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STATE OF CALIFORNIA – THE RESOURCES AGENCY

CALIFORNIA COASTAL COMMISSION
CENTRAL COAST AREA
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Commission Action:	

REVISED

STAFF REPORT: REGULAR CALENDAR

RECORD PACKET COPY

APPLICATION NO.: 4-02-128

APPLICANT: Santa Barbara County Department of Parks & Recreation

AGENTS: Moffatt & Nichol Engineers

PROJECT LOCATION: Goleta Beach County Park, Goleta, Santa Barbara County.

PROJECT DESCRIPTION: Implement an annual winter sand berm program at Goleta Beach County Park. The program will involve construction of a "primary" 1,400-foot long winter sand berm, extending alongshore on the western half of the park, if the beach width is less than 190 feet by November 1 of each year. The program further entails the construction of an additional "secondary" 600-foot long sand berm adjacent to the primary berm, extending approximately 200 feet to the east of the Goleta Pier, if necessary due to storm conditions. The proposed winter berm(s) would be elevated to +15 feet above mean lower low water (MLLW) with a 10-foot wide berm crest and then sloped to approximately 2:1 (horizontal to vertical) to the water, with a total seaward extent of approximately 35 feet from the backbeach. Annual construction of the winter sand berms would require a maximum of approximately 15,400 cubic yard of grading (7,700 cubic yards of cut grading from nearby sand sources and 7,700 cubic yards of fill grading) obtained from the sandspit at the mouth of the Goleta Slough, approximately 1,200 feet downcoast of the primary berm and from Santa Barbara County Flood Control District projects, where sediment from flood control projects meets beach nourishment criteria. The annual winter sand berm program includes up to approximately 16,000 cu. yds. of grading (8,000 cu. yds cut, 8,000 cu. yds. fill) for reconstruction and periodic maintenance to rebuild the sand berms with adjacent material after they are damaged in heavy storms.

The berm(s) would be constructed in late October or early November, and would be lowered prior to Memorial Day of the following year. The berms would be reconstructed to the design profile as necessary after wave damage. The berms are intended to protect the Beachside Bar and Café, the western parking lot, and existing utility lines as a result of the continuing erosion of the shoreline.

APPROVALS RECEIVED: U.S. Army Corps of Engineers, Department of the Army Permit 200101546-JEM through Memorial Day 2006 (12/4/01); California Regional Water Quality Control Board Waste Discharge Requirements Order No. 94-17, Santa

Barbara County Flood Control, Goleta Slough Dredging Operations, Santa Barbara County (6/3/94);

SUBSTANTIVE FILE DOCUMENTS: Goleta Beach Five-Year Winter Dike Project Construction, Maintenance and Lowering, Analysis of Effects (The Chambers Group, Inc., July 29, 2002); Goleta Beach County Park Long-Term Beach Restoration and Shoreline Erosions Management Final Plan (Moffatt & Nichol Engineers, March 15, 2002); Wave Uprush Study, Goleta Beach Winter Dike, (Moffatt & Nichol Engineers, October 5, 2001); *Draft Recovery Plan for the Pacific Coast Population of Western Snowy Plover* (USFWS, May 2001); Goleta Beach County Park Environmental Carrying Capacity Study and Management Plan, Draft (Santa Barbara County Planning and Development Santa Barbara County Park Department, February 1999); Coastal Development Permits 4-01-136 (Santa Barbara County Parks & Recreation); CDP 4-00-193 (Santa Barbara County Parks & Recreation) and CDP 4-00-118 (Santa Barbara County Parks & Recreation).

SUMMARY OF STAFF RECOMMENDATION

Staff recommends **approval** of the proposed project with eleven special conditions regarding: (1) timing of operations, (2) operational responsibilities, (3) source material analysis and compatibility, (4) long-term monitoring program, (5) turbidity control and monitoring, (6) sensitive species construction surveys and monitoring; (7) snowy plover and Belding's savannah sparrow surveys; (8) public access program; (9) required approvals; (10) assumption of risk, waiver of liability and indemnity agreement; and (11) permit expiration.

The proposed project is for the annual construction of a 1,400-foot long and 600-foot long winter sand berm requiring approximately 15,400 cubic yard of grading (7,700 cubic yards of cut grading and 7,700 cubic yards of fill grading) at Goleta Beach County Park through Memorial Day 2007. The sand berm(s) will be reconstructed and maintained as necessary after wave damage and will be lowered prior to Memorial Day of each year. Similar sand berm projects were approved 2000-2001 and 2001-2002, to protect the improved areas of Goleta Beach County Park from erosion by wave action following the removal of a rock revetment.

The applicant seeks approval for annual sand berm construction and lowering for five winter storm seasons through Memorial Day 2007; however, staff recommends expiration of the term of approval on Memorial Day 2004 with a provision for the expiration to be extended for one additional year, for good cause as determined by the Executive Director. This recommendation is based on: (1) the anticipated implementation of alternative long-term strategies as identified in the Long-Term Beach Restoration and Shoreline Erosion Management Plan and (2) the anticipated update of biological resources and shoreline erosion data which will assist the Commission in reviewing the array of long-term solutions to erosion at Goleta Beach that is most protective of coastal resources.

I. STAFF RECOMMENDATION

MOTION: ***I move that the Commission approve Coastal Development Permit 4-02-128 pursuant to the staff recommendation.***

STAFF RECOMMENDATION OF APPROVAL:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO APPROVE THE PERMIT:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. 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. **Interpretation.** Any questions of intent or interpretation of any term or condition will be resolved by the Executive Director or the Commission.

3. **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.

4. **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.

III. SPECIAL CONDITIONS

1. Timing of Operations

A. All project operations, including sand berm construction, demolition, operation of equipment, sand removal and placement, or other construction, maintenance, material removal, or activities involving mechanized equipment shall be prohibited:

(1) On any part of the beach and shorefront in the project area from Memorial Day in May through Labor Day in September to avoid impact on public recreational use of the beach.

(2) On any part of the beach and shorefront in the project area when California grunion (of any life stage, including eggs) are present during any run periods and corresponding egg incubation periods, as documented by the surveys conducted pursuant to **Special Condition Six (6)**, to avoid impact on the spawning of the California Grunion.

(3) On any part of the beach and shorefront within federally designated critical habitat of the Western Snowy Plover when plovers are present, as identified by the surveys conducted pursuant to **Special Condition Six (6)**, to avoid adverse effects to Western Snowy Plovers.

(4) On any part of the beach and shorefront in the project area when Beldings Savannah Sparrow are present, as identified by the surveys conducted pursuant to **Special Condition Six (6)**, to avoid adverse effects to Beldings Savannah Sparrow.

B. All project operations at the mouth of Goleta Slough, including excavation of the sandspit or diking of the slough mouth for access to the excavation site, are prohibited during steelhead trout spawning from December through June when high winter stream flows occur, to avoid adverse effects to steelhead trout, unless by authorization of the U.S. Fish and Wildlife Serve and/or the California Department of Fish and Game and subject to the approval of the Executive Director.

2. Operational Responsibilities

It shall be the applicant's responsibility to assure that the following occurs during project operations:

(a) The sand berm shall be constructed in accordance with project plans if the beach width is less than 190 ft. from the backbeach, subject to the timing restrictions specified in **Special Condition One (1)** above, as shown on the project plans (Exhibit 6) prior to November 1 of each year.

(b) The sand berm shall be lowered prior to Memorial Day, subject to the timing restrictions specified in **Special Condition One (1)** above. The sand berm shall be graded to natural beach contours to restore the shoreline and to facilitate recreational use.

(c) No construction materials, debris, or waste shall be placed or stored where it may be subject to wave erosion and dispersion.

(d) Any and all debris resulting from construction activities shall be removed from the beach immediately.

(e) Equipment shall not be in contact with coastal waters at any time.

3. Source Material Analysis and Compatibility

C. Chemical and physical (grain size) analyses shall be conducted of representative samples of any source material from the Santa Barbara County Flood Control projects. The source material shall be analyzed for consistency with the Environmental Protection Agency (EPA) and California Regional Water Quality Control Board (RWQCB) criteria for beach replenishment. Testing of the sediment shall be conducted prior to transport of the material to staging areas for the annual sand berm.

D. The results and supporting analysis of the chemical and physical properties of the proposed source material must be submitted for the review and approval of the Executive Director, at least two (2) weeks prior to proposed use of the source material for construction, reconstruction, or maintenance of the Goleta Beach sand berm. The supporting analysis shall include confirmation by the U.S. Army Corps of Engineers and California Regional Water Quality Control Board that the material proposed for use on the berm meets the minimum criteria necessary for placement on the sandy beach. The applicant shall submit evidence of any required coastal development permits necessary to obtain flood control source material.

E. Source material meeting EPA and Regional Water Quality Control Board criteria for beach replenishment, and for which an average of 91% or more of the material is coarse grained (retained on a Standard U.S. Sieve Size No. 200), may be used to construct the annual sand berm at Goleta Beach, in accordance with project plans.

F. The berm material shall meet all applicable federal and state beach nourishment requirements and comply with the grain size requirements above. Material that does not meet the physical or chemical standards for beach replenishment shall not be used for construction, reconstruction, or maintenance of the sand berm. At such time, an alternate location suitable to accept the sediment shall be identified, consistent with the requirements of the underlying applicable flood control coastal development permit.

4. Long-Term Monitoring Program

Prior to issuance of the coastal development permit, the applicant shall submit a long-term monitoring program for the annual sand berm project activities at Goleta Beach, which shall provide the following:

A. The applicant shall record detailed project information regarding the implementation of the annual project activities including, but not limited to, the date, length of time of

construction, quantity, location, method of construction, source of material, weather conditions, estimate of material eroded from the berm that triggered reconstruction or maintenance, and any issues or complaints regarding the project received by the public.

B. The applicant shall document the available public access during project implementation, timing of access, and any other restrictions to public access in the project area, and shall include any access issues or complaints raised by the public.

C. The applicant shall conduct an annual shoreline monitoring program to document shoreline changes in the project vicinity. Documentation shall include but not be limited to:

(5) Annual beach profiles shall be provided by the applicant for the term of the project. At least two profiles for the primary berm and one profile of the secondary sand berm shall be taken (1) before and after initial construction of the annual sand berm and (2) before and after the lowering of the berm prior to Memorial Day, each year that the project is implemented. In addition, one profile shall be taken in the location of the primary excavation area. Minimum and maximum tide levels at the time of profile survey shall be noted on the profiles.

(6) An indication of beach width, elevation, and sand volume changes to Goleta Beach project area. The applicant shall utilize aerial photographs, to the extent feasible, to prepare the summary of beach width and sand volume changes.

(7) An analysis of erosion trends, annual retreat, or rate of retreat of the beach based upon the measurements.

(8) Data detailing the annual quantity and placement of material, including interaction of the sand berm with other beach replenishment or other shoreline projects that occur in the project area.

D. The applicant shall submit, on an annual basis, a written report indicating the results of the long-term monitoring program, as specified above. The annual monitoring report shall include conclusions regarding the level of success of the annual sand berm project. The report shall include a brief history of the previous year's effort, if any, and shall also include photographs taken from pre-designated sites (annotated to a copy of the site plans) to track changes in shoreline conditions.

E. The monitoring information shall be submitted annually to the Executive Director by July 1 of each year as well as to other public and federal, state, and local entities that wish to obtain such information.

5. <u>Turbidity Control and Monitoring</u>

A) *Turbidity Control Plan*

(1) Prior to issuance of the coastal development permit, the applicant shall submit, for the review and written approval of the Executive Director, a plan for

mitigation of turbid water to limit turbidity increases to no more than 50% above background. The plan shall demonstrate that the following turbidity control measures will be used: use of coarser beach nourishment material, avoidance of periods of high surf/high tides, and monitoring. The plan shall include a written description of each turbidity control measure.

(2) The permittee shall undertake development in accordance with the approved final plan. Any proposed changes to the approved final plan shall be reported to the Executive Director. No changes to the approved final plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is legally required.

B) *Monitoring*

(1) The applicant shall retain the services of a qualified biologist(s) or environmental resources specialist(s) with appropriate qualifications acceptable to the Executive Director. The applicant shall provide the environmental monitor's qualifications for review by the Executive Director at least two (2) weeks prior to commencement of project activities. The environmental resource specialist shall monitor and document the turbidity of coastal waters during all project construction activities. The extent of turbidity plumes shall be recorded by the monitor. If turbidity increases 50% above ambient levels, construction methods will be modified as described in the turbidity control plan. The environmental resource specialist shall require the applicant to cease work should any breach in permit compliance occur or if any unforeseen sensitive habitat issues arise.

(2) The applicant shall submit a turbidity monitoring report to the Executive Director for review and approval by July 1 of each year. The monitoring report prepared by a qualified specialist shall at a minimum include, but not be limited to: (1) a map of the minimum and maximum turbidity plume for each stage (e.g., construction of berm, reconstruction and maintenance of berm, lowering of berm) of the project with corresponding data detailing the stage of the project, method of construction, weather conditions, percent turbidity above background, and the amount of material introduced into the environment; (2) a discussion of range of turbidity plumes and any recommendations to reduce increase related to project activities; (3) any incidents during construction where turbidity control measures were implemented; and (4) conclusions regarding turbidity impact upon biological resources. If the Executive Director determines that adverse impacts have occurred to marine habitat as a result of the increased turbidity from project operations, the Executive Director shall provide written notice to the applicant of such determination. The applicant shall cease work, and shall immediately notify local resource agencies. The applicant shall be required to submit a revised, or supplemental program to adequately mitigate such impacts. The revised, or supplemental, program shall be

processed as an amendment to this coastal development permit. Project activities shall resume only upon written approval of the Executive Director.

6. Sensitive Species Construction Surveys and Monitoring

A. The applicant shall retain the services of a qualified biologist or environmental resources specialist with appropriate qualifications acceptable to the Executive Director. The applicant shall provide the environmental monitor's qualifications for review by the Executive Director at least two (2) weeks prior to commencement of project activities. The environmental resource specialist shall conduct a survey of the project site, to determine presence and behavior of sensitive species, prior to any excavation, construction, reconstruction, maintenance, or removal activities, or any associated grading and grooming activities on the beach. Prior to any project activities, the resource specialist shall examine the beach area at dusk and dawn to preclude impacts to the federally listed western snowy plover and the state listed endangered Belding's savannah sparrow. No excavation, construction, reconstruction, maintenance, or removal activities shall occur until any western snowy plovers or Belding's savannah sparrows have left the project area or its vicinity. In the event that excavation, construction, reconstruction, maintenance or removal activities will occur during the seasonally predicted run period and egg incubation period for the California grunion, as identified by the California Department of Fish and Game, then the resource specialist shall document any grunion spawning activity and if grunion are present in any lifestage, no excavation, construction, reconstruction, maintenance, or removal activities shall occur until the next predicted run in which no grunion are observed. The resource specialist shall provide inspection reports after each grunion run observed and shall provide copies of such reports to the Executive Director and to the California Department of Fish and Game. In the event that any sensitive wildlife species (including but not limited to western snowy plover, Belding's savannah sparrow, California grunion, steelhead trout) exhibit reproductive or nesting behavior, the environmental specialist shall require the applicant to cease work, and shall immediately notify the Executive Director and local resource agencies. Project activities shall resume only upon written approval of the Executive Director.

B. The environmental specialist shall be present during the excavation, construction, reconstruction, maintenance, or removal activities, or any grading and grooming activities on the beach. The environmental resource specialist shall require the applicant to cease work should any breach in permit compliance occur or if any unforeseen sensitive habitat issues arise. The biological monitor(s) shall immediately notify the Executive Director if activities outside of the scope of Coastal Development Permit 4-02-128 occur or if habitat is removed or impacted beyond the scope of the work indicated in Coastal Development Permit 4-02-128. If significant impacts or damage occur to sensitive wildlife species, the applicant shall be required to submit a revised, or supplemental program to adequately mitigate such impacts. The revised, or supplemental, program shall be processed as an amendment to this coastal development permit.

7. Snowy Plover and Belding's Savannah Sparrow Surveys

A. A biologist(s) or environmental specialist(s) with appropriate qualifications acceptable to the Executive Director shall conduct a survey(s) of western snowy plover and Belding's savannah sparrow in all shorefront portions of the project area, from the westernmost point at the parking and staging area to the downcoast terminus of Goleta Beach property. Survey(s) shall commence at least two (2) weeks prior to any beach and shoreline project activities and extend at least two (2) weeks after the sand berm is lowered. Prior to the commencement of the survey(s), the biologist(s) or environmental specialist(s) shall submit a survey methodology report for the review and approval of the Executive Director. The report shall include, at a minimum, an illustration of monitoring sites/transects, survey dates and time, names of surveyors, and survey protocol. The survey(s) shall be designed to assess the abundance, distribution, behavior, and any disturbances to snowy plovers and Belding's savannah sparrow foraging, roosting, or nesting in the survey area. If any snowy plover or Belding's savannah sparrow exhibits reproductive or nesting behavior, then the environmental specialist shall require the applicant to cease work, and shall immediately notify the Executive Director and local resource agencies. Project activities shall resume only upon written approval of the Executive Director.

B. The applicant shall submit a western snowy plover and Belding's savannah sparrow monitoring report to the Executive Director for review and approval by July 1 of each year. The monitoring report shall be prepared by a qualified biologist and shall at a minimum include, but not be limited to, the following components: 1) analysis of the population, distribution, and habitat needs of snowy plovers and Belding's savannah sparrows (BSS) at Goleta Beach; 2) documentation of all known incidents of snowy plover and BSS disturbance (including incidents resulting in mortality, citing the probable cause of mortality) including dates, times, location, degree of disturbance (e.g., behavior such as moving, running, or flying from a disturbance or other actions such as elevating wings), source of disturbance (e.g., pedestrians, vehicles, dogs on or off leash, equestrians, predation, spills, sand berm operations and support activities, or vandalism of unknown origin), length of time of disturbance, level of disturbance (i.e., how many birds made to fly or move and how far birds were displaced), and the approximate distance between the source and birds which resulted in the disturbance; 3) analysis of any other activities with the potential to impact the species' population in the project area, such as use patterns (e.g., public recreation), weather patterns, and habitat changes; and 4) conclusions regarding the impact of the project operations on the snowy plover and BSS populations and habitat. If the Executive Director determines that adverse impacts have occurred to the species' population or habitat as a result of the project operations, the Executive Director shall provide written notice to the applicant of such determination. The applicant shall cease work, and shall immediately notify local resource agencies. The applicant shall be required to submit a revised, or supplemental program to adequately mitigate such impacts. The revised, or supplemental, program shall be

processed as an amendment to this coastal development permit. Project activities shall resume only upon written approval of the Executive Director.

