CALIFORNIA COASTAL COMMISSION
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Staff:	J Johnson
Staff Report:	2/24/11
Hearing Date:	March 9, 2011

STAFF REPORT: REGULAR CALENDAR

APPLICATION NO.: 4-10-066

APPLICANT: City of Santa Barbara, Waterfront Department

PROJECT LOCATION: Santa Barbara Harbor and Waterfront Area, City of Santa Barbara, Santa Barbara County (APNs 033-120-018, 033-120-015, 033-120-016, 017-191-003, 017-191-004, 017-271-001, 017-312-003, 017-353-001, 017-383-001, 045-220-ND, 045-240-004, 045-250-011, 045-250-012)

PROJECT DESCRIPTION: Implementation of a comprehensive ten-year sediment management program involving dredging, beach nourishment, beach grooming, installation of lifeguard towers, and maintenance of storm drain outlets to provide optimal navigation, recreation, operation, economic, and shoreline protection conditions for Santa Barbara Harbor and Waterfront Area including Leadbetter Beach, West Beach, and East Beach. The proposed project includes dredging and disposal operations to be conducted on an as- needed basis to maintain ideal marina and beach configurations with a maximum of 500,000 cu. yds. of material to be dredged annually and a maximum ten-year volume limit of 5,000,000 cu. yds.

LOCAL APPROVALS RECEIVED: City of Santa Barbara Planning Commission Resolution No. 058-05, August 25, 2005 for a ten-year term Coastal Permit.

SUBSTANTIVE FILE DOCUMENTS: City of Santa Barbara, Certified Harbor Master Plan, June 1996; Coastal Development Permit 4-00-167 approved November 16, 2000 for the City of Santa Barbara; Final Mitigated Negative Declaration-ENV MST99-00329 Waterfront Area Sediment Management Program, 6/2/00; Addendum to Final Mitigated Negative Declaration MST99-00329, 6/8/00; Addendum to the Final Mitigated Negative Declaration (MST99-00329) approved August 25, 2005; "Final Biological Resources Evaluation, Santa Barbara Harbor 10-Year Harbor Maintenance Dredging Program," SAIC, July 7, 2005; "Final Water Quality Evaluation, Santa Barbara Harbor, 10-Year Harbor Maintenance Dredging Program," SAIC, July 7, 2005; "Draft Tidewater Goby Management Plan, Lower Mission Creek Flood Control Project," URS Corporation, April 2005; "Santa Barbara Harbor Sediment Sampling," MNS Engineers, Inc. February 7, 2006; "Procedures for the Control of runoff into Storm Drains and Watercourses," City of Santa Barbara, 2005; "Report of Off Shore Sediment Sampling and Testing Services, Maintenance Dredging, Santa Barbara Harbor," Pacifica Materials Laboratory, April 5, 2002; Coastal Permit 4-05-155 (City of Santa Barbara); Coastal Consistency Negative Determination, Corps of Engineers 6-Year Maintenance Dredging Program, Santa

Barbara Harbor (ND-018-10), dated April 28, 2010; Letter to Karl Treiberg, Waterfront Facilities Manager, dated 22 July 2010, from James Ballard, PhD, PE Technical Advisor, Beach Erosion Authority for Clean Oceans and Nourishment (BEACON); Letter to Karl Treiberg, dated May 1, 2006 from John Storrer, Consulting Biologist; and Letter to Karl Treiberg, dated February 23, 2011 from Trevor Pattison, SAIC .

SUMMARY OF STAFF RECOMMENDATION

Staff Recommends **approval** of the proposed project with **Fourteen (14) Special Conditions** regarding 1) Terms of Permit, 2) Notification of Dredging/Discharge Operations, 3) Limitations on Beach Grooming, 4) Timing and Implementation of Project Operations, 5) Sensitive Species Monitoring, 6) Archaeological Resources and Monitoring, 7) Public Access Program, 8) Water Quality Monitoring, 9) Sediment Analysis, 10) Caulerpa Surveys and Monitoring, 11) Operations and Maintenance Responsibilities, 12) Required Approvals, 13) Assumption of Risk, 14) Informational/Educational Signage.

The proposed project is for a comprehensive, ten-year management program for the Santa Barbara Harbor and Waterfront Area. The proposed project will allow dredging, discharge, and beach nourishment at the project site to be conducted on an as-needed basis to maintain identified *ideal* marina and beach configurations to provide optimal navigation, recreation, operation, economic, and shoreline protection conditions for the Harbor and adjacent Waterfront beaches. The project also includes a regular beach grooming program, periodic maintenance of storm drain outlets, and yearly installation and removal of lifeguard towers. The proposed project, as conditioned, will not have a significant adverse impact on sensitive environmental or public recreational resources of the project area.

The standard of review for the proposed amendment application is the Chapter Three policies of the Coastal Act. As conditioned, the proposed project as amended is consistent with all applicable Chapter Three policies of the Coastal Act.

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EXHIBITS

I. STAFF RECOMMENDATION

MOTION: ***I move that the Commission approve Coastal Development Permit No. 4-10-066 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. These permits are not valid and development shall not commence until copies of the permits, signed by the permitee or authorized agent, acknowledging receipt of the permits and acceptance of the terms and conditions, are returned to the Commission office.

2. Expiration. If development has not commenced, the permits will expire two years from the date on which the Commission voted on the de novo appeal of the permits. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application(s) for extension of the permit(s) must be made prior to the expiration date.

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

4. Assignment. The permits may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permits.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the permitee to bind all future owners and possessors of the subject properties to the terms and conditions.

III. SPECIAL CONDITIONS

1. Terms of Permit

This coastal development permit is valid only for the dredging, discharge, beach grooming, storm drain maintenance, and lifeguard tower installation operations as described in the project description unless modified by the following conditions and shall expire ten (10) years from the date of the Commission's approval of the permit. Dredging and disposal operations shall be conducted on an as-needed basis to maintain ideal marina and beach configurations with a maximum of 500,000 cu. yds of material to be dredged annually.

A. Annual Report Summary The applicant shall submit on an annual basis, for the review and approval of the Executive Director, a summary of all activities undertaken pursuant to this permit each year, including: results from the biological, sediment sampling, archeological, *Caulerpa*, and water quality surveys; data detailing the annual quantity, source location, and placement of dredged material; and a summary of beach grooming (including frequency of grooming activities, condition of wrack habitat on site, and summary of compliance with all provisions of the Special Condition 3, "Limitations on Beach Grooming"), storm drain maintenance, and lifeguard tower installation activities.

2. Notification of Dredging/Discharge Operations

Prior to the commencement of any dredging and discharge operations authorized by this coastal development permit the applicant shall submit, for review and approval of the Executive Director, a letter report which describes the locations, staging areas, methods and timing of operations, and shall include all relevant monitoring reports required pursuant to this permit for the project site to ensure that the operations are in substantial conformance with the resource protection and public access conditions of this permit.

3. Limitations on Beach Grooming

Regular beach grooming, including raking, cleaning, and recontouring of sand shall be limited to Leadbetter Beach, West Beach, and East Beach and shall be implemented in a manner to avoid the removal or disturbance of wrack. All mechanized beach grooming shall be restricted to dry sand area only and shall not occur any closer than ten feet landward of the wrack line or the ordinary high tide line, whichever is further landward. Wrack shall not be removed from this area during grooming activities with the exception that debris that is entangled in the wrack, and which poses a clear threat to public safety, may be removed as needed.

Mechanized beach grooming and removal of wrack shall not occur west (upcoast) of Leadbetter Point (Santa Barbara Point) and east (downcoast) of the Andre Clark Bird Refuge outlet near East Beach (as shown in Exhibit 1) unless authorized through an

amendment to this permit or new Coastal Development Permit. Management west (upcoast) of Santa Barbara Point and east (downcoast) of the bird refuge outlet shall be limited to removal of debris that poses a clear threat to public safety.

4. Timing and Implementation of Project Operations

A. Dredging and disposal operations shall be prohibited the Friday prior to Memorial Day in May through Labor Day in September to avoid impacts on public recreational use of the beach and other public amenities in the project vicinity.

B. All project operations, including operation of equipment, material placement, placement or removal of equipment or facilities, dredging, disposal, beach grooming, storm drain maintenance, and installation of lifeguard towers shall be prohibited as follows:

1. On any part of the beach in those portions of the project area where 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 Five (5). In the event that sediment needs to be placed below the high tide line from March 14 to August 31, the applicant shall submit evidence, for the review and approval of the Executive Director, that surveys for grunion have been conducted pursuant to Special Condition Five (5) at the project site and that no grunion were found. No work shall occur below the high tide line between March 14 and August 31 without the authorization of the Executive Director.

2. On any part of the beach and shorefront in the vicinity of the sandspit, West Beach, or any other location where least terns forage if least terns are present, as documented by the surveys conducted pursuant to Special Condition Five (5).

3. On any part of the beach and shorefront in the vicinity of the sandspit or any other area where snowy plovers may be, while they are present, as documented by the surveys conducted pursuant to Special Condition Five (5).

4. Within 200 feet of the centerline of the mouth of Mission and Laguna Creeks from when the creek mouth is open and may be host to migrating steelhead trout.

5. Within any lagoon or estuarine habitat. Mechanical breaching of any lagoons or estuaries in the project area shall be prohibited to avoid impacts on tidewater goby.

5. Sensitive Species Monitoring

A. The applicant shall retain the services of a qualified biologist or environmental resources specialist with appropriate qualifications acceptable to the Executive Director, prior to dredging, discharge, beach nourishment, or storm drain maintenance activities. The environmental resource specialist shall conduct a survey of the project site, to determine presence and behavior of sensitive species, one day

prior to commencement of dredging, discharge, beach nourishment, or storm drain maintenance within the project site(s). In the event that any sensitive wildlife species (including but not limited to California least tern, western snowy plover, California grunion) 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 applicant shall retain the services of a qualified biologist or environmental resources specialist with appropriate qualifications acceptable to the Executive Director, prior to sediment management activities on Leadbetter Beach, West Beach, and East Beach from March through August. The environmental resource specialist shall conduct a survey of the project site, to determine presence of California grunion during the seasonally predicted run period and egg incubation period, as identified by the California Department of Fish and Game. If any grunion spawning activity and/or if grunion are present in or adjacent to the project site in any life stage, no construction, maintenance, or any grading and grooming activitieson the beach or other project activities shall occur until the next predicted run in which no grunion are observed. Surveys shall be conducted for all seasonally predicted run periods in which material is proposed to be placed at any of the above sites. If material is in the process of being placed, the material shall be graded and groomed to contours that will enhance the habitat for grunion prior to the run period. Furthermore, placement activities shall cease in order to determine whether grunion are using the beach during the following run period. 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.

C. The applicant shall submit documentation prepared by the biologist or environmental specialist which indicates the results of each pre-construction survey, including if any sensitive species were observed and associated behaviors or activities. Location of any nests observed shall be mapped.

6. Archaeological Resources and Monitoring

By acceptance of this permit, the applicant agrees to have a qualified archaeologist(s) and appropriate Native American consultant(s) present on-site during any onshore project activities within the high and moderate sensitivity zones identified in the amended Final Negative Declaration should earth disturbance of these identified zones be of 3 ft. or greater depth. In the event that any significant archaeological resources are discovered during operations, all work in the area will be halted and an appropriate data recovery strategy shall be developed, subject to review and approval of the Executive Director, by the applicant’s archaeologist and/or Native American consultant consistent with CEQA guidelines.

7. Public Access Program

Prior to issuance of this coastal development permit, the applicant shall submit, for review and approval of the Executive Director, a report which 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 dredging and discharge operations.

8. Water Quality Monitoring

The applicant shall conduct a water quality monitoring program which will analyze potential adverse impacts of the near-shore and offshore marine environment resulting from disposal of dredged materials into the intertidal zone. The monitoring program will be conducted each time dredged materials are deposited into or graded near the intertidal zone and will contain the following components:

(a) 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 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/mapped by the monitor. Monitoring of turbidity shall occur during and immediately after placement of sediment on the beach or in the intertidal zone. If the monitoring of the discharge and beach nourishment projects indicate that turbidity attributed to the replenishment projects are not completely diminished immediately following construction (1-2 days), then the rate of placement of sand will be modified so that large, long lasting turbidity plumes are no longer created. In such cases, construction methods shall be modified to reduce levels, by such means as: use of coarser beach nourishment material, avoidance of periods of high surf/high tides, and monitoring.

(b) The applicant shall retain the services of a qualified oceanography and geology consultant, with appropriate qualifications acceptable to the Executive Director, to monitor and prepare a report on comparative sediment volumes of sediment quantities deposited during dredging activities with sediment quantities transported during natural storm events.

The applicant shall provide for review of the Executive Director, the water quality monitoring reports described above within one year of issuance of the coastal development permit and each subsequent year that dredging activities occur thereafter for the duration of the proposed project. Should the water quality monitoring program yield results that indicate sediment disposal into the intertidal zone causes a significant adverse impact on water quality or the marine environment the applicant is required to submit, for review and approval by the Executive Director, a mitigation plan exploring feasible alternatives, mitigation measures, and/or alternative disposal locations for sediment disposal in the intertidal zone prior to any future deposition activities in the intertidal zone. Should the mitigation plan identify mitigation measures and/or project alternatives to minimize water quality impacts which results in a substantial change in

the proposed development approved by the Commission, an amendment to the permit or a new coastal permit shall be required.

9. Sediment Analysis

A. At least two (2) weeks prior to the commencement of work each subsequent year, an engineer(s) or environmental professional(s), with appropriate qualifications acceptable to the Executive Director, shall prepare a (1) Sampling and Analysis Plan and conduct testing at each source and receiver site and (2) monitor the site(s) during all beach nourishment activities for the review and approval of the Executive Director. The Sampling and Analysis Plan shall be consistent with the following:

(1) Sampling Frequency – Samples shall be collected from both the receiver sites and the source sites. For the receiver site, samples shall be collected along transects that are approximately perpendicular to the shoreline, with one (1) transect per each 0.5 miles of receiver beach length. For the source sites, samples shall be collected throughout the source area, with one (1) sample per 0.5 acres, and a minimum of five (5) samples per source site for contaminant testing and a minimum of three (3) samples per source site for all other sediment testing. For the source site samples, the boring depth shall extend approximately one-foot (1-ft) below the anticipated excavation depth.

(2) Grain Size -- Physical analysis shall be conducted on representative samples of each source material proposed for placement at the deposition site and on samples from each transect of the receiver beach. The material shall be analyzed for consistency with the U.S. Army Corps of Engineers (ACOE) / Environmental Protection Agency (EPA), State Water Resources Control Board and California Regional Water Quality Control Board (RWQCB) criteria for beach replenishment. Deposition of source material shall occur consistent with the following:

i. Source material meeting all applicable federal and state beach nourishment requirements, and for which an average of 75% or more of the material is coarse grained (retained on a Standard U.S. Sieve Size No. 200), may be deposited below the mean high tide for the purpose of beach nourishment.

ii. Source material meeting all applicable federal and state beach nourishment requirements, and for which an average of 90% or more of the material is coarse grained (retained on a Standard U.S. Sieve Size No. 200), may be deposited above the mean high tide line for the purpose of beach nourishment.

iii. Source material that does not meet the applicable physical, chemical, color, particle shape, debris, and/or compactability standards for beach replenishment shall not be used.

(3) Contaminants -- Based on U.S. EPA Tier I analyses results, Tier II bulk chemical analysis shall be conducted on representative composite samples of each source material proposed for placement at the Goleta Beach deposition site. The material shall be analyzed for consistency with EPA, ACOE, State

Water Resources Control Board and RWQCB requirements for beach replenishment. At a minimum, the chemical analysis shall be conducted consistent with the joint EPA/Corps *Inland Testing Manual*. If the ACOE / EPA, State Water Resources Board or RWQCB determine that the sediment exceeds Effects Range Medium (ER-M) contaminant threshold levels according to the NOAA Screening Quick Reference Tables (SQUIRTs), the materials shall not be placed at the site.

(4) Debris Content – A visual inspection of the source location shall be conducted to determine the presence and types of debris such as trash, wood, or vegetation. The amount of debris within the material shall be estimated, as a percentage of the total amount of source material. Prior to placement of opportunistic sand at any beach/shoreline receiver site, all such debris material shall be separated from the sand material (by mechanical screening, manual removal or other means) and taken to a proper disposal site authorized to receive such material.

(5) Compactability – Chemical and visual inspections of the source location shall be conducted to determine the presence of elements such as iron oxides which can compact to form a hardpan surface. Source material with compactable material shall be considered for placement below the mean high tide only.

(6) Turbidity. The monitor shall observe and document the turbidity of coastal waters during all construction activities related to the permeable pier sand retention system and beach nourishment activities. The extent of turbidity plumes shall be recorded/mapped by the monitor. Monitoring of turbidity shall occur during and immediately after beach fill placement. In regards to beach nourishment activities, if the monitoring indicates that turbidity attributed to the project is not completely diminished immediately following construction (1-2 days), then the rate of placement of sand will be modified so that large, long lasting turbidity plumes are no longer created. In such cases, construction methods shall be modified to reduce levels, by such means as: use of coarser beach nourishment material, avoidance of periods of high surf/high tides, and monitoring.

B. The analysis shall include confirmation by the U.S. Army Corps of Engineers, the EPA, and State Water Resources Control Board/Regional Water Quality Control Board that the material proposed for beach replenishment meets the minimum criteria necessary for placement on the sandy beach.

10. Caulerpa Surveys and Monitoring

A. Not earlier than 90 days nor later than 30 days prior to commencement of annual dredging activities authorized under this coastal development permit, the applicant shall undertake a survey of the project area and a buffer area at least 35 feet beyond the project area to determine the presence of the invasive alga *Caulerpa taxifolia*. The survey shall include a visual examination of the substrate and inspection of dredging equipment.

B. The survey protocol shall be prepared in consultation with the Regional Water Quality Control Board, the California Department of Fish and Game, and the National Marine Fisheries Service.

C. Within two (2) weeks of completion of the survey, the applicant shall submit the results of the survey:

(1) for the review and approval of the Executive Director; and

(2) to the Surveillance Subcommittee to the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through William Paznokas, California Department of Fish & Game (858/467-4218), Robert Hoffman, National Marine Fisheries Service (562/980-4043), or their designated successors.

D. Unless the Executive Director otherwise determines, if the survey identifies any *Caulerpa taxifolia* within the project area, the applicant shall submit an application for a new coastal development permit or an amendment to this permit authorizing measures formulated to avoid, minimize and otherwise mitigate impacts that the proposed development might have resulting from the dispersal of *Caulerpa taxifolia* in the project area. The applicant shall: 1) refrain from commencement of the project until a valid permit or amendment is obtained, and 2) upon authorization of the permit or amendment, implement the approved mitigation measures in the manner and within the timeframe(s) specified in the approval.

