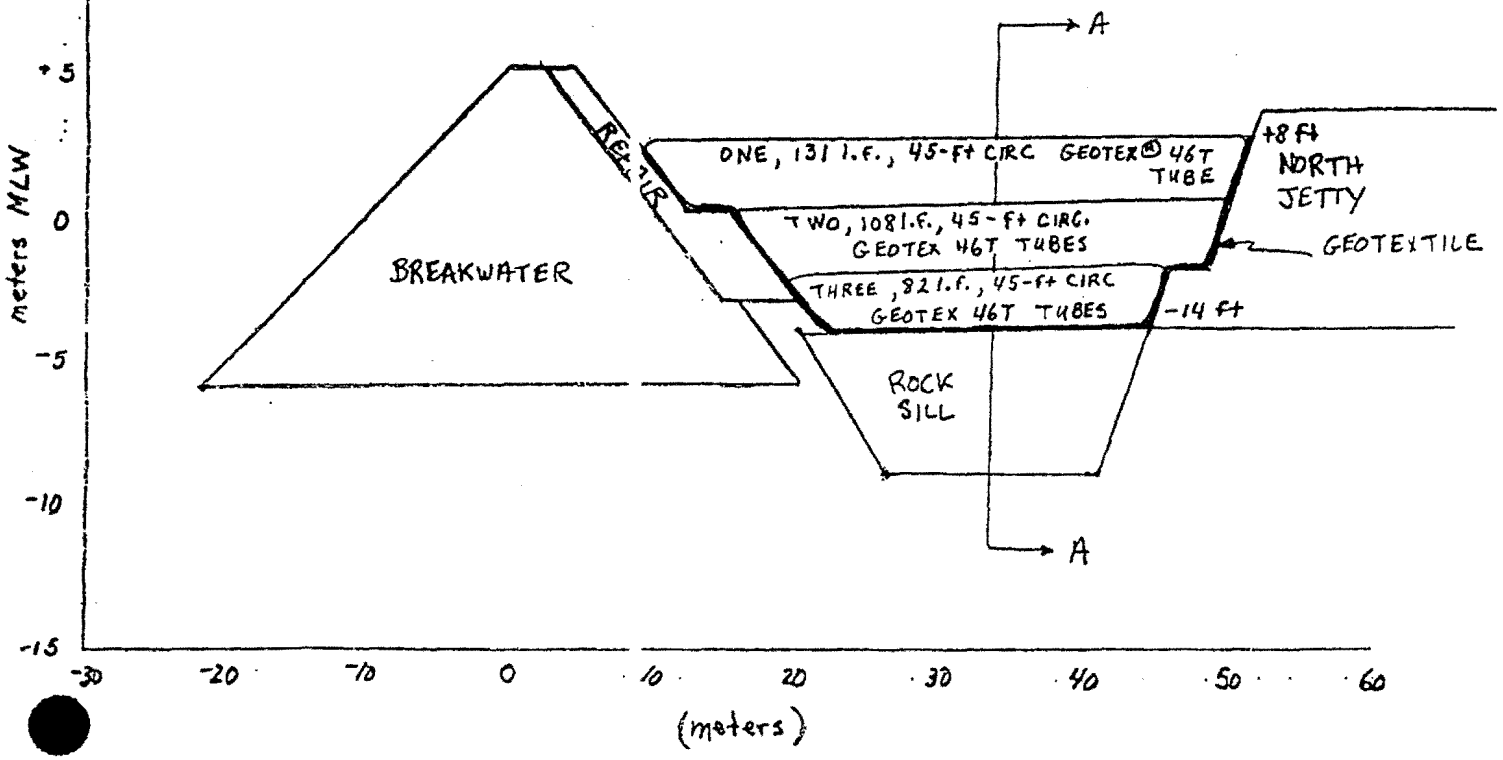
Figure 1

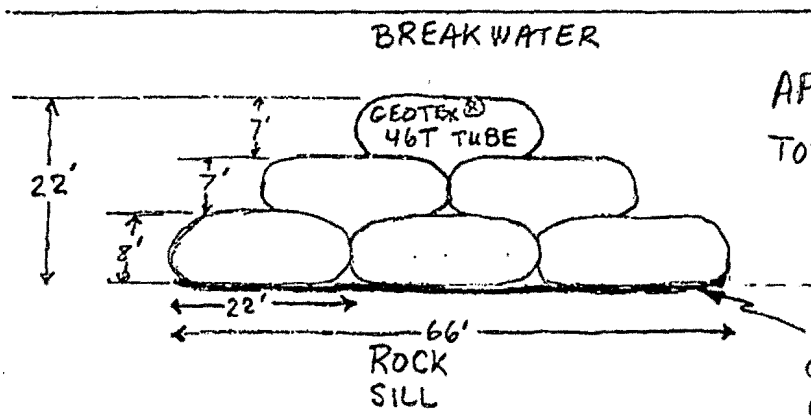
EXHIBIT NO. 2
APPLICATION NO.
CD-108-99

VENTURA HARBOR

OPTION 1) THREE LAYERS OF 45-ft CIRCUMFERENCE GEOTEX® 46T TUBES TOTALLING 593 l.f.