8. Public Access Program

At least two (2) weeks prior to commencement of annual berm construction, the applicant shall submit, for review and approval of the Executive Director, a report that (a) describes the methods (including signs, fencing, posting of security guards, etc.) by which safe public access to or around the beach deposition sites and/or staging areas shall be maintained during project operations and (b) describes how access to the beach will be maintained while the berm(s) are in place.

9. Required Approvals

At least two (2) weeks prior to commencement of annual berm construction, the applicant shall provide to the Executive Director a list of all other required state or federal discretionary permits and associated expiration dates for development approved pursuant to coastal development permit 4-02-128. The applicant shall provide to the Executive Director a copy of all necessary State or Federal permits for construction of the proposed sand berm (including the California Department of Fish and Game, California State Lands Commission, California Regional Water Quality Control Board, and the United States Army Corps of Engineers), or letter of permission, or evidence that no permit or permission is required. The applicant shall inform the Executive Director of any changes to the project required by any applicable agency. Such changes shall not be incorporated into the project until the applicant obtains a Commission amendment to this coastal development permit, unless the Executive Director determines that no amendment is legally required.

10. Assumption of Risk, Waiver of Liability and Indemnity Agreement

A. By acceptance of this permit, the applicant acknowledges and agrees (i) that the site may be subject to hazards from storm waves, surges, erosion, and flooding; (ii) to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.

B. Prior to any conveyance of the property that is the subject of this coastal development permit, the applicant shall execute and record a deed restriction, in a form and content acceptable to the Executive Director: (1) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the subject property, subject to terms and conditions that restrict the use and

enjoyment of that property (hereinafter referred to as the "Standard and Special Conditions"); and (2) imposing all Standard and Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The restriction shall include a legal description of the applicant's entire parcel or parcels. It shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the Standard and Special Conditions of this permit shall continue to restrict the use and enjoyment of the subject property so long as either this permit or the development it authorizes – or any part, modification, or amendment thereof – remains in existence on or with respect to the subject property.

C. Prior to issuance of the coastal development permit, the applicant shall submit a written agreement, in a form and content acceptable to the Executive Director, incorporating all of the above terms of this condition.

11. Permit Expiration

All development approved pursuant to 4-02-128 shall be completed by Memorial Day 2004, unless further authorization has been granted under the Coastal Act. The Executive Director may give permission for the project authorized in CDP 4-02-128 to be extended for one additional year, for good cause. Any construction, excavation, or sediment transport activities after the expiration of this permit will require the issuance of a new coastal development permit.

IV. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares:

A. Background

The project site is located at Goleta Beach County Park, which occupies approximately 29 acres with 4,200 feet of beach frontage in Santa Barbara County (Exhibit 1). Goleta Beach County Park is bounded on the west by the University of California at Santa Barbara, and to the north and east by private natural gas generation and storage facilities owned by Southern California Gas Company. To the northwest, Clarence Ward Memorial Boulevard separates the Park from the greater area of Goleta Slough and the Santa Barbara Municipal Airport. Goleta Beach County Park is situated at the mouth of the Goleta Slough which is fed by five major drainages, Tecolotito, Cameros, San Pedro/Las Vegas, San Jose, and Atascadero Creeks. The outflow channel of Goleta Slough wraps around Goleta Beach County Park along the Park's northern boundary, outletting through Goleta Beach County Park property, east of the developed facilities. The Goleta Slough mouth periodically closes under natural conditions and is breached regularly by the Santa Barbara County Flood Control District (pursuant to 5-year CDP 4-00-206 which expires November 16, 2005). Breaching occurs at the portion of the beach immediately east of the easternmost parking lot. After breaching, the mouth naturally migrates easterly at a rate of approximately 6 feet per day to its easternmost point.

Public access is available along the entire length of the park that is contiguous to the beach, nearly one mile in length. All portions of the park located landward of the sandy beach are located on top of a clay-rich fill base placed after World War II by the federal government. Prior to placement of the fill after World War II, the subject site was a sandspit extending across the mouth of Goleta Slough subject to wave action and periodic erosion. Existing development on site consists of a restaurant, two public restrooms, showers, parking lots, recreation lawn area, picnic facilities, numerous utility lines, and a pier. In recent years, and most notably during the 1999 winter storm season, erosion of the clay-rich fill underlying the park due to wave action has occurred forming a steep slope approximately four to five feet in height between the improved areas on site and the sandy beach.

B. Project Description

The proposed project is for the implementation of an annual winter sand berm program at Goleta Beach County Park for a term of five years. The program will involve construction of a "primary" 1,400-foot long winter sand berm, extending alongshore on the western half of the park, if the beach width is less than 190 feet by November 1 of each year (Exhibit 2). The program further entails the construction of an additional "secondary" 600-foot long sand berm adjacent to the primary berm, extending approximately 200 feet to the east of the Goleta Pier, if necessary due to storm conditions (Exhibit 2). The proposed winter berm(s) would be elevated to +15 feet above mean lower low water (MLLW) with a 10-foot wide berm crest and then sloped to approximately 2:1 (horizontal to vertical) to the water, with a total seaward extent of approximately 35 feet from the backbeach (Exhibit 3). Annual construction of the winter sand berms would require a maximum of approximately 15,400 cubic yard of grading (7,700 cubic yards of cut grading from nearby sand sources and 7,700 cubic yards of fill grading). A majority of the sand used to construct the winter berm(s) will be excavated from the sandspit at the mouth of the Goleta Slough, approximately 1,200 feet downcoast of the primary berm. In addition, some material may be obtained from Santa Barbara County Flood Control District projects, where sediment from flood control projects meets beach nourishment criteria. The annual winter sand berm program includes up to approximately 16,000 cu. yds. of grading[1] (8,000 cu. yds cut, 8,000 cu. yds. fill) for reconstruction and periodic maintenance to rebuild the sand berms with adjacent material after they are damaged in heavy storms.

The winter berm(s) would be constructed in late October or early November, and would be lowered prior to Memorial Day of the following year. The berms would be reconstructed to the design profile (Exhibit 3) as necessary after wave damage. The berms are intended to protect the Beachside Bar and Café and the western parking lot which the applicant asserts are at immediate risk of inundation, because they lie within the Wave Uprush Limit Line as defined by the wave uprush study for Goleta Beach

[1] The 16,000 cu. yds. of grading has been ascertained based on the applicant's assertion that a maximum of 8,000 cu. yds. of material may be necessary to rebuild portions of the berms after worst case storm event.

County Park, dated October 5, 2001. The more immediate threat is to the existing parking infrastructure and utilities as a result of the continuing erosion of the shoreline.

The applicant seeks approval for annual sand berm construction and lowering for five winter storm seasons through Memorial Day 2007; however, staff recommends expiration of the term of approval on Memorial Day 2004 with a provision for the expiration to be extended for one additional year, for good cause as determined by the Executive Director. This recommendation is based on: (1) the anticipated implementation of alternative long-term strategies as identified in the Long-Term Beach Restoration and Shoreline Erosion Management Plan and (2) the anticipated update of biological resources and shoreline erosion data which will assist the Commission in reviewing the array of long-term solutions to erosion at Goleta Beach that is most protective of coastal resources.

Initial Berm Construction

The winter berm(s) would be constructed in later October or early November, prior to the high wave activity contributing to the shoreline recession. The winter sand berm(s) would be constructed only if the beach width, from the back beach to the MLLW line, reaches 190 feet or less by November 1 (Exhibit 6). For comparison, this beach width in October 2000 was approximately 140 feet. The annual winter berms will be constructed over any remaining portion of the previous year's berm to achieve the design profile (Exhibit 3). The amount of grading will necessarily vary from year to year depending on shoreline recession and the degree to which the previous year's berm remains intact, with a maximum of 15,400 cu. yds. of grading proposed (7,700 cu yds cut, 7,700 cu. yds fill). The berm footprint covers a maximum of approximately 1.6 acres, approximately 1.1 acres comprises the primary berm footprint and approximately ½-acre area comprises the secondary berm footprint.

A safety fence, to prevent public access will be erected along the entire length of the berm, on the lawn side and around the part of the western parking lot used to stockpile sand and stage equipment for the duration of the berm's placement (Exhibit 5c). The fence will be signed in English and Spanish or international symbols. Additional fencing will be temporarily erected to prevent any public access to the beach, berm, storage, and staging areas (Exhibit 5b).

Construction of the berms will take approximately 5 to 8 days to complete, including excavation of sand material from the downcoast sandspit and transport via earthmoving equipment to the berm footprint area. A front-end loader would then grade and shape the berm in accordance with project plans.

The 1,400 foot long "primary" sand berm will be constructed on the back portion of the sandy beach immediately seaward of the existing lawn, picnic area, restrooms, showers, restaurant, utilities, and parking lot areas on the site (Exhibits 2). Two similar winter sand berm projects have been implemented within the confines of the primary berm footprint, in 2000-2001 and 2001-2002. Therefore, the primary berm will be

constructed over the remnants of the previous years' berms, which currently lies at a beach elevation of approximately 12 feet referenced to the National Geodetic Datum (NGVD). As presently estimated, the primary sand berm will require 4,000 cubic yards of material.

The 600 foot long "secondary" sand berm will be constructed seaward of the base of the abutment of the pier (Exhibit 2). The secondary berm would be constructed either in response to a storm in the previous few days (up to a week) that had begun to cause erosion, or in response to a storm predicted in the next few days (up to a week) in accordance with the following circumstances:

- If during a maintenance episode the area that would be protected by the secondary berm (at and to the east of the pier) is observed to have eroded then part or all of the secondary berm would be constructed as part of the maintenance episode.
- If a severe storm is forecast to coincide with a high tide greater than 6-feet then part or all of the secondary berm would be constructed in advance of the storm.

The secondary winter berm will be constructed from the existing beach elevation of approximately 7 feet referenced to the NGVD to an elevation of 15 feet NGVD. The secondary berm was not constructed in previous years, and therefore it will require more material per unit of length to get it establish. Under current conditions, the secondary berm, if constructed, would require approximately 3,700 cubic yards of fill material.

Reconstruction and Maintenance

The winter sand berm program includes the reconstruction of the sand berm(s) (referred to by the applicant as periodic maintenance) to the design profile, as necessary, after wave damage, requiring up to approximately 16,000 cu. yds. of grading (8,000 cu. yds. cut, 8,000 cu. yds. fill) per reconstructive event. Periodic reconstruction of a portion(s) of the berm requires pushing sand from the beach immediately seaward (shown as the Maintenance Excavation Area in Exhibit 2) of the berm back onto the berm with excavators/bulldozers. The County does not anticipate that sufficient damage will occur that would completely destroy the berms or necessitate complete reconstruction.

Damage to the berm is caused by waves removing the sand from the berm and spreading it over the beach in front of the berm and both down- and up-coast of the berm. The applicant estimates that in the worst case scenario, up to 8,000 cubic yards (two-thirds of the total berm volume of approximately 12,000 cu. yds) may be required to rebuild the berm per episode. Part, but not all, of this sand will be the same sand that was previously used to build the berm. This is because the sand in the berm is knocked down onto the lower beach by waves, and some of it remains in the intertidal area directly in front of the berm. However, much of the sand is lost offshore and alongshore.

The applicant estimates that, on average, one reconstruction (maintenance) episode would be required per winter season. The specific criteria for triggering maintenance activity are as follows:

- If sand losses of 50% or more of the berm's width occur, maintenance and/or reconstruction will take place on the following low tide;
- After reconstruction or maintenance has occurred, the berm will be monitored daily up to four to five days, until exceptionally high tides no longer occur;
- If more than 30% of the berm's width is lost on any of those subsequent days, then maintenance will occur during the following low tide;
- Reconstruction and maintenance will take place only from November 1 through March 31 when tides and waves reach their highest elevation; no maintenance is required after March 31.

The County will reconstruct and maintain the berm by using excavators to lift and place the sand carried from the berm back onto it from the beach (Maintenance Excavation Area shown in Exhibit 2). Implementation will require up to five days, during the low tide periods following the erosion of the berm.

The above criteria are similar to the criteria utilized in the previous two berm projects. There were two such episodes in 2000-2001 winter season and none during the 2001-2002 winter season.

Removal of Winter Berm

The proposed winter sand berm(s) will be removed prior to Memorial Day after each winter storm season. Removal of the berm entails lowering the crest elevation of the berms to the same elevation as the lawn and parking lot areas on site, approximately 12 feet NGVD. The remaining portion of the berms would be recontoured to gently slope seaward to create a ramped surface for improved access between the beach and the improved portions of the park. Removal activities would require up to five working days to complete. All fencing would be removed and the area used for staging would be restored to parking.

Source Material

The total volume of the sand berm is approximately 12,000 cu. yds., including remnant material from previous berms. The sand used to construct the winter berm will be obtained from two sources, Santa Barbara County Flood Control District projects and an excavation area located at the mouth of Goleta Slough. In addition, material for reconstruction and maintenance of the seasonally placed berm, will be obtained from sand areas seaward of the eroded berm.

Santa Barbara County Flood Control District

As proposed, source material would be obtained, as available, from Santa Barbara County's Flood Control District (FCD), which removes sediment from creeks within the watershed of the Goleta Slough. The FCD implements an annual desilting program for portions of Goleta Slough, pursuant to Commission Coastal Development Permit No. 4-00-206. The program entails dredging the lower reaches of Atascadero Creek, San Jose Creek, and the main channel of the slough on a periodic basis with maximum removal of 200,000 cu. yds. of sediment per year. The program also includes breaching the mouth of the Goleta Slough approximately 1-3 times/year and placement of all suitable dredged material in the surfzone at Goleta Beach County Park. The FCD also dredges and maintains debris basins in Carneros and Tecolotito Creeks pursuant to Santa Barbara County coastal development permit approvals. The Goleta Slough Dredging Project is permitted by the Regional Water Quality Board (RWQCB) to dispose of these dredged spoils on the beach or within the surf zone, according to RWQCB Order 94-17 issued June 3, 1994. The dredge spoils are tested each year and are disposed of on the beach or within the surf zone only if they meet EPA requirements. Dredge spoils meeting these water quality standards would be dewatered by the Flood Control District and subsequently stockpiled at Goleta Beach County Park prior to placement on the sand berm.

Santa Barbara County Flood Control District tests the sediment and provides the test results to the USACE and the EPA. The EPA provides concurrence for the sediment to be placed on the beach or in the surf zone to the USACE, with a copy to Santa Barbara County Flood Control District. This EPA concurrence would verify the physical and chemical compatibility of any flood control sediment with beach sand.

The average quantity of beach-compatible sediment available from Santa Barbara County Flood Control District is approximately 16,000 cubic yards per year. This amount was ascertained according to BEACON based on the approximately 80,000 cubic yards of total sediment available annually, and a statement by Karl Treiberg, Santa Barbara County Flood Control District, that approximately 20% of this is beach compatible (personal communication, December 2000). However, this availability is sporadic and dependent on storm events, and it should not be concluded that the entire berm can be constructed from this material. In some years, no material may be available.

Goleta Slough Sandspit

All, or most, of the material for the sand berm (up to 7,700 cu. yds.) would be transferred via excavators from the sand spit located at the east end of the Goleta Beach Park, at the mouth of the Goleta Slough (noted as the Primary Excavation area on Exhibit 2). The project would "shave" approximately 12 to 18 inches of sand off of the surface of the excavated area as shown in Exhibit 2. The primary excavation site for the source material is located approximately 1,200 feet downcoast of the proposed winter berm sites, near the mouth of Goleta Slough (Exhibit 2). The acreage of the

excavation area is 3.5 acres. The elevation of the beach is approximately 7 feet NGVD on the spit and would be approximately 6 feet NGVD after the project.

The Goleta Slough mouth periodically closes under natural conditions and is breached regularly by the Santa Barbara County Flood Control District (pursuant to 5-year CDP 4-00-206 which expires November 16, 2005). Breaching occurs at the portion of the beach immediately east of the easternmost parking lot. After breaching, the mouth naturally migrates easterly at a rate of approximately 6 feet per day to its easternmost point.

Most likely, the berm building operation would occur while the mouth of Goleta Slough is east of the Primary Excavation Area. However, if the slough mouth is located west of the excavation area, a temporary berm would be constructed across the mouth of the slough to provide access to the area. It would be constructed using material from the sand spit and would only be present for the construction period that is anticipated to be no longer than one working week (five days). The slough mouth berm will be breached to allow for limited tidal flow if the operation takes longer than a week.

The applicant has stated that it would be necessary to cross the Slough mouth under the following set of circumstances:

- Sediment is needed for construction of the winter berm, and sediment is available at the sand spit; and
- The Slough mouth is open and at the western end of its range. (If the Slough mouth is at the eastern end of its range then the sand spit is connected to the rest of the Park and it is not necessary to cross the mouth to reach the sand spit).

The Slough mouth naturally migrates to the east during the summer, and often closes. Santa Barbara County Flood Control District normally opens the mouth at the western end of its range in anticipation of a storm. In 2001, Flood Control opened the mouth in mid-December. Typically, if the berm is built relatively early in the season (by mid- to late-November, depending on the start of the storm season) then it would not be necessary to cross the mouth of the Slough.

As the storm season progresses, the sand in the spit is gradually washed away, so this source is not available for maintenance activities.

Maintenance Excavation Area

A third source of sand is proposed to be used during reconstruction and maintenance of the sand berms, and not for the initial construction. This "maintenance excavation area" is 1,400 feet in length and parallels seaward of the primary berm (Exhibit 2). Up to approximately 16,000 cu. yds. of grading (8,000 cu. yds cut, 8,000 cu. yds. fill) would be necessary for reconstruction and periodic maintenance to rebuild the sand berms with adjacent material after they are damaged in heavy storms. To reconstruct the berm, the

County would excavate up to 2 feet in depth above the current water level. The berm reconstruction would occur using excavators to lift and place the sand carried from the berm back onto it from the beach. Reconstruction would take place only at low tides after the storm event.

Staging Areas

The applicant has identified one staging area and one stockpile area at the west end of Goleta Beach Parking Lot (Exhibit 5a). Fifty parking spaces out of the total 580 Goleta Beach parking spaces, located on the west end of the parking lot will be occupied to stockpile sand and stage the equipment. These parking spaces will be occupied while the project is in place (approx. November through May).