11. Operations and Maintenance Responsibilities

It shall be the applicant's responsibility to assure that the following occurs concurrent with, and after completion of, all project operations:

1. At the completion of the annual beach replenishment operation, and prior to Memorial Day in May, the sand deposited on the beach shall be graded and groomed to natural beach contours to restore the shoreline habitat and to facilitate recreational use.
2. The applicant shall monitor for vertical scarping along the shorefront which may occur as waves rework the seaward edge of the replenishment project area. The applicant shall grade the beach to natural beach contours to avoid hazardous drop off conditions, consistent with the timing constraints listed in Special Condition Two.
3. Staging areas shall be used only during active construction operations and will not be used to store materials or equipment between operations.
4. The applicant shall not store any construction materials or waste where it will be or could potentially be subject to wave erosion and dispersion. In addition, no machinery shall be placed, stored or otherwise located in the intertidal zone at any time, except for the minimum necessary to implement the project.
5. Construction equipment shall not be cleaned on the beach or in the beach parking lots.

6. Construction debris and sediment shall be properly contained and secured on site with BMPs to prevent the unintended transport of sediment and other debris into coastal waters by wind, rain or tracking.
7. Construction debris and sediment shall be removed from construction areas as necessary to prevent the accumulation of sediment and other debris which may be discharged into coastal waters. Any and all debris resulting from construction activities shall be removed from the project site within 24 hours. Debris shall be disposed at a debris disposal site outside of the coastal zone or at a location within the coastal zone authorized to receive such material.
8. The applicant shall be responsible for removing all unsuitable material or debris within the area of placement should the material be found to be unsuitable for any reason, at any time, when unsuitable material/debris can reasonably be associated with the placement material. Debris shall be disposed at a debris disposal site outside of the coastal zone or at a location within the coastal zone authorized to receive such material.
9. Stockpiled materials shall be located as far from stream areas on the designated site(s) as feasible and in no event shall materials be stockpiled less than 30 ft. in distance from the top edge of a stream bank.
10. Temporary erosion control measures, such as sand bag barriers, silt fencing; and/or swales, shall be implemented for all stockpiled material. These temporary erosion control measures shall be required at the site(s) prior to or concurrent with the initial grading operations and shall be monitored and maintained until all stockpiled fill has been removed from the project site. Successful implementation of erosion control measures will ensure that the material is completely stabilized and held on site.
11. Wrack shall be separated and retained, to the maximum extent feasible, on beaches during beach nourishment and discharge operations in areas where discharge operations will result in the loss or disturbance of wrack. Wrack shall be moved to the side during sand placement activities and replaced in its original location/configuration, to the maximum extent feasible, at the completion of grading where possible.

12. Required Approvals

Prior to commencement of any sediment management activities authorized by this coastal development permit, the applicant shall provide evidence to the Executive Director of receipt of all necessary Local, State and Federal authorizations including the U.S. Army Corps of Engineers, the California State Lands Commission, the California Regional Water Quality Control Board, and City of Santa Barbara.

13. Assumption of Risk

By acceptance of Coastal Development Permit 4-10-066, the applicant acknowledges and agrees (i) that the project site may be subject to hazards from 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.

14. Informational/Educational Signage

The applicant shall install, and maintain for the life of the project, informational and educational signs regarding the importance and biological significance of beach wrack and other Environmentally Sensitive resources along Leadbetter Beach, West Beach, and East Beach. **Prior to issuance of the Coastal Development Permit**, the applicant shall submit, for the review and approval of the Executive Director, an educational signage plan, that describes the location, number, size, and contents of signs to be placed at waterfront beach and which meets, at a minimum, the following requirements:

1. Signs shall describe the biological significance of wrack, its importance to the intertidal and beach ecosystem, and the ecological benefits of maintaining wrack on beaches;
2. Signs shall be placed at a minimum of every 500 lineal feet along each sandy beach in the project area immediately seaward of the existing bikepath/walkway or landwardmost portion of the sandy beach; and
3. Signs shall be maintained in good condition onsite for the duration of the project.

The existing educational and informational signs installed as a previous requirement of Coastal Development Permit 4-05-155 may be utilized to satisfy components of this condition. All signage shall be installed in the manner described in the approved signage plan within 90 days of issuance of the Coastal Development Permit, or within such additional time as the Executive Director may grant for good cause.

IV. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION

The City of Santa Barbara Waterfront Department is proposing a comprehensive ten-year sediment management program involving maintenance dredging, sediment disposal, beach nourishment, stormdrain outlet maintenance, and beach grooming at the Santa Barbara Harbor and Waterfront Area including Leadbetter Beach, West Beach, and East Beach (**Exhibits 1 - 4**). The purpose of the program is to maintain the area for safe maritime traffic navigation; minimize risk of hazardous shoaling conditions; protect adjacent public, recreational, and commercial development from wave damage and flooding, maintain an appropriate sand balance to offset erosion, and maintain sandy beaches and area aesthetics. Sediment management activities will occur on an

as-needed basis, where duration and amount of material moved varies annually, depending on weather and the amount of natural sediment movement. Two previous five year coastal permits were issued for the same sediment management plan. Coastal Development Permit 4-05-155 issued in 2006 provided for a five year sediment management program which will expire this year on April 13, 2011. In addition, the Commission also previously approved Coastal Development Permit 4-00-167 in 2000 for a similar five-year sediment management program on the subject site which expired in 2005.

There are four major components of the project as described below: 1) sediment management to create ideal beach configurations, 2) stormdrain outlet maintenance to ensure proper functioning of stormdrains, 3) beach grooming to provide clean and safe beaches for recreation, and 4) annual installation/removal of portable lifeguard towers.

1. Sediment Management

The City has mapped existing beach configurations and identified ideal beach configurations, which represent optimal conditions for navigation, recreation, operations, and economics that the program will strive to maintain (**Exhibit 2**). As proposed, sand will be added to areas with lower than ideal beach configurations and removed from areas with higher than ideal beach configurations. The ideal configurations were developed based on local operational experience, expressed community goals, consultation with recognized technical authorities, and use of the "West Beach Configuration Study" prepared by Moffatt and Nichol Engineers in 1998. The project does not include mechanical opening of any creek mouths to facilitate drainage to the ocean.

The City proposes a maximum of 500,000 cu. yds of material to be dredged annually. The proposed maximum dredging quantities are expected to accommodate dredging operations, which would be necessary to cover a potential worst-case scenario where heavy storms cause large amounts of sediment to accumulate in and around the Harbor and Waterfront area. The actual amounts will be established through the Corps of Engineers' permitting process. Project activities could involve up to five months of work in a given year and up to twenty months of work over ten years. Sediment management operations will typically occur on weekdays but may also occur on weekends to complete the operations before a weather change, permit deadline, or other restriction.

The Santa Barbara Harbor functions as an artificial sink within the natural littoral sand supply/transport system, trapping sand within the harbor mouth that would otherwise be naturally transported downcoast. The sediment accumulated in the Waterfront area consists primarily of clean beach sand that is transported by natural longshore current processes and deposited within protected areas of the Harbor (navigation channel, West Beach, and sandspit) and other Waterfront areas. Additionally sediment is naturally transported by rainfall runoff via stormdrains and deposited in the Waterfront Area. Typically materials are dredged and placed on (or immediately offshore of) adjacent beaches (particularly East Beach and Leadbetter Beach) to provide sand nourishment and offset erosion effects. Prior to dredging and/or use of any sediment for beach nourishment, the sediment will be tested and determined to be both clean and of

suitable grain size (per U.S. EPA approval and U.S. Army Corps of Engineers concurrence). The City has proposed that this testing occur within three years of the proposed dredging activities.

Equipment that will be used for sediment management activities include a hydraulic dredge, discharge pipes, and earthmoving equipment, and other means of hydraulic, pneumatic, and mechanical conveyance. Hydraulic dredging typically involves discharge of material through large HDPE or similar pipes. The discharge pipes are places either in the surf zone or on the dry beach depending on the desire to "build up" a beach to achieve the ideal beach configurations or to disperse the sediment via surf and longshore currents. When sediment is discharged into the surf zone, the pipe is placed between the high and low tide areas, allowing the sediment slurry to be carried away from the surf. When sediment is discharged on dry sand, grading equipment establishes natural beach contours. In some cases beach nourishment on dry sand may require grading in the intertidal zone to prevent hazardous drop off conditions. No discharging of sediment will occur within Laguna Creek and Mission Creek estuaries or within 200 feet of the creeks when the creeks are flowing.

Construction equipment will be professionally maintained and fitted with standard manufacturers' mufflers and silencing devices. In addition, all equipment will be checked for leaks prior to construction commencement. No leaky equipment will be allowed onto the beach until leaks are repaired. All vehicle maintenance, staging, storage and refueling will occur in area with hard surfaces. Supplies will be available to contain and remove any spills, ensuring that they do not enter water or contaminate soils. In the unlikely even that soils are contaminated, they will be properly disposed of. In addition, the contractor will be required to follow the applicable best management practices outlines in the City of Santa Barbara's "Procedures for the Control of Runoff into Storm Drains and Watercourses."

The City is seeking Commission approval to conduct a comprehensive dredging and disposal operation as necessary to maintain the identified *ideal* configurations described below and shown in **Exhibit 2**:

Leadbetter Beach is located between Santa Barbara Point and the Harbor and is a wide to narrow sandy beach that experiences seasonal erosion and is primarily used for recreation activities. Maintaining Leadbetter Beach involves protection of numerous existing structures, parking lots, storage areas, working yards, and material and equipment areas in the Harbor Commercial Area. The City seasonally constructs a sand berm to prevent problems associated with wave damage and flooding in the Harbor commercial Area. Construction of the sand berm is authorized under a separate 10-year permit (Coastal Development Permit 4-04-069 approved by the Commission September 10, 2004) and is not part of this project proposal.

The Marina includes the interior of Santa Barbara Harbor, which provides numerous recreational and commercial uses for the public. The ideal configuration identified for the marina will require a maintenance depth of –18 feet Mean Lower Low Water (MLLW) to provide adequate draft depth for vessels using the marina.

West Beach is a wide sandy beach located between the Harbor and Stearns Wharf that experiences some seasonal erosion. The beach provides a primary location for recreational use and is equipped with volleyball courts and is used to store canoes and sailboats. The area directly offshore of West Beach has been the traditional site of the Small Boat Sailing Area that provides recreational and instruction opportunity for youth sailing clubs. Ideal beach configurations for West Beach provide for maintenance of the small boat sailing area outside the main navigation channel, which narrows a portion of the beach and mildly increases wave energy into the harbor.

East Beach is a wide sandy beach located between Stearns Wharf and Clark Estate that experiences seasonal erosion. The beach is popular for sunbathing and other recreational activities, including volleyball. The ideal configuration identified for East Beach will focus beach nourishment activities between Stearns Wharf and Mission Creek to prevent Mission Creek from depositing sediment and debris around Stearns Wharf and in the main navigation channel. The ideal configuration allows the Mission Creek and Laguna Channel lagoons to merge, crating one larger lagoon. The "Tidewater Goby Management Plan" prepared in April 2005 by URS Corporation recommends this configuration to improve the habitat for this sensitive species. The project excludes sediment management within a radius of 200 feet from the centerline of the mouth of Mission Creek when the creek is flowing and breaching of the lagoon's mouth into the ocean.

2. Storm Drain Outlet Maintenance

Five storm drains from Cabrillo Boulevard pass under the bike path on the Waterfront and end on the upper part of West Beach. In addition, three storm drains end in the middle of East Beach. During the winter months, water tends to pond at the storm drain outlets. The water quality at the outlets can be poor as a result. The City proposes to maintain the openings of these storm drains to the beach during beach grooming activities in the winter. This would involve removal of sand cover (about 2 feet) from the end of the drains to allow better flow. Slopes around each storm drain outlet will be graded to slopes of 4:1 or gentler. The slopes will be tapered to conform to the existing beach profile, typically disturbing an area twice the width of the storm drain in front of the outlet (approximately 15-20 feet). The maintenance is estimated to be up to five times a year during the rainy season. No channels from the drains to the ocean will be made, allowing water from the drains to spread onto the beach and infiltrate into the sand to the extent possible. According to City staff, storm drain maintenance activities, as described above, have been occurring in the waterfront area for many years, but have not been included with previous coastal development permits.

3. Beach Grooming

An estimated 120,000 people visit Santa Barbara City beaches from spring to Fall. The beaches are used for a variety of passive and active recreational uses. Beach grooming has been done on a intermittent basis for both public safety and aesthetic purposes and is accomplished by a variety of methods dependent on the season, the need for debris removal, and the presence of special status species and required protocols. Beach grooming includes raking, cleaning, and recontouring sand

accomplished by mechanical and physical labor. All mechanized equipment is restricted to dry sand areas only and does not operate any closer than ten feet dry sand side of the wrack line (the dry sand side of the Ordinary High Tide Line). According to the City of Santa Barbara, beach grooming of this nature has been ongoing on Leadbetter Beach, West Beach, and East Beach since the 1950s. Below is a description of the type of beach grooming activities currently undertaken by the City of Santa Barbara at Leadbetter Beach, West Beach, and East Beach that are included in the proposed project. Regular grooming activities are not proposed east of East Beach or West of Santa Barbara Point, although the City has proposed removal of large debris that pose a threat to public safety that are delivered to these beaches during storm events or emergencies.

a. "Beach King" Cleaning

The "*Beach King*" is mechanism that sorts sand and debris and is pulled by a specialized tractor. A paddle like tool drags across sand to a depth of four inches and places the sand and debris onto a conveyor belt. The sand is dropped back to the beach and the debris/trash is released into a hopper. The hopper is emptied into a dump truck and hauled to an appropriate recycling facility. The *Beach King* is used during the summer months (April – August) four days a week. The beach is divided up into four sections and one section is cleaned per day. Debris removal is approximately 50 tons a month, and 250 tons a year.

b. Raking Operations

Raking of the beach is done to give the sand a groomed and cleaned appearance and to remove ruts in the sand in high use areas such as Leadbetter and East Beach during the time of year when the Beach King is not used (October – December). A tractor drags a rake attachment into the top four inches of sand. No debris is removed in this process. The rake is also used to level out depressions made from normal recreational volleyball activities during summer as needed.

c. Hand Crew Operations

In addition to mechanical grooming operations, hand crews pick up debris, including trash along the beaches and creek mouths where mechanized equipment is restricted. Approximately 26 tons of trash is collected annually and transported to an appropriate trash facility.

d. Storm Events and Emergencies

The City has estimated that approximately once every seven to ten years, a winter storm event delivering substantially higher than normal loads of debris to the beach occurs due to fast flowing creeks, high tides, and high surf conditions. The debris are primarily composed of green waste, but can also include garbage, old furniture, car parts, broken boat and vessel parts, fiberglass, metal, broken glass, etc. According to

the City, this type of garbage can pose a safety hazard for beach users and swimmers and requires removal.

The mechanized equipment used for these activities are tractor, excavators, front end wheel loaders, and dump trucks. The sandy beach areas covered in debris are skimmed by a specially fitted rake attachment on a *John Deer* dozer to a depth of approximately four to six inches. The dozer pushes debris into centralized piles at various locations on the beach. An excavator picks up debris piles with a multi-fingered claw, shakes the sand loose and delivers the leads to dump trucks. The loads, which can be as much as 800 tons during the year, are hauled to an appropriate trash or recycling facility. These activities have been carried out by the City in previous years on an intermittent basis and are proposed as part of this application.

4. Lifeguard Tower Deliveries

Once a year in May, five or six lifeguard towers are deposited at designated locations on Leadbetter Beach, West Beach, and East Beach for public safety purposes during high summer recreational use times. The towers are anchored into hand dug trenches in the sand approximately 4 to 6 inches deep. Front-end loaders are used to deliver the towers. The Towers are then removed in October or November. These activities have been carried out by the City in previous years on an intermittent basis and are proposed as part of this application.

5. Sensitive Species Surveys

Prior to any sediment management/deposition, storm drain outlet, grooming, or lifeguard tower installation activities, the City has proposed that all construction sites will be surveyed by a qualified biologist for sensitive species that are likely to occur at that location during that time of year. Surveys for sensitive species will include Western Snowy Plover (October 1st to September 15th); California Least Tern (July 1st through August 30th); and California Grunion (March 14 to August 31) In addition, the City has proposed that no work be conducted in Laguna Creek and Mission Creek Estuaries and that no work occur within 200 feet of the centerline of these creeks when they are flowing to the ocean (generally September 1st through December 1st) to protect steelhead trout and tidewater goby.

6. Sediment Sampling

Prior to dredging activities, the City proposes testing of the sediment to determine whether the sediment is clean and of suitable grain size (per U. S. EPA approval and U.S. army Corps of Engineers concurrence) for beach nourishment or discharge tot eh intertidal zone within 3 years of the proposed dredging activities. The City has already conducted sediment sampling at several sites in anticipation of the proposed work. In February 2006, the City's consultant, MNS Engineering Inc., conducted sediment sampling at proposed dredging sites in the marina, on the north side of the breakwater, and in the Small Boat Sailing Area offshore of West Beach, as well as sediment discharge locations on the south and east of the breakwater and offshore of East Beach. The sediments from the dredging sites were composed predominantly of poorly

graded sand to poorly graded sand with silt, with relatively minor interbeds of sandy silt, and sandy clay. Based on the grain size test results, the sediments within the planned dredging depths were generally similar in grain size distribution as the sediments at the proposed disposal sites. The results of pesticide, hydrocarbon, and heavy metals analysis indicated that the planned dredge material was below the action levels of respective State and Federal guidelines.

7. Differences Between Proposed Project and 5-Year Sediment Management Plan Previously Approved in 2006 (CDP 4-05-155)

As discussed above, the Commission approved CDP 4-00-167 in 2000 for a five-year sediment management program and approved CDP 4-05-155 for a second five year sediment management program. This current permit will expire April 13, 2011. The current application will renew this program with the following change:

1. The previous permit was for a 5-year term. The City now proposes a ten-year term on the permit. Their reasoning is that the dredging and disposal program has been ongoing and that they assert no impacts to water quality, biological resources, and archeological resources have occurred in that time. Additionally, sediment sampling at almost all sites have yielded results showing no contamination above threshold levels and sand suitable in size and character for beach nourishment.