ONE PROTECTIVE LAYER OF HEAVY WOVEN GEOTEXTILE





APPROX. 3.9 CY/l.f. OF TUBE

TOTAL = 2,325 CY SAND REQUIRED

PROTECTIVE GEOTEXTILE GEOTEX® 30X6 TO PROVIDE CUSHION, ABRAISION RESISTANCE AND SEPARATION, S.G.>1

SECTION A-A

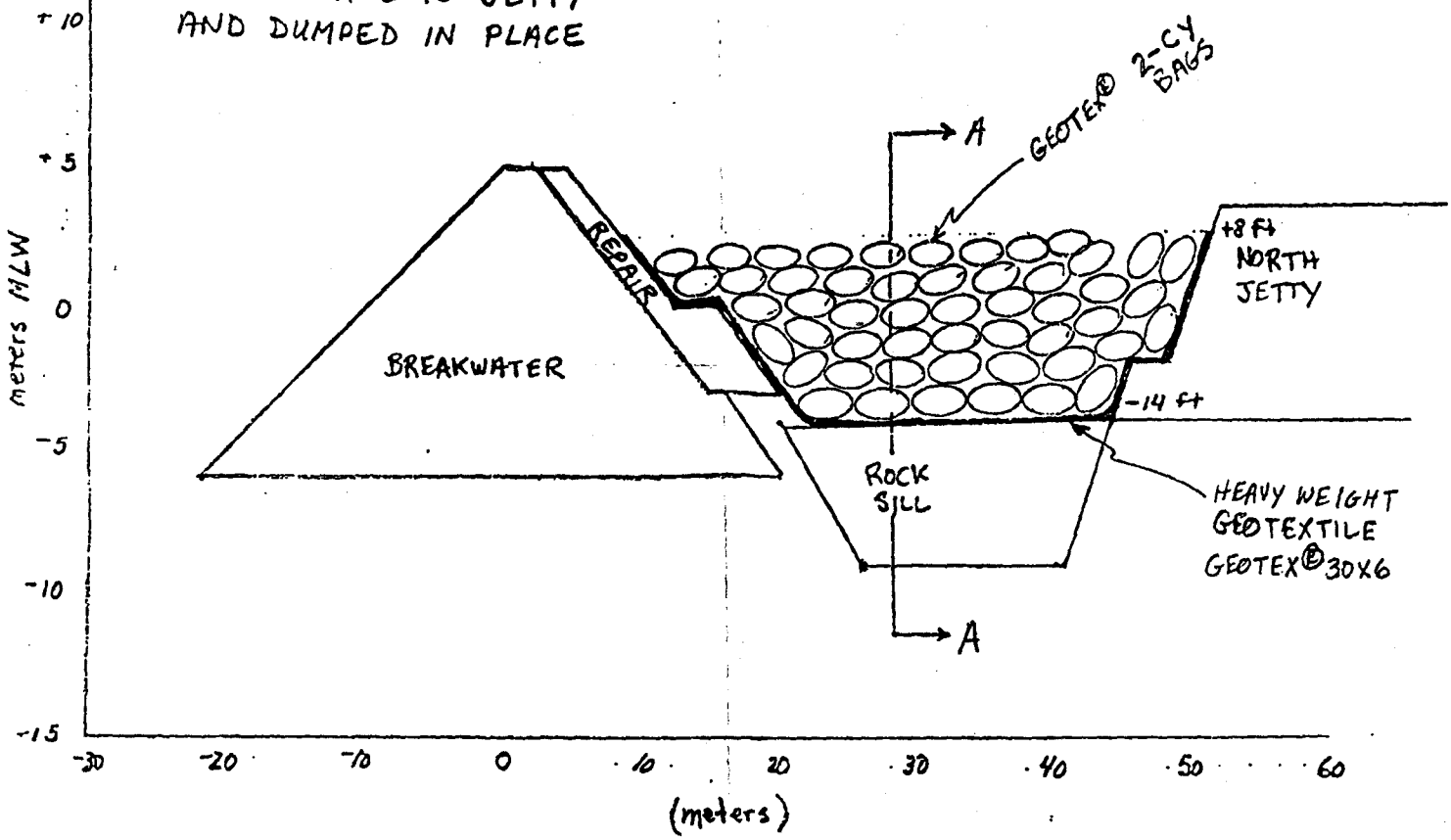
OPTION 1

EXHIBIT NO. 3
APPLICATION NO.
CD-108-99

VENTURA HARBOR