C. Commission History

The project site has been subject to past Commission action. Coastal Development Permit (CDP) 4-01-136 (Santa Barbara County Parks) approved construction of a temporary sand berm for the winter season from 2001-2002, identical to the project currently proposed. Coastal Development Permit (CDP) 4-00-193 (Santa Barbara County Parks) approved the construction of a temporary sand berm for the winter season from 2000 to 2001, similar to the 2001-2002 and current proposed project. Further, prior to the construction of the previous temporary sand berm under CDP 4-00-193, an approximately 1,000 feet long rock revetment was placed on the site by Santa Barbara County Department of Parks & Recreation in February 2000 as an emergency measure to prevent further erosion of the improved areas of the park pursuant to Emergency Permit 00-EMP-002, which was issued by Santa Barbara County. This action by the County was appealed by two members of the Commission. Prior to the Commission's determination of whether a substantial issue was raised by the appeal, the County submitted CDP Application 4-00-118 for removal of the previously constructed rock revetment. CDP 4-00-118 was approved by the Commission on June 13, 2000, subject to a special condition which required the rock revetment be removed prior to August 31, 2000. Pursuant to a request by Santa Barbara County Department of Parks & Recreation, the time allowed for removal of the rock revetment was extended by the Executive Director until November 30, 2000, in order to allow the County to avoid interference with the grunion spawning cycle and to secure the necessary permits from other State and Federal agencies. That rock revetment was subsequently removed, as was required pursuant to the special condition.

Although the rock revetment installed in 2000 was removed, there remains a smaller rock revetment on the subject site in front of a parking area and another rock revetment buried beneath the sand in the area of the pier. According to staff from the Santa Barbara County Department of Parks & Recreation, the rock revetment by the pier at the east end of the park was constructed in approximately 1950 with additional work performed in 1961. Staff from the Santa Barbara County Department of Parks & Recreation have also stated that it appears that the rock revetment that exists in front of a parking area at the western end of the park was installed between 1985 and 1986

without the benefit of a coastal development permit, although the County approved a permit for the parking area in 1984. In order to resolve this violation and plan a comprehensive solution to shoreline erosion at the park, staff from Santa Barbara County Department of Parks & Recreation have prepared a long-term alternatives analysis (see Section D, Long-Term Management, below) for the subject site, which recommends that these existing revetments be retained and re-engineering to protect Park infrastructure. The applicant has stated that County Parks intends to submit coastal development permit applications later this year for the update and retention of the existing revetments.

D. Long-Term Management

The County recently completed a long-term plan for beach restoration and shoreline erosion management at Goleta Beach State Park. To protect the park facilities and infrastructure, similar sand berm projects were implemented in 2000-2001 (CDP 4-00-193) and 2001-2002 (CDP 4-01-136). Both of the coastal development permits approved for these projects specified that future CDP applications include a complete and detailed evaluation of the feasibility of all long-term solutions and potential alternatives to the proposed project, including importation of donor sand material from offsite inland sources and coordination with the Santa Barbara County Flood Control District in order to utilize sand material from local dredging projects for construction of the berms.

The *Goleta Beach County Park Long-Term Restoration and Shoreline Erosion Management Plan* (Moffatt and Nichol Engineers, 3/15/2002), was submitted with the current application. This shoreline management study considers the feasibility of constructing an annual winter sand berm, beach nourishment projects, and sand retention structures at the eastern and western ends of the project area. The recommended long-term management strategy is beach nourishment (pg 4-4):

> ***Beach nourishment is an essential part of the long-term maintenance of a beach at Goleta Beach County Park. However, the performance of beach nourishment at the park is not known at this time; it is not clear that beach nourishment alone will give an acceptably wide beach at an acceptable cost. Beach nourishment may be required annually, giving the same repeated construction impacts considered a drawback for the existing winter dike. Other alternatives – including sand retention and continued infrastructure protection including continued construction of a winter sand dike and/or upgrade of the existing revetments – may be needed, and should be considered for planning purposes at this stage.***

The recommended *long-term* strategy is to implement beach nourishment and restoration projects that would result in the widening of Goleta beach, including use of dredged material from Santa Barbara Flood Control projects, offshore dredging projects, and off-site upland sources. These projects would be monitored, and subsequently, the sediment budget and longshore transport in the Goleta area would be reviewed and revised based on the monitoring results and data collection. The report

tentatively identifies this updated information to be completed in 2005 or 2006. An updated decision could then be made as to whether beach nourishment alone will be sufficient in the long term, or whether sand retention and/or further shoreline protection might be necessary, such as implementation of the structural alternatives.

The management plan identifies "*interim measures*" that should be instituted while the beach nourishment projects are in progress and the beach remains relatively narrow. These measure would be unnecessary if a wide beach is eventually attained. However, interim measures would be maintained as a last line of defense against an extreme storm. The current (i.e., interim) recommended course of action is twofold, to re-engineer the revetments at the eastern and western ends of the park and construct an annual winter sand berm. The Long-Term Management Plan identifies the implementation of a winter sand berm as an "Interim Protection Measure." The report noted (pg. ES-1):

> ***Repeated construction of the dike may present disadvantages as a long-term solution to the beach erosion. It restricts access during the winter months, and the cumulative environmental effects of repeated construction are considered potentially undesirable. While some material is imported to the beach to construct the dike, it is not enough to offset the ongoing erosion.***

The Beach Erosion Authority for Clean Oceans and Nourishment (BEACON) has submitted a concurrent application for beach nourishment at Goleta Beach. BEACON is proposing a demonstration project (CDP Application 4-02-054) that entails placement of approximately 250,000 to 300,000 cubic yards of sand dredged from an off-shore borrow site to be deposited at Goleta Beach.

The nourishment projects are intended to build the beach width. As outlined by the applicant's consultants, the implementation of the winter berm would not be needed once the beach is established (Moffatt & Nichol Engineers, dated August 9, 2002):

> ***If the demonstration project is implemented, the proposed winter dike project will most likely not be implemented in the same year. Our project description indicates that the winter dike project would only be implemented if more than on-half of the beach width provided by the demonstration project was lost.***

BEACON has also submitted a separate coastal development application (CDP 4-02-074) for the potential disposal of upland offsite sources, as available, onto Goleta Beach as well as five other sites in Ventura and Santa Barbara Counties.

E. Hazards and Shoreline Processes

Section 30235 of the Coastal Act states:

> ***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 30253 of the Coastal Act states, in part, that new development shall:

(1) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.

(2) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

Section 30235 of the Coastal Act allows for the construction of a shoreline protective device when necessary to protect existing development or to protect a coastal dependent use. In addition, Section 30253 of the Coastal Act mandates that new development provide for geologic stability and integrity and minimize risks to life and property.

The proposed project is for the construction of a 1,400 foot long, 15 foot high winter sand berm and, if beach conditions warrant, an additional 600 foot long, 15 foot high winter sand berm. The sand berms will be constructed on the back portion of the sandy beach immediately seaward of the existing lawn, picnic area, parking lot areas, and pier abutment on the site. The back beach where the primary berm is proposed currently lies at approximately 12 feet in elevation, while the berm will increase this area by approximately three feet, to 15 feet in height. The berms will slope down to the existing beach at a constructed slope of 2:1 (horizontal to vertical). Additionally, the 600 foot long berm proposed to protect the abutment to the pier will only be constructed if beach conditions during the winter storm season warrant this protection. Further, the berms will be maintained as necessary after wave damage and will be lowered prior to Memorial Day following the winter storm season.

The sand berms will require up to approximately 15,400 cubic yard of grading (7,700 cubic yards of cut grading from nearby sand sources and 7,700 cubic yards of fill grading). The donor site for all, or most, of the approximately 7,700 cubic yards of sand material to be excavated is located approximately 1,200 feet downcoast of the proposed berms, near the mouth of Goleta Slough, from where the donor sand will be transported to the receiver site. Sand at the donor site would be excavated to a depth of approximately 12 to 18 inches over an area measuring approximately 3.5 acres. In addition, a portion of the berm would be constructed from material obtained by Santa Barbara County Flood Control District as a result of flood control operations conducted, pursuant to appropriate permits, in the watershed of the Goleta Slough. Additional sand material may be pushed up into the sand berm from areas in the immediate vicinity,

seaward of the sand berm for periodic reconstruction and maintenance activity (Exhibit 2).

All portions of the project site located landward of the sandy beach are located on top of a clay-rich fill base placed after World War II by the federal government. Prior to placement of the fill, the subject site was a sandspit extending across the mouth of Goleta Slough subject to wave action and periodic erosion. In recent years, and most notably during the 1999 winter storm season, erosion of the clay-rich fill underlying the park due to wave action has occurred. This has resulted in steep slopes and drop-offs of approximately four to five feet in height between the improved areas on site (the portion of the site constructed on fill) and the sandy beach. The proposed 1,400 foot long temporary sand berm will be located in the same area as the temporary sand berm approved last year under CDP 4-01-136. The applicant is also proposing to construct a 600 foot long sand berm in front of the existing pier abutment, which has eroded in past years. The purpose of the sand berms is to protect the improved areas of the park and the pier abutment from erosion by wave action. The Wave Uprush Study prepared by Moffatt & Nichol Engineers, dated October 5, 2001, states:

> ***The Goleta Beach County Park experienced severe erosion during both the 1999 – 2000 and 2000 – 2001 winter storm seasons, and it is expected that this will continue in future years. To protect the park against potential erosion, the County proposes to construct a winder sand dike . . . While this is not a long-term solution, it can provide immediate protection to existing structures and utility lines. . . .***

If necessary, depending on storm conditions, a secondary berm will be constructed at the pier itself, extending an additional 600 feet where considerable erosion occurred during January – March 2001.

This report also states:

> ***The sand dike operates as a sacrificial protective barrier; it is designed to be eroded by wave attack, thereby dissipating the wave energy and protecting the park frontage from erosion. This maintains the protective buffer for the park infrastructure. The sand dike is normally rebuilt after an erosive storm event. In effect, the reason for building the sand dike is to reduce the cumulative, irreversible erosion of the park by repeatedly rebuilding the sacrificial dike.***

Regarding wave overtopping and periodic maintenance (i.e, reconstruction of portions of the berm), this report states:

> ***It is extremely likely that some overtopping, by the top one-tenth highest waves, will occur at some point during the winter season: the probability is calculated as 92% without a winter sand dike, and 46% if the winter sand dike is constructed. Without a sand dike, this is expected to occur an average of 3 times per winter season – with slight but cumulative erosion happening each time. If the sand dike is constructed, overtopping is expected to occur, on***

> ***average, once per season. Dike maintenance would likely be required after each overtopping episode. Dike maintenance was required after 2 storm episodes in 2000 – 2001, consistent with the calculated average of once per season. . . .***

If the winter sand berm is constructed, there is still a 1% chance of some inundation damage. However, the cumulative erosion of the park frontage is replaced by erosion of the sacrificial sand berm, which can be maintained at the next low tide. The applicant estimates that, on average, one reconstruction (maintenance) episode would be required per winter season. The specific criteria for triggering maintenance activity are as follows:

- If sand losses of 50% or more of the berm's width occur, maintenance and/or reconstruction will take place on the following low tide;
- After reconstruction or maintenance has occurred, the berm will be monitored daily up to four to five days, until exceptionally high tides no longer occur;
- If more than 30% of the berm's width is lost on any of those subsequent days, then maintenance will occur during the following low tide;
- Reconstruction and maintenance will take place only from November 1 through March 31 when tides and waves reach their highest elevation; no maintenance is required after March 31.

The County will reconstruct and maintain the berm by using excavators to lift and place the sand carried from the berm back onto it from the beach (Maintenance Excavation Area shown in Exhibit 2). Implementation will require up to five days, during the low tide periods following the erosion of the berm. In the 2000-2001 winter season, two episodes occurred which required reconstruction of portions of the primary berm. In comparison, there were no episodes in 2001-2002 that required reconstruction or maintenance of the temporary berm.

The applicant's geotechnical engineering consultant has indicated that the proposed project will serve to increase the stability of the improved areas of the park where the sand berms will be located and will not result in any adverse effects to the proposed donor site (where up to 7,700 cubic yards of donor material will be excavated) or other downcoast areas from increased erosion. In addition, in its letter to Commission staff, dated May 20, 2002, Moffatt & Nichol Engineers states:

> ***Impacts to the sand donor site will be minimal, short-term, and imperceptible over time. Impacts will consist of a temporary lowering of the surface elevation of the spit by one to two feet from its existing elevation of approximately eight feet above National Geodetic Vertical Datum (near Mean Sea Level). The sand spit will continue to be reworked by waves and tides over time and the sand spit surface will be returned to its existing equilibrium elevation in a relatively short period of time, possibly within a two-week tide cycle. The spit will also undergo seasonal changes in elevation and planform from waves and would not retain its existing configuration indefinitely. No***

long-term changes are expected because sand from upcoast will be delivered to the spit over time and replace sand removed for the project. Also, the quantity of sand removed for the project is relatively small compared to the sand volumes being naturally transported through the area by longshore currents and the change in beach configuration will therefore not be significant or sufficiently long-lived to cause discernible impacts.

The project will not cause increased erosion to the donor beach or adjacent beaches. It will also not cause increased breaching of the entrance to Goleta Slough. The Flood Control District regularly breaches the spit and sand for this dike project will be taken from the same area of the spit to be consistent with District practices. Finally, the project will have no effect on the bluffs downcoast of the site due to the insignificant changes to the donor beach that will occur.

Interference by shoreline protective devices, including structures such as sand berms, may result in a number of adverse effects on the dynamic shoreline system, including increased scour and erosion of the sandy beach directly seaward of the device as a result of reflected wave energy, as well as increased scour and erosion both upcoast and downcoast of the device from end effects and refracted wave energy. Changes in the shoreline profile from increased erosion and scour reduce the usable area of the sandy beach available for public use. A beach that rests either temporarily or permanently at a steeper angle than under natural conditions will have less horizontal distance between the mean low water and mean high water lines, effectively reducing the actual area of beach able to be utilized by beach users and members of the public. In addition, erosion is expected to occur at an increased rate over time as the device is acted upon by wave action more frequently as a result of changes in the shoreline profile and the corresponding reduction in beach width.

Due to the project's ability to impact the shoreline in multiple years, the Commission finds it necessary to impose **Special Condition Four (4)** which requires the applicant to submit a long-term monitoring program for annual sand berm project activities. Special Condition 4 requires the annual shoreline monitoring program to include annual beach profiles, before and after initial construction of the annual sand berm and before and after the lowering of the sand berm. In addition, the monitoring program shall include an analysis of the change to beach width, elevation, sand volume, erosion trends and retreat. Pursuant to Special Condition 4, the applicant shall submit an annual report which provides the results of the long-term monitoring and details the annual project activities, such as the date, length of time of construction, quantity, location, method of construction, source of material, weather conditions, estimate of material eroded from the berm that triggered reconstruction or maintenance, and any issues or complaints regarding the project received by the public.

The applicant proposes to implement a five-year program for annual sand berm construction and lowering for five winter storm seasons through Memorial Day 2007. However, the anticipated implementation of alternative long-term strategies as identified in the *Long-Term Beach Restoration and Shoreline Erosion Management Plan* will

directly effect the continuing need for the berm, as designed. In addition, the applicant anticipates updated shoreline erosion data which will assist the applicant in implementing long-term solutions to erosion at Goleta Beach that are most protective of coastal resources. Furthermore, updated information from monitoring data will allow the Commission to receive and consider all relevant information before authorizing what the Long-Term Management Plan characterizes as an "interim" project on a long-term basis. Therefore, to ensure that long-term solutions to control erosion at Goleta Beach are most protective of coastal resources, **Special Condition Eleven (11)** provides for the expiration of the term of approval on Memorial Day 2004 with a provision for the expiration to be extended for one additional year to Memorial Day 2005, for good cause as determined by the Executive Director.

In addition, the proposed development will also require other regulatory approvals including the California State Lands Commission. Therefore, **Special Condition Nine (9)** requires the applicant to agree to obtain all other required state and federal approvals for the proposed project prior to commencement of construction, or evidence that notice has been provided to such agencies and no permit is required. The applicant has submitted evidence to Commission staff that all necessary applications have been submitted to these agencies.

In addition, based on the information submitted by Santa Barbara County Department of Parks & Recreation, the proposed development is located in an area of the Coastal Zone that has been identified as subject to potential hazards from wave action during the winter storm season. As discussed above, Goleta Beach County Park has previously been subject to substantial damage as the result of storm and flood occurrences. Most recently, and perhaps most dramatically, approximately one acre of recreational lawn area has been lost from previous winter storms. In addition, there has been erosion and exposure of protective footings in front of the restaurant on site, erosion and exposure of the pier abutment and associated utilities to the pier, and erosion near the existing restrooms and beach parking areas. As such, evidence exists that the project site is subject to potential risks due to storm waves and surges, high surf conditions, erosion, and flooding.

Although the proposed project will increase the stability of the developed portions of the subject site in relation to wave caused erosion, there remains some inherent risk to development on such sites. The Coastal Act recognizes that certain types of development, such as the proposed project to protect existing park facilities from storm waves, may involve the taking of some risk. Coastal Act policies require the Commission to establish the appropriate degree of risk acceptable for the proposed development and to determine who should assume the risk. When development in areas of identified hazards is proposed, the Commission considers the hazard associated with the project site and the potential cost to the public, as well as the individual's right to use his property. As such, the Commission finds that due to the unforeseen possibility of liquefaction, storm waves, surges, erosion, and flooding, the applicant shall assume these risks as a condition of approval.

Therefore, **Special Condition Ten (10)** requires the applicant to waive any claim of liability against the Commission for damage to life or property that may occur as a result of the permitted development. The applicant's assumption of risk will demonstrate that the applicant is aware of and appreciates the nature of the hazards which exist on the site and which may adversely affect the stability or safety of the proposed development.

In addition, the proposed project will involve approximately 15,400 cubic yards of grading and the use of construction equipment on a sandy beach. As such, the proposed project has the potential to generate debris and or presence of equipment and materials that could be subject to tidal action on the beach. The presence of construction equipment, building materials, and excavated materials on the subject site could pose hazards to beachgoers or swimmers if construction site materials were discharged into the marine environment or left inappropriately or unsafely exposed on the project site. In addition, such discharge to the marine environment would result in adverse effects to offshore habitat from increased turbidity caused by erosion and siltation of coastal waters. Therefore, in order to ensure that adverse effects to the marine environment are minimized, **Special Condition Two (2)**, requires the applicant to ensure that no stockpiling of dirt or construction materials shall occur on the beach seaward of the proposed berm locations and that any and all debris resulting from the construction period shall be immediately removed from the sandy beach.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Coastal Act Sections 30235 and 30253.

F. Environmentally Sensitive Habitat and Marine Resources

Section 30230 of the Coastal Act states:

> ***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 of the Coastal Act states:

> ***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, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.***

Section 30240 of the Coastal Acts states:

> ***(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.***
>
> ***(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 those areas, and shall be compatible with the continuance of those habitat and recreation areas.***

Sections 30230 and 30231 of the Coastal Act mandate that marine resources and coastal water quality shall be maintained and where feasible restored, protection shall be given to areas and species of special significance, and that uses of the marine environment shall be carried out in a manner that will sustain biological productivity of coastal waters.

The proposed project is for the construction of a 1,400 foot long, 15 foot high winter sand berm and, if beach conditions warrant, an additional 600 foot long, 15 foot high winter sand berm. The sand berms will require approximately 15,400 cubic yard of grading (7,700 cubic yards of cut grading from nearby sand sources and 7,700 cubic yards of fill grading). The berms will be maintained, as necessary, after wave damage and will be lowered prior to Memorial Day. The sand berms will be constructed on the back portion of the sandy beach immediately seaward of the existing lawn, picnic area, parking lot areas, and pier abutment on the site. The donor site for up to 7,700 cubic yards of sand material to be excavated is located approximately 1,200 feet downcoast of the proposed berms, near the mouth of Goleta Slough. Sand at the donor site would be excavated to a depth of approximately 12 to 18 inches over an area measuring approximately 3.5 acres. Other material will also be obtained, as available, from the Santa Barbara County Flood Control District that resulted from dredging operations in watershed of the Goleta Slough. This material will be tested by Santa Barbara County Flood Control District and must meet the requirements established by the Environmental Protection Agency for beach placement. Additional sand material may be pushed up into the berms from areas in the immediate vicinity, seaward of the berms.

The Goleta Slough and associated coastal saltmarsh is designated environmentally sensitive habitat. The slough is the drainage basin for five creeks that originate on the southern slopes of the nearby Santa Ynez Mountains: Atascadero Creek, San Jose Creek, San Pedro Creek, Carneros Creek, and Tecolotito Creek. Historically, Goleta Slough was a relatively deep water lagoon environment. Since the 1850's, progressive sedimentation from these five creeks have transformed the Goleta Slough from a deep water wetland habitat to a shallow coastal salt marsh crossed by numerous tidal channels. Additional fill has occurred as a result of development on site, including the Santa Barbara Airport, a highway, and various urban development.

The Goleta Slough provides perennial and seasonal habitat for several endangered and sensitive wildlife species including Belding's Savannah Sparrow, Steelhead trout, White-tailed kite, light-footed clapper rail, snowy plover, heron, egret, and at least 26 other bird species. The Belding's Savannah Sparrow is a State Endangered species. According to the Goleta Beach County Park Environmental Carrying Capacity Study and Management Plan, savannah sparrows are permanent residents in the Goleta Slough wetlands and occasionally use outlying areas.

1. Marine Organisms

The marine environment could be adversely impacted as a result of the implementation of project activities by contributing to elevated levels of turbidity or by unintentionally introducing sediment, debris, or chemicals with hazardous properties. The applicant is proposing to conduct project activities to ensure that potential hazardous materials would not contact sensitive habitats or the marine environment. To ensure that construction material, debris, or other waste associated with project activities does not enter the water in accordance with the applicant's proposal, the Commission finds **Special Condition Two (2)** is necessary to define the applicant's responsibility ensure proper disposal of solid debris and material unsuitable for placement into the marine environment. As provided under Special Condition 2, it is the applicant's responsibility to ensure that the no construction materials, debris or other waste is placed or stored where it could be subject to wave erosion and dispersion. Furthermore, Special Condition 2 assigns responsibility to the applicant that any and all construction debris shall be removed from the beach immediately and equipment shall not be in contact with coastal waters at any time. The potential adverse impacts associated with the introduction through source material are discussed separately below with regard to sediment compatibility and turbidity control.

Sediment compatibility

The applicant proposes to utilize two sources of material to construct the berms: (1) sediment from Flood Control projects within Goleta Slough that meet criteria for beach replenishment and (2) sand excavated from the sand spit at the mouth of Goleta Slough (Exhibit 2). The applicant asserts that compatible material from flood control projects would be priority for use on the berm. However, the controlling factor for determining the use of flood control sediment is the actual availability when the criteria are met which require the construction of the berm.

All, or a majority of, the berm(s) will be constructed with material excavated from the sandspit at the mouth of the Goleta Slough. The formation mechanism for the sand spit is primarily littoral drift; it forms over the summer, when there is little flow from the Slough (typically no more than 1 cfs from June to November, according to the USGS stream flow data for Tecolotito, Atascadero and San Jose Creeks). The applicant's engineering consultant estimates that the very low summer flow could not transport a great deal of sediment to the inner side of the sand spit, relative to the quantity to be excavated. Based on the worse case scenario, where three months' worth of sediment have accumulated on the inside of the spit, and if this were all fine material, the

applicant's consultant has determined that there would be approximately 12 cubic yards of fine material (Moffatt & Nichol Engineer, September 17, 2002). This is a very small quantity compared to the volumes (up to 7,700 cubic yards) that would be excavated from the spit if no dredge material is available, approximately 0.2%. Therefore, since the excavated material will consist of recent seasonal input from the littoral system, comprised of clean sand, physical and chemical analysis of the sediment from the sandspit is not proposed. Based on the above information, the sediment proposed to be excavated at the mouth of Goleta Slough has been determined to be compatible for construction of the sand berm(s).

Source material would also be obtained, as available, from Santa Barbara County's Flood Control District (FCD), which removes sediment from creeks within the watershed of the Goleta Slough. The FCD implements an annual desilting program for portions of Goleta Slough, pursuant to Commission Coastal Development Permit No. 4-00-206. The program entails dredging the lower reaches of Atascadero Creek, San Jose Creek, and the main channel of the slough on a periodic basis with maximum removal of 200,000 cu. yds. of sediment per year. The program also includes breaching the mouth of the Goleta Slough approximately 1-3 times/year and placement of all suitable dredged material in the surfzone at Goleta Beach County Park. The FCD also dredges and maintains debris basins in Carneros and Tecolotito Creeks pursuant to Santa Barbara County coastal development permit approvals. The Goleta Slough Dredging Project is permitted by the Regional Water Quality Board (RWQCB) to dispose of these dredged spoils on the beach or within the surf zone, according to RWQCB Order 94-17 issued June 3, 1994. The dredge spoils are tested each year and are disposed of on the beach or within the surf zone only if they meet EPA requirements. Santa Barbara County Flood Control District tests the physical and chemical properties of the sediment and provides the results to the USACE and the EPA for all flood control sediment to determine its compatibility for use on the berm. The EPA provides concurrence for the sediment to be placed on the beach or in the surf zone to the USACE, with a copy to Santa Barbara County Flood Control District. This EPA concurrence verifies the physical and chemical compatibility of any flood control sediment with beach sand.

As proposed, flood control material meeting the criteria for beach replenishment would be dewatered by the Flood Control District and subsequently transported to Goleta Beach County Park and stockpiled prior to placement on the sand berm. The average quantity of beach-compatible sediment available from Santa Barbara County Flood Control District is approximately 16,000 cubic yards per year. This amount was ascertained according to BEACON based on the approximately 80,000 cubic yards of total sediment available annually, and a statement by Karl Treiberg, Santa Barbara County Flood Control District, that approximately 20% of this is beach compatible (personal communication, December 2000). However, this availability is sporadic and dependent on storm events, and it should not be concluded that the entire berm can be constructed from this material. In some years, no material may be available.

To ensure that flood control material is physically and chemically compatible with the proposed berm, the Commission finds it necessary to require **Special Condition Three**

(3) which requires the applicant to continue to test the physical and chemical characteristics of representative samples of the flood control sediment and to submit the results for the review and approval of the Executive Director. Special Condition 3 requires that physical (grain size) and chemical analysis of a representative sample of sediment be conducted prior to transport of the material to staging areas for the annual sand berm to ensure that it meets criteria for beach replenishment. Pursuant to Special Condition 3, the sediment grain size shall be coarse-grained material (91% or more material retained in a Standard U.S. Sieve Size No. 200) appropriate for beach nourishment. Special Condition 3 further requires the analysis to include confirmation by the U.S. Army Corps of Engineers and California Regional Water Quality Control Board that the material proposed for use on the berm meets the minimum criteria necessary for placement on the sandy beach.

Turbidity

The proposed project has the potential to result in elevated turbidity in nearshore ocean waters. This turbidity could result from the spilling of sand into tidal waters during excavation of the sand spit, construction and removal of the berms, or the mobilization of fine sediments during periods of high water levels when waves reach the berm on the upper beach. Temporary increases in turbidity and suspended solids at the site would decrease light penetration, potentially contributing to a decrease in photosynthesis by phytoplankton. Any appreciable turbidity increase may also cause clogging of gills and feeding apparatuses of fish and filter feeders. Mobile organisms would likely relocate to an undisturbed area.

Construction of the berm requires 7,700 cu. yds. of sand to be collected from the excavation site (the donor site) and transported to the berm sites (the receiver sites) via scrapers and/or dumptrucks. Heavy equipment will also be necessary on the beach to lower the crest elevation of the berm to the same elevation as the lawn area, at the completion of the storm season. No construction equipment is proposed to contact with the water.

Sediment suspension resulting from wave attack on the berm is consistent with naturally occurring processes. However, increased turbidity is possible as a result of unanticipated occurrences – for example, if sediment is accidentally spilled into the surf zone during construction, or if construction equipment accidentally enters the water. There are two sources of material available to create a turbidity plume: beach sand and dredge materials being used to construct the berm. A turbidity plume containing dredge materials would be longer lasting, because the dredge materials from Santa Barbara County flood control projects are typically slightly finer than the beach sand (within the constraints of beach compatibility).

The applicant is proposing to monitor turbidity visually to confirm that enhanced turbidity is not being caused by the project. Turbidity plumes would be readily visible from several elevated vantage points in the area, including the Goleta Pier and the lifeguard stations. As proposed, turbidity would be monitored continuously by staff familiar with

Goleta Beach and with turbidity impacts. If their visual observations indicate a significant increase in turbidity compared to ambient conditions, then construction will halt while the source of turbidity is identified and appropriate measures taken. In this case, the turbidity plume will be photographed for the record as it occurs, as it dissipates after construction is halted, and after construction restarts. Appropriate turbidity reduction measures might include decreasing hours worked to remain within a low-tide window, or a change in placement (with finer dredge material preferentially placed in less exposed parts of the berm and coarser beach sand placed preferentially in more exposed parts). If an increase in turbidity that is less than significant but visually observable occurs then the turbidity plume will be photographed for the record but construction will not be altered or halted.

The applicant has defined a significant change in turbidity to corresponds to a 50% decrease in visibility compared to ambient conditions, extending more than 100 feet offshore or more than 500 feet alongshore. A less than significant change in turbidity corresponds to a lesser decrease in visibility, or a very localized decrease in visibility. Biologically significant areas (historic kelp beds) at Goleta Beach are at a minimum of 240 feet offshore, therefore, increases in turbidity closer inshore are not biologically significant.

To ensure that project activities (e.g., grading and recontouring of the beach profile and excavation of source material from the sand spit) do not contribute to increased turbidity of coastal waters that would have significant adverse impacts to marine resources in and along the project area, the Commission finds it necessary to require the applicant to formally submit a turbidity control plan as described pursuant to **Special Condition Five (5)**. Special Condition 5 requires the applicant to submit a plan for the review and approval of the Executive Director that outlines mitigation of turbid water to limit turbidity increases to no more than 50% above background. Furthermore, Special Condition 5 requires the applicant to retain the services of a qualified biologist(s) or environmental resources specialist(s) with appropriate qualifications acceptable to the Executive Director to monitor and document the turbidity of coastal waters during all project construction and maintenance activities. The extent of turbidity plumes shall be recorded by the monitor. If turbidity increases 50% above ambient levels, or extends more than 100 feet offshore or more than 500 feet alongshore, construction methods will be modified as described in the turbidity control plan. The environmental resource specialist shall require the applicant to cease work should any breach in permit compliance occur or if any unforeseen sensitive habitat issues arise.

Special Condition Five (5) further requires the applicant to submit a turbidity monitoring report to the Executive Director for review and approval by July 1 of each year. The monitoring report prepared by a qualified specialist shall at a minimum include, but not be limited to: (1) a map of the minimum and maximum turbidity plume for each stage (e.g., construction of berm, reconstruction and maintenance of berm, lowering of berm) of the project with corresponding data detailing the stage of the project, method of construction, weather conditions, percent turbidity above background, and the amount of material introduced into the environment; (2) a

discussion of range of turbidity plumes and any recommendations to reduce increase related to project activities; (3) any incidents during construction where turbidity control measures were implemented; and (4) conclusions regarding turbidity impact upon biological resources. If the Executive Director determines that adverse impacts have occurred to marine habitat as a result of the increased turbidity from project operations, the Executive Director shall provide written notice to the applicant of such determination. The applicant shall cease work, and shall immediately notify local resource agencies. The applicant shall be required to submit a revised, or supplemental program to adequately mitigate such impacts. The revised, or supplemental, program shall be processed as an amendment to this coastal development permit. Project activities shall resume only upon written approval of the Executive Director.

2. Intertidal Habitat

The applicant has submitted an Analysis of Environmental Effects prepared by Chambers Group, Inc., dated July 29, 2002, which indicates that construction of the berms would not result in any significant adverse effects to beach habitat. The proposed sand berms would be constructed on the backbeach (the receiver sites). The only intertidal invertebrates expected to occupy this upper zone are beach hoppers (Orchestoidea sp.). The berms are located above the intertidal zone where shorebirds feed; however, some beach hoppers would be buried by the deposition of sand.

The Analysis of Environmental Effects report indicates that although some adverse effects to the habitat value of the area of beach where excavation will occur at the donor site from the excavation of 7,700 cubic yards of sand, these impacts will be temporary in nature and the habitat value of the site is expected to return to its pre-development condition by the following spring. The Analysis of Effects for biological resources, prepared by Chambers Group, Inc., dated July 2002, states:

> ***The potential excavation of as much as one foot of sand from the sand spit would destroy most of the intertidal organisms within the excavation area. Sandy beach species are adapted to dramatic seasonal movements of sand. Typically, sand moves off of beaches during the winter and back in spring and summer. Sandy beach organisms recolonize beaches every spring. Recolonization of the disturbed area would begin immediately after the end of the excavation, as mobile species would be expected to move into the disturbed area from the adjacent undisturbed beach. By the following spring, the community would be expected to be similar to the pre-disturbance condition. Construction of the berm along the back portion of the beach is expected to have minimal impact on biological resources. Some beach hoppers may be buried by the deposition of sand.***
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> ...
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> ***Shorebirds and gulls would avoid the sand spit while the excavation was taking place but would reoccupy the area as soon as the excavation was ended. Since excavation will be conducted in fall/winter, which is outside of***

the breeding season of the great blue heron, no disturbance will be caused to the herons.

Based on the above information, construction of the berm along the back portion of the beach is expected to result in temporary impacts to intertidal species and habitat and would have no significant adverse impacts on beach resources.

3. Sensitive Species and Habitats

Several sensitive species are present in the project area, including the western snowy plover, Beldings' savannah sparrow, steelhead trout, and California grunion. Project activities with the potential to adversely impact sensitive species or sensitive habitat, include (1) the installation and maintenance of the sand berm(s); and (2) the grading and grooming of the beach deposition site(s) to natural beach contours associated with the removal of the berms at the conclusion of the winter storm season.

Construction of the berms would take approximately 5 to 8 days to complete, including excavation of sand material from the downcoast sandspit and transport via earthmoving equipment to the berm footprint area. A front-end loader would then grade and shape the berm in accordance with project plans. The winter sand berm program includes the reconstruction of the sand berm(s) to the design profile, as necessary, after wave damage. Periodic reconstruction of a portion(s) of the berm requires pushing sand from the beach immediately seaward (shown as the Maintenance Excavation Area in Exhibit 2) of the berm back onto the berm with excavators/bulldozers. The proposed winter sand berm(s) will be removed prior to Memorial Day after each winter storm season. Removal of the berm entails lowering the crest elevation of the berms to the same elevation as the lawn and parking lot areas on site. The remaining portion of the berms would be recontoured to gently slope seaward to create a ramped surface for improved access between the beach and the improved portions of the park. Removal activities would require up to five working days to complete.

The proposed project has been designed in a manner to minimize adverse effects to the sensitive beach, slough, and marine resources on the subject site. However, the proposed project may result in potential adverse effects to surrounding habitat due to unintentional disturbance from construction equipment and grading activity. Therefore, to ensure that all recommendations of the environmental consultant are properly implemented, and to ensure that any potential adverse effects to beach, slough, marine environment, and sensitive species are minimized, **Special Condition Six (6)** requires the applicant to retain a qualified biologist or environmental resource specialist to conduct a survey of the project site, to determine presence and behavior of sensitive species, prior to any excavation, construction, reconstruction, maintenance, or removal activities, or any associated grading and grooming activities on the beach. Prior to any project activities, the resource specialist shall examine the beach area at dusk and dawn to preclude impacts to the federally listed western snowy plover and the state listed endangered Belding's savannah sparrow. No excavation, construction, reconstruction, maintenance, or removal activities shall occur until any western snowy plovers or Belding's savannah sparrows have left the project area or its vicinity. In the

event that excavation, construction, reconstruction, maintenance or removal activities will occur during the seasonally predicted run period and egg incubation period for the California grunion, as identified by the California Department of Fish and Game, then the resource specialist shall document any grunion spawning activity and if grunion are present in any lifestage, no excavation, construction, reconstruction, maintenance, or removal activities shall occur until the next predicted run in which no grunion are observed. Should the monitor determine that sensitive species are present and are exhibiting nesting or other reproductive behaviors, the environmental specialist shall require the applicant to cease work, and shall immediately notify the Executive Director and local resource agencies. Project activities can resume upon written approval of the Executive Director.

Furthermore, **Special Condition Six (6)** requires the specialist to be present during project activities. The monitor shall have the authority to cease operations should any breach in permit compliance occur or if any unforeseen sensitive habitat issues arise. If significant impacts or damage occur to sensitive wildlife species, the applicant shall be required to submit a revised, or supplemental program to adequately mitigate such impacts. Specific requirements for protection of the western snowy plover, Beldings savannah sparrow, California grunion, steelhead trout, and kelp holdfast habitat are described below.

Western Snowy Plover

The project area has been identified as federally designated critical habitat of the western snowy plover. The Pacific Coast population of western snowy plover (*Charadrius alexandrinus nivosus*) are small, sand colored shorebird that uses sandy beaches for nesting and roosting from southern Washington to Baja California. The snowy plover forages on invertebrates in the wet sand; amongst surf-cast kelp; on dry sandy areas above the high tide; on salt pans; on spoil sites; and along the edges of salt marshes, salt ponds, and lagoons (USFWS 2001). Plovers breed primarily above the high tideline on coastal beaches, sand spits, dune-backed beaches, sparsely-vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. They tend to be site faithful, with the majority of birds returning to the same nesting location in subsequent years (USFWS 2001 citing Warriner et al. 1986). The breeding season for snowy plovers along the Pacific coast extends from early March to mid-September. The majority of California's wintering plovers roost and forage in loose flocks on sand spits and dune-backed beaches, with some occurring on urban and bluff-backed beaches, which are rarely used for nesting (USFWS 2001). Roosting plovers usually sit in small depressions in the sand, or in the lee of kelp, other debris, or small dunes (USFWS 2001 citing Page et al 1995).

The snowy plover was listed by the U.S. Fish and Wildlife Service (USFWS) as a threatened species in March 1993. Subsequently USFWS designated 180 miles of coastline in California, Oregon, and Washington as critical habitat in 1999. Critical habitat is a specific designation that identifies areas that are essential to conservation of an endangered species. The USFWS has released a *Draft Recovery Plan for the*

Pacific Coast Population of Western Snowy Plover (May 2001). The Goleta Beach area historically supported nesting snowy plovers, however, in recent times it is known only to support a sparse number of wintering birds. The Recovery Plan identifies a 2.3-mile stretch of coastline at Goleta Beach, encompassing the entire Goleta Beach Park area, as a snowy plover wintering site (Exhibit 7a). The Recovery Plan notes that utilization of the critical habitat area by plovers is "sparse," with estimates of 0-6 wintering birds each year.

The USFWS accords protection of wintering plover populations and habitat. Task 2 of the draft Recovery Plan provides a plan of action for protection of wintering plover populations as follows (pg. 156):

> ***Monitor and manage wintering and migration areas to maximize snowy plover population and survival.***

Task 3 of the Recovery Plan addresses habitat (pg. 160):

> ***Develop mechanisms for long-term management and protection of snowy plovers and their breeding and wintering habitat.***

The proposed temporary berm(s) are not expected to directly impact the snowy plover once they are in place. However, project activities such as construction, reconstruction, maintenance, and removal of the berm have the potential to adversely impact snowy plover. Construction of the berms would take approximately 5 to 8 days to complete, including excavation of sand material from the downcoast sandspit and transport via earthmoving equipment to the berm footprint area. A front-end loader would then grade and shape the berm in accordance with project plans. The winter sand berm program includes the reconstruction of the sand berm(s) to the design profile, as necessary, after wave damage. Periodic reconstruction of a portion(s) of the berm requires pushing sand from the beach immediately seaward (shown as the Maintenance Excavation Area in Exhibit 2) of the berm back onto the berm with excavators/bulldozers. The proposed winter sand berm(s) will be removed prior to Memorial Day after each winter storm season. Removal of the berm entails lowering the crest elevation of the berms to the same elevation as the lawn and parking lot areas on site. The remaining portion of the berms would be recontoured to gently slope seaward to create a ramped surface for improved access between the beach and the improved portions of the park. Removal activities would require up to five working days to complete.

The project activities potentially impacting wintering plovers consist of the disturbances associated with construction, reconstruction, and removal of the sand berms, including any associated grading and grooming of the deposition sites to restore natural beach contours. However, as discussed below, sufficient additional resting and feeding areas are abundant in the vicinity and the potential for the project to impact plovers is minimal due to the temporary nature of project disturbance and the species' ability to tolerate 'occasional' human activities.

Potential impacts to wintering plovers as a result of construction-related project activities constitute a temporary disturbance to plovers. The USFWS recognizes that the species' is tolerant of occasional human disturbance (CDP 4-01-143, Port District, USFWS, pers. comm. 1/25/02). These types of project activities are temporary and occasional since they represent a finite set of activities, occurring an average of approximately fifteen days, over the course of a the project spanning up to seven months (i.e., November – Memorial Day in May).The level of physiological stress to plovers from the aforementioned project activities is not expected to contribute to a loss of energy that would adversely impact reproduction or survivorship, as would be anticipated from repeated disturbances. In addition, there is a protection area (roped pedestrian exclusion area) for wintering snowy plovers at Coal Oil Point Reserve, located upcoast of the project site, which could accommodate temporary displacement of birds during the construction activities. In addition, there is critical habitat immediately upcoast and downcoast of the project area that could accommodate displaced wintering plovers.

In order to ensure that excavation, construction, maintenance, or removal of the proposed sand berms does not adversely affect the western snowy plovers, **Special Condition Six (6)** requires a qualified resource specialist to examine the beach area at dusk and dawn, and immediately prior to excavation or berm construction, maintenance, and lowering activities, to identify the presence of these species in order to preclude potential adverse impacts to them. As a result, the resource specialist shall ensure that prior to any excavation, construction, maintenance, or removal activities, there are no western snowy plovers in the project area or its vicinity. The monitor shall ensure that project activities do not commence until plovers have left the project area or its vicinity. If any breeding activities of the western snowy plover are observed, then no excavation, construction, maintenance, or removal activities shall be allowed. Timing of operations are prohibited, pursuant to **Special Condition One (1)**, on any part of the beach or shorefront in the project area when snowy plovers are identified by the surveys conducted as described in Special Condition 6.

Though the project activities are temporary and are not anticipated to adversely impact the wintering snowy plovers, staff notes that specific plover population dynamics and disturbances are not well documented at this site, and furthermore, the draft Recovery Plan calls for the monitoring of wintering habitat. Therefore, the Commission requires the applicant to monitor snowy plover abundance, distribution, behavior and any disturbances to snowy plovers at Goleta Beach, commencing at least two (2) weeks prior to any beach and shoreline activities and extending at least two (2) weeks after the sand berm removal activity has been completed as required by **Special Condition Seven (7)**. Special Condition 7 requires the applicant to submit a snowy plover monitoring report to the Executive Director for review and approval by July 1 of each year which addresses plover population and trends; incidents of plover disturbance; and conclusions regarding the impact of the berm operations on the plover population and habitat. If the Executive Director determines that adverse impacts have occurred to the plover population or habitat, the applicant shall cease work, and shall immediately notify local resource agencies. The applicant shall be required to submit a revised, or

supplemental program to adequately mitigate such impacts. The revised, or supplemental, program shall be processed as an amendment to this coastal development permit. Project activities shall resume only upon written approval of the Executive Director.

To ensure that the project is properly designed for the long-term protection of habitat, **Special Condition Three (3)** requires the source material meet federal and state beach nourishment criteria as described in **Special Condition Three (3). Additionally, Special Conditions Four (4)** requires pre- and post-berm operation monitoring of the nearshore and shoreline project areas, including beach width and sand volume changes. This information will be important to assess the project and its potential to effect plover habitat. Furthermore, the Commission finds it necessary to limit the project term under **Special Condition Eleven (11)** to expire on Memorial Day 2004 with a provision for the expiration to be extended for one additional year to Memorial Day 2005, for good cause as determined by the Executive Director. Subsequent data from the monitoring program shall be used to assess the effectiveness of the program and will allow an adaptive management approach that preserves habitat for ensuing years. The sand berm footprint is within critical snowy plover habitat areas. To ensure that the deposition of material does not create detrimental impacts to beach slope, or subsequently to natural processes of erosion, **Special Condition Two (2)** requires the applicant to regrade the deposition area to natural beach contours prior to Memorial Day and prior to the additional resource timing restrictions described in **Special Condition One (1).**

Belding's Savannah Sparrow (BSS)

The Goleta Slough provides perennial and seasonal habitat for several endangered and sensitive wildlife species including Belding's Savannah Sparrow (BSS). The Belding's Savannah Sparrow is a State Endangered species. Though construction activities would not be conducted within the bounds of the Goleta Slough wetland, construction-related disturbance or impacts may temporarily reduce the foraging habitat area for some species, including Belding's savannah sparrow. According to the ~~Goleta~~ Beach County Park Environmental Carrying Capacity Study and Management Plan, savannah sparrows are permanent residents in the Goleta Slough wetlands and occasionally use outlying areas.

Construction-related disturbance may reduce the foraging habitat for the Belding's savannah sparrow. Construction activities including human presence, lighting, and noise may also cause wildlife movement, foraging, and nesting to decline. The Belding's savannah sparrow which breeds in Goleta Slough has routinely been observed foraging along the western end of the project site. BSS would be displaced during construction activities but would reoccupy the area as soon as the project is completed. The applicant proposes to mitigate potential impacts to BSS by avoiding construction activities when individuals are foraging in the construction area.

To ensure that the impact to Belding's savannah sparrow is minimized, **Special Condition One (1)** prohibits construction activity when BSS are present in the project

area. **Special Condition Six (6)** requires that a survey be conducted to determine presence and behavior of BSS prior to construction. In order to ensure that excavation, construction, maintenance, or removal of the proposed sand berms does not adversely affect the Belding's savannah sparrow, **Special Condition Six (6)** requires a qualified resource specialist to examine the beach area at dusk and dawn, and immediately prior to excavation or berm construction, maintenance, and lowering activities, to identify the presence of these species in order to preclude potential adverse impacts to them. As a result, the resource specialist shall ensure that prior to any excavation, construction, maintenance, or removal activities, there are no Belding's savannah sparrows in the project area or its vicinity. The monitor shall ensure that project activities do not commence until BSS have left the project area or its vicinity. If any breeding activities of the BSS are observed, then no excavation, construction, maintenance, or removal activities shall be allowed.

Though the project activities are temporary and are not anticipated to adversely impact the Belding's savannah sparrow, staff notes that specific BSS population dynamics and disturbances are not well documented at this site. Therefore, the Commission requires the applicant to monitor BSS abundance, distribution, behavior and any disturbances to BSS at Goleta Beach, commencing at least two (2) weeks prior to any beach and shoreline activities and extending at least two (2) weeks after the sand berm removal activity has been completed as required by **Special Condition Seven (7)**. Special Condition 7 requires the applicant to submit a monitoring report to the Executive Director for review and approval by July 1 of each year which addresses BSS population and trends at the site; incidents of disturbance; and conclusions regarding the impact of the berm operations on the BSS and habitat. If the Executive Director determines that adverse impacts have occurred to the BSS or habitat, the applicant shall cease work, and shall immediately notify local resource agencies. The applicant shall be required to submit a revised, or supplemental program to adequately mitigate such impacts. The revised, or supplemental, program shall be processed as an amendment to this coastal development permit. Project activities shall resume only upon written approval of the Executive Director.

California Grunion

California grunion have been observed to occur at Goleta Beach, including the project area. The California grunion is a small fish in the silversides family and is extremely unusual among fish in its spawning behavior. The grunion spawns on the sandy beaches in the project vicinity immediately following high tides from mid-March through August. The eggs are incubated in the sand until the following series of high tide conditions, when the eggs hatch and are washed into the sea. California grunion is a species of concern due to its unique spawning behavior, and carefully managed as a game species. Project activities within the intertidal zone may disturb adult grunion during the run period and/or may bury incubating grunion eggs.

Excavation for initial construction would not occur during the grunion spawning season; however, it is possible that storms may occur in late March, requiring berm

maintenance or re-construction during grunion spawning season; and the berm would be lowered in approximately April or May, during the grunion spawning season. Therefore, the proposed operations have the potential to significantly impact California grunion by excavating or depositing sediment within the intertidal zone during the seasonally predicted protected grunion run period and egg incubation period of April through August.

In order to ensure that excavation, construction, maintenance, or removal of the proposed sand berm does not adversely affect grunion spawning events, **Special Condition One (1)** provides that project activities shall not be allowed on any part of the beach and shorefront when California grunion are present during any run periods and corresponding egg incubation periods. To ascertain presence of California grunion, Special Condition Six (6) requires that in the event that excavation, construction, maintenance or removal activities will occur during the seasonally predicted run period and egg incubation period for the California grunion (*Leuresthes tenius*), as identified by the California Department of Fish and Game, then the resource specialist shall document any grunion spawning activity and if grunion are present, no excavation, construction, maintenance, or removal activities shall occur until the next predicted run in which no grunion are observed. The resource specialist shall provide inspection reports after each grunion run observed and shall provide copies of such reports to the Executive Director and to the California Department of Fish and Game.

Steelhead Trout

Southern steelhead occur in coastal streams and creeks in Central and Northern California, and Oregon. The populations that occur between Los Angeles County and northern Santa Barbara County constitute the South-Central Evolutionary Significant Unit (ESU) which has been designated an endangered species by the National Marine Fisheries Service. Southern steelhead are anadromous (migrating from freshwater to the ocean as juveniles and returning to freshwater as an adult to spawn). Spawning occurs from December through June when higher winter stream flows occur.

Steelhead trout have historically entered Goleta Slough to migrate up the tributary streams for spawning. The *Goleta Beach County Park Environmental Carrying Capacity Study and Management Plan*, Draft, February 1999 describes steelhead in the area as follows:

> ***This anadromous form of Rainbow Trout, a Federally Endangered species, spawns in freshwater. Juveniles travel downstream to the ocean to feed and grow, and after a few years return to the stream of their birth as adults to spawn. Adults move into Goleta Slough when the sand bar at the outlet is breached in winter, after heavy rain. A 29 inch gravid female Steelhead was found February 25, 1995 north of Goleta Beach in San Pedro Creek. This species was also reported from Goleta Slough in 1982 (Page, 1985) and a few other undocumented records from the upper reaches of the slough since then. Swift et al. (1993) report "recent records" from Atascadero Creek, and also Gaviota and Mission Creeks in Santa Barbara County. Physical barriers, decreased stream flows, and sedimentation have contributed to declines of***

the Steelhead run. The drought of 1986-1991 may have contributed as well. The status of the Steelhead run in Goleta Slough is probably tenuous, given the physical barriers and degradation of habitat.

Noise, vibration, and altered water quality resulting from deposition activities near the mouth of the Goleta Slough could potentially interfere with steelhead migration likely to occur winter through summer months. The construction and placement of the berms would not impact steelhead habitat. However, the applicant proposes to excavate material from the sandspit at the mouth of the Goleta Slough and potentially dike the entrance of the slough mouth for up to eight days for the initial construction of the berm. The applicant asserts that there would be no diking of the slough mouth for reconstruction or maintenance of the berms (Moffatt & Nichol Engineers correspondence, dated September 17, 2002):

It is quite possible that some portions of the dike would need to be completely re-built, with other portions remaining in good condition. Averaged over the entire length of the dike, we expect at most two-thirds of the material to be lost during a storm... Material would not be taken from the Slough mouth or from the sand spit for maintenance. The sand spit is normally washed away during storms, and the flow from the Slough during and after storms is normally high so that diking the Slough mouth would not be easy or desirable.

The Goleta Slough mouth periodically closes under natural conditions and is breached regularly by the Santa Barbara County Flood Control District (pursuant to 5-year CDP 4-00-206 which expires November 16, 2005). Breaching occurs at the portion of the beach immediately east of the easternmost parking lot. After breaching, the mouth naturally migrates easterly at a rate of approximately 6 feet per day to its easternmost point.

Most likely, the berm building operation would occur while the mouth of Goleta Slough is east of the Primary Excavation Area. However, if the slough mouth is located west of the excavation area, a temporary dike would be constructed across the mouth of the slough to provide access to the area. It would be constructed using material from the sand spit and would only be present for the construction period that is anticipated to be no longer than eight days. The applicant proposed to breach the berm at the mouth of the slough to allow for limited tidal flow if the operation takes longer than a week.

The Slough mouth naturally migrates to the east during the summer, and often closes. Santa Barbara County Flood Control District normally opens the mouth at the western end of its range in anticipation of a storm. In 2001, Flood Control opened the mouth in mid-December. Typically, if the berm is built relatively early in the season (by mid- to late-November, depending on the start of the storm season) then it would not be necessary to cross the mouth of the Slough. Staff recognizes that both the Flood Control District and County Parks are departments of Santa Barbara County. Therefore staff anticipates these departments would communicate early and often regarding each

of their prospective tasks, to ensure that impacts to sensitive species and habitat are minimized to the maximum extent possible.

To avoid impacts to steelhead trout, the Commission finds it necessary to impose **Special Condition One (1)** to prohibit project operations at the mouth of Goleta Slough, including excavation of the sandspit or diking of the slough mouth for access to the excavation site, during steelhead trout spawning from December through June when high winter stream flows occur, unless by authorization of the U.S. Fish and Wildlife Serve and/or the California Department of Fish and Game and subject to the approval of the Executive Director.

Furthermore, it shall be the applicant's responsibility, as provided in **Special Condition Two (2)**, to assure that the sand berm shall be constructed in accordance with project plans if the beach width is less than 190 ft. from the backbeach, subject to the timing restrictions specified in Special Condition One (1) above, prior to November 1 of each year.

Giant Kelp Holdfast

The southern Santa Barbara coast is unusual because historically it has supported kelp beds growing on sand bottom substrate. Worm tubes (*Diopatra ornata*) serve as attachment sites for giant kelp (*Macrocystis pyrifera*) on sand bottom. The root-like holdfasts of the giant kelp provide habitat for a number of unique invertebrates. In Goleta Bay, these holdfasts are unusual because almost everywhere else in California, giant kelp only is associated with rocky substrates. Instead, they are loosely attached to hard worm tubes on the sandy bottom of the bay. These holdfasts occassionally break loose especially during winter storms, and are washed up on shore.

Diopatra is a ubiquitous species that occurs on nearshore soft bottom virtually everywhere of the southern California open coast between about 25 and over 100 foot water depths. The depths at which kelp is estimated to grow on *Diopatra* over the 40-foot water depth (Chambers Group, July 2002). The applicant's coastal engineering consultant indicates that "based on previous beach surveys, depths greater than 40 feet correspond to a distance of more than 1,200 feet offshore..." (Moffatt & Nichol Engineers, August 9, 2002). In the September 5, 2002 correspondence, the applicant's engineer provided a rough analysis of turbidity and its potential to impact giant kelp in the project vicinity. Estimates were based on a similar project in Carlsbad. Moffatt & Nichol Engineers found (September 5, 2002):

> ***Turbidity was measured by Sherman et al in 1997 in Carlsbad, during and after a project in which up to 20,000 cubic yards of relatively fine sediment were placed in the swash zone. The 1998 project report gave the following estimates for the Carlsbad project.***
>
> - ***The turbidity plume extended approximately 300 meters (1,000 feet) offshore, and several miles downcoast.***

This offshore distance is less than the estimated distance (1,200 feet) to the kelp beds growing on tube worms, based on our letter dated August 9, 2002.

- ***The turbidity plume was extensive but very short-lived (lasting for two days after construction).***

  Dr. Larry Deysher, who has studied kelp for the last 20 years, has indicated that it would probably take several weeks of heavy turbidity to damage kelp.

This suggests that there is no possibility that the kelp growing on tube worms could be impacted by turbidity arising from the proposed project, in which no more than 7,700 cubic yards of material will be placed on the beach. As stated above, however, we do not anticipate any significant enhanced turbidity arising from the project.

Based on this information, the proposed project will not contribute additional turbidity or sediment above background that would reach the location of the tube worm and giant kelp holdfast areas.

For the aforementioned reasons, the Commission finds that the proposed project, as conditioned, is consistent with Sections 30230, 30231, and 30240 of the Coastal Act.

G. Public Access and Visual Resources

Coastal Act Section 30210 states:

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.

Coastal Act Section 30211 states:

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.

In addition, Section 30251 of the Coastal Act states:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New

development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinated to the character of its setting.

Coastal Act Sections 30210 and 30211 mandate that maximum public access and recreational opportunities be provided and that development not interfere with the public's right to access the coast. In addition, Coastal Act Section 30251 requires that visual qualities of coastal areas shall be considered and protected, landform alteration shall be minimized, and where feasible, degraded areas shall be enhanced and restored.

The project site is located within a county-operated park available for public use. Public access is available along the entire approximately one mile length of the park that is contiguous to the beach. The proposed project involves the construction of an approximately 15-foot high sand berm between the lawn and parking lot areas on the project site and the sandy beach and possibly a second sand berm in front of the abutment of the pier, if necessary. The elevation of the lawn and parking lot areas on the project site is approximately 12 feet above mean sea level. The crest of the proposed berm will not extend above 15 feet in elevation above mean sea level (approximately only eight feet above the ground elevation of the lawn, picnic, and parking lot areas on the project site) and will not, therefore, significantly obstruct public views of the beach and ocean from any portion of the park located landward of the sand berm.

In recent years, and most notably during the 1999 winter storm season, wave caused erosion of the clay-rich fill underlying the park has occurred forming a steep slope (or drop-off) approximately four to five feet in height between the improved areas on site (the portion of the site constructed on fill) and the sandy beach.

Public access may be impeded somewhat by the proposed berms, due to the steep drop-off to the beach from the lawn and parking lot areas on site. Construction of the proposed berms will also result in some adverse effects to the public's ability to access the sandy beach since beachgoers would be required to traverse a sand berm higher than the elevation of the lawn and parking lot areas on site. However, due to the presence of the steep drop-off to the beach from the lawn and parking lot areas on site, the construction of the proposed berms will not create any greater difficulty for members of the public to access the sandy beach than if the berms were not constructed. In addition, the proposed project includes the removal of the berms prior to Memorial Day 2002. Removal of the berms would involve lowering the crest elevation of the berms to the same elevation as the lawn and parking lot areas on site. The remaining portion of the berms would be recontoured, if necessary, to gently slope seaward to create a ramped surface for improved access between the sandy beach and the improved portions of the park.

Construction within the project site would temporarily displace beach area for public use, however, the remainder of beach areas will be available for public access. Since at

least partial access is maintained during the winter months when visitor use is low, the displacement of beach users is minimal. However, to ensure that maximum access is maintained for the public in the project area, **Special Condition One (1)** requires that all project operations involving mechanized equipment be prohibited on any part of the beach and shorefront in the project area from Memorial Day in May through Labor Day in September to avoid impact on public recreational use of the beach. In this way, scheduling operations outside of peak recreational seasons will serve to minimize potential impacts on public access. In addition, to ensure that the berm is removed prior to the peak recreational season, **Special Condition Two (2)** requires the applicant to ensure that the beach is graded and groomed to natural beach contours to facilitate recreational use, prior to Memorial Day, and subject to the resource timing constraints identified in Special Condition 1.

The Commission further finds that impacts to access may occur as a result of unanticipated impacts to the shoreline. To address this issue, **Special Condition Four (4)** requires the implementation of a Long-Term Monitoring Program to analyze changes to beach profiles, sand width, and volume in relation to the volume and location of project activities. Furthermore, Special Condition 4 requires the applicant to document the available public access during project implementation, timing of access, and any other restrictions to public access in the project area, including any access issues or complaints raised by the public.

To ensure that the interruption to public access of the project site is minimized and resource issues are addressed, the Commission requires the applicant to submit a public access plan, pursuant to **Special Condition Eight (8)**, to the Executive Director for review and approval. Special Condition 8 shall include a description of the methods (including signs, fencing, posting or security guards, etc.) by which safe public access to and around the receiver sites and staging areas shall be maintained during and after construction of the sand berms.

The Commission finds that the proposed project, as conditioned, will not significantly impact recreational opportunities and public access at the project site, and therefore the project is consistent with Sections 30210, 30211, and 30251 of the Coastal Act.

H. Local Coastal Program

The proposed project area lies within the unincorporated area of County of Santa Barbara, but falls within the Commission's area of retained original permit jurisdiction because it is located on state tidelands or is below the mean high-tide. The Commission has certified the Local Coastal Program for the County of Santa Barbara (Land Use Plan and Implementation Ordinances) which contains policies for regulating development and protection of coastal resources, including the protection of environmentally sensitive habitats, recreational and visitor serving facilities, coastal hazards, and public access.

I. CEQA

Section 13096(a) of the Commission's administrative regulations requires Commission approval of Coastal Development Permit application to be supported by a finding showing the application, as conditioned by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act (CEQA). Section 21080.5(d)(2)(A) 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 effect, which the activity may have on the environment.

The Commission finds that, the proposed project, as conditioned will not have significant adverse effects on the environment, within the meaning of the California Environmental Quality Act of 1970. Therefore, the proposed project, as conditioned, has been adequately mitigated and is determined to be consistent with CEQA and the policies of the Coastal Act.

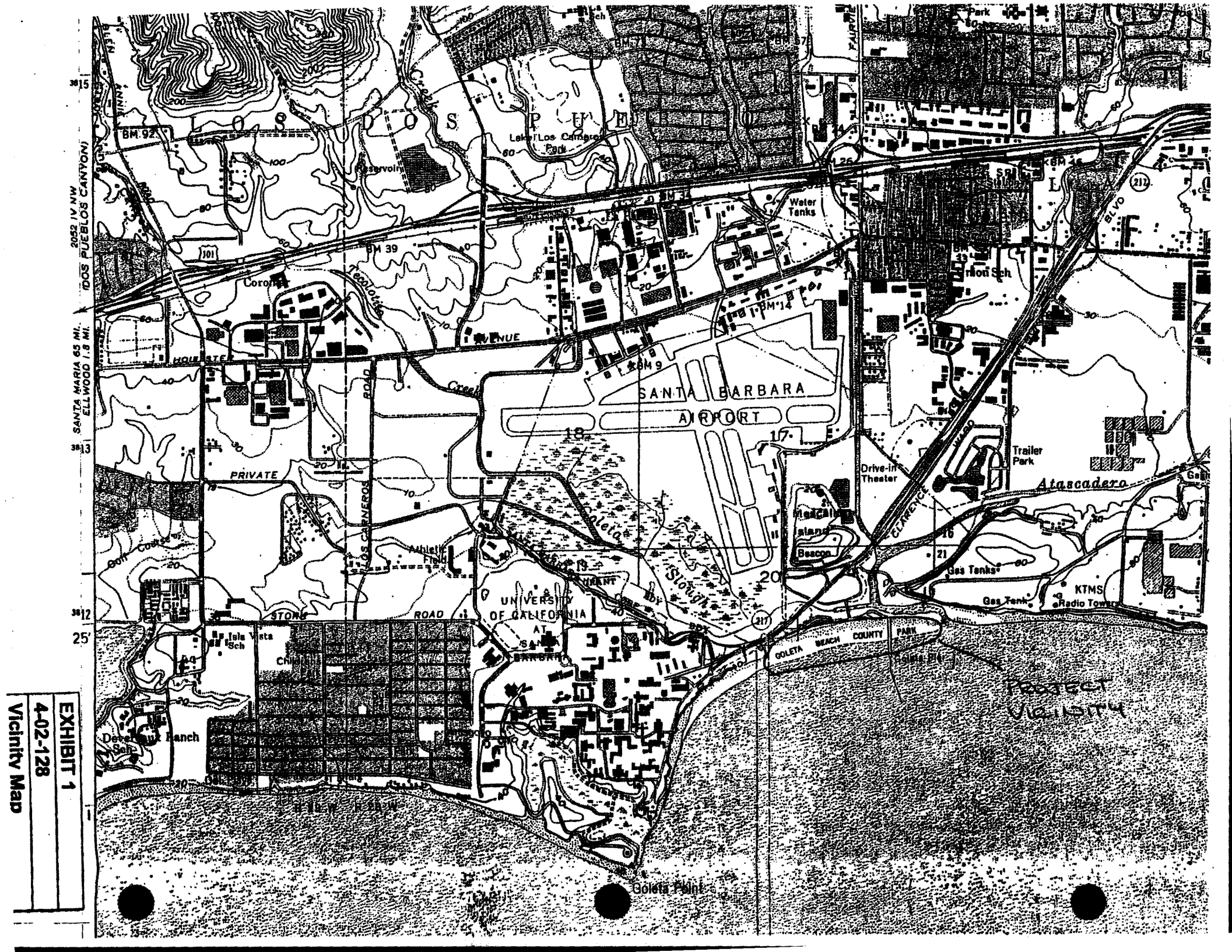
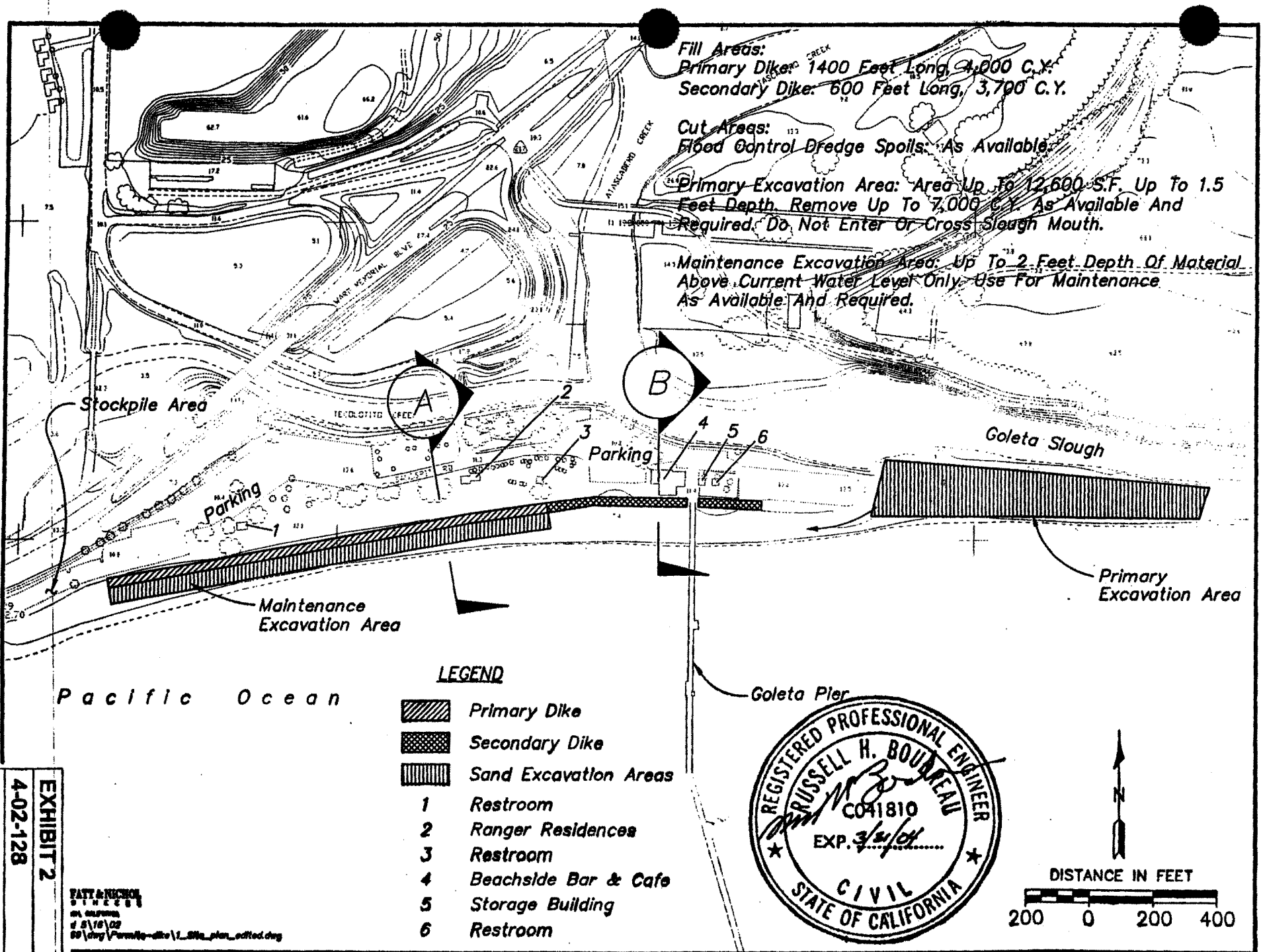


EXHIBIT 1
4-02-128
Vicinity Map



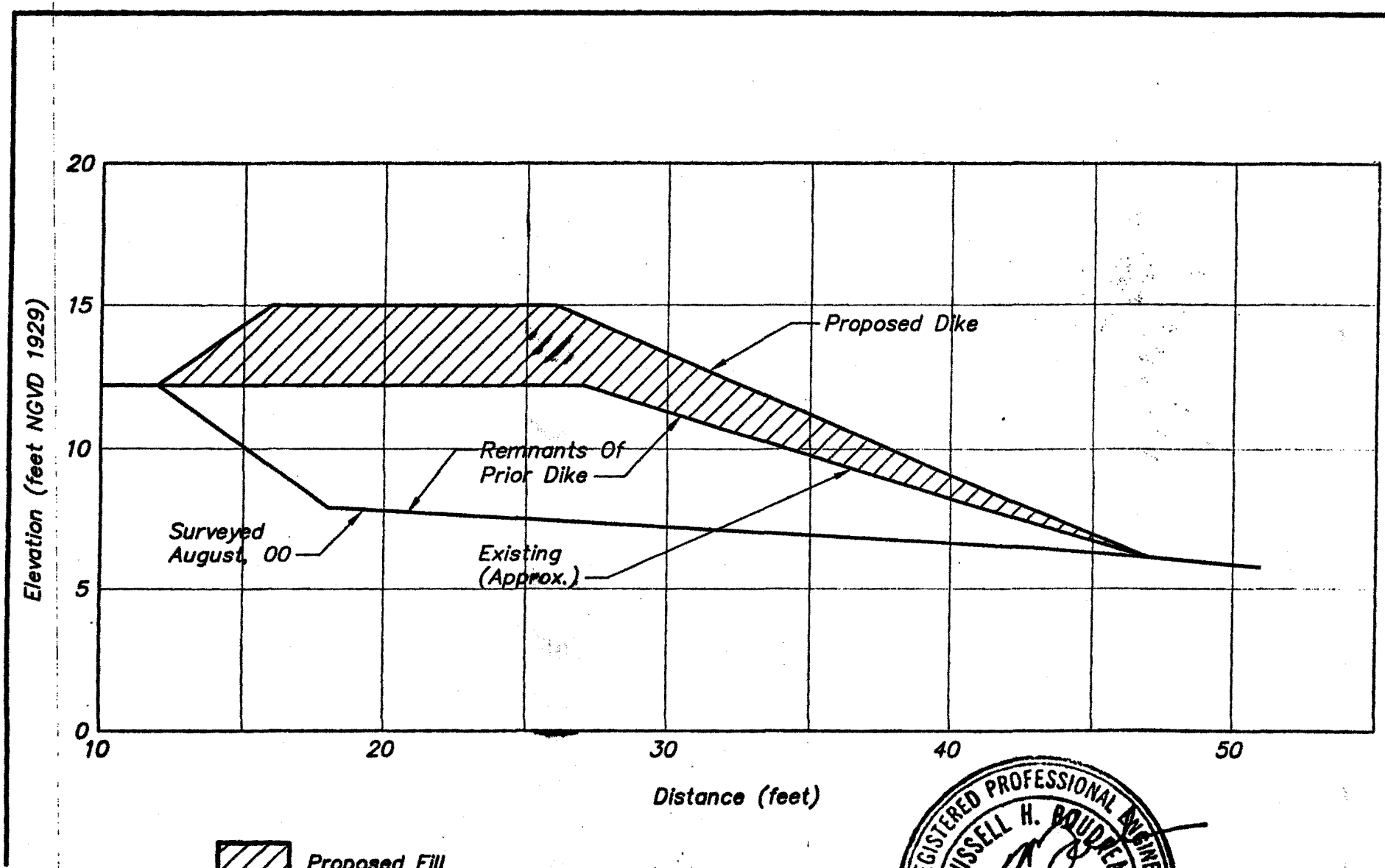
FATT & NICHOL ENGINEERS

EXHIBIT 2
4-02-128
Site and Grading Plan

TA BEACH FIVE-YEAR WINTER DIKE PROJECT

SITE AND GRADING PLAN

FIGURE 1



REGISTERED PROFESSIONAL ENGINEER
RUSSELL H. BOUDREAU
C041810
EXP. 3/31/04
CIVIL
STATE OF CALIFORNIA

SECTION (A)

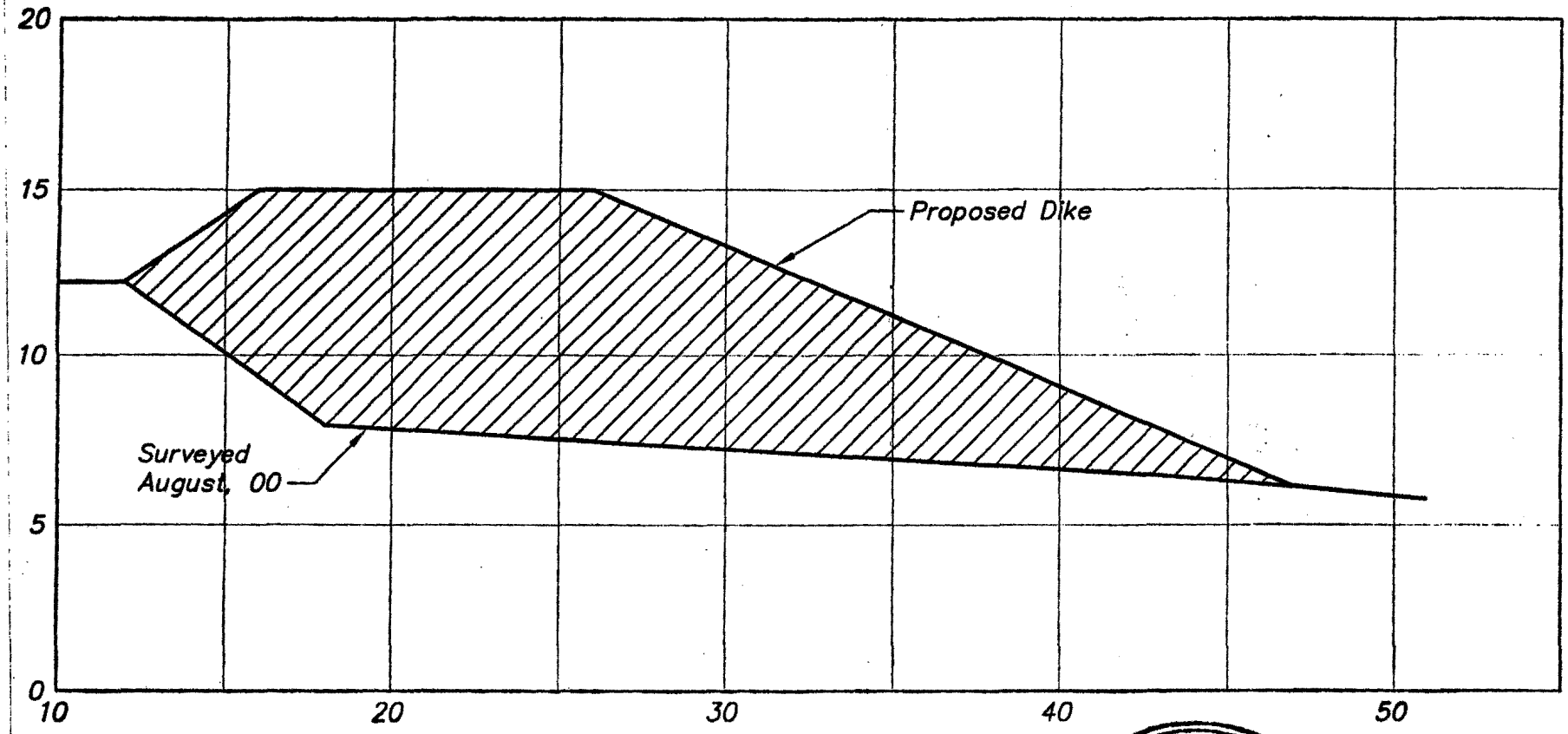
Scale:
Horiz. 1"=5'
Vert. 1"=5'

EXHIBIT 3a
4-02-128
Cross Section of
1,400 ft. Sand Berm

BEACH FIVE-YEAR WINTER DIKE PROJECT

GOLETA BEACH DIKE DESIGN CROSS SECTION

FIGURE



SECTION (B)

REGISTERED PROFESSIONAL ENGINEER
RUSSELL H. BOUDREAU
C041810
EXP. 3/31/01
CIVIL
STATE OF CALIFORNIA

Scale:
Horiz. 1"=5'
Vert. 1"=5'

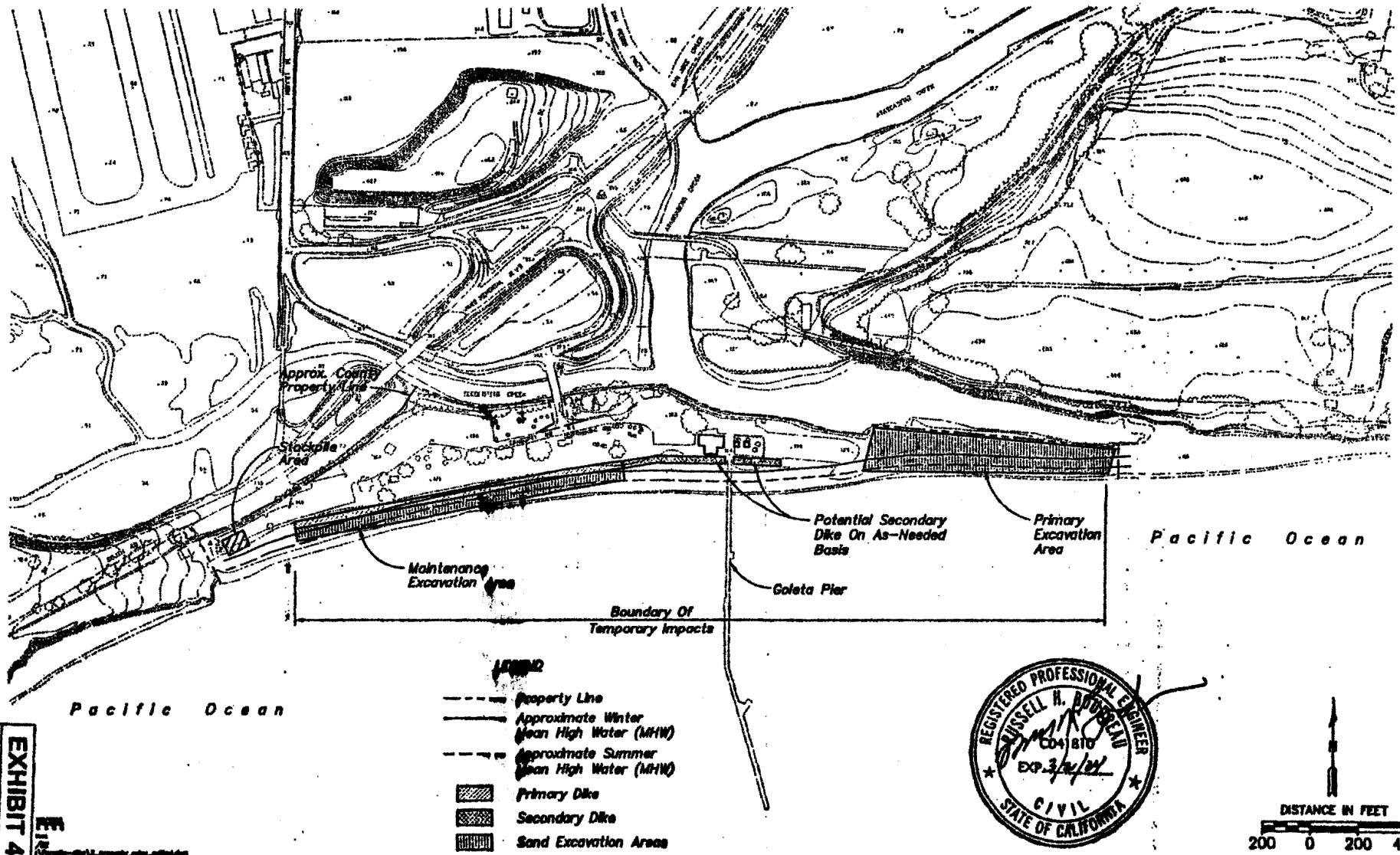
EXHIBIT 3b
4-02-128
Cross Section of 600 ft. Sand Berm

T&NICHOL ENGINEERS

A BEACH FIVE-YEAR WINTER DIKE PROJECT

GOLETA BEACH DIKE DESIGN CROSS SECTION

FIGURE 2B



GOLETA BEACH FIVE-YEAR WINTER DIKE PROJECT

CONSTRUCTION DESIGN RELATIVE TO TIDAL ELEVATIONS AND PROPERTY LINES

FIGURE 3

EXHIBIT 4
4-02-128
Construction Design/Tidal Plan

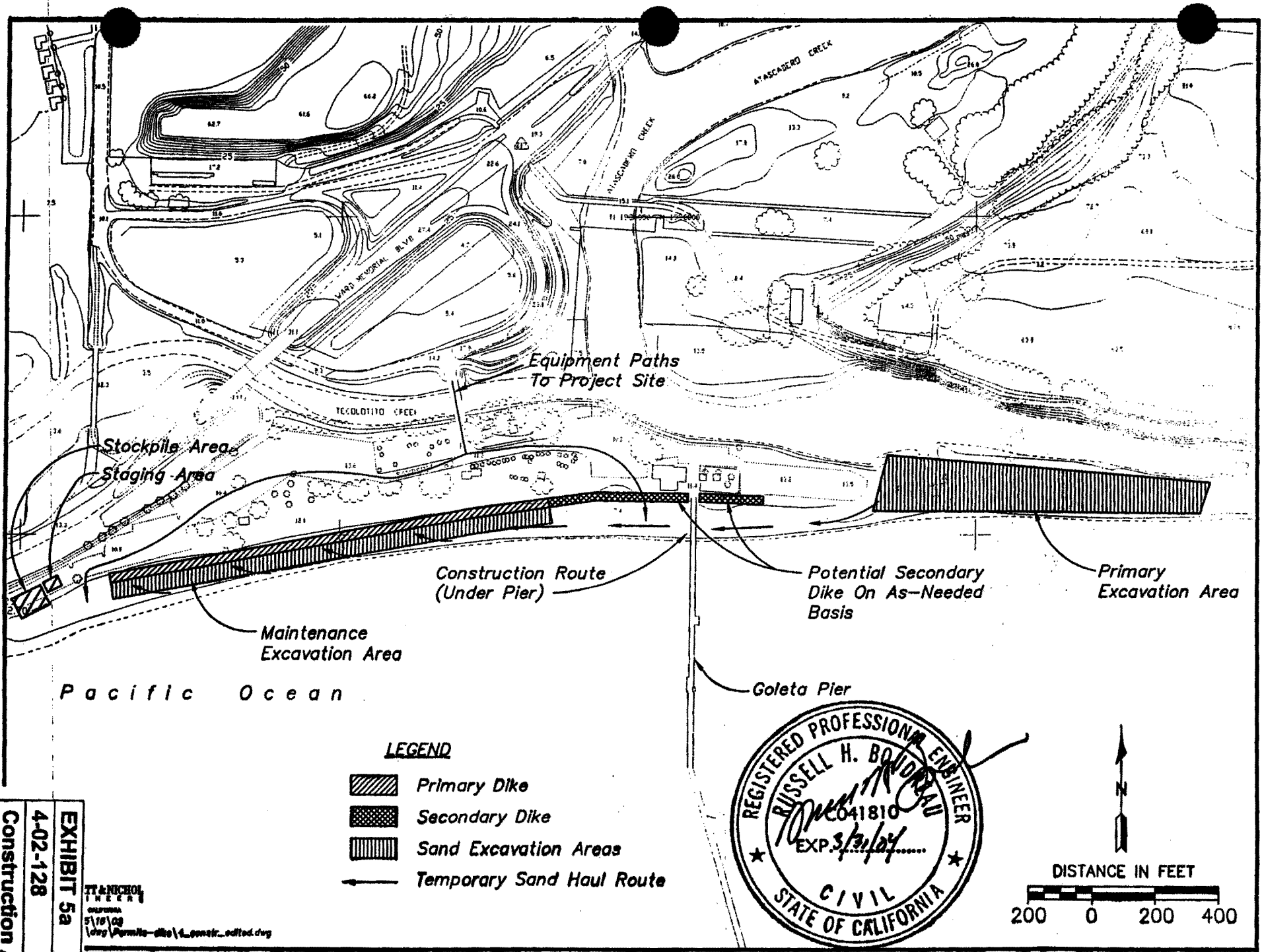


EXHIBIT 5a
4-02-128
Construction Access, Staging, & Storage

TT&NICHOL ENGR
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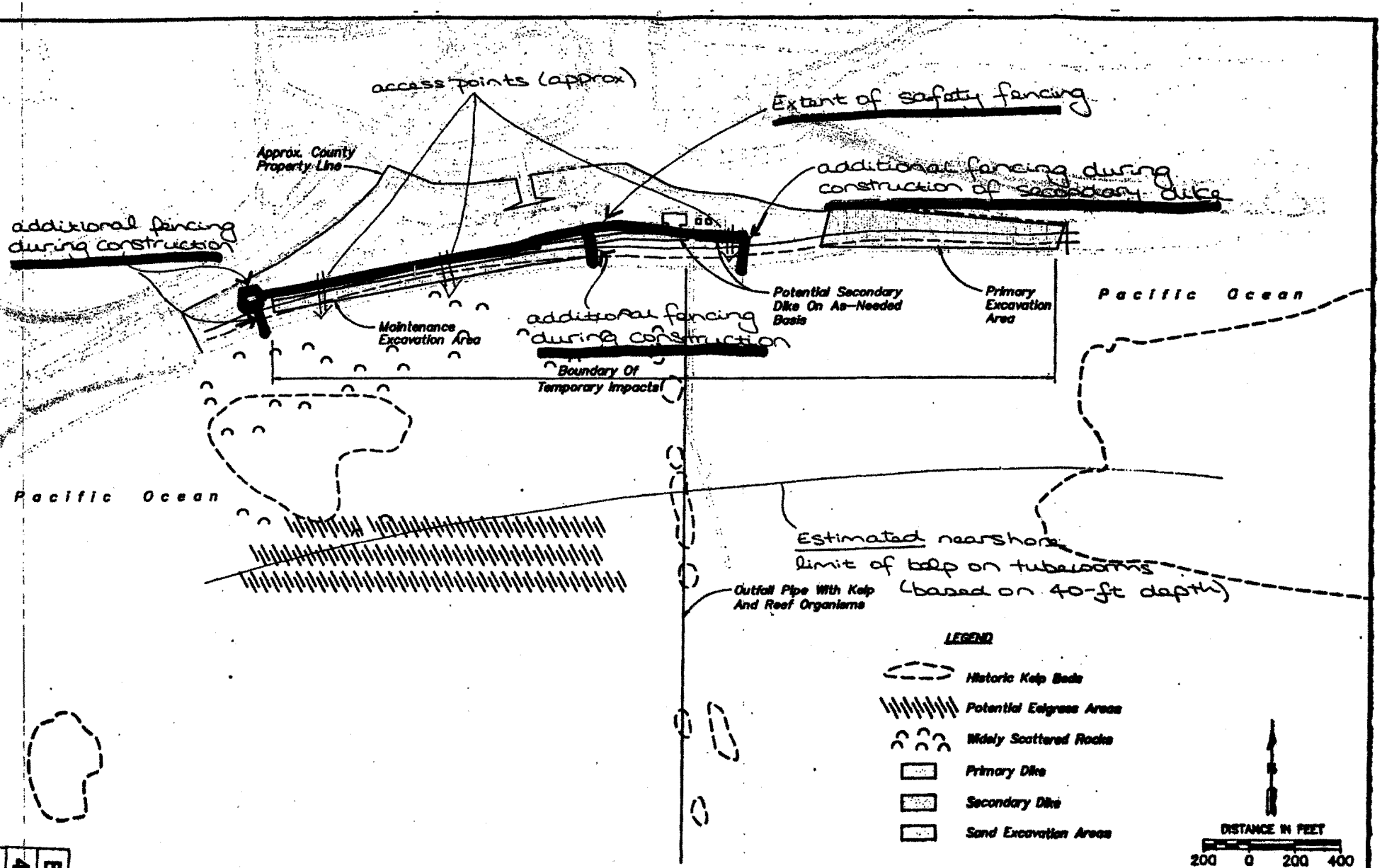
A BEACH FIVE-YEAR WINTER DIKE PROJECT

CONSTRUCTION ACCESS, STAGING AND STORAGE

FIGURE 4



GOLETA BEACH FIVE-YEAR WINTER DIKE PROJECT

BIOLOGICAL RESOURCES AT GOLETA BEACH

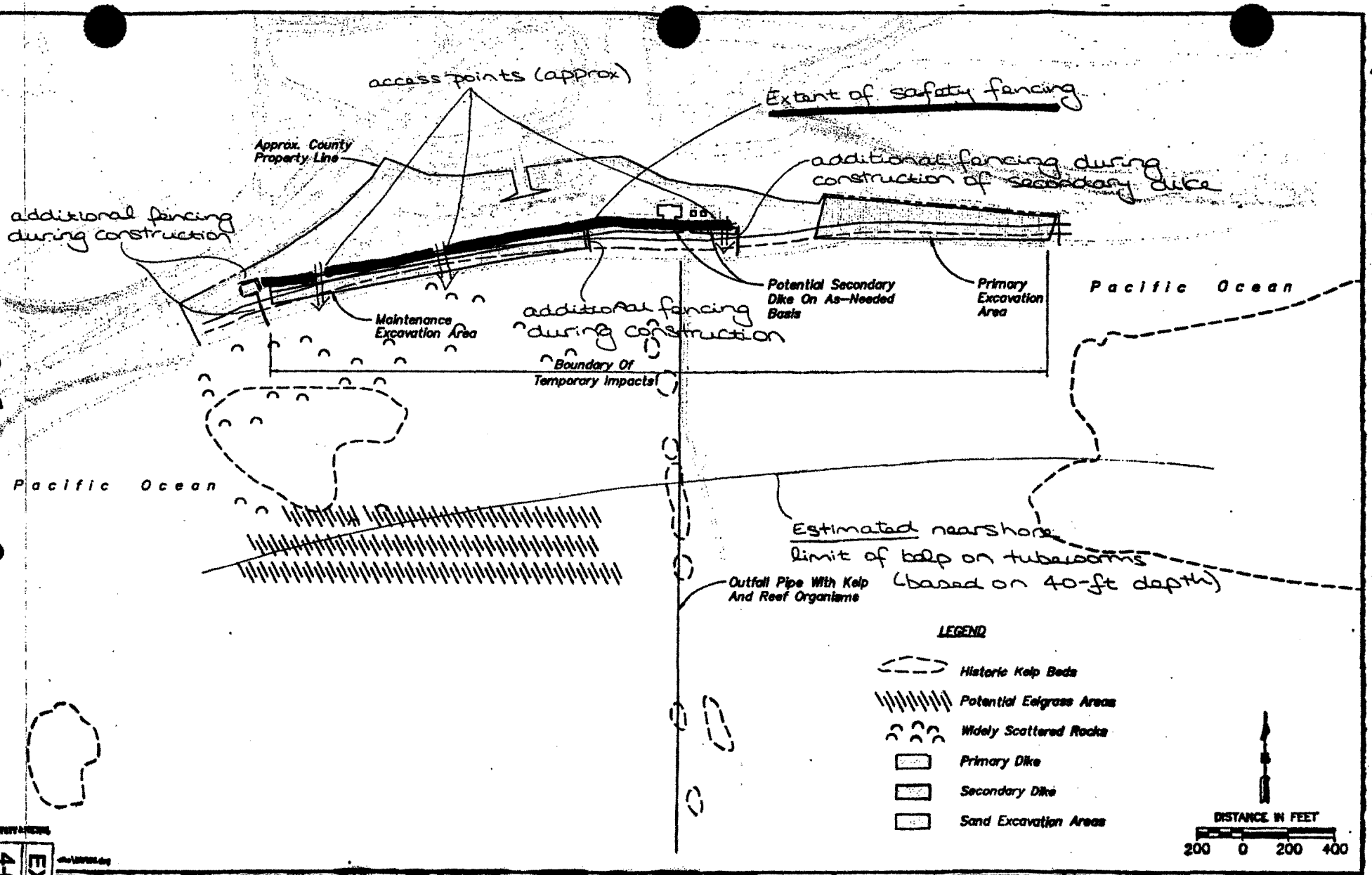
FIGURE 6

MARKUP 8/5/02

Note: Emphasis Added by Commission Staff

EXHIBIT 5b
4-02-128
Fencing In Place During Construction of Berm

Note: Emphasis Added By Commission Staff



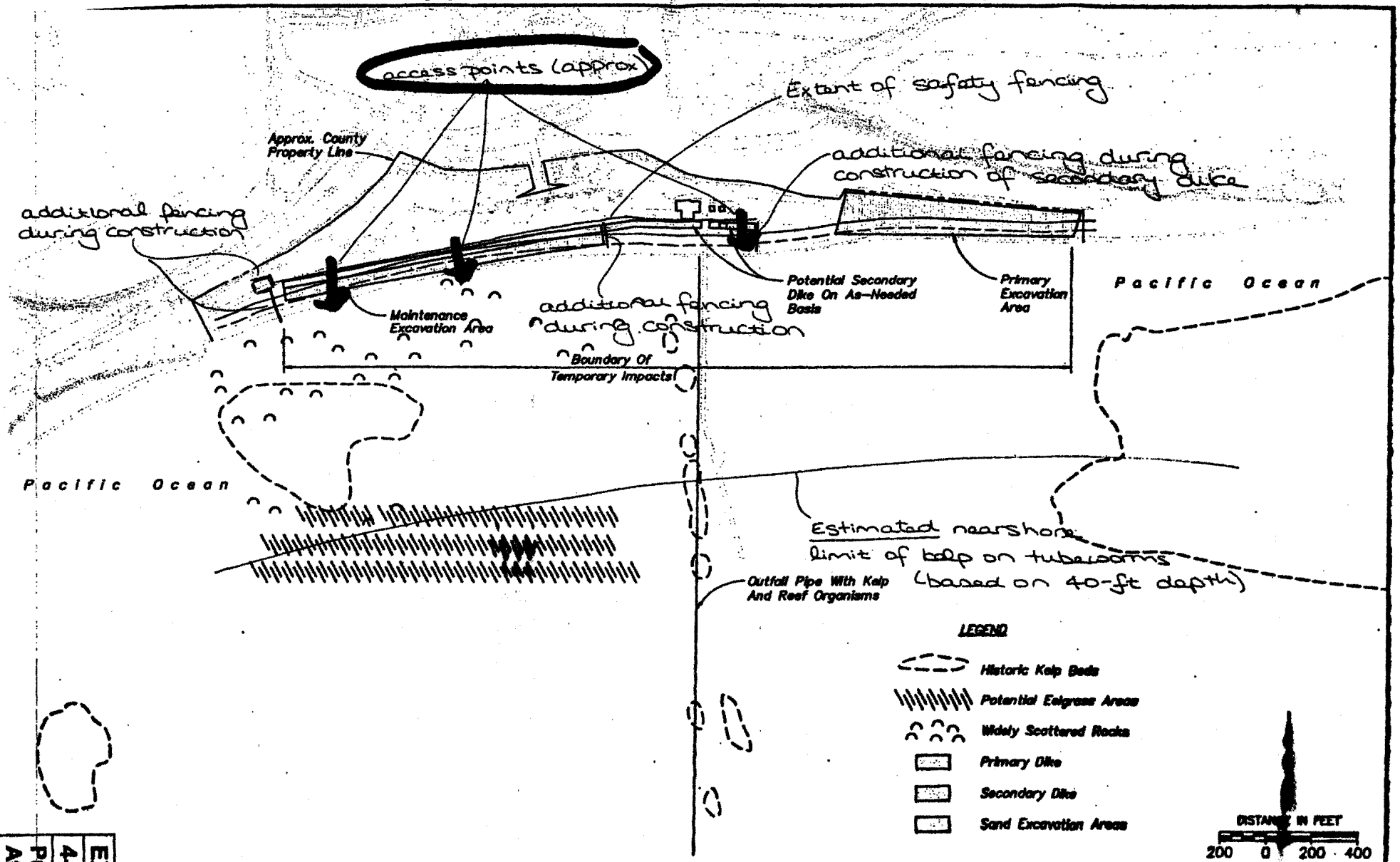
GOLETA BEACH FIVE-YEAR WINTER DIKE PROJECT

BIOLOGICAL RESOURCES AT GOLETA BEACH

FIGURE 6

MARKUP 8/5/02

EXHIBIT 5c
4-02-128
Fencing In Place After Construction of Berm



Note: Emphasis added per Staff

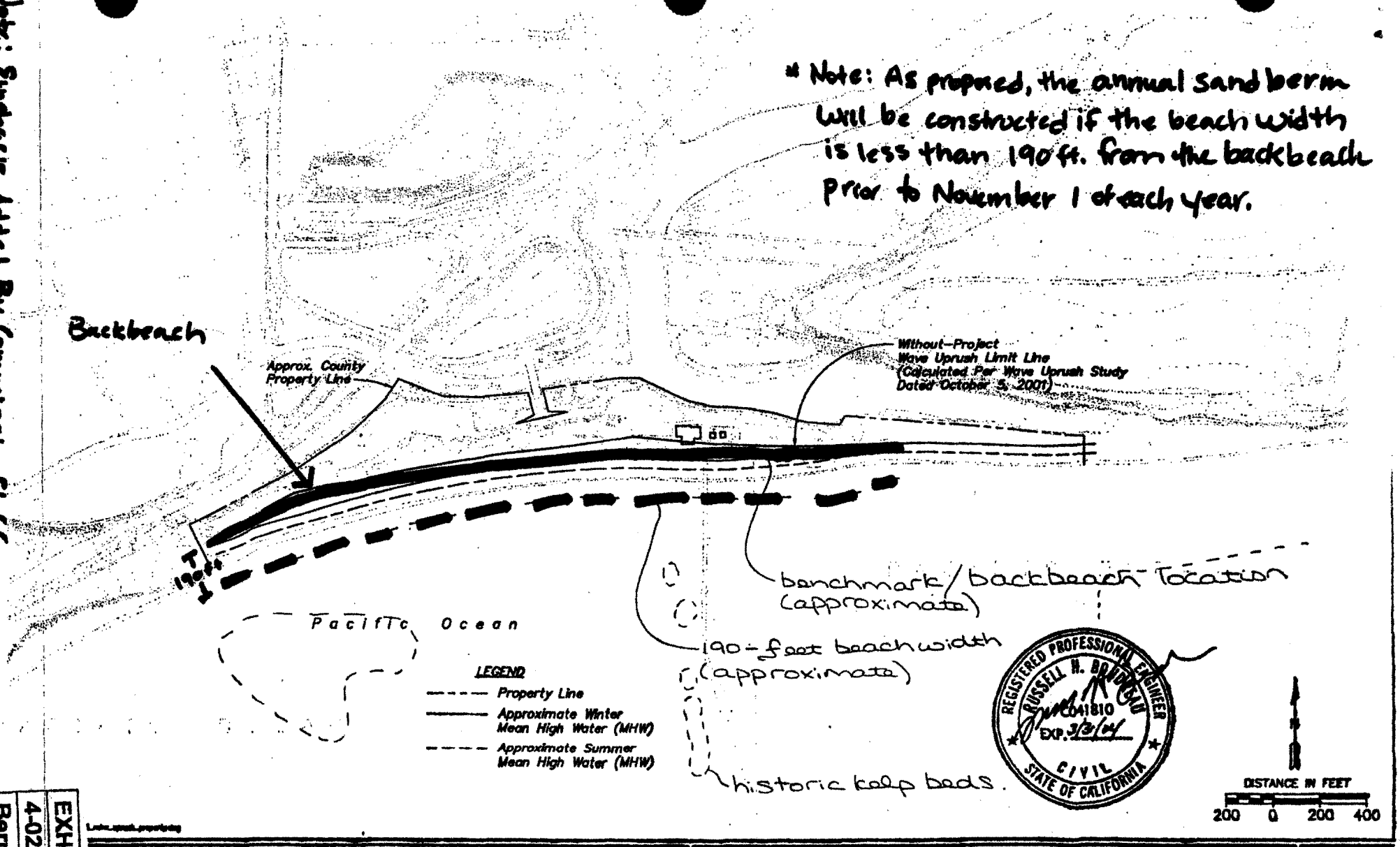
EXHIBIT 5d
4-02-128
Public Access Points After Berm Constructed (Note: No Access During Construction)

GOLETA BEACH FIVE-YEAR WINTER DIKE PROJECT	BIOLOGICAL RESOURCES AT GOLETA BEACH	FIGURE 6

MARKUP 8/5/02

Note: Emphasis Added By Commission Staff

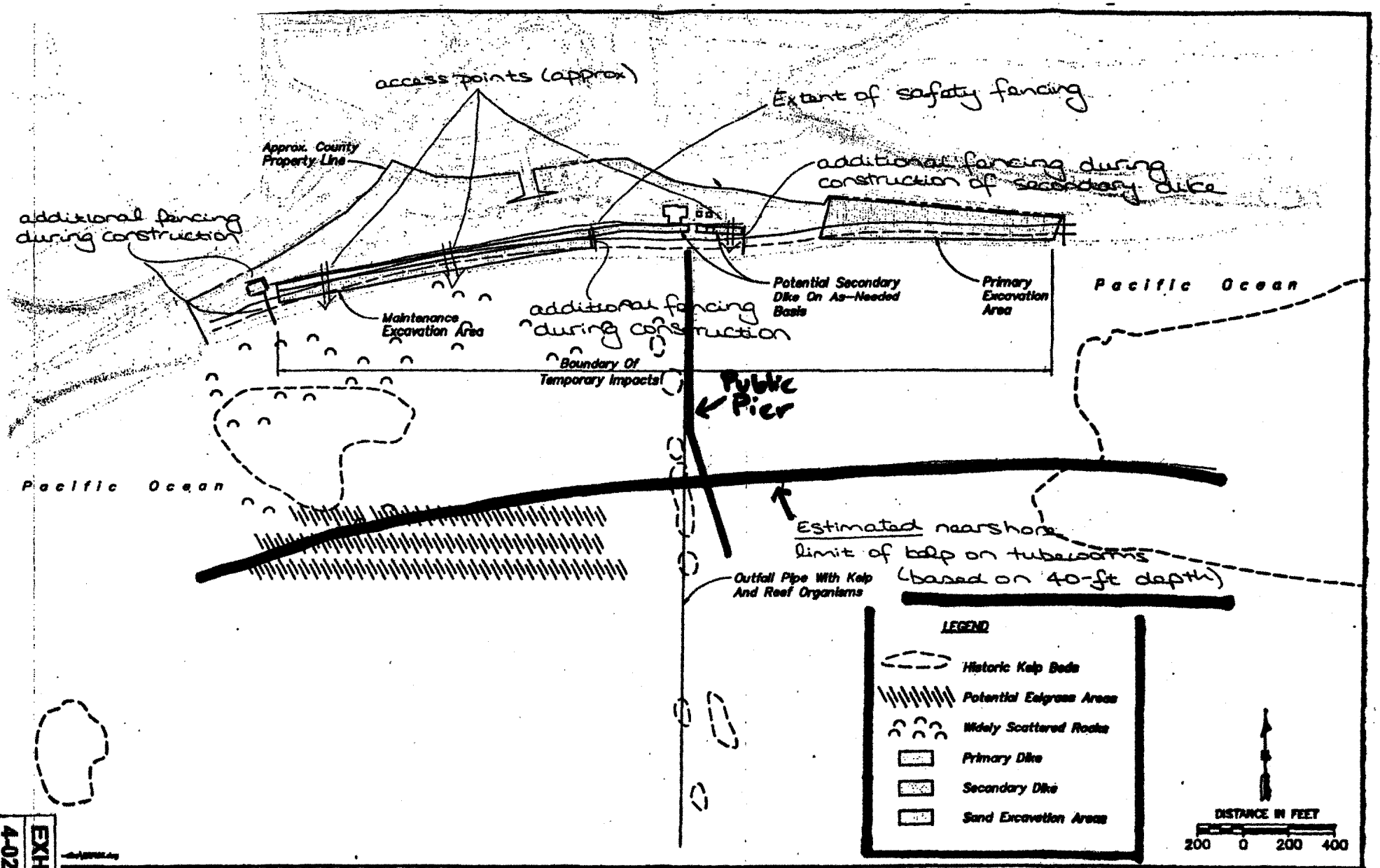
* Note: As proposed, the annual sand berm will be constructed if the beach width is less than 190 ft. from the backbeach prior to November 1 of each year.



GOLETA BEACH FIVE-YEAR WINTER DIKE PROJECT	TIDAL ELEVATIONS AND WAVE UPRUSH LIMIT LINE	FIGURE 8

MARKUP 8/5/02

EXHIBIT 6
4-02-128
Berm Construction Criteria Benchmark



GOLETA BEACH FIVE-YEAR WINTER DIKE PROJECT	BIOLOGICAL RESOURCES AT GOLETA BEACH	FIGURE 6

MARKUP 8/5/02

EXHIBIT 7
4-02-128
Biological Resources

Figure L-113. Goleta Beach (CA-89)

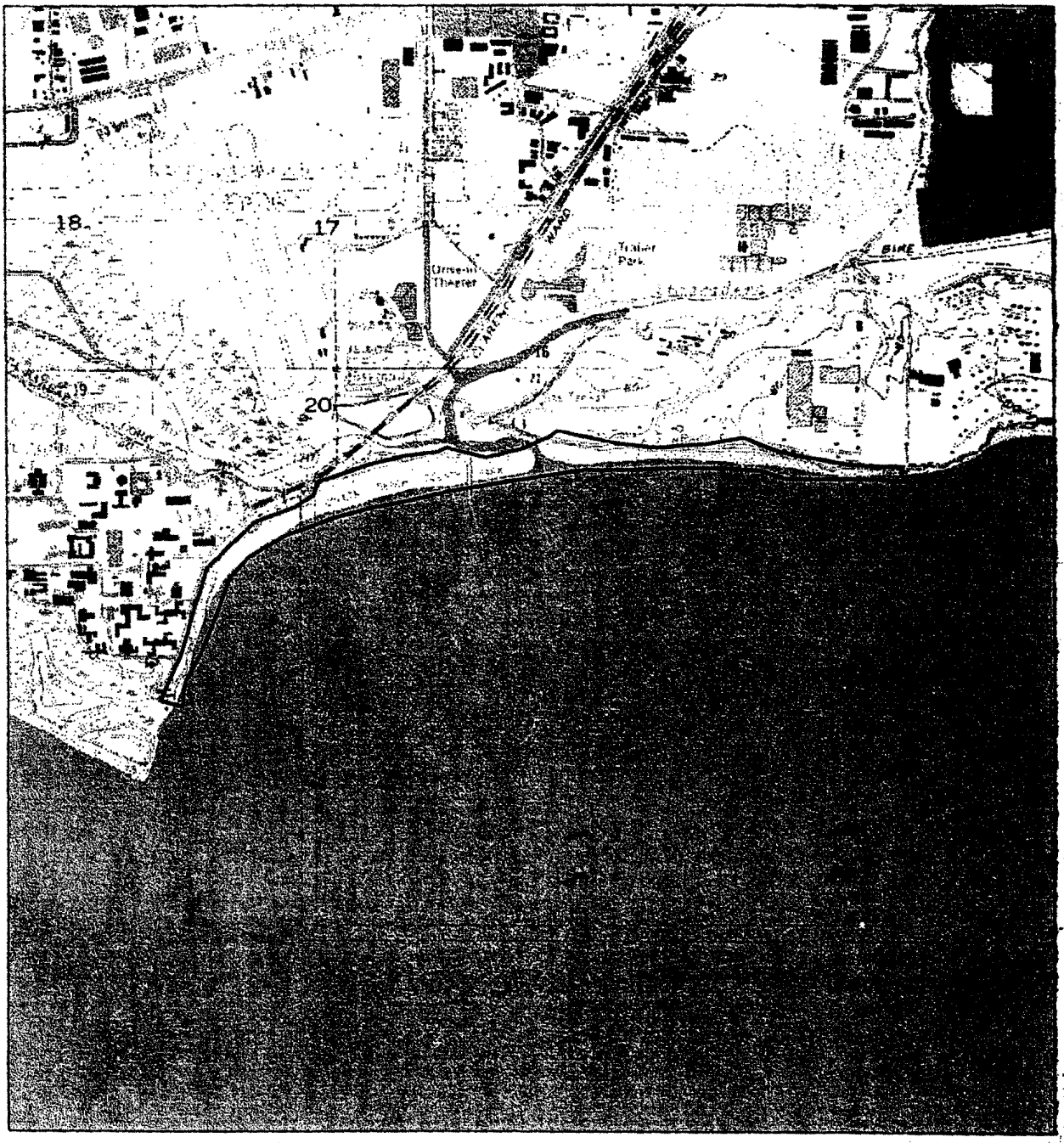


EXHIBIT 7a
4-02-128
Snowy Plover Critical Habitat