B. BACKGROUND

The Santa Barbara Harbor is an important small boat harbor serving the south coast of Santa Barbara County, as well as areas further south. The Harbor is the only sheltered harbor along a 127 mile stretch of coast between Port San Luis to the north and the Ventura Marina to the south. The Harbor and Waterfront is the home base of the local commercial fishing fleet and the U.S. Coast Guard and provides a variety of commercial and coastal recreational resources. Common recreational uses of the project area include fishing, boating, jet skiing, bike riding, walking, sunbathing, kayaking, swimming, surfing, photography, and bird watching.

Sediment management activities in the harbor have been ongoing since the 1940s. Longshore ocean currents and Mission and Laguna Creeks transport and deposit sediments within the protected areas of the harbor and adjacent waterfront areas where the sediments accumulate over time. Accumulated sediments consist primarily of clean sand with adequate content to be used for beach nourishment or longshore littoral current replenishment. Thus, dredged materials have historically been placed directly on adjacent waterfront beaches to maintain the beaches and minimize shoreline erosion, or immediately offshore and back into the littoral current just down coast of the Harbor.

The Army Corps of Engineers has dredged the federal channel of the harbor for more than 60 years. Since 1991, the U.S. Army Corps of Engineers has dredged 5,225,200 cu. yds. from the federal navigation channel. On June 18, 2004 the Commission approved Negative Determination ND-035-04 for a 6-year maintenance dredging

program for the Army Corps for Santa Barbara Harbor. On April 28, 2010 the Coastal Commission staff concurred with Negative Determination ND-018-10 for a 6-year maintenance dredging program for the Army Corps for Santa Barbara Harbor. These negative determinations provided for annual dredging of up to 600,000 cu. yds of sandy material in the federal channel and beach and surf zone disposal at East Beach and between Mission Beach and East Side Channel between the months of September 1 and April 30th.

The City has conducted sediment management activities in the harbor and waterfront areas outside of the federal channel since 1972. Since 1990, the City has dredged approximately 497,500 cu. yds. of sediment from marinas, West Beach, and Stearns Wharf. In 1985, the Commission conditionally approved Coastal Development Permit 4-84-035 for an interior maintenance dredging program for the Santa Barbara Harbor. The permit specifically identified five dredging and disposal sites and sediment volume for the conducted operations. The Commission permitted the maintenance dredging program for Santa Harbor for an additional five-year term under Coastal Development Permit 4-89-030. In 1995 the Commission approved a first amendment to CDP 4-89-030-A which extended the subject permit for another five-year term and expanded the dredging program to include dredging of 4 additional areas with 2 additional disposal sites in the Harbor and Waterfront area. In 1998, the Commission approved CDP 4-89-030-A3 which amended the subject permit to further expand the dredging program to include an expansion of the marina permitted pursuant to Coastal Development Permit 4-98-066. These previous coastal permits for dredging of the project site were conditionally approved to limit the duration of the approved project to a five-year term, time operations to ensure that potential changes in the marine environment from the dredging operation over time would be adequately monitored, analyzed, and addressed in future follow-up applications in order to minimize potential adverse impacts on sensitive wildlife species, ensure that all required State and Federal approvals had been obtained, and provide a program for safe public access during operations.

Prior to 2000, all coastal permits issued to the City for the maintenance dredging program identified specific dredging areas and disposal sites, sediment volume and staging areas for conducting operations. Under this system, the City obtained an amended coastal permit prior to any deviation from the specific dredging and disposal sites or sediment volumes approved. Amendments were often necessary due to the unpredictable nature of littoral transport and sand accumulation in the project area. The City, therefore, saw the need for a more flexible sediment management program that would provide a more effective and expedient response to planned and unforeseen accretion and erosion of sediment in the waterfront area.

According to City staff, regular beach grooming, maintenance of storm drain outlets, and lifeguard tower installation activities have been ongoing at Leadbetter Beach, East Beach, and West Beach since the 1950's. On November 16, 2000 and April 13, 2006, the Commission approved Coastal Development Permits 4-00-167 and 4-05-155 for the City of Santa Barbara to conduct sequential comprehensive five-year sediment management programs involving maintenance dredging, beach nourishment, and grooming to achieve and maintain ideal configurations for Santa Harbor and the Waterfront Area. The current application proposes continuation of this sediment

management program, with some changes and additions, including regular beach grooming, storm drain outlet maintenance, and lifeguard tower installation, and authorization to implement the program for a 10 year period of time as described in the following sections.

Coastal Development Permits 4-00-167 and 4-05-155

Coastal Development Permit 4-00-167 and 4-05-155 (**Exhibit 3**), approved by the Commission in November 2000 and April 2006, allowed the City of Santa Barbara to implement two comprehensive five-year sediment management programs involving maintenance dredging, beach nourishment, and grooming to achieve and maintain ideal configuration to provide optimal navigation, recreation, operation, economic, and shoreline protection conditions for Santa Barbara Harbor and Waterfront Area including Leadbetter Beach, West Beach, and East Beach. The project allowed dredging and disposal operations to be conducted on an as-needed basis to maintain ideal marina and beach configurations with a maximum of 500,000 cu. yds. of material to be dredged annually. The project also included grooming associated with the dredging and disposal operations at an average depth of two feet above the high tide line. Approved methods and equipment for the sediment management activities included hydraulic dredges, earthmoving equipment, other means of hydraulic, pneumatic, and mechanical conveyance, and periodic use of a U.S. Army Corps of Engineers pipeline for disposal of dredged materials on East Beach.

The Commission approved CDP 4-00-167 and 4-05-155 with several conditions related to the term of the permit; notification procedures for dredging and discharge operations; timing of dredging and discharge; biological monitoring for grunion, least tern, and snowy plover; avoidance measures for steelhead trout; archeological monitoring in certain areas; a public access program; water quality monitoring; sediment sampling of the Small Boat Sailing Area at West Beach; and acquisition of necessary permits from other state and federal agencies.

Since acquiring Coastal Development Permit 4-05-155, the City of Santa Barbara has dredged approximately 105,000 cu. yds of sediment from areas outside the Federal Channel including; the Small Boast Sailing Area at West Beach; Marina 1 Fairway; the Harbor side of the Breakwater Extension (Sandspit), the Rock Groin, and the foot of the seawall along Marinas 2-4. Sediments from all locations were found to be chemically and physically suitable for beach and intertidal nourishment and were deposited at West Beach, East Beach, the seaward side of the Breakwater, and Goleta Beach (authorization under separate permit). In the last five years, snowy plover and grunion were found near the project area in a few of the biological surveys. Proper avoidance and mitigation measures were instituted to protect these species from impacts associated with the project.

C. DIKING, FILLING, DREDGING OPEN COASTAL WATERS

Section **30233** of the Coastal Act states in part:

> ***(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:***
>
> ***(l) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.***
>
> ***(2) Maintaining existing, or restoring previously dredged depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.***
>
> ***(8)(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.***

Section 30233 of the Coastal Act states that diking, filling, and dredging of coastal waters may be permitted for coastal-dependent industries, and for maintaining or restoring previously dredged depths where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects. Section 30233 of the Coastal Act also mandates that dredging and disposal operations shall be carried-out to avoid disruption of marine and wildlife habitats, and that suitable dredge sediments shall be deposited for beach replenishment.

Santa Barbara Harbor is small boat harbor and the home base of the local commercial fishing fleet and the U.S. Coast Guard. The Harbor and Waterfront area, provide a variety of coastal-dependent commercial and recreational resources including boating, fishing, jet skiing, sunbathing, kayaking, swimming, and surfing. Maintenance dredging of Santa Barbara Harbor has been carried out on an intermittent basis for over 60 years. The Santa Barbara Harbor effectively functions as an artificial sink within the natural littoral sand supply/transport system, trapping sand within the harbor mouth that would otherwise be naturally transported downcoast. Dredging activities are required to maintain the entrance and navigational channels, provide safe navigation for maritime traffic, and minimize risks of hazardous shoaling conditions within the harbor. Dredged materials are used for beach replenishment to maintain waterfront beaches for recreational use, shoreline protection for existing development on the Waterfront, and reintroduction of sediment, which would otherwise remain trapped in the protected harbor, into the littoral current for replenishment of down coast beaches.

Since the construction of the Santa Barbara Harbor, dredging and disposal of sandy material has been an important means of providing supplemental sand supplies to downcoast beaches which have experienced long-term retreat as a result of construction of the Santa Barbara Breakwater in the mid 1920's. An analysis of historical changes at Carpinteria Beach, located approximately 10 miles down coast of the subject site, indicates that beach width has decreased approximately 100 ft. since 1930. Data from the analysis also indicates that the average width of Carpinteria Beach has receded 38 ft. for every 1 million cubic yards of sediment accumulated in Santa

Barbara Harbor. The estimated quantity of sediment transport into the harbor annually over the past 50 years is 370,000 cu. yds. Of this quantity an average of 312,000 cu. yds. of sediment is dredged from the harbor annually.

The proposed sediment management program will serve to achieve and maintain identified *ideal* dredging depths and beach configurations for previously dredged areas, which will accommodate the coastal-dependent uses that the project area provides. As previously discussed, *ideal* configurations for the Harbor, Leadbetter Beach, West Beach, and East Beach have been identified as those configurations which will provide optimal navigation, recreation, operation, economic, and shoreline protection conditions.

Section 30233(a) of the Coastal Act imposes a three-part test on dredging and filling projects (1) the allowable use test; (2) an alternatives test; and (3) a mitigation test. As the Commission has found in reviewing the dredging cases previously approved in Santa Barbara Harbor, maintenance dredging with beach disposal in the Santa Barbara Waterfront area complies with these tests because (1) maintenance dredging of existing channels is an allowable use under Section 30233(a)(2) of the Coastal Act; (2) when the material is suitable for beach disposal, and when habitat, access, and archeological issues have adequately addressed (as described in Sections D, E, and F), there is no less damaging feasible alternative; and (3) with the avoidance, monitoring, and mitigation measures addressing dredge spoil compatibility, environmentally sensitive habitat and sensitive species, water quality, archeology, and access (discussed in the following Sections), temporary disruption of the marine environment from dredging and disposal does not trigger the need for additional mitigation.

As demonstrated over the past ten years, the primary benefit of sediment management has been the removal of accumulated sand within the Santa Barbara Harbor to improve navigation and increase quiet water areas (West Beach) adjacent to the harbor for small craft. Sand deposition is typically a result of strong southeasterly winds when there is a reversal of the longshore sediment transport patterns (normally west to east) which pushes sand from East Beach or the ocean side of the breakwater back into the harbor. Since these areas are in the normal wave shadow of the harbor, there is no natural process of moving this sediment downcoast.

If sediment management were not conducted, areas in and around the harbor would accumulate enough sediment to restrict and/or eliminate access to parts of the harbor. The most vulnerable areas are at the tip of the Rock Groin, the interior (harbor side) of the entire breakwater, the north side of the harbor adjacent to the sea wall, and West Beach. Impacts to coastal access are as follows:

> Rock Groin –If sediment is allowed to accumulate at the tip of the existing harbor breakwater, access to the public launch ramp, Marina 4B east (24 slips), Sea Landing (whale watching, dive and sportfishing charters), SB Sailing Center (sailboat rentals), Marine Mammal Center, and UCSB docks would be severely restricted or eliminated.

Harbor Side of Breakwater – If sediment is allowed to accumulate along the entire length of the breakwater within the harbor, access to the south side of Marina 1 (312 slips) would be severely restricted or eliminated.

North Side of Harbor Adjacent to Seawall – If sediment is allowed to accumulate in this area, access to the side tie berthing along Marinas 2, 3, and 4 (24 slips), and the SB Sailing Center (sailboat rentals) would be severely restricted or eliminated.

West Beach – If sediment is allowed to accumulate on West Beach, the quiet water area within the wave shadow of the harbor will no longer be accessible to a wide variety of small craft such as kayaks, canoes, and sailing dinghies. One of the oldest youth sailing organizations in the county, the Santa Barbara Sea Shells, trains their young sailors off West Beach. The area is used by thousands of small craft every year. These small craft would have to launch directly into the Federal Channel and conducted their boating activities downcoast in less protected waters.

In summary, failure to implement the proposed sediment management activities would inevitably result in the restriction or eventual elimination of access to large parts of the harbor resulting in significant impacts to, and eventual cessation of harbor operations .

Dredge Spoil Compatibility

The City has submitted recent annual reports (required as a condition of approval of CDP 4-05-155) analyzing the physical and chemical characteristics of the material it plans on dredging as part of the proposed program. In addition, the *Santa Barbara Harbor Sediment Sampling Report* prepared by MNS Engineers Inc and dated February 2006, analyzes results of sediment sampling at proposed dredging sites in the marina, on the north side of the breakwater, and in the "Small Boat Sailing Area" offshore of West Beach, as well as sediment disposal locations on the south and east of the breakwater, and offshore of East Beach. The sediments from the dredging sites were composed predominantly of poorly graded sand to poorly graded sand with silt, with relatively minor interbeds of sandy silt, and sandy clay. Based on the grain size test results, the sediments within the planned dredging depths were generally similar in grain size distribution as the sediments at the proposed disposal sites. The results of pesticide, hydrocarbon, and heavy metals analysis also indicated that the planned dredge material was below the action levels of respective State and Federal guidelines.

Although the City has tested the sediment in the areas proposed for dredging in the last few years, sediment conditions may be altered by a number of episodic factors, including heavy rainfall events or spills within the harbor. In addition, as a result of harbor uses and traffic, the Commission finds that chemical and contaminant levels of sediment may potentially change over time. Further, the Commission finds that is not possible to ensure that chemical and contaminant levels of sediment in the harbor mouth will not change over time as the result of a single chemical spill or contamination event. Therefore, to ensure that all future dredged material is physically and chemically compatible with the proposed deposition sites and suitable for beach nourishment, the

Commission finds it necessary to require **Special Condition Nine (9)** which requires the applicant to test the physical and chemical characteristics of representative samples of the dredging areas consistent with U.S. Army Corps of Engineers (Army Corps), Environmental Protection Agency (EPA), and State Water Resources Control Board and California Regional Water Quality Control Board (RWQCB) criteria for beach replenishment and dredging and disposal in intertidal areas prior to the commencement of dredging activities each year. In addition, **Special Condition Nine (9)** ensures that dredged material meets minimum standards for particle sizes and distribution typically allowable for beach nourishment purposes and that the U.S. Army Corps of Engineers, the EPA, and State Water Resources Control Board/Regional Water Quality Control Board confirm that the material proposed for beach replenishment meets the minimum criteria necessary for placement on the sandy beach.

Special Condition Two (2) further requires the applicant to notify the Commission prior to any annual dredging or discharge operations. This notification shall include information as to the sediment testing (including physical and chemical testing) conducted pursuant to the abovementioned special conditions. The sediment analysis should include confirmation by the U.S. Army Corps and RWQCB that the dredged material meets the minimum criteria necessary for placement on the sandy beach or within the intertidal zone. Therefore, **Special Condition Twelve (12)** requires that the applicant submit evidence to the Executive Director that all State and Federal permits necessary for the proposed project have been obtained.
For the reason set forth above, the Commission finds that the proposed project is consistent with Section **30233** of the Coastal Act.

D. RECREATION

Section **30220** of the Coastal states:

> ***Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such use.***

Section **30224** of the Coastal Act states:

> ***Increased recreational boating uses of coastal waters shall be encouraged, in accordance with this division, by developing dry storage areas, increasing public launch facilities, providing additional berthing space in existing harbors, limiting non-water-dependent land uses that congest access corridors and preclude boating support facilities, providing harbors of refuge, and by providing for new boating facilities in natural harbors, new protected water areas, and in areas dredged from dry land.***

Sections 30220 and 30224 of the Coastal Act mandate that coastal areas suited for water-oriented recreational activities shall be protected and recreational boating uses of coastal waters shall be encouraged.

The Santa Barbara Harbor is an important small boat harbor serving the south coast of Santa Barbara County, as well as areas further south. The Harbor is the home base of the local commercial fishing fleet and the U.S. Coast Guard and provides numerous

water-oriented recreational opportunities for the public including boating, fishing, jet skiing, sunbathing, kayaking, swimming, and surfing.

The proposed project involves dredging and disposal to achieve identified ideal harbor and beach configurations for the project site. The Commission notes that dredging of the harbor is necessary to maintain safe navigation for commercial and recreational boating and therefore, the proposed project will serve to protect boating uses of coastal waters. The proposed project will also protect and maintain adjacent Waterfront beaches for recreational use through beach nourishment, beach grooming, and installation of lifeguard towers, activities that have occurred at these beaches since the 1950's. The Commission finds that the proposed project will serve to maintain and possibly enhance recreational boating use of the Santa Barbara Harbor, and that the proposed project will maintain adjacent beaches for recreational access.

Therefore, the Commission finds that the proposed project will support water-oriented recreational opportunities and recreational boating uses of coastal waters, and is therefore consistent with Sections 30220 and 30224 of the Coastal Act.

E. COASTAL ACCESS

Coastal Act Section **30210** states that:

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

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.***

Coastal Act Section **30212(a)** provides that in new shoreline development projects, access to the shoreline and along the coast shall be provided except in specified circumstances, where:

> ***(1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources.***
>
> ***(2) adequate access exists nearby, or,***
>
> ***(3) agriculture would be adversely affected. Dedicated access shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.***

Coastal Act Sections 30210, 30211, and 30212 mandate that maximum public access and recreational opportunities be provided to allow use of dry sand and rocky coastal beaches and that development not interfere with the public's right to access the sea, consistent with the need to protect public safety, private property and natural resources.

All projects requiring a coastal development permit must be reviewed for compliance with the public access provisions of Chapter 3 of the Coastal Act.

The proposed project involves implementation of a comprehensive sediment management program, which includes dredging, disposal, beach grooming, storm drain maintenance, and annual placement/removal of lifeguard towers in the Santa Barbara Harbor and Waterfront Area. The proposed project will maintain the harbor and beach areas for their associated boating and recreational uses, which will therefore continue to accommodate coastal-dependent and public recreational opportunities supported by the provisions of the Coastal Act.

The project site includes the Santa Barbara Harbor and Waterfront Area including Leadbetter Beach, West Beach, and East Beach, which are primary locations for several public recreational uses. The project involves dredging and disposal of dredged sediment, and establishment of staging areas for such operations, on waterfront beaches that are popular recreation areas as well as important ocean access points for swimming, kayaking, surfing and other uses of coastal waters. Prior coastal permits issued for maintenance dredging operations identified specific sites for dredging and disposal operations, as well as specific locations for staging areas required for the operations. The proposed project, however, does not specify these locations due to the flexible nature of the project. Staging areas for the proposed operations will be dictated by the location of dredging and disposal operations as they occur and are expected to be similar to staging areas utilized in the past.

Generally, any particular area in the project site will require dredging every two to ten years. Sediment management operations will require several weeks to several months of dredging, sediment disposal, and beach grooming work annually. The operations will typically occur on weekdays but may also occur on weekends to complete the operations before a weather change, permit deadline, or other permit restriction. Based on the proposed annual maximum cubic yard limitations, dredging and disposal operations could involve up to five months of work in any given year, however the average time is estimated to be two months per year. Beach disposal is generally localized to approximately 500 linear feet on the beach. Beach disposal and staging areas on beaches within the project site will temporarily displace beach area for public use, however, the remainder of beach areas surrounding the discharge and staging locations will be available for public access. Beach grooming will temporarily displace public access in the area where beach grooming is occurring. This impact, though, will be temporary and minimal as beaches are groomed relatively fast and any given portion of the beach will be groomed approximately once a week.

The Commission notes that though ample beach area will remain available for public use during the proposed operations, establishing staging areas necessary to support the proposed operations in locations outside of heavily used beach areas will minimize interference with public access at the project site. In addition, the Commission notes that scheduling operations outside of peak recreational. Therefore, Special Condition Four (4) requires that dredging and disposal operations shall be prohibited the Friday prior to Memorial Day in May through Labor Day in September to avoid impacts on public recreational use of the beach and other public amenities in the project vicinity.

To ensure the safety of recreational users of the project site, particularly recreational users of adjacent beaches where disposal operations will be occurring, and to reduce potential conflicts between the sediment management operations and recreational use of the areas, the Commission finds it necessary to impose **Special Condition Seven (7)**, the Public Access Program, for the subject permit. **Special Condition Seven (7)** requires the applicant to implement a program of monitoring and safety measures, including installation of signs, fencing, and posting of security guards, by which safe public access to or around beach deposition sites will be maintained.

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 **30212** of the Coastal Act.

F. MARINE RESOURCES AND ENVIRONMENTALLY SENSITIVE HABITAT AREA

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 Act 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. In addition, Section 30240 of the Coastal Act states that environmentally sensitive habitat areas shall be protected and that development within or adjacent to such areas must be limited to uses dependent on those resources and shall be designed to prevent impacts which could degrade those resources.

Santa Barbara Harbor is identified in the certified Harbor Master Plan as a sensitive habitat area. Habitats in the harbor and waterfront area include marine, intertidal, beach, upland, and creeks that enter the ocean across the beach (Sycamore, Mission and Laguna Creeks) and their associated estuaries.

Marine habitats along Leadbetter, West, and East beaches are predominantly shallow sandy bottom habitat, although rocky habitat is present at Santa Barbara Point. Hard substrate habitat from small rock outcrops, debris from vessels, and pipelines are scattered throughout the subtidal and intertidal zones in the project area. These habitats support diverse invertebrate communities. Small amounts of red algae growing on an engine block, a few surfgrass plants, and some giant kelp plants attached to the outfall pipeline by Stearns Wharf exist in the project area. Outside of these limited areas, kelp (*Macrosystis pyrifera*), other macro algae or eel grass (*Zostera marina*) beds are not know to be present in the project area. Fish in shallow waters along the open coast include queenfish, topsmelt, anchovy, surfperch, killfish, sculpin, halibut, and California grunion (Leureshthes tenuis). The Santa Barbara Harbor contains soft bottom, hard substrate, and water column habitats. The frequent dredging in the harbor influence the abundance and species present. Red algae (Gelidium sp.) and a variety of invertebrate and algal species colonize the harbor. Fish within the harbor are similar to those mentioned above, although grunion are less common. Several marine mammals are located in the waters offshore of Santa Barbara, including harbor seals (*Phoca vitulina*) and California sea lion (*Zalophus californianus*), among others.

Three creeks flow into the ocean within the project area: Mission Creek, Laguna Channel, and Sycamore Creek. In addition, an outlet from the Andre Clark Bird Sanctuary flows onto the beach. Mission Creek has been extensively modified for flood control as it passes through the City of Santa Barbara and received polluted runoff from urban developments. In spite of this, it still supports tidewater goby (*Eucyclogobius newberyii*) and steelhead trout (*Oncorhynchus mykiss*). Laguna Channel has been altered to facilitate drainage of low areas and water is pumped into a side channel that discharges to the beach. The lagoon formed at the beach supports tidewater goby. These creeks interact with the beach by eroding a channel to the ocean during storm runoff and deposit sediments in the near shore area. In the summer, sand deposition on the beach forms a berm that closes the mouth of the creeks off from the ocean. In some years, the lagoons of Mission Creek and Laguna Channel are connected at the beach.

Upland habitats in the project area include sandy beaches that are heavily used by humans and are regularly groomed to remove trash and debris, and rocky intertidal areas in the harbor and on Santa Barbara Point. The California grunion spawns on sandy beaches in the project area during spring and summer. Several species of invertebrate and a variety of shorebirds use the beach for resting and foraging. Threatened or endangered birds in the project area include the California brown pelican

(*Pelecanus occidentalis californicus*), California least tern (*Sterna antillarum browni*), and western snowy plover (*Charadrius alexandrinus nivosus*) at selected locations in the project area.

The City of Santa Barbara Waterfront Department is proposing a comprehensive sediment management program involving maintenance dredging, sediment disposal, beach nourishment, stormdrain outlet maintenance, lifeguard tower installation, and beach grooming at the Santa Barbara Harbor and Waterfront Area including Leadbetter Beach, West Beach, and East Beach. The purpose of the program is to maintain the area for safe maritime traffic navigation; minimize risk of hazardous shoaling conditions; protect adjacent public, recreational, and commercial development from wave damage and flooding, maintain an appropriate sand balance to offset erosion, and maintain sandy beaches and area aesthetics. Sediment management activities will occur on an as-needed basis, where duration and amount of material moved varies annually, depending on weather and amount of natural sediment movement.

The City proposes a maximum of 500,000 cu yds. of material to be dredged annually. These dredged materials will be tested and placed on neighboring beaches (Leadbetter, West Beach, and East Beach) if they meet chemical and physical criteria established by the Army Corps, US EPA, and RWQCB for beach nourishment. Equipment used for dredging and disposal includes a hydraulic dredge, discharge pipes, earthmoving equipment, and other means of hydraulic, pneumatic, and mechanical conveyance. The City has conducted beach nourishment and dredging in the waterfront on an intermittent basis since 1972. The Army Corps of Engineers has also been dredging the federal navigation channel and depositing the sediments at East Beach on an intermittent basis for over 60 years. The City proposes special status species surveys prior to any sediment management activities. The proposed project does not include any activities which would occur within the sensitive riparian habitat or lagoon areas associated with the creeks and does not include mechanically breaching of any creeks. Sediment management within 200 feet of the centerline of Mission and Laguna Creeks will be prohibited when the creeks are flowing to the ocean.

In addition to dredging, disposal, and beach nourishment, the City proposes to include beach grooming as part of this project. According to City staff, beach grooming at Leadbetter Beach, West Beach, and East Beach has been implemented on an intermittent basis since the 1950's. As proposed, and consistent with the City's past practices, regular beach grooming, including raking, cleaning, and recontouring of sand will occur on a year-round basis and up to four days a week. Mechanized equipment and physical labor are used. In order to avoid potential adverse impacts to grunion spawning activities and sensitive habitat, the City is proposing that beach grooming be limited only to areas that are located more than ten (10) feet landward of the wrack line or the ordinary high tide line, whichever is furthest landward. During the winter, the City also proposes to maintain the opening of eight storm drain outlets that flow onto the beach so that ponding does not occur. Finally, the City proposes annual installation of lifeguard towers at the waterfront beaches in the spring and removal in the fall.

Section 30240 of the Coastal Act requires that environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses

dependent on those resources shall be allowed within those areas. The Commission notes that the proposed project will serve to achieve and maintain identified ideal dredging depths and beach configurations for previously maintained areas, which will accommodate coastal dependent uses that the project area provides, including fishing, boating, sunbathing, swimming, volleyball, etc. As discussed in Section C dredging of existing channels and beach nourishment are specifically referenced under Section 30233 of the Coastal Act as allowable development for dredging and filling in coastal waters. The following discusses the degree to which the project is consistent with Section 30230, 30231, and 30240, which require protection of environmentally sensitive habitats, biological and water quality properties of coastal waters, and marine resources to the extent feasible.

Several sensitive species are present in the project area seasonally, including the California brown pelican, western snowy plover, California least tern, steelhead trout, tidewater goby, and California grunion. The applicant has submitted the "Final Biological Resources Evaluation," prepared by SAIC in July 2005 which describes the biological resources onsite. The applicant submitted biological surveys completed prior to and after the annual dredging activities authorized by CDP 4-05-155. The surveys found no new species of concern and that the sensitive species noted above had not been adversely impacted by the dredging activities.

As previously mentioned, Mission Creek, Laguna Channel, and Sycamore Creek flow into the ocean within the project area when storm events increase run-off and stream flow which breach the seasonally deposited berm at the mouth of the creeks. Tidewater goby have been reported to occur in the lagoon waters of Mission Creek and Laguna Channel and steelhead trout have been documented to use Mission Creek when migrating to and from the ocean. The proposed project does not include any activities which would occur within the sensitive riparian habitat or lagoon areas associated with any of the creeks and the project does not include mechanically breaching of any natural creeks. Further, the applicant has proposed restriction of all sediment management activities within 200 feet of the centerline of any creeks running to the ocean. As mechanical breaching of any natural lagoons could impact tidewater goby habitat, **Special Condition Four (4)** prohibits the applicant from mechanically breaching any of the natural creeks in the area. It also prohibits sediment management activities within any natural lagoons or riparian habitat onsite. **Special Condition Four (4)** also requires the applicant to enforce the proposed restriction on sediment management activities within 200 feet of the centerline of Mission Creek when the creek is flowing to the ocean. Therefore, the proposed project will not have a direct adverse impact on either tidewater goby or steelhead trout present at the project site.

California brown pelican, California least tern, and snowy plover are threatened or endangered species known to occur at the project site. California brown pelicans are a year-round resident of the harbor area. The Biological Report submitted by the applicant indicates that potential project impacts on brown pelicans are minimal due to the temporary nature of project disturbance and the species' tolerance of human activities. California least tern are known to forage along West Beach, East and the sandspit. In December of 1999 West and East Beach and the sandspit were designated as critical habitat for the western snowy plover. The project's 2005 Biological Report indicates that

the proposed sediment management activities may potentially impact least tern and snowy plover when the species are present at the site during the months of July and August and year round, respectively. No impacts to least terns, snowy plovers, or grunion occurred during past dredging activities as these species were not present during the biological surveys conducted before each of the annual dredging activities implemented pursuant to CDP 4-05-155. In addition, the City submitted an update letter by SAIC consultants which reviewed the 2005 SAIC Biological Report concluding that "(w)ith continued implementation of measures described in the 2005 evaluation, SAIC believes that no additional or new adverse effects would occur as a result of the continuation of the Harbor Maintenance Dredging Program".

Dredging and deposition of sediment and beach grooming in areas where least tern and snowy plovers occur could temporarily displace and disturb these sensitive species. Dredging of the sandspit area during fall and winter months us if particular concern as this activity could reduce the size of the designated critical habitat when snowy plover are present. The Amended Negative Declaration submitted for the project indicates that potential adverse impacts to least terns and snowy plover will be minimized by limiting the timing of the proposed sediment management activities to those time periods when these sensitive species do not occur at the project site. Therefore, **Special Condition Five (5) and Special Condition Four (4)** requires the applicant to retain a qualified biologist or environmental resource specialist to conduct surveys of the project site prior to commencement of all dredging, disposal, beach nourishment, and stormdrain maintenance activities to evaluate whether sensitive species are present on-site or exhibit nesting or reproductive behavior. Project activities shall not occur until any sensitive species have left the project area or its vicinity. In the event that any sensitive wildlife species 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.

In addition, the sandy beaches in the project area have been identified as grunion spawning locations. Sediment management activities within the intertidal zone may disturb adult grunion during the run period and/or may bury incubating grunion eggs. Therefore, the proposed sediment management activities have the potential to significantly impact California grunion by dredging, depositing, or disturbing sediment within the intertidal zone during the seasonally predicted run period and egg incubation period of March through August. In order to ensure that the proposed project will not have an adverse impact on California grunion, **Special Condition Four (4)** states that no work shall be conducted on the beach and shorefront area while California grunion are present on the beach. Special Condition Four (4) further stipulates that sediment shall not be placed on any beach below the high water line during the seasonally predicted run period and egg incubation period of California grunion, March 14 through August 31, unless specifically authorized by the Executive Director. Such authorization will be given only after the Executive Director has received evidence that a qualified resource specialist has conducted an appropriate survey for the presence of any adult grunion and/or live grunion eggs at the project site, as required by **Special Condition Five (5)**. Furthermore, to ensure that the Executive Director is notified of commencing dredging and discharge operations, and to ensure that all relevant monitoring

information has been analyzed for potential impacts on sensitive wildlife species at the site, **Special Condition Two (2)** of the subject permit requires the applicant to submit a letter report describing the locations, staging areas, methods and timing of proposed operations, including all relevant monitoring reports, prior to commencement of any operations authorized by this coastal permit.

In addition, in order to avoid potential adverse impacts to grunion spawning activities and sensitive habitat, the City is proposing that all beach grooming activities would be limited only to areas that are located more than ten (10) feet landward of the wrack line or the ordinary high tide line, whichever is furthest landward. Additionally, the City proposes that beach grooming, beach nourishment, or intertidal discharge operations be conducted during times when California grunion are not spawning in the intertidal area. In order to ensure adequate implementation of the City's proposal, **Special Condition Three (3)** specifically requires that all beach grooming activities shall be limited to Leadbetter Beach, West Beach, and East Beach and shall be implemented in a manner to avoid the removal or disturbance of wrack. All mechanized beach grooming shall be restricted to dry sand area only and shall not occur any closer than ten feet landward of the wrack line or the ordinary high tide line, whichever is further landward. Wrack shall not be removed from the beaches during grooming activities with the exception that debris that is entangled in the wrack, and which poses a clear threat to public safety, may be removed as needed.

The Commission finds that regular grooming and nourishment at beaches can impact the diversity and abundance of invertebrates, plants, and birds present on sandy beaches and intertidal areas. Grooming and beach nourishment can cause removal of kelp washed ashore during high tides and continual removal and disturbance to plants and invertebrates colonizing the sand. A study comparing ungroomed and groomed beaches in Santa Barbara and Ventura counties, showed the abundance and species diversity of coastal strand plants to be approximately 15 times higher at ungroomed beaches than groomed beaches[1]. Regularly groomed beaches also exhibit reduced richness, abundance, and biomass of many species of invertebrates, including crustaceans and insects[2]. This reduction of invertebrates, in turn, impacts shorebirds, including sandpipers, plover, and sanderlings that feed on crustaceans and insects in the sand.

Wrack, the tangles of kelp and sea grass that wash up onto beaches and settle in large clumps along the tide line, are of particular importance for invertebrate, plants, and birds in the intertidal zone of the beach. A diverse macrofauna, including amphipods, isopods, and insects are found in wrack. According to one study at Southern California beaches, wrack associated macrofauna made up an average of greater than 37% of species on ungroomed beaches and comprised 25% or more of the total abundance on

[1] Dugan, Jenifer E. and David M. Hubbard. Effects of Beach Grooming on Coastal Strand and Dune Habitats at San Buenaventura State Beach. Draft Final Report to California Resources Agency, Department of Parks and Recreation, Channel Coast District. Jan. 4, 2003.

[2] Dugan, Jenifer E., et. Al. Macrofauna Communities of Exposed Sandy Beaches on the Southern California Mainland and Channel Islands.

half of those beaches[3]. The presence and amount of wrack on beaches is, therefore, directly correlated with the abundance and diversity of crustaceans and insects at beaches. The same study also showed reduced presence of western snowy plover and black-bellied plover at beaches in Ventura and Santa Barbara counties where wrack used to be removed regularly as part of beach grooming activities. The presence of wrack on beaches has also been proven to reduce wind driven sand transport at beaches by more than 90%[4].

The proposed project includes beach nourishment activities involving the placement of dredged sediment on the sandy beach and intertidal area periodically at Leadbetter Beach, East Beach, and West Beach. The project also proposes regular beach grooming at these same beaches. While sand nourishment and grooming has been ongoing at these beaches for many years, continuation of these practices will perpetuate reductions in abundance and diversity of biological species on these beaches. Recognizing the important role of wrack in the intertidal environment, the City proposes limiting beach grooming activities to 10 feet above either the ordinary high tide line or any wrack present on the beach. The Commission notes that the City is not proposing any expansion of nourishment and grooming activities beyond the highly urbanized beaches of the Waterfront that have undergone beach grooming and nourishment in the past.

In order to avoid potential adverse impacts to sensitive habitat, the City is proposing that all beach grooming activities would be limited only to areas that are located more than ten (10) feet landward of the wrack line or the ordinary high tide line, whichever is furthest landward. In order to ensure adequate implementation of the City's proposal, **Special Condition Three (3)** specifically requires that mechanized beach grooming shall be restricted to dry sand area only and shall not occur any closer than ten feet landward of the wrack line or the ordinary high tide line, whichever is further landward. Wrack shall not be removed from the beaches during grooming activities with the exception that debris that is entangled in the wrack, and which poses a clear threat to public safety, may be removed as needed. Special Condition Three (3) also limits beach grooming activities to Leadbetter Beach, East Beach, and West Beach, prohibits removal of wrack at any beaches, and prohibits grooming at the beaches east and west of these areas which historically have not been groomed. Management at the ungroomed beaches shall be limited to only removal of debris that poses a clear threat to public safety. **Special Condition Eleven (11)** also requires the City to retain wrack on the beach to the maximum extent feasible during beach nourishment activities, including stockpiling of wrack during discharge operations and replacement of the wrack in the same location/configuration at the site following any grading activities.

Finally, the Commission finds that although the project, as conditioned, will serve to minimize adverse impacts to sensitive beach wrack habitat, the project will still result in

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[3] Dugan, Jenifer E., et. Al. The Response of Macrofauna Communities and Shorebirds to Macrophyte Wrack Subsidies on Exposed Sandy Beaches of Southern California. Estuarine, Coastal and Shelf Science 58S pp. 133-148. 2003

[4] Dugan, Jenifer E. and David M. Hubbard. Effects of Beach Grooming on Coastal Strand and Dune Habitats at San Buenaventura State Beach. Draft Final Report to California Resources Agency, Department of Parks and Recreation, Channel Coast District. Jan. 4, 2003.

some unavoidable impacts to habitat from the placement of beach replenishment material on the beach and in the intertidal zone. In addition, the Commission also finds that the subject beach is a popularly used tourist destination and experiences a large number of visitors each year. Use of the beach by large numbers of visitors may also result in increased disturbance to the sensitive wrack environment and even the generation of potential complaints to City staff regarding the presence of wrack on the beach. Therefore, in order to offset the unavoidable impacts to sensitive resources on site that will result from the proposed beach replenishment/sediment disposal activities, the Commission finds that educating the public about the ecological importance of wrack is important to the success of wrack protection measures included in the City's Sediment Management Program and would serve to further reduce disturbance to wrack and sensitive habitat areas on site from human disturbance. **Special Condition Fourteen (14),** therefore, requires the applicant to install and maintain signs that inform the public as to the importance of wrack in the intertidal environment and the ecological benefits of retaining wrack on Waterfront beaches. The signs shall be placed at a minimum of every 500 lineal feet along each sandy beach in the project area immediately seaward of the existing bikepath/walkway or landwardmost portion of the sandy beach. The existing educational and informational signs installed as a previous requirement of Coastal Development Permit 4-05-155 may be utilized to satisfy components of this condition.

The Commission notes that *Caulerpa taxifolia* is a tropical green marine alga that is popular in the aquarium trade because of its attractive appearance and hardy nature. In 1984, this seaweed was introduced into the northern Mediterranean. From an initial infestation of about 1 square yard it grew to cover about 2 acres by 1989, and by 1997 blanketed about 10,000 acres along the coasts of France and Italy. Genetic studies demonstrated that those populations were from the same clone, possibly originating from a single introduction. This seaweed spreads asexually from fragments and creates a dense monoculture displacing native plant and animal species. In the Mediterranean, it grows on sand, mud and rock surfaces from the very shallow subtidal to about 250 ft depth. Because of toxins in its tissues, *C. taxifolia* is not eaten by herbivores in areas where it has invaded. The infestation in the Mediterranean has had serious negative economic and social consequences because of impacts to tourism, recreational diving, and commercial fishing.

Because of the grave risk *Caulerpa* poses to native habitats, in 1999 *C. taxifolia* was designated a prohibited species in the United States under the Federal Noxious Weed Act. However, its possession is still legal in California. In June 2000, *C. taxifolia* was discovered in Aqua Hedionda Lagoon in San Diego County, and in August of that year an infestation was discovered in Huntington Harbor in Orange County. Genetic studies show that this is the same clone as that released in the Mediterranean. Other infestations are likely. Although a tropical species, *C. taxifolia* has been shown to tolerate water temperatures down to at least 50^{o} F. Although warmer southern California habitats are most vulnerable, until better information if available, it must be assumed that the whole California coast is at risk. All shallow marine habitats could be impacted.

In response to the threat that *Caulerpa taxifolia* poses to California's marine environment, the Southern California Caulerpa Action Team, SCCAT, was established

to respond quickly and effectively to the discovery of *Caulerpa taxifolia* infestations in Southern California. The group consists of representatives from several state, federal, local and private entities. The goal of SCCAT is to completely eradicate all *C. taxifolia* infestations.

If *Caulerpa taxifolia* is present, any project that disturbs the bottom could cause its spread by dispersing viable tissue fragments. In order to assure that the proposed project does not cause the dispersal of *Caulerpa taxifolia*, the Commission requires **Special Condition Ten (10)**. Special Condition Ten (10) requires the applicant, prior to placement of any dredged material to undertake a survey of the project area and any associated dredging equipment for the presence of *C. taxifolia*. If *C. taxifolia* is present in the project area, no work may commence and the applicant shall seek an amendment or a new permit to address impacts related to the presence of the *C. taxifolia*, unless the Executive Director determines that no amendment or new permit is required.

In addition, the proposed project involves dredging of open coastal waters and deposition of dredged sediment at adjacent beaches at the project site. Were any of this sediment to be contaminated or composed of high contents of fine material, biological resources and water quality in the marine environment could be negatively impacted. The applicant has submitted results of previous testing conducted of dredging and disposal sites within the last ten years under CDP 4-00-167 and 4-05-155 in compliance with required conditions of approval of those permits. Section C discusses in detail the issue of dredge spoil compatibility, including chemical and physical characteristics, with receiver beach nourishment sites. As discussed in that section, all previous testing of the proposed dredging areas has shown the sediment to meet chemical and physical criteria established by the Army Corps, U.S. EPA, and the RWQCB for sediment used for beach nourishment or deposition in intertidal areas. One exception was the sediment tested from Marina 2, which contained sediment material with a greater percentage of fines than would be appropriate for beach or intertidal deposition and was, therefore, deposited in a nearby landfill. Testing in the area has also shown high levels of some metals in sediments, although levels have not been higher that Army Corps, EPA, and RWQCB criteria. The Commission notes that because this project will occur over a multiple year period of time and that water and sediment quality in creeks may change over time due to changed conditions resulting from non-point source pollution from creeks or spills in the harbor, that continued testing of dredging material is necessary to determine suitability for deposition at beach and intertidal areas. As discussed in Section C, the Commission, therefore, requires **Special Conditions Two (2), Nine (9), and Twelve (12)** to ensure sediment testing, compliance with Federal and State regulations and criteria for dredging and deposition, and notification of the Commission as to sediment conditions prior to dredging and deposition activities.

Although the above required special conditions will serve to minimize adverse impacts to the marine environment, the placement of source material on the beach or in the intertidal zone is still expected to result in increased turbidity at the deposition site. Temporary increases in turbidity and suspended solids decrease light penetration, causing a decline in primary productivity due to decreased photosynthesis by phytoplankton and may result in adverse impacts to marine organisms. Specifically,

any appreciable turbidity increase may also cause clogging of gills and feeding apparatuses of fish and filter feeders. Turbidity impacts are anticipated to have the maximum concentrations generally restricted to the lower water column, and decreasing rapidly with distance due to settling and dilution. However, the impacts of surf zone and beach fill placement activities (i.e., increased turbidity, sedimentation, dissolved oxygen reduction, burial of organisms) are expected to be relatively localized in nature and mobile organisms would likely relocate to an undisturbed area. Following deposition activities, organisms are expected to recolonize previously disturbed areas.

As such, impacts from sediment re-suspension caused by the project are anticipated to be short-term in duration. In addition, the proposed deposition sites are located in an area that is considered to have naturally high levels of turbidity due to high wave energy and creek outfalls, particularly during the winter season. Additionally, the applicant has submitted results of water quality monitoring from previously permitted CDP 4-00-167 which show that the amount of sediment deposited during sediment management activities in the last five years was less than that delivered to the area during normal storm events. Dredging amounts and locations change each year, though, causing varying amounts of turbidity and associated impacts. **Special Condition Eight (8)**, therefore, requires a qualified biologist or resource specialist to monitor turbidity during all project construction activities. If the monitoring indicates that turbidity attributed to the replenishment project is not completely diminished immediately following deposition activities (1-2 days), then the rate of placement of sand will be modified so that large, long lasting turbidity plumes are no longer created. In addition, Special Condition Eight (8) requires the applicant to compare deposition volumes with that normally delivered to the project site by winter storms.

In addition, the composition (i.e., grain size) of the deposition material can also affect the marine environment. For instance, material with higher fine-grained material content will contribute to higher rates of turbidity (see above discussion of turbidity impacts) and will have higher likelihood of containing contaminants. In general, the higher the amount of coarse grained sand, the lower the turbidity and associated risks to offshore resources and productivity. As a result, the grain-size of the material is an important design characteristic of the project. Therefore, in order to ensure that only appropriate material is deposited within the surf zone and marine environment, **Special Condition Nine (9)** requires that physical analysis be conducted on representative samples of each source material that shall be used for placement on beaches. The material shall be analyzed for consistency with the U.S. Army Corps of Engineers (ACOE) / Environmental Protection Agency (EPA), State Water Resources Control Board and California Regional Water Quality Control Board (RWQCB) criteria for beach replenishment.

The riparian, wetland, and marine environment could also be adversely impacted as a result of the implementation of project activities by unintentionally introducing sediment, debris, or chemicals with hazardous properties. To ensure that construction material, debris, or other waste associated with project activities does not enter the water, the Commission finds **Special Condition Eleven (11)** 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 Eleven

(11), 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 Eleven (11)** assigns responsibility to the applicant that any and all construction debris, sediment, or trash shall be properly contained and removed from construction areas within 24 hours. Further, construction equipment shall not be cleaned on the beach or in the beach parking lots.

Finally, the Commission notes that the applicant is requesting to place a significant volume of material (500,000 cu. yds annually) within the surf zone and on beaches on an annual basis for a period of time (ten years). The previous two coastal permits for a similar sediment management program on site (CDP 4-00-167 and 4-05-155) allowed a maximum deposition of 500,000 cu. yds of material annually and 1,000,000 cu. yds. over the past ten years (5-year programs authorized under each permit).

The Commission finds that the proposed project, as conditioned, will serve to minimize adverse effects to existing habitat and wildlife resources on site while meeting necessary flood control requirements. However, the Commission also finds that the marine, beach, riparian, and wetland habitats on site are subject to potential changes over time as new species migrate into the area or as potential unidentified impacts from the proposed dredging, disposal, and beach grooming operations may be discovered over time. Thus, the Commission finds that authorization of the proposed project for a single period of time longer than ten years in duration would not ensure that such changes are adequately addressed over time. Therefore, in order to ensure that any potential changed circumstances which may be discovered at some future point in time are adequately addressed in a timely manner, **Special Condition One (1)** specifically limits the duration of all activities approved by this permit (including dredging, sediment disposal, beach grooming, storm drain maintenance, and lifeguard tower installation) to a period of no more than ten (10) years from the date of Commission action, after which time this permit shall expire. Any sediment management activities after the expiration of this permit will require the issuance of a new coastal development permit.

For the reasons set forth above, the Commission finds that the proposed project, as conditioned, is consistent with Sections **30230**, **30231**, **30240,** and **30233** of the Coastal Act.

G. ARCHEOLOGICAL RESOURCES

Coastal Act Section 30244 of the Coastal Act states that:

> ***Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.***

Archaeological resources are significant to an understanding of cultural, environmental, biological, and geological history. The Coastal Act requires the protection of such resources to reduce potential adverse impacts through the use of reasonable mitigation measures. Degradation of archaeological resources can occur if a project is not properly monitored and managed during earth moving activities and construction. Site

preparation can disturb and/or obliterate archaeological materials to such an extent that the information that could have been derived would be permanently lost. In the past, numerous archaeological sites have been destroyed or damaged as a result of development. As a result, the remaining sites, even though often less rich in materials, have become increasingly valuable as a resource. Further, because archaeological sites, if studied collectively, may provide information on subsistence and settlement patterns, the loss of individual sites can reduce the scientific value of the sites that remain intact.

The applicant has submitted a Negative Declaration which notes that portions of West Beach and East Beach have been identified as sensitive for subsurface archaeological resources. Dredging activities are unlikely to disturb existing archaeological resources due to the fact that areas directly offshore have historically been submerged and the majority of dredging areas contain recently accumulated sediments and not undisturbed deposits. Although sediment disposal and grooming activities within some portions of the project site could potentially disturb archaeological resources, the project has been designed to avoid all recorded archaeological sites and grooming. Further, as proposed to limit grooming activities to only the upper 2 ft. of beach sand, the potential for adverse impacts to occur are considered minimal. Therefore, the Commission finds that the proposed grooming activities are designed to minimize potential impacts of archaeological resources. However, the Commission notes that potential adverse effects to those resources may still occur due to inadvertent disturbance during dredging disposal and grading activities. To ensure that all potential adverse impacts to archaeological resources are minimized, **Special Condition Six (6)** requires the applicant to have a qualified archaeologist(s) and appropriate Native American consultant(s) present on-site during any onshore project activities within the high and moderate sensitivity zones, as identified by the City of Santa Barbara Master Environmental Assessment, at all times during grading operations when earth disturbance of these identified zones is expected to be of 3 ft. or greater depth. In the event that any significant archaeological resources are discovered during operations, all work in the area will be halted and an appropriate data recovery strategy shall be developed, subject to review and approval of the Executive Director, by the applicant's archaeologist and/or Native American consultant consistent with CEQA guidelines.

Therefore, the Commission finds that the proposed project, as conditioned, is consistent with Section 30244 of the Coastal Act.

H. HAZARDS AND SHORELINE PROCESSES

Section 30253 of the Coastal Act states, in part:

> ***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.***

The proposed development is located in an area subject to tidal action. The tidal environment is dynamic and there are risks associated with development in such areas. For instance, erosion has occurred at the subject beaches where beach nourishment is proposed, and erosion is one form of potential geologic hazard. However, the applicant will not increase erosion hazards by increasing the size of beaches beyond pre-existing conditions, and increasing the beach size may decrease risks to property. As described above, testing and monitoring the replenishment material will ensure risks to life and health are minimized. Therefore, the proposed project minimizes this hazard consistent with Section 30253.

In addition to beach nourishment and sediment disposal, the project involves hydraulic dredging of the harbor and areas offshore of West Beach. These areas have been dredged since 1972. Nearby creeks and longshore currents transport sediment to these areas, filling in portions of the harbor. Maintenance dredging proposed by this project removes this accumulated sediment to ideal contours. These offshore contours have not changed since the program was last permitted in 2005 (CDP 4-05-155). It is unlikely, therefore, that dredging activities would significantly contribute to erosion, geologic instability, or substantially alter natural landforms along bluffs or cliffs.

Because there remains an inherent risk to development along the shoreline, though, **Special Condition Thirteen (13)** requires the applicant to submit a signed document which shall indemnify and hold harmless the California Coastal Commission, its officers, agents and employees against any and all claims, demands, damages, costs, expenses of liability arising out of the acquisition, design, construction, operation, maintenance, existence, or failure of the permitted project. In this way, the applicant is notified that the Commission is not liable for damage as a result of approving the permit for development.

For the reasons set forth above, the Commission finds that the proposed project, as conditioned, is consistent with Section 30253 of the Coastal Act.

I. LOCAL COASTAL PROGRAM

The proposed project area lies within City of Santa Barbara, but falls within the Commission's area of retained original permit jurisdiction as shown on the LCP Certification Permit and Appeal Jurisdiction map. The Commission has certified the Local Coastal Program for the City 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.

J. CEQA

Section 13096(a) of the Commission's administrative regulations requires Commission approval of a 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 that the activity may have on the environment.

The Commission incorporates its findings on Coastal Act consistency at this point as if set forth in full. These findings address and respond to all public comments regarding potential significant adverse environmental effects of the project that were received prior to preparation of the staff report. As discussed above, the proposed development, as conditioned, is consistent with the policies of the Coastal Act. Feasible mitigation measures which will minimize all adverse environmental effects have been required as special conditions. As conditioned, there are no feasible alternatives or feasible mitigation measures available, beyond those required, which would substantially lessen any significant adverse impact that the activity may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned to mitigate the identified impacts, can be found to be consistent with the requirements of the Coastal Act to conform to CEQA.

Exhibit 1
CDP 4-10-066
Project Area
And Vicinity Map

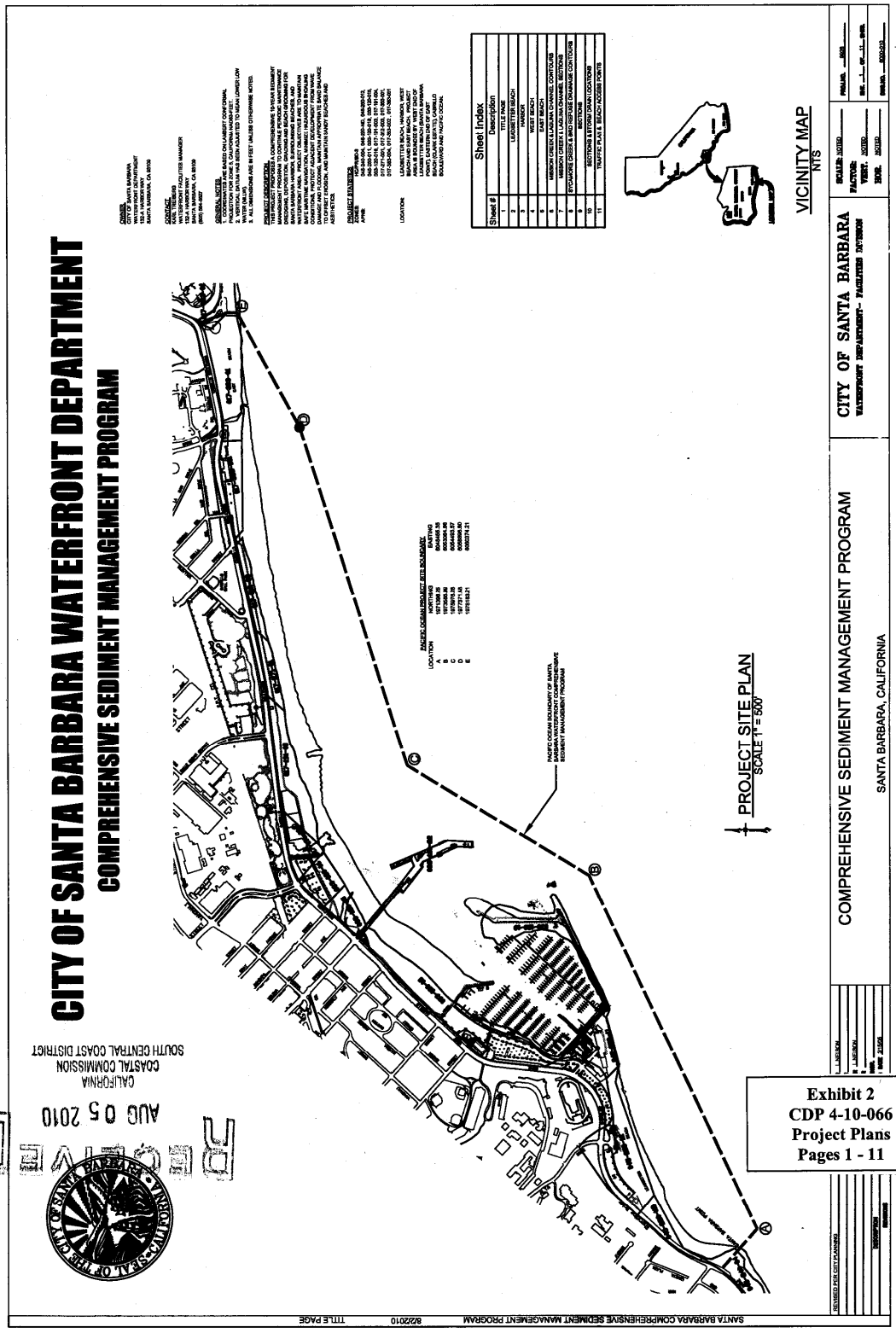
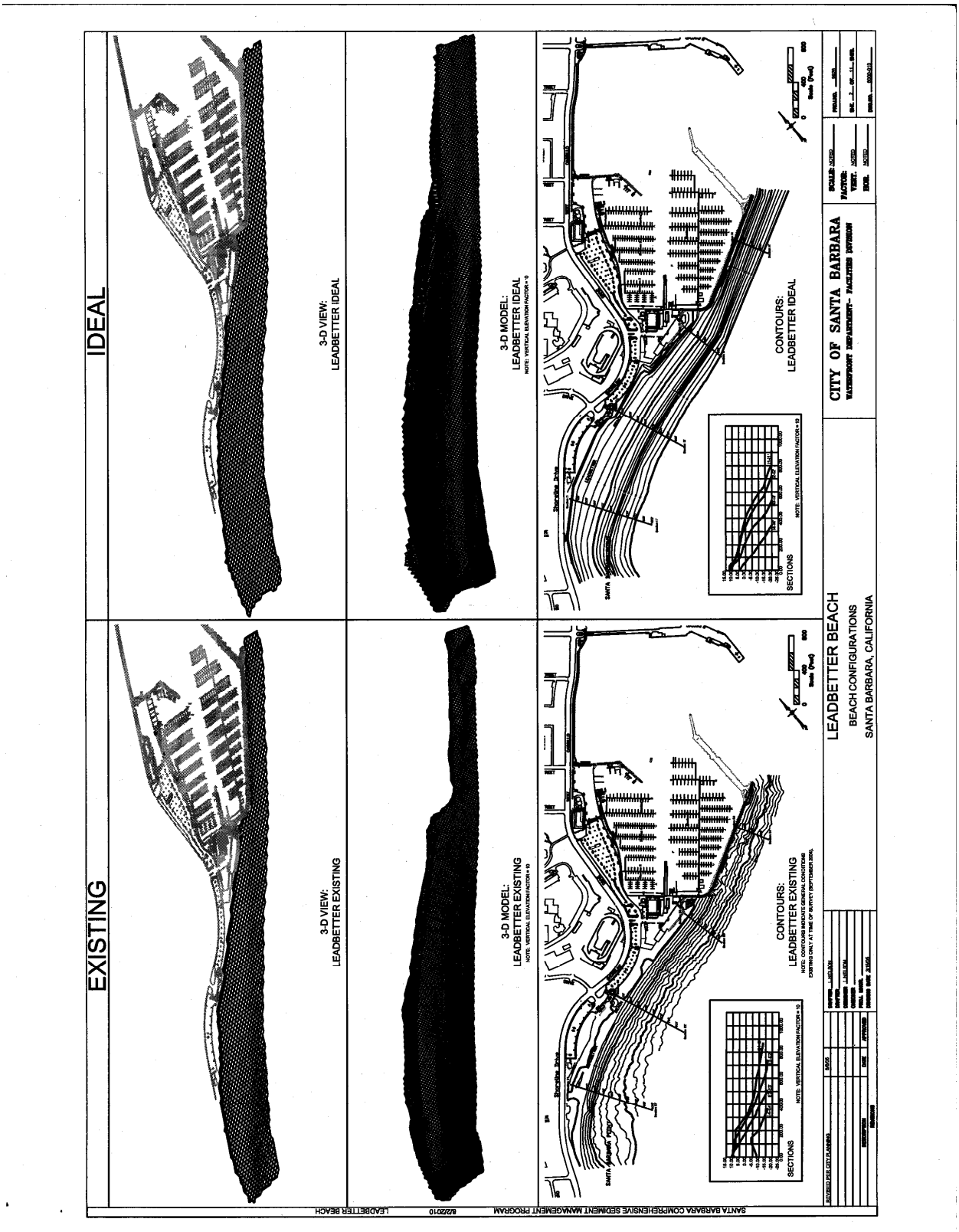
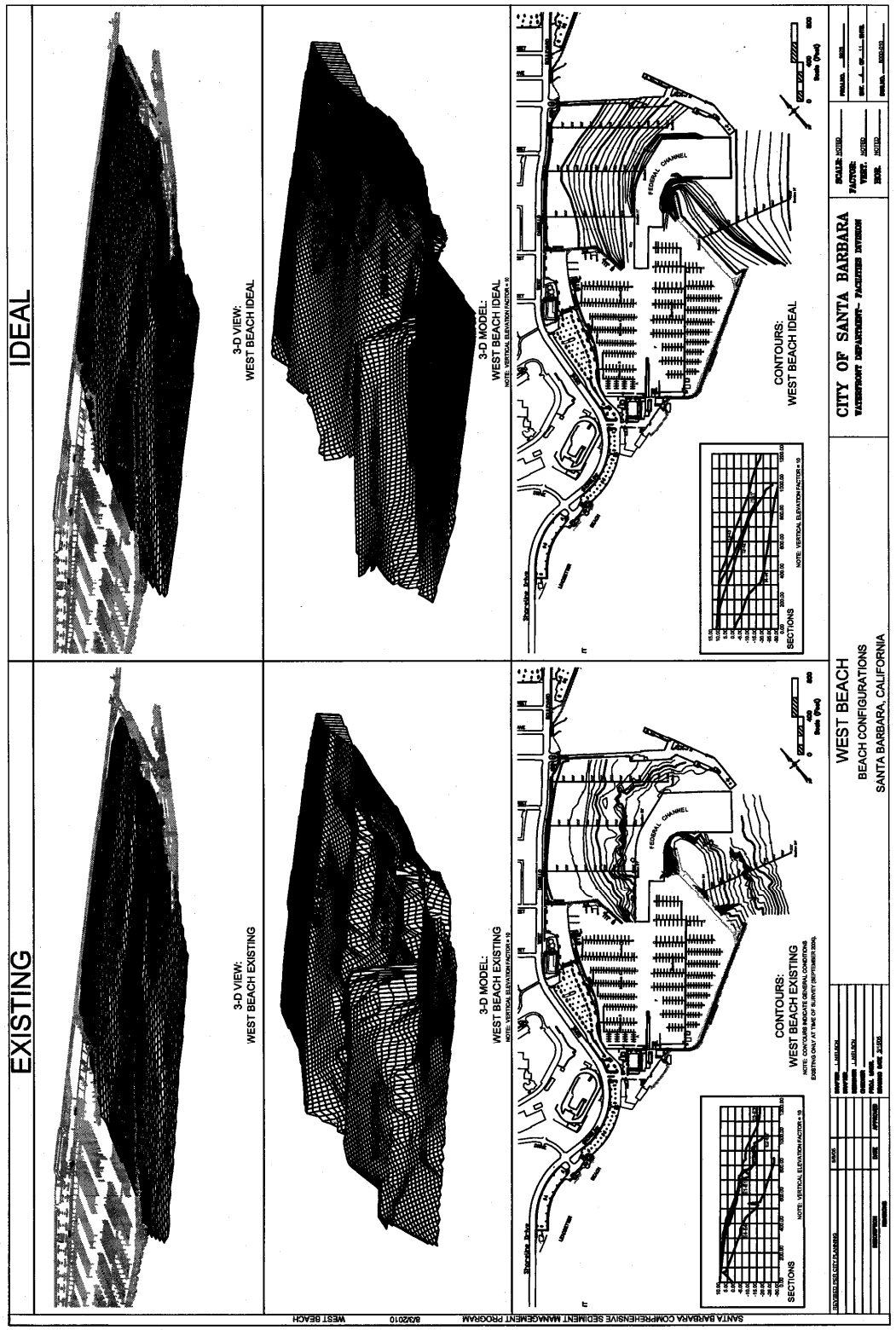
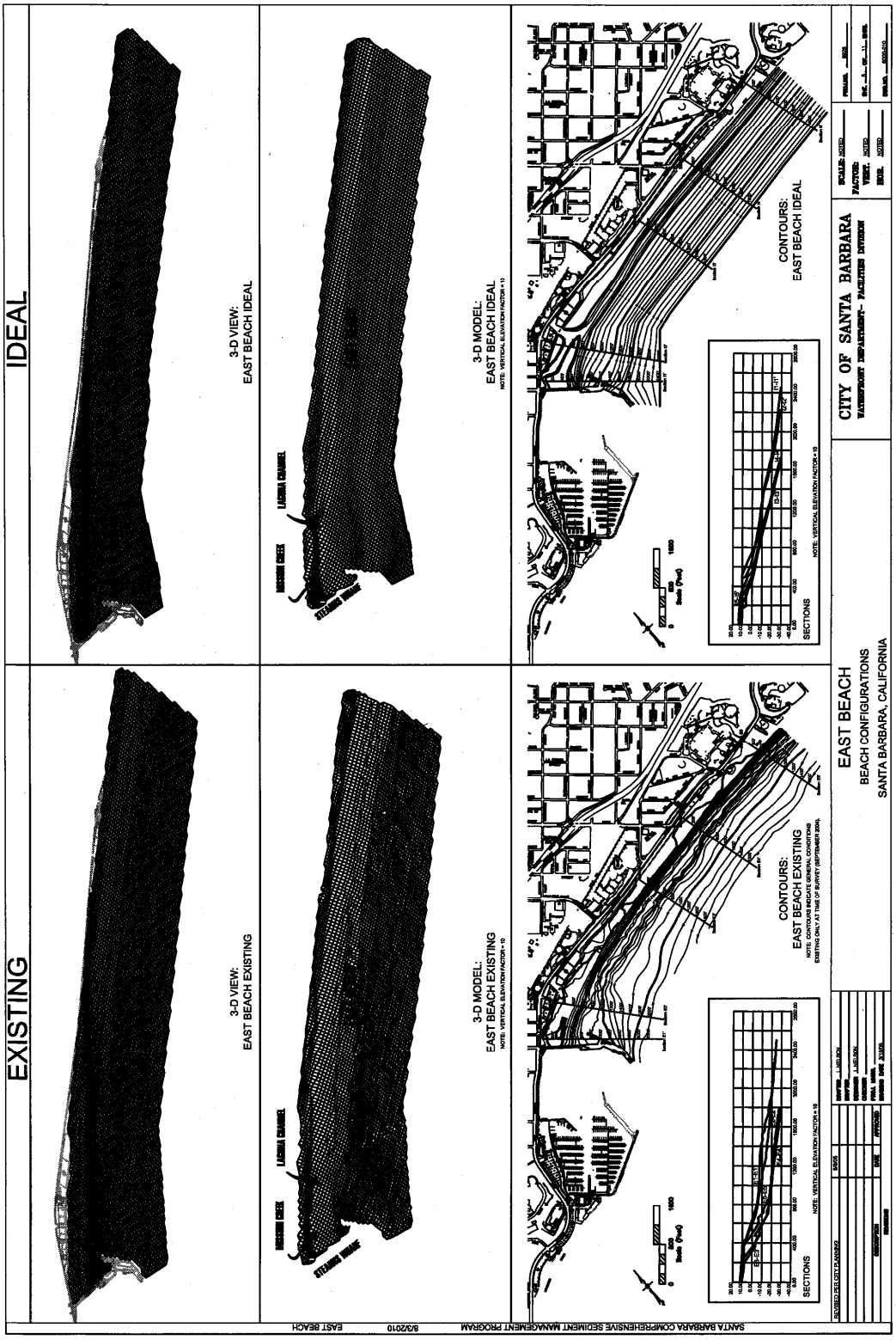


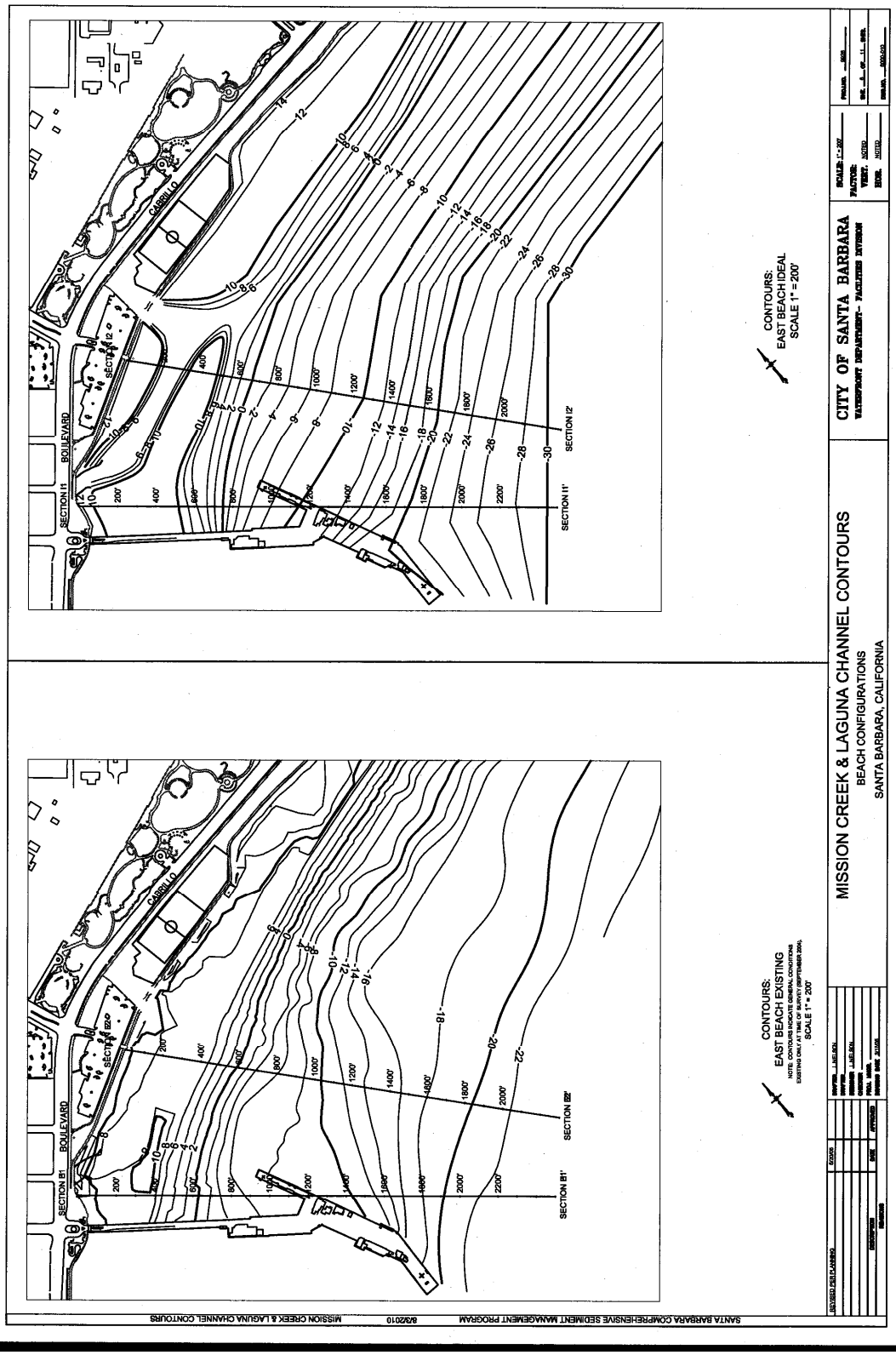
Exhibit 2
CDP 4-10-066
Project Plans
Pages 1 - 11


IDEAL
EXISTING
3-D VIEW:
LEADBETTER IDEAL
3-D VIEW:
LEADBETTER EXISTING
3-D MODEL:
LEADBETTER IDEAL
3-D MODEL:
LEADBETTER EXISTING
CONTOURS:
LEADBETTER IDEAL
CONTOURS:
LEADBETTER EXISTING
SECTIONS
SECTIONS
CITY OF SANTA BARBARA
LEADBETTER BEACH
BEACH CONFIGURATIONS
SANTA BARBARA, CALIFORNIA
SANTA BARBARA COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
6/2/2010
LEADBETTER BEACH

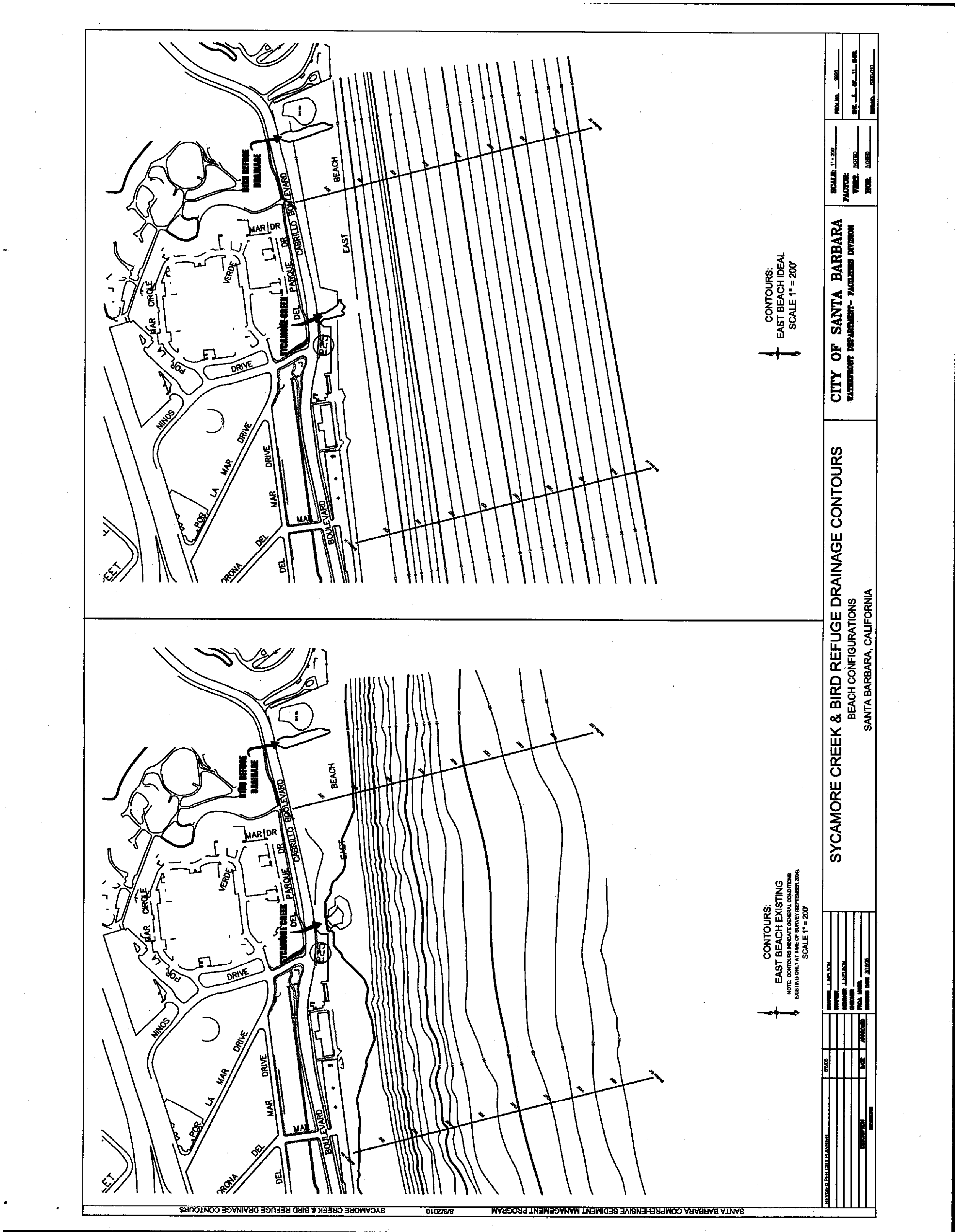
IDEAL
EXISTING
3-D VIEW:
HARBOR IDEAL
3-D VIEW:
HARBOR EXISTING
3-D MODEL:
HARBOR IDEAL
NOTE: VERTICAL ELEVATION FACTOR = 10
3-D MODEL:
HARBOR EXISTING
NOTE: VERTICAL ELEVATION FACTOR = 10
CONTOURS:
HARBOR IDEAL
CONTOURS:
HARBOR EXISTING
NOTE: CONTOURS INDICATE GENERAL CONDITIONS
EXISTING ONLY AT TIME OF SURVEY (SEPTEMBER 2005).
SECTIONS
NOTE: VERTICAL ELEVATION FACTOR = 10
HARBOR
BEACH CONFIGURATIONS
SANTA BARBARA, CALIFORNIA
CITY OF SANTA BARBARA
WATERFRONT DEPARTMENT– FACILITIES DIVISION
SANTA BARBARA COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
8/3/2010
HARBOR

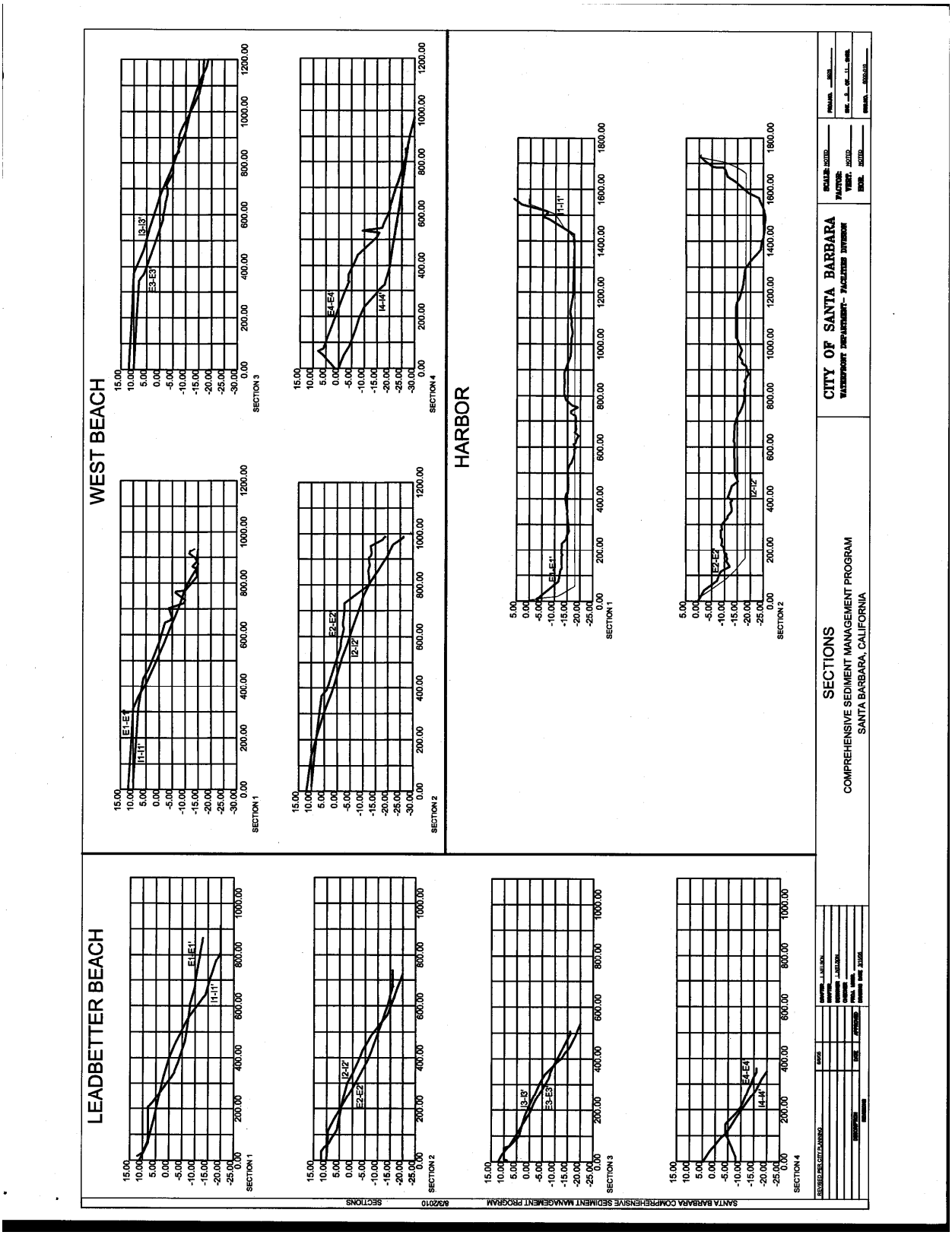

IDEAL
EXISTING
3-D VIEW:
WEST BEACH IDEAL
3-D MODEL:
WEST BEACH IDEAL
CONTOURS:
WEST BEACH IDEAL
SECTIONS
3-D VIEW:
WEST BEACH EXISTING
3-D MODEL:
WEST BEACH EXISTING
CONTOURS:
WEST BEACH EXISTING
SECTIONS
FEDERAL CHANNEL
CITY OF SANTA BARBARA
WATERFRONT DEPARTMENT - FACILITIES DIVISION
WEST BEACH
BEACH CONFIGURATIONS
SANTA BARBARA, CALIFORNIA
SANTA BARBARA COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
8/3/2010
WEST BEACH

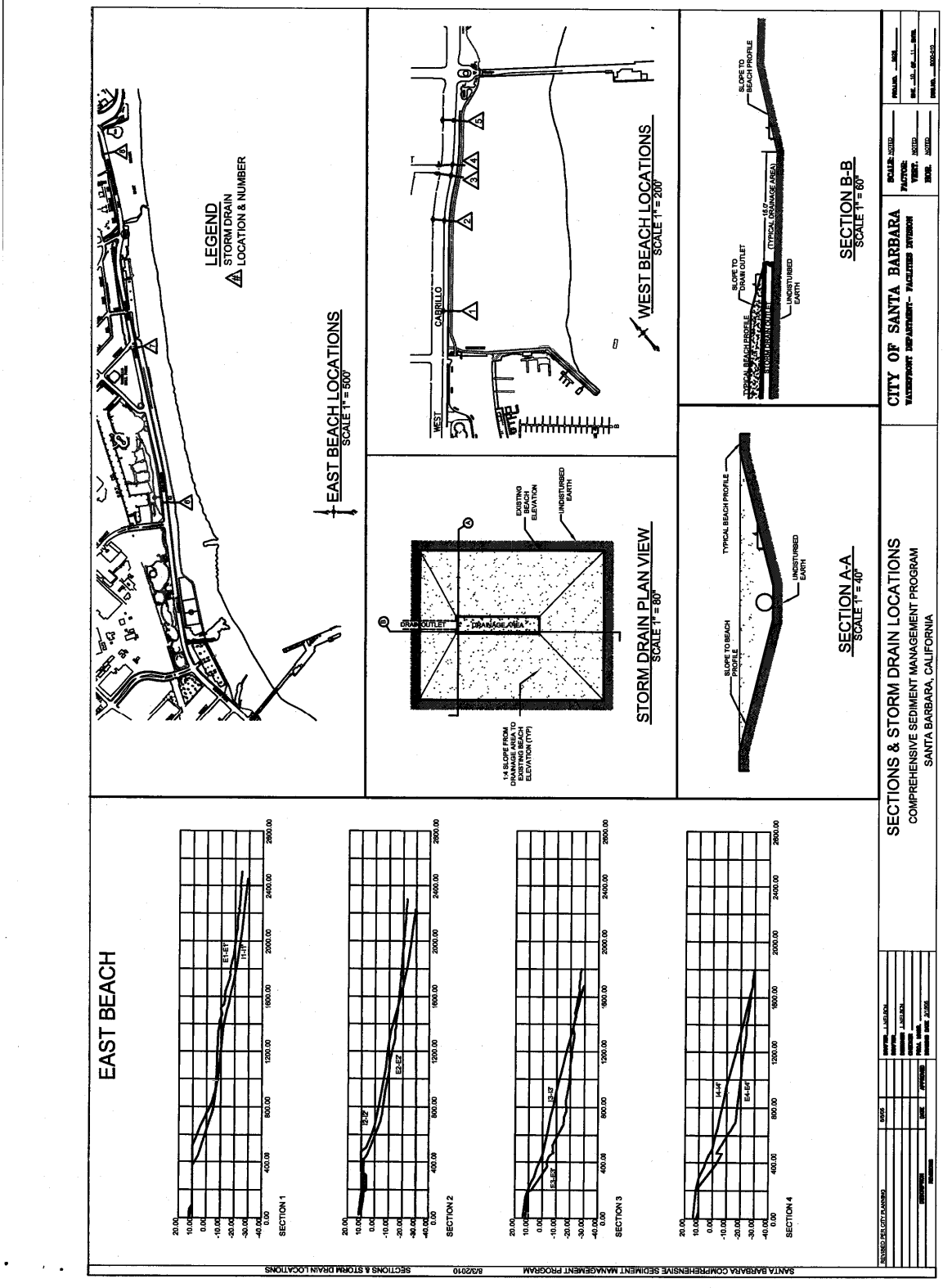

IDEAL
EXISTING
3-D VIEW:
EAST BEACH IDEAL
3-D MODEL:
EAST BEACH IDEAL
CONTOURS:
EAST BEACH IDEAL
SECTIONS
3-D VIEW:
EAST BEACH EXISTING
3-D MODEL:
EAST BEACH EXISTING
CONTOURS:
EAST BEACH EXISTING
SECTIONS
CITY OF SANTA BARBARA
EAST BEACH
BEACH CONFIGURATIONS
SANTA BARBARA, CALIFORNIA
SANTA BARBARA COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
8/3/2010
EAST BEACH

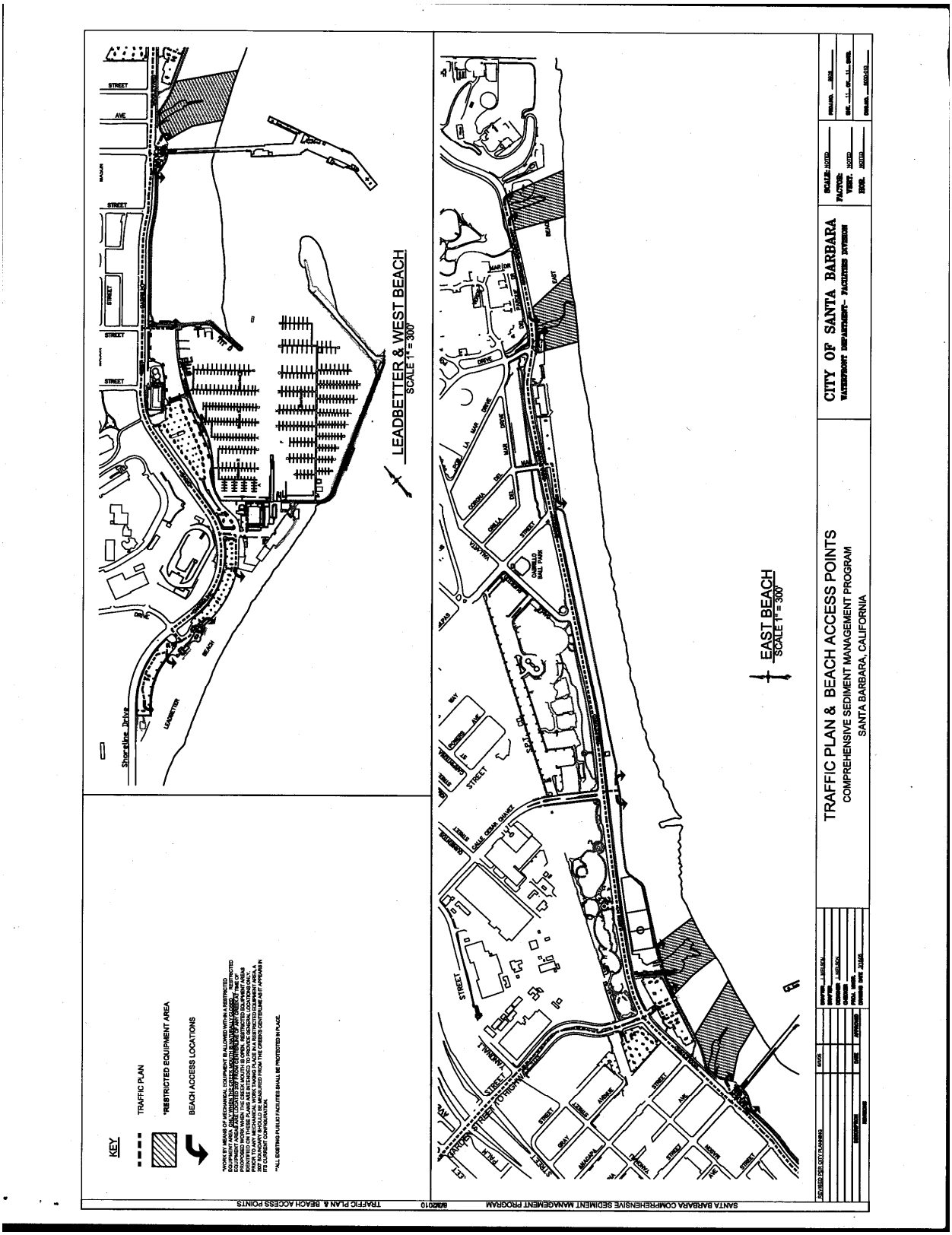

MISSION CREEK & LAGUNA CHANNEL CONTOURS
BEACH CONFIGURATIONS
SANTA BARBARA, CALIFORNIA
CITY OF SANTA BARBARA
WATERFRONT DEPARTMENT - FACILITIES DIVISION
CONTOURS:
EAST BEACH EXISTING
SCALE 1" = 200'
CONTOURS:
EAST BEACH IDEAL
SCALE 1" = 200'
CABRILLO
BOULEVARD
SECTION 11'
SECTION 12'
SECTION 81'
SECTION 82'
SANTA BARBARA COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
8/2/2010
MISSION CREEK & LAGUNA CHANNEL CONTOURS

PLAN VIEW IDEAL
SCALE 1" = 400'
PLAN VIEW EXISTING
SCALE 1" = 400'
SECTION A-A (IDEAL)
SCALE 1" = 100'
(NOTE: VERTICAL ELEVATION FACTOR = 10)
SECTION A-A (EXISTING)
SCALE 1" = 100'
(NOTE: VERTICAL ELEVATION FACTOR = 10)
SECTION B-B (IDEAL)
SCALE 1" = 150'
(NOTE: VERTICAL ELEVATION FACTOR = 10)
SECTION B-B (EXISTING)
SCALE 1" = 150'
(NOTE: VERTICAL ELEVATION FACTOR = 10)
CABRILLO BOULEVARD
LINE OF RIGHT
MISSION CREEK
APPROXIMATE WATERLINE
STEARNS WHARF
MISSION CREEK/ LAGUNA CHANNEL
MISSION CREEK & LAGUNA CHANNEL SECTIONS
BEACH CONFIGURATIONS
SANTA BARBARA, CALIFORNIA
CITY OF SANTA BARBARA
WATERFRONT DEPARTMENT - FACILITIES DIVISION
SANTA BARBARA COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
8/3/2010
MISSION CREEK & LAGUNA CHANNEL SECTIONS


SYCAMORE CREEK & BIRD REFUGE DRAINAGE CONTOURS
BEACH CONFIGURATIONS
SANTA BARBARA, CALIFORNIA
CITY OF SANTA BARBARA
CONTOURS:
EAST BEACH IDEAL
SCALE 1" = 200'
CONTOURS:
EAST BEACH EXISTING
SCALE 1" = 200'
CABRILLO BOULEVARD
EAST BEACH
BIRD REFUGE DRAINAGE
SYCAMORE CREEK
SANTA BARBARA COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
8/3/2010
SYCAMORE CREEK & BIRD REFUGE DRAINAGE CONTOURS


WEST BEACH
HARBOR
LEADBETTER BEACH
SECTION 1
SECTION 2
SECTION 3
SECTION 4
E1-E1'
I1-I1'
E2-E2'
I2-I2'
I3-I3'
E3-E3'
E4-E4'
I4-I4'
SECTIONS
COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
SANTA BARBARA, CALIFORNIA
CITY OF SANTA BARBARA
WATERFRONT DEPARTMENT - FACILITIES DIVISION
SANTA BARBARA COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
6/3/2010
SECTIONS


LEGEND
STORM DRAIN
LOCATION & NUMBER
EAST BEACH LOCATIONS
SCALE 1" = 500'
WEST BEACH LOCATIONS
SCALE 1" = 200'
CABRILLO
WEST
STORM DRAIN PLAN VIEW
SCALE 1" = 80'
DRAIN OUTLET
DRAINAGE AREA
EXISTING BEACH ELEVATION
UNDISTURBED EARTH
1:4 SLOPE FROM DRAINAGE AREA TO EXISTING BEACH ELEVATION (TYP)
SECTION A-A
SCALE 1" = 40'
TYPICAL BEACH PROFILE
SLOPE TO BEACH PROFILE
UNDISTURBED EARTH
SECTION B-B
SCALE 1" = 60'
SLOPE TO BEACH PROFILE
TYPICAL BEACH PROFILE
SLOPE TO DRAIN OUTLET
(TYPICAL DRAINAGE AREA)
UNDISTURBED EARTH
EAST BEACH
SECTION 1
SECTION 2
SECTION 3
SECTION 4
CITY OF SANTA BARBARA
WATERFRONT DEPARTMENT - FACILITIES DIVISION
SECTIONS & STORM DRAIN LOCATIONS
COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
SANTA BARBARA, CALIFORNIA
SANTA BARBARA COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
8/3/2010
SECTIONS & STORM DRAIN LOCATIONS


LEADBETTER & WEST BEACH
SCALE 1" = 300'
EAST BEACH
SCALE 1" = 300'
KEY
TRAFFIC PLAN
*RESTRICTED EQUIPMENT AREA
BEACH ACCESS LOCATIONS
*ALL EXISTING PUBLIC FACILITIES SHALL BE PROTECTED IN PLACE.
TRAFFIC PLAN & BEACH ACCESS POINTS
COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
SANTA BARBARA, CALIFORNIA
CITY OF SANTA BARBARA
WATERFRONT DEPARTMENT - FACILITIES DIVISION
SANTA BARBARA COMPREHENSIVE SEDIMENT MANAGEMENT PROGRAM
TRAFFIC PLAN & BEACH ACCESS POINTS

STATE OF CALIFORNIA – THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, *Governor*

CALIFORNIA COASTAL COMMISSION
SOUTH CENTRAL COAST AREA
89 SOUTH CALIFORNIA ST., SUITE 200
VENTURA, CA 93001
(805) 585-1800

Date: May 22, 2006
Permit Application No. 4-05-155

COASTAL DEVELOPMENT PERMIT

On April 13, 2006, the California Coastal Commission granted to City of Santa Barbara, Waterfront Department, permit 4-05-155 subject to the attached Standard and Special Conditions, for development consisting of: Implementation of a comprehensive ten-year sediment management program involving dredging, beach nourishment, beach grooming, installation of lifeguard towers, and maintenance of storm drain outlets to provide optimal navigation, recreation, operation, economic, and shoreline protection conditions for Santa Barbara Harbor and Waterfront Area including Leadbetter Beach, West Beach, and East Beach. The proposed project includes dredging and disposal operations to be conducted on an as- needed basis to maintain ideal marina and beach configurations with a maximum of 500,000 cu. yds. of material to be dredged annually and a maximum ten-year volume limit of 5,000,000 cu. yds. This permit is more specifically described in the application on file in the Commission offices.

The development is within the coastal zone in

Issued on behalf of the California Coastal Commission by,

PETER DOUGLAS
Executive Director

By: Melissa Hetrick
Coastal Planner

ACKNOWLEDGMENT:

The undersigned permittee acknowledges receipt of this permit and agrees to abide by all terms and conditions thereof.

The undersigned permittee acknowledges that Government Code Section 818.4 which states in pertinent part, that: "A public entity is not liable for injury caused by the issuance. . . of any permit. . . " applies to the issuance of this permit.

IMPORTANT: THIS PERMIT IS NOT VALID UNLESS AND UNTIL A COPY OF THE PERMIT WITH THE SIGNED ACKNOWLEDGEMENT HAS BEEN RETURNED TO THE COMMISSION OFFICE. 14 Cal. Admin. Code Section 13158(a).

_____ _____
Date Permitte

Exhibit 3
CDP 4-10-066
Coastal Permit for Previous 5-Year Sediment Management Plan

STANDARD CONDITIONS:

1. **Notice of Receipt and Acknowledgment.** The permit is not valid and development shall not commence until a copy of the permit, signed by the permittee or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.

2. **Expiration.** If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.

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

4. **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.

5. **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.

SPECIAL CONDITIONS:

1. Terms of Permit

This coastal development permit is valid only for the dredging, discharge, beach grooming, storm drain maintenance, and lifeguard tower installation operations as described in the project description unless modified by the following conditions and shall expire five (5) years from the date of the Commission's approval of the permit. Dredging and disposal operations shall be conducted on an as-needed basis to maintain ideal marina and beach configurations with a maximum of 500,000 cu. yds of material to be dredged annually.

The applicant shall submit on an annual basis, for the review and approval of the Executive Director, a summary of all activities undertaken pursuant to this permit each year, including: results from the biological, sediment sampling, archeological, *Caulerpa*, and water quality surveys; data detailing the annual quantity, source location, and placement of dredged material; and a summary of beach grooming, stormdrain maintenance, and lifeguard tower installation activities.

2. Notification of Dredging/Discharge Operations

Prior to the commencement of any dredging and discharge operations authorized by this coastal development permit the applicant shall submit, for review and approval of the Executive Director, a letter report which describes the locations, staging areas, methods and timing of operations, and shall include all relevant monitoring reports required pursuant to this permit for

the project site to ensure that the operations are in substantial conformance with the resource protection and public access conditions of this permit.

3. Limitations on Beach Grooming

Regular beach grooming, including raking, cleaning, and recontouring of sand shall be limited to Leadbetter Beach, West Beach, and East Beach and shall be implemented in a manner to avoid the removal or disturbance of wrack. All mechanized beach grooming shall be restricted to dry sand area only and shall not occur any closer than ten feet landward of the wrack line or the ordinary high tide line, whichever is further landward. Wrack shall not be removed from the beaches during grooming activities with the exception that debris that is entangled in the wrack, and which poses a clear threat to public safety, may be removed as needed.

Mechanized beach grooming and removal of wrack shall not occur west (upcoast) of Leadbetter Point (Santa Barbara Point) and east (downcoast) of the Andre Clark Bird Refuge outlet near East Beach (as shown in Exhibit 1) unless authorized through an amendment to this permit or new Coastal Development Permit. Management west (upcoast) of Santa Barbara Point and east (downcoast) of the bird refuge outlet shall be limited to removal of debris that poses a clear threat to public safety.

4. Timing and Implementation of Project Operations

Dredging and disposal operations shall be prohibited the Friday prior to Memorial Day in May through Labor Day in September to avoid impacts on public recreational use of the beach and other public amenities in the project vicinity.

All project operations, including operation of equipment, material placement, placement or removal of equipment or facilities, dredging, disposal, beach grooming, storm drain maintenance, and installation of lifeguard towers shall be prohibited as follows:

1. On any part of the beach in those portions of the project area where 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 Five (5). In the event that sediment needs to be placed below the high tide line from March 14 to August 31, the applicant shall submit evidence, for the review and approval of the Executive Director, that surveys for grunion have been conducted pursuant to Special Condition Five (5) at the project site and that no grunion were found. No work shall occur below the high tide line between March 14 and August 31 without the authorization of the Executive Director.
2. On any part of the beach and shorefront in the vicinity of the sandspit, West Beach, or any other location where least terns forage if least terns are present, as documented by the surveys conducted pursuant to Special Condition Five (5).
3. On any part of the beach and shorefront in the vicinity of the sandspit or any other area where snowy plovers may be, while they are present, as documented by the surveys conducted pursuant to Special Condition Five (5).
4. Within 200 feet of the centerline of the mouth of Mission and Laguna Creeks from when the creek mouth is open and may be host to migrating steelhead trout.

5. Within any lagoon or estuarine habitat. Mechanical breaching of any lagoons or estuaries in the project area shall be prohibited to avoid impacts on tidewater goby.

5. Sensitive Species Monitoring

A. The applicant shall retain the services of a qualified biologist or environmental resources specialist with appropriate qualifications acceptable to the Executive Director, prior to dredging, discharge, beach nourishment, or storm drain maintenance activities. The environmental resource specialist shall conduct a survey of the project site, to determine presence and behavior of sensitive species, one day prior to commencement of dredging, discharge, beach nourishment, or storm drain maintenance within the project site(s). In the event that any sensitive wildlife species (including but not limited to California least tern, western snowy plover, California grunion) 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 applicant shall retain the services of a qualified biologist or environmental resources specialist with appropriate qualifications acceptable to the Executive Director, prior to dredging, discharge, or beach nourishment activities on Leadbetter Beach, West Beach, and East Beach from March through August. The environmental resource specialist shall conduct a survey of the project site, to determine presence of California grunion during the seasonally predicted run period and egg incubation period, as identified by the California Department of Fish and Game. If any grunion spawning activity and/or if grunion are present in or adjacent to the project site in any life stage, no construction, maintenance, or any grading and grooming activitieson the beach or other project activities shall occur until the next predicted run in which no grunion are observed. Surveys shall be conducted for all seasonally predicted run periods in which material is proposed to be placed at any of the above sites. If material is in the process of being placed, the material shall be graded and groomed to contours that will enhance the habitat for grunion prior to the run period. Furthermore, placement activities shall cease in order to determine whether grunion are using the beach during the following run period. 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.

C. The applicant shall submit documentation prepared by the biologist or environmental specialist which indicates the results of each pre-construction survey, including if any sensitive species were observed and associated behaviors or activities. Location of any nests observed shall be mapped.

6. Archaeological Resources and Monitoring

By acceptance of this permit, the applicant agrees to have a qualified archaeologist(s) and appropriate Native American consultant(s) present on-site during any onshore project activities within the high and moderate sensitivity zones identified in the amended Final Negative Declaration should earth disturbance of these identified zones be of 3 ft. or greater depth. In the event that any significant archaeological resources are discovered during operations, all work in the area will be halted and an appropriate data recovery strategy shall be developed, subject to review and approval of the Executive Director, by the applicant's archaeologist and/or Native American consultant consistent with CEQA guidelines.

7. Public Access Program

Prior to issuance of this coastal development permit, the applicant shall submit, for review and approval of the Executive Director, a report which 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 dredging and discharge operations.

8. Water Quality Monitoring

The applicant shall conduct a water quality monitoring program which will analyze potential adverse impacts of the near-shore and offshore marine environment resulting from disposal of dredged materials into the intertidal zone. The monitoring program will be conducted each time dredged materials are deposited into or graded near the intertidal zone and will contain the following components:

(a) 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 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/mapped by the monitor. Monitoring of turbidity shall occur during and immediately after placement of sediment on the beach or in the intertidal zone. If the monitoring of the discharge and beach nourishment projects indicate that turbidity attributed to the replenishment projects are not completely diminished immediately following construction (1-2 days), then the rate of placement of sand will be modified so that large, long lasting turbidity plumes are no longer created. In such cases, construction methods shall be modified to reduce levels, by such means as: use of coarser beach nourishment material, avoidance of periods of high surf/high tides, and monitoring.

(b) The applicant shall retain the services of a qualified oceanography and geology consultant, with appropriate qualifications acceptable to the Executive Director, to monitor and prepare a report on comparative sediment volumes of sediment quantities deposited during dredging activities with sediment quantities transported during natural storm events.

The applicant shall provide for review of the Executive Director, the water quality monitoring reports described above within one year of issuance of the coastal development permit and each subsequent year that dredging activities occur thereafter for the duration of the proposed project. Should the water quality monitoring program yield results that indicate sediment disposal into the intertidal zone causes a significant adverse impact on water quality or the marine environment the applicant is required to submit, for review and approval by the Executive Director, a mitigation plan exploring feasible alternatives, mitigation measures, and/or alternative disposal locations for sediment disposal in the intertidal zone prior to any future deposition activities in the intertidal zone. Should the mitigation plan identify mitigation measures and/or project alternatives to minimize water quality impacts which results in a substantial change in the proposed development approved by the Commission, an amendment to the permit or a new coastal permit shall be required.

9. Sediment Analysis

A. Prior to the issuance of the coastal development permit and prior to the commencement of work each subsequent year, an engineer(s) or environmental professional(s), with appropriate qualifications acceptable to the Executive Director, shall prepare a Sampling and Analysis Plan and conduct testing at each source site for the review and approval of the Executive Director. The Sampling and Analysis Plan shall be consistent with the following:

(1) Sampling Frequency –Samples shall be collected throughout the source area consistent with the joint EPA/Corps *Inland Testing Manuel* and at a minimum of one (1) sample per 0.25 acres. For the source site samples, the boring depth shall extend approximately one-foot (1-ft) below the anticipated excavation depth.

(2) Grain Size -- Physical analysis shall be conducted on representative samples of each source material that shall be used for placement on beaches. The material shall be analyzed for consistency with the U.S. Army Corps of Engineers (ACOE) / Environmental Protection Agency (EPA), State Water Resources Control Board and California Regional Water Quality Control Board (RWQCB) criteria for beach replenishment.

(3) Contaminants -- Chemical analysis shall be conducted on representative samples of each source material. The material shall be analyzed for consistency with EPA, ACOE, State Water Resources Control Board and RWQCB requirements for beach replenishment. At a minimum, the chemical analysis shall be conducted consistent with the joint EPA/Corps *Inland Testing Manual.* If the ACOE / EPA, State Water Resources Board or RWQCB determine that the sediment exceeds any contaminant threshold levels, the materials shall not be placed of the project sites.

B. The analysis shall include confirmation by the U.S. Army Corps of Engineers and California Regional Water Quality Control Board that the material proposed for beach replenishment meets the minimum criteria necessary for placement on the sandy beach. Source material that does not meet the applicable physical and chemical standards for beach replenishment shall not be used for shoreline disposal/beach replenishment purposes. In the event that dredged material is not suitable for disposal on the sandy beach or within the intertidal zone, the applicant shall provide evidence to the Executive Director of the location of the disposal site for all dredged material prior to removal of the material from the project site. Should the dumpsite be located in the Coastal Zone, a coastal development permit shall be required.

10. Caulerpa Surveys and Monitoring

A. Not earlier than 90 days nor later than 30 days prior to commencement of annual dredging activities authorized under this coastal development permit, the applicant shall undertake a survey of the project area and a buffer area at least 35 feet beyond the project area to determine the presence of the invasive alga *Caulerpa taxifolia.* The survey shall include a visual examination of the substrate and inspection of dredging equipment.

B. The survey protocol shall be prepared in consultation with the Regional Water Quality Control Board, the California Department of Fish and Game, and the National Marine Fisheries Service.

C. Within two (2) weeks of completion of the survey, the applicant shall submit the results of the survey:

(1) for the review and approval of the Executive Director; and

(2) to the Surveillance Subcommittee to the Southern California Caulerpa Action Team (SCCAT). The SCCAT Surveillance Subcommittee may be contacted through William Paznokas, California Department of Fish & Game (858/467-4218), Robert Hoffman, National Marine Fisheries Service (562/980-4043), or their designated replacements.

D. Unless the Executive Director otherwise determines, if the survey identifies any *Caulerpa taxifolia* within the project area, the applicant shall submit an application for a new coastal development permit or an amendment to this permit authorizing measures formulated to avoid, minimize and otherwise mitigate impacts that the proposed development might have resulting from the dispersal of *Caulerpa taxifolia* in the project area. The applicant shall: 1) refrain from commencement of the project until a valid permit or amendment is obtained, and 2) upon authorization of the permit or amendment, implement the approved mitigation measures in the manner and within the timeframe(s) specified in the approval.

11. Operations and Maintenance Responsibilities

It shall be the applicant's responsibility to assure that the following occurs concurrent with, and after completion of, all project operations:

1. At the completion of the annual beach replenishment operation, and prior to Memorial Day in May, the sand deposited on the beach shall be graded and groomed to natural beach contours to restore the shoreline habitat and to facilitate recreational use.
2. During sediment discharge and beach replenishment activities occurring in or near the intertidal zone, the applicant shall monitor for vertical scarping along the shorefront which may occur as waves rework the seaward edge of the replenishment project area. During beach nourishment activities the applicant shall grade the beach to natural beach contours to avoid hazardous drop off conditions, consistent with the timing constraints listed in Special Condition Two.
3. Staging areas shall be used only during active construction operations and will not be used to store materials or equipment between operations.
4. The applicant shall not store any construction materials or waste where it will be or could potentially be subject to wave erosion and dispersion. In addition, no machinery shall be placed, stored or otherwise located in the intertidal zone at any time, except for the minimum necessary to implement the project.
5. Construction equipment shall not be cleaned on the beach or in the beach parking lots.
6. Construction debris and sediment shall be properly contained and secured on site with BMPs to prevent the unintended transport of sediment and other debris into coastal waters by wind, rain or tracking.
7. Construction debris and sediment shall be removed from construction areas as necessary to prevent the accumulation of sediment and other debris which may be discharged into coastal waters. Any and all debris resulting from construction activities shall be removed

from the project site within 24 hours. Debris shall be disposed at a debris disposal site outside of the coastal zone or at a location within the coastal zone authorized to receive such material.

8. The applicant shall be responsible for removing all unsuitable material or debris within the area of placement should the material be found to be unsuitable for any reason, at any time, when unsuitable material/debris can reasonably be associated with the placement material. Debris shall be disposed at a debris disposal site outside of the coastal zone or at a location within the coastal zone authorized to receive such material.
9. Stockpiled materials shall be located as far from stream areas on the designated site(s) as feasible and in no event shall materials be stockpiled less than 30 ft. in distance from the top edge of a stream bank.
10. Temporary erosion control measures, such as sand bag barriers, silt fencing; and/or swales, shall be implemented for all stockpiled material. These temporary erosion control measures shall be required at the site(s) prior to or concurrent with the initial grading operations and shall be monitored and maintained until all stockpiled fill has been removed from the project site. Successful implementation of erosion control measures will ensure that the material is completely stabilized and held on site.
11. Wrack shall be separated and retained, to the maximum extent feasible, on beaches during beach nourishment and discharge operations in areas where discharge operations will result in the loss or disturbance of wrack. Wrack shall be moved to the side during sand placement activities and replaced in its original location/configuration, to the maximum extent feasible, at the completion of grading where possible.

12. Required Approvals

Prior to commencement of any sediment management activities authorized by this coastal development permit, the applicant shall provide evidence to the Executive Director of receipt of all necessary State and Federal permits including the U.S. Army Corps of Engineers, the California State Lands Commission, and the California Regional Water Quality Control Board.

13. Assumption of Risk

By acceptance of Coastal Development Permit 4-05-155, the applicant acknowledges and agrees (i) that the project site may be subject to hazards from 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.

14. Informational/Educational Signage

The applicant shall install informational and educational signs regarding the importance and biological significance of beach wrack and other Environmentally Sensitive resources along

Leadbetter Beach, West Beach, and East Beach. Prior to issuance of the Coastal Development Permit, the applicant shall submit, for the review and approval of the Executive Director, an educational signage plan, that describes the location, number, size, and contents of signs to be placed at waterfront beach and which meets, at a minimum, the following requirements:

1. Signs shall describe the biological significance of wrack, its importance to the intertidal and beach ecosystem, and the ecological benefits of maintaining wrack on beaches;
2. Signs shall be placed at a minimum of every 300 lineal feet along each sandy beach in the project area immediately seaward of the existing bikepath/walkway or landwardmost portion of the sandy beach; and
3. Signs shall be maintained in good condition onsite for the duration of the project.

The education signs shall be installed in the manner described in the approved signage plan within 90 days of issuance of the Coastal Development Permit, or within such additional time as the Executive Director may grant for good cause.

Exhibit 4
CDP 4-10-066
Aerial Photo