FIGURE 2

OPTION 2) GEOTEX® 2-CUBIC YARD BAGS FILLED OFF-SITE AND TRUCKED TO JETTY AND DUMPED IN PLACE



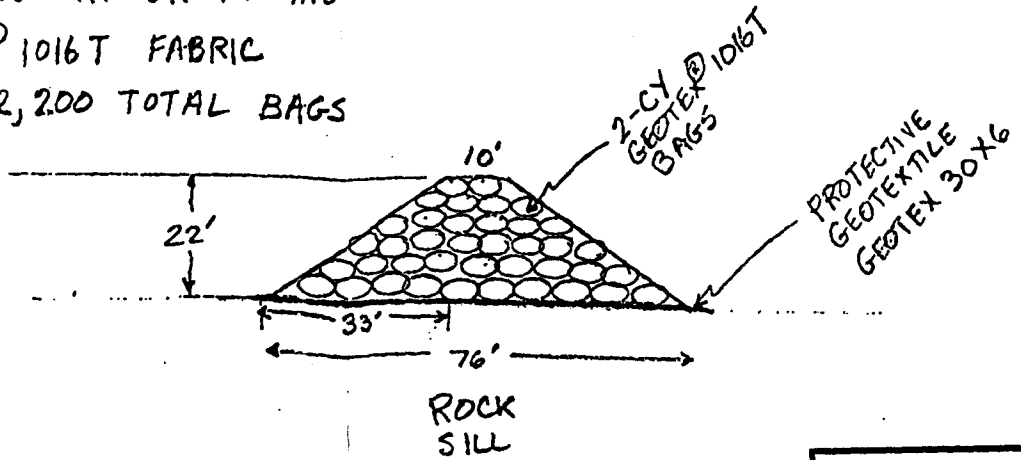
APPROX 2 CY / 3.75 TON BAG

BAGS 7.5' CIRC X 8' HIGH

SEWN CLOSED AFTER FILLING

GEOTEX® 1016T FABRIC

APPROX 2,200 TOTAL BAGS



SECTION A-A
OPTION 2

EXHIBIT NO. 4
APPLICATION NO.
CD-108